

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 1	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
131		See Block 16C		11EM000630	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>		<b>9B. DATED (SEE ITEM 11)</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		X		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No change in accounting and appropriation data.

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause H.28 - Performance Based Incentives

**E. IMPORTANT:** Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

Tax ID Number: 26-0240191

DUNS Number: 798861048

A. The purpose of this modification is to incorporate the revised and updated the Fiscal Year 2011 Performance Evaluation and Measurement Plan, which is attached hereto.

B. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		Signature on File	12/16/2010
		(Signature of Contracting Officer)	



U.S. Department of Energy  
Savannah River Site

**PERFORMANCE EVALUATION  
MEASUREMENT PLAN, Rev. 1**  
Savannah River Nuclear Solutions, LLC  
CONTRACT NO. DE-AC09-08SR22470

Evaluation Period:  
October 1, 2010 through September 30, 2011

Rev.1 effective: December 16, 2010



## Approval Page

### Approval:

Signature on File

11/10/10

Scott D. Langston  
Contracting Officer (CO)  
DOE - Savannah River Site

Date

### Concurrence:

Signature on File

11/10/10

Doug Hintze  
Assistant Manager for Integration and Planning  
Contracting Officer Representative (COR)  
DOE - Savannah River Site

Date

Signature on File

11/10/10

Lucy Knowles  
Chief Counsel  
DOE - Savannah River Site

Date

Signature on File

11/10/10

Jeffrey Craig Armstrong  
Director, Office of Acquisition Management  
DOE - Savannah River Site

Date

## Revision Summary Page

Rev. #	Rev. Date	Affected Sections / Pages	Description of Revision
0	10/01/10	All	Initial Issue for this evaluation period
1	12/14/10	Page 13, add paragraph to section 7. Payment of Fee	<b>Contract clause H-33, PROVISIONAL PAYMENT OF INCENTIVE FEE</b> , allows provisional payment of fee for partial completion of subjectively evaluated [subjective] incentives. The contractor may request up to 50% of the total fee available for each subjective incentive. If requests are monthly, the contractor must use a 1/12 divisor; if requests are quarterly, then 1/4 divisor; if semi-annual, then 1/2 divisor. Provisional fee is not considered earned fee, and is contingent upon a final fee determination by the FDO.
1	12/14/10	Page 16	Revise Available Fee amounts for Nuclear Materials' Contract Outputs
1	12/14/10	Pages 19 and 21	Update the titles of the IPT members
1	12/14/10	Page 29, Management PBI, changes in the section for Assistant Manager for Closure Projects	Technical Performance <ul style="list-style-type: none"> <li>o <del>Contribute toward achieving all high-performance sustainable building goals.</del></li> <li>o <del>Operate and Improve various infrastructure systems</del></li> </ul> Cost Control <ul style="list-style-type: none"> <li>o Develop and maintain an <b>Critical Infrastructure IPL</b></li> </ul>
1	12/14/10	Page 53, revised Acceptance Criteria 1 on milestone SRNS2011-MGT-11.01	<del>Assessment performed per WSRC-1B, "Management Requirements and Procedures, MRP-4.23, "Corrective Action Program".</del> <b>Assessment findings will be tracked in STARS.</b>
1	12/14/10	Page 57, milestone SRNS2011-MGT-11.02b	Added " <b>per the graded approach.</b> " to the Completion Criteria.
1	12/14/10	Page 65, milestone SRNS2011IS-01.03, revised Acceptance Criteria	DOE-SR will <del>conduct physical walkdown and final acceptance inspection of completed infrastructure tie-ins/modifications</del> <b>review SRNS steam outage documentation.</b>
1	12/14/10	Page 65, milestone SRNS2011IS-01.04, revised Acceptance Criteria	DOE-SR will review SRNS <del>steam outage documentation</del> <b>electrical and river water outage documentation.</b>
1	12/14/10	Pages 65-66, milestone SRNS2011IS-01.05, revised Acceptance Criteria	DOE-SR will review SRNS <del>electrical and river water outage documentation</del> <b>document log of completed document reviews, including resulting feedback/ recommendations/ assistance.</b>
1	12/14/10	Page 66, milestone SRNS2011IS-01.06, revised Acceptance Criteria	<del>DOE-SR will review SRNS document log of completed document reviews, including resulting feedback/ recommendations/ assistance.</del> <ol style="list-style-type: none"> <li>1. DOE will review the document log of supporting activities provided by SRNS for the commissioning.</li> <li>2. DOE-SR will review the document log of supporting activities provided by SRNS for the DOE Readiness Assessment.</li> </ol>
1	12/14/10	Page 72, Contract Output SRNS2011NMO-01 GFSI revised	<del>GFSI: Y-12 HEU Np Oxide must all arrive by commercial shipment to HB Line (not KAC) by June 30, 2011.</del> BRR cask availability required for BRR cask equipment testing, training, dry-runs, and assessment (10/31/10). <del>Approval by DOE for direct disposal of high aluminum UNF by 10/1/10 or within 30 days of receipt of request from SRNS—whichever is later.</del> The LANL HEU "Fines" must all arrive by commercial shipment to H Canyon (not KAC) by 12/15/10.
1	12/14/10	Page 72, Contract Output SRNS2011NMO-01 Assumptions revised	<del>Assumptions: NEPA SA/ROD for UNF required prior to September 30, 2010 by January 31, 2011 to meet FY2010 FY 2011 UNF milestones. Contractual Agreement to extend supplying TVA with LEU material for FY2011 expected by December 1, 2010</del> <b>June 30, 2011.</b>



1	12/14/10	Page 72, Contract Output SRNS2011NMO-01	Update allocated fee amount: Up to <del>\$3,950,000</del> <b>\$3,031,000</b> of the allocated PBI fee will be paid for Contract Output 1
1	12/14/10	Page 72, milestone SRNS2011NMO-01.01	Changes to Fee and Completion Criteria: <b>Fee:</b> <del>\$420,000;</del> <b>\$186,000;</b> \$3000 per bundle shipped; invoiced quarterly <b>Completion Criteria:</b> Load and ship 440 <del>62</del> bundles of UNF from L to H.
1	12/14/10	Page 72, milestone SRNS2011NMO-01.04	Changes to Date, Fee and Completion Criteria: <b>Date:</b> <del>9/30/11</del> <b>8/31/11</b> <b>Fee:</b> Up to <del>\$480,000;</del> <b>\$360,000;</b> \$30,000 per trailer; invoiced quarterly <b>Completion Criteria:</b> Ship 46 <del>12</del> LEU trailers in FY11.
1	12/14/10	Page 73, milestone SRNS2011NMO-01.05	Changes to Fee and Completion Criteria: <b>Fee:</b> Up to <del>\$1,300,000;</del> <b>\$520,000;</b> \$10,000 per bundle; invoiced quarterly <b>Completion Criteria:</b> Charge 430 <del>52</del> bundles of UNF.
1	12/14/10	Page 73, added a new milestone SRNS2011NMO-01.07	<b>Date:</b> 1/31/11 <b>Fee:</b> \$215,000; \$26,875 per drum <b>Completion Criteria:</b> Dissolve 8 ES3100 drums of LANL fines in 6.I.D. GFSI: Final shipment will be provided by 12/15/10. <b>Acceptance Criteria:</b> DOE-SR will review dissolver log sheets / documentation.
1	12/14/10	Page 74, Contract Output SRNS2011NMO-02 Assumptions and GFSI deleted	<b>Assumptions:</b> <del>Eight of the 13 prompt gamma items under IAEA control can be measured or items can be substituted. Implementation of the HB-Line 3009 DSA will not require significant plant modifications.</del> <b>None.</b>  <b>GFSI:</b> <del>Final shipment of LAP must arrive at HB-Line (not KAC) by 10/15/10.</del> <b>None.</b>
1	12/14/10	Page 74, Contract Output SRNS2011NMO-02 Amount	Up to <del>\$2,135,000</del> of the allocated PBI fee will be paid for Contract Output 2 as follows:
1	12/14/10	Page 75, Contract Output SRNS2011NMO-02.09	Changes to Date, Fee and Completion Criteria: <b>Date:</b> <del>5/9/11</del> <b>9/30/11</b> <b>Fee:</b> Up to <del>\$100,000;</del> <b>\$200,000;</b> <b>Completion Criteria:</b> HB-Line 3009 DSA Submittal (to include repack of non-moxable 3013 oxides for either dissolution in HB-Line or blending for WIPP).
1	12/14/10	Page 75, Contract Output SRNS2011NMO-02.10	Changes to Fee, Completion Criteria, and Acceptance Criteria: <b>Fee:</b> Up to <del>\$100,000;</del> <b>\$75,000;</b> <b>Completion Criteria:</b> HB-Line 3009 DSA Implementation. <b>Revise K-Area DSA to store all "special items" in culverts outside 105-K.</b> <b>Acceptance Criteria:</b> <del>DOE-SR will validate completion of the SRNS Safety Basis Implementation Plan.</del> <b>Submit high quality SRNS approved DSA.</b>
1	12/14/10	Page 76, Contract Output SRNS2011NMO-03 Amount	Up to <del>\$1,490,000</del> <b>\$1,976,000</b> of the allocated PBI fee will be paid for Contract Output 3 as follows:
1	12/14/10	Page 77, added a new milestone SRNS2011NMO-03.11	<b>Date:</b> 1/20/11 <b>Fee:</b> \$35,000 <b>Completion Criteria:</b> Develop "Case 3 Preliminary Deinventory and Flush Plan" to remove bulk SNM. <b>Acceptance Criteria:</b> DOE-SR will review Deinventory and Flush plan.
1	12/14/10	Pages 77-78, added a new milestone SRNS2011NMO-03.12	<b>Date:</b> 6/15/11 <b>Fee:</b> \$416,000; \$1,000 per kg, invoiced quarterly. (416 kgs is the estimated quantity; the final amount of EU will be determined based on the EUS tank being pumped to heel, refilled, and pumped back to heel). <b>Completion Criteria:</b> Complete processing of the EUS tank material through the solvent extraction cycles.



			Acceptance Criteria: DOE-SR will review processing logs.
1	12/14/10	Page 78, added a new milestone SRNS2011NMO-03.13	<b>Date:</b> 12/31/10 <b>Fee:</b> \$35,000 <b>Completion Criteria:</b> Develop detailed scope and schedule to move Heavy Water from K Area to C Area. <b>Acceptance Criteria:</b> DOE-SR will review scope and schedule.
1	12/14/10	Page 78, Contract Output SRNS2011NMO-04 revised GFSI	<b>GFSI:</b> NNSA funding ( <del>allowed per NNSA Contracting Officer letter</del> ) is available for use by 10/1/10 to refurbish third cask and rail car for UNF shipments. <b>DOE will approve DSA rev for L Basin Vacuum System within 30 days.</b>
1	12/14/10	Page 78, Contract Output SRNS2011NMO-04 Amount	Up to \$1,400,000 <b>\$1,458,000</b> of the allocated PBI fee will be paid for Contract Output 4 as follows:
1	12/14/10	Page 78, revised milestone SRNS2011NMO-04.03	<b>Date:</b> 2/28/11 <b>1/31/11</b> <b>Fee:</b> \$25,000 <b>\$75,000; \$25,000 per installed manipulator.</b> <b>Completion Criteria:</b> Provide 235-F Risk Reduction preliminary PEP. <b>Install three Z Band Manipulators in 772-F.</b> <b>Acceptance Criteria:</b> Submit high quality SRS approved preliminary PEP to DOE-SR. <b>DOE-SR will review completed work packages or visually validate by walkdown.</b>
1	12/14/10	Page 79, deleted words on completion criteria for SRNS2011NMO-04.08	<b>Completion Criteria:</b> Complete upgrade of a third 70 ton cask and rail car and load with UNF for shipment.
1	12/14/10	Page 780, added a new milestone SRNS2011NMO-04.10	<b>Date:</b> 9/30/11 <b>Fee:</b> \$208,000; \$4,000 per connector' invoiced quarterly <b>Completion Criteria:</b> Fabricate and install 52 Hanford dummy connectors on open cooling Water Out nozzles. <b>Acceptance Criteria:</b> DOE-SR will review completed work packages or visually validate using Crane monitors.
1	12/14/10	Page 80, added a new milestone SRNS2011NMO-04.11	<b>Date:</b> 2/28/11 <b>Fee:</b> \$100,000; \$50,000 per installed manipulator <b>Completion Criteria:</b> Fabricate, install and functionally test the L Basin Vacuum System to operable service and clean the Transfer Pit. <b>Acceptance Criteria:</b> DOE-SR will review completed work packages or visually validate by walkdown.
1	12/14/10	Page 82, SRNS2011SRNL-01.01 revised Completion Criteria and Acceptance Criteria	<b>Completions Criteria:</b> The contractor shall provide objective evidence demonstrating satisfactory completion of quality products and provision of services (such as flow sheets, technology development and deployment) to reduce the technical risks of EM operations and projects at SRS and across DOE. <b>This includes technical support to DOE-EM HQ, Nuclear Materials Stabilization Project, Liquid Waste Operations, Closure Project, and the EM DOE Complex.</b> Quarterly reports of progress will be provided <del>and fee will be assessed quarterly.</del> (Funding, scope and schedule will be provided by EM-HQ and EM Contractors). <b>Customers. As EM customers task SRNL with work scope throughout FY11, SRNL will document the status of deliverables and milestones for each project and track progress.</b> <b>Acceptance Criteria:</b> Review and evaluate work deliverables and documentation quarterly to validate milestone completion <b>of milestones and deliverables.</b> <del>and solicit customer feedback to assess quality of SRNL work products and support.</del>
1	12/14/10	Page 84-85, SRNS2011SRNL-03.01 revised Completion Criteria	<del>Prepare procurement and WFO procedure revisions related to foreign national involvement and submit them for approval; the objective is to eliminate the requirement for identification of foreign nationals if the statement of work provided by SRNS is releasable to the public and no SRS site visit is involved.</del>

			While maintaining compliance with DOE Order 142.3a (Unclassified Foreign Visits and Assignments Program) and DOE Order 481.1C (Work for Others), revise SRNS procurement and Work for Others (WFO) procedures to facilitate work where foreign nationals may be involved.
1	12/14/10	Page 138, revised milestone SRNS2011NNP-09.02 date	2. Issue Project Controls Plan by <del>November, 11, 2010</del> <b>December 20, 2010</b>
1	12/14/10	Page 138, revised milestone SRNS2011NNP-09.03 date	3. Issue EVMS Implementation Plan by <del>December, 6, 2010</del> <b>January 26, 2011</b>

## Table of Contents

1. Purpose.....	8
2. PEMP Integrated Project Team (IPT).....	8
3. The PEMP Process.....	8
3.1 Incorporating DOE, EM and Site Mission.....	8
3.2 Performance Planning.....	9
3.3 Risk Management .....	9
3.4 Performance Incentive Document.....	10
3.5 Other Incentives .....	10
4. Change Control .....	10
5. Federal Oversight of Contractor Performance .....	11
6. Performance Evaluation.....	12
7. Payment of Fee .....	13
8. Government Furnished Services/Items (GFS/I).....	14
9. Reporting Requirements .....	14
10. Fee Allocation Model .....	15
Attachment A, Integrated Project Team (IPT) Charter.....	19
Attachment B, Performance Incentive Documents.....	22

## **1. Purpose**

This document serves as the fiscal year 2011 Performance Evaluation Measurement Plan (PEMP) identified in Section H-28, *Performance Based Incentives*, of Contract No. DE-AC09-08SR22470 between the U.S. Department of Energy (DOE) Environmental Management (EM) Savannah River (SR) and Savannah River Nuclear Solutions (SRNS) LLC, approved January 10, 2008.

The PEMP is developed annually by DOE and SRNS to provide lessons learned from the previous evaluation period; illustrate performance improvements for the fiscal year, and identify performance incentives and measures for all work performed by the contractor during the evaluation period. Fee-bearing scope and incentives in support of the American Recovery and Reinvestment Act (ARRA) are addressed in a separate PEMP.

The SRNS contract is a cost plus award fee (CPAF) performance-based management and operating (M&O) contract, regulated under Department of Energy Acquisition Regulation (DEAR), Subchapter I, *Agency Supplementary Regulations*, Part 970, *DOE Management and Operating contracts*.

This document addresses development of Performance Incentive Documents between DOE-SR and SRNS. This includes administration of performance measures, including Performance-Based Incentives (PBI), and award fee defined in the contract, Section B, *Supplies or Services and Prices/Costs*.

National Nuclear Security Administration (NNSA) and EM incentives established under the contract are contained in the PEMP as are provisions regarding payment of incentives and award fee. Specific requirements regarding payment of an incentive, or an award fee, may also be included in the incentive document.

## **2. PEMP Integrated Project Team (IPT)**

An Integrated Project Team (IPT) has been established in accordance with DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*. The team's charter defines specific roles and responsibilities of the IPT. IPT roles and responsibilities are further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement*. Reference Attachment A, *Integrated Project Team (IPT) Charter*.

## **3. The PEMP Process**

The PEMP process for SRNS is based on fiscal year performance as identified in the contract. The PEMP process is further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement*.

### **3.1 Incorporating DOE, EM and Site Mission**

The Savannah River Site publishes a Strategic Plan each year in support of DOE-EM and NNSA missions. The Strategic Plan articulates the site vision and missions to successfully execute current missions while welcoming and preparing for new opportunities.

During the past several years federal and contractor staff have worked together to define performance measures for those strategies in order to develop performance statements, metrics and milestones. As a result of this effort, EM, NNSA and site missions are tied to the contract statement of work.

Functional areas of the contract statement of work identify mission-critical outcomes. Outputs and measures define how work is performed in order to meet the outcomes. This framework is used to develop criteria in the Performance Incentive Document.

### **3.2 Performance Planning**

The PEMP is developed with federal and contractor staff input. Both federal and contractor parties strive to reach mutual agreement on expected business, operational and technical performance and work together to develop incentives and award fee descriptions and associated measures tied to key end products, DOE strategic goals and objectives. Incentives and fee demonstrate direct flow down of DOE strategic goals and priorities.

The CO reserves the unilateral right to make final decisions on all performance objectives and incentives (including the associated measures and targets) used to evaluate contractor performance, including any modifications.

The PEMP is revised and approved prior to the beginning of each evaluation period. Only the CO can change the PEMP. No changes will occur to the PEMP in the last 60 days of the evaluation period, unless with bilateral agreement between the CO and the contractor.

### **3.3 Risk Management**

DOE site management uses an integrated risk management process for the EM Life Cycle baseline. This process provides programmatic risk analyses of the EM Scope of Work, establishes a process for identification and management of risks within, and integrates risk data from prime contractors, including SRNS.

The SRS integrated approach to risk management ensures project teams and management are involved in the risk management process: risk identification, grading, handling, impact determination, and integration. The process concludes with preparation of the Risk Management Plan (RMP) and contingency estimates contained in the SRS Risk Summary and Integrated Contingency Analysis. Each project RMP provides a summary description of the integrated approach employed in the development of a project risk plan.



An assessment process is used to identify risks and opportunities associated with each project. The risks and opportunities are analyzed and handling strategies developed to ensure risks are managed to acceptable levels and opportunities are availed to improve the probability of successful completion of the project work scope. A detailed description of the methodology employed for the risk and opportunity assessment conducted by each of the Integrated Project Risk Teams appears in *Systems Engineering Methodology Guidance Manual*.

### **3.4 Performance Incentive Document**

A Fee Allocation Model is developed by the IPT and used to demonstrate distribution of contract fee based on weighting of funding, priority and complexity. Analysis is used to develop expected fee earning based on the Performance Incentive Documents.

A Performance Incentive Document includes: A Performance Outcome statement, Contract Output performance statements, metrics, Completion Criteria, and Acceptance (documentation) Criteria. The Performance Incentive Document is further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement*.

### **3.5 Other Incentives**

Incentives that are negotiated as a result of the cost reduction process per SRNS-RP-2009-01188, *SRNS Continuous Improvement System Implementation*, will be managed per SRNS Contract clause 1.42, DEAR 970.5215-4, Cost Reduction, in conjunction with the SRNS Continuous Improvement Process. This process replaces incentives formerly identified as "Super-Stretch."

The CO may mutually negotiate with the contractor additional available fee for additional work not covered by the available budget. The funds for such work and the associated available fee are funded through the contractor's efficiencies in accomplishing the otherwise funded work. The additional work must be performed in a safe manner meeting all necessary requirements; and the performance of the additional work cannot affect the safe, proper performance of the otherwise funded work. Any additional work will be authorized in accordance with provision in the contract Section H-54 entitled, *Work Authorization System* and is considered above base scope. This additional work falls under the management of DOE O 412.1A, *Work Authorization System*.

Incentives created as a result of implementing the above contract clause and/or directive will be managed per separate contract requirements, and authorized through contract modification.

## **4. Change Control**

1. All proposed changes to Performance Incentive Documents will be discussed at scheduled Performance Fee Board/IPT meetings.

2. Following Fee Board/IPT discussion, the contractor will submit formal correspondence to the Contracting Officer (CO) requesting the proposed change to the Performance Incentive Document. The correspondence should include:
  - a. Any proposed change to the original incentive document
  - b. Proposed new incentives tied to the current Contract Performance Baseline (CPB)
  - c. Proposed fee allocation adjustment between current incentives and/or new incentives
  - d. Elimination of current incentives
3. Upon receiving correspondence from the contractor, the CO will consult the appropriate Assistant Manager/Office Director (AM/OD) and Subject Matter Expert to determine:
  - a. If the proposed change impacts the CPB
  - b. If the proposed change identifies new and/or unfunded scope
  - c. If the proposed change impacts multiple site organizations
4. If the proposed change *does not meet* any one of the above determinations, the CO will issue correspondence to the contractor approving such change to the Performance Incentive Document that incorporates advice of the AM/OD and/or Subject Matter Expert.
5. If the proposed change *meets* any one of the above determinations, the CO will request the contractor develop and submit a Baseline Change Proposal (BCP) for review by the federal (site) configuration control board.
  - a. Following the recommendation of the federal configuration control board, the CO will issue correspondence to the contractor approving such change to the Performance Incentive Document that incorporates the advice of the board.
6. The CO will issue a modification to the contract for any change to the currently approved PEMP.
7. The CO may deny any proposed changes to the Performance Incentive Document.

Action directed by CO correspondence is considered to be within scope of work of the existing contract. If the contractor considers that carrying out direction may increase contract costs or delay any delivery, the contractor shall promptly notify the CO orally, confirming and explaining the notification in writing as soon as possible, but within no more than five (5) working days. Following oral notification and submission of the written notice of impacts, the Contractor shall await further direction from the CO prior to implementing the action.

## **5. Federal Oversight of Contractor Performance**

Central to administration of the contract is assessment of contractor performance. All federal staff members performing assessments are expected to understand terms and conditions of the contract. In order to verify performance, a systematic process of assessment, analysis, documentation and feedback will be required. A range of assessment techniques from data/metric reviews and analysis, to review of self-assessments by the contractor, to formal multidisciplinary assessments will be employed. The assessments will be tailored based on the level of definition of the work requirements and complexity of the function.

Procedures for assessing contract performance are described in the SR Manual (SRM) 226.1.1, *Integrated Performance Assurance Manual*. The intent of the oversight processes described in the manual is to assure contractor compliance with contract requirements, provide for timely identification and correction of deficient conditions, verify effectiveness of completed corrective actions, and pursue excellence through continued improvement. Additionally, the manual is intended to assist DOE in implementing the site contractor oversight system (a management framework of related processes to determine whether federal and contractor assurance programs are performing effectively and/or complying with DOE requirements).

The contractor oversight system is founded on an integrated safety management system (ISMS), emulating DOE P 450.4, *Safety Management System*. SRM 226.1.1 describes processes comprising the contractor oversight system, which enables DOE to: (1) clearly communicate requirements and expectations to contractors; (2) assess the quality, effectiveness, and efficiency of contractor assurance systems and resulting work products in complying with contract requirements; (3) effect continuous improvement in contractors' operations; and (4) enhance the effectiveness of DOE-SR oversight of contractor performance.

The contractor oversight system provides DOE site management information needed to make informed decisions regarding both contractor and DOE performance and to determine whether program corrections are necessary. Communicating requirements and expectations to the contractor is an essential component in the contractor oversight system. Requirements and expectations are communicated through the Statement of Work, special clauses, contract modifications, and through technical direction by the CO or representative.

SRM 226.1.1 provides detailed requirements for standardized scheduling, planning, conducting, reporting, and follow-up and closure activities for Type 1, 2, and 3 Assessments. Assessments are designed to provide managers with meaningful, accurate, and current information on the status of program compliance, productivity, and quality. Use of standardized assessment methods is a key feature of DOE site performance assurance.

## **6. Performance Evaluation**

Upon completion of performance criteria described in the Performance Incentive Document, the contractor will document completion in the Fee Invoicing System (FIS) and forward the documentation to the relevant DOE organization technical representative, who in turn will perform a verification of documentation to confirm output criterion has been met. This may also require an in-field validation.

Upon verification, recommendation is forwarded through management to the Performance Fee Board. The Board verifies documentation provided demonstrates satisfactory completion according to performance incentive requirements through presentation by the AM/OD, and peer-level discussion. Fee recommendation (to the FDO) will be made according to the Performance Incentive Document.

The contractor may perform self-assessment of their performance. The Board will review any assessment provided by the contractor. If the Board does not concur with the contractor's self-

evaluation and recommendation, all such disagreements shall be expressed in a performance evaluation letter to the contractor. The contractor shall submit written comments and any supporting documentation to the Board within five (5) working days of receiving the evaluation letter. Within ten (10) working days of receiving any contractor comments or reclama, the Board shall provide the FDO a recommendation, including amount, rationale, and justification.

Disputes that occur during verification, and resolution is not forth coming between the contractor and the appropriate AM/OD, will be resolved by the Performance Fee Board during regularly scheduled meetings.

## 7. Payment of Fee

The contractor requests fee payment by submitting an invoice. Following verification by the relevant AM/OD recommendation is forwarded to the Performance Fee Board and FDO. The FDO determines fee payment, following Performance Fee Board review and recommendation. Determination of fee earned is the unilateral decision of the FDO.

The contractor will be advised in writing of the amount and basis of the performance incentive fee determination. Performance incentive fee not earned during the performance period will not be allocated to future performance periods. However, fee may be allocated to new performance-based incentives as developed by the IPT, as long as the completion of the newly developed incentive does not extend beyond the evaluation period.

Fee is considered provisional throughout the performance period. The FDO determines the total fee awarded to the contractor. Fee may be reduced per contract Section B.5 *DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts (JAN 2004) ALTERNATE II (JAN 2004) (DEVIATION)*.

Contract clause **H-33, PROVISIONAL PAYMENT OF INCENTIVE FEE**, allows provisional payment of fee for partial completion of subjectively evaluated [subjective] incentives. The contractor may request up to 50% of the total fee available for each subjective incentive. If requests are monthly, the contractor must use a 1/12 divisor; if requests are quarterly, then 1/4 divisor; if semi-annual, then 1/2 divisor. Provisional fee is not considered earned fee, and is contingent upon a final fee determination by the FDO.

Total available fee amount earned payments are made by direct payment or withdrawn from funds advanced or available under the contract, as determined by the CO. The CO may offset against any such fee payment the amounts owed to the government by the contractor, including any amounts owed for disallowed costs under the contract. No base fee amount, or total available fee amount, payment may be withdrawn against the cleared payments financing arrangement without the prior written approval of the CO.

The contractor has developed an automated Fee Invoicing System (FIS) that uses measurement data from each Performance Incentive Document. The contractor works with DOE to identify appropriate DOE approvers. The system assigns responsibility to each output so that the routing

process ensures appropriate review by federal and contractor staff. Time limits are assigned to each step to ensure smooth processing and timely approvals. The system notifies responsible approvers when the review / approval allotted time has been exceeded.

## **8. Government Furnished Services/Items (GFS/I)**

GFS/I are factored into the final fee determination for this incentive contract. GFS/I are identified in the Basis of Estimates (BOE) found in WBS dictionaries for specific tasks. The purpose of the GFS/I are to identify inherent government responsibilities that may pose some level of risk to the contractor in completing award fee or performance based incentives. GFS/I are the burden of the government, mutually accepted as part of the performance agreement. If the government fails to achieve GFS/I equitable adjustment may be made specific to the incentive. These adjustments, however, cannot exceed the maximum available fee for the specific incentive.

## **9. Reporting Requirements**

The contract requires each report must be accompanied by a letter or other document which:

- Identifies the contract number under which the item is being delivered; and
- Identifies the contract requirement or other instruction which requires the delivered item(s).

The contractor is responsible for maintaining all records and controlled documents related to the PEMP per DOE O 200.1, *Information Management Program*, and DOE Order 243.1, *Records Management Program*.

## 10. Fee Allocation Model

### 2011 SRNS Fee ( \$ )

	Available Fee
<b>EM - Base*</b>	
PBS (11C, 12, 20)	<b>25,662,746</b>
<b>NNSA</b>	
DP - Tritium	12,437,254
NN	11,650,000
<b>Total NNSA</b>	<b>24,087,254</b>
<b>Total EM Base &amp; NNSA</b>	<b>49,750,000</b>

\* Excludes ARRA



**2011 SRNS PBI Fee Structure Supporting EM & NNSA**  
**\$49,750,000**

	Award Type	Contract Output	Avail Fee (000)	Description
<b>EM</b>				
<b><u>Nuclear Materials</u></b>				
Objective			<b>8,600,000</b>	
			<u>3,031,000</u>	Receive, Store, characterize, disposition uranium materials & SNF
			<u>2,135,000</u>	Receive, Store, characterize, disposition plutonium materials
			<u>1,976,000</u>	Uranium and Plutonium throughput improvement & preparation
			<u>1,458,000</u>	Infrastructure / Facility life extension
<b><u>SRNL</u></b>				
Objective			<b>2,000,000</b>	
			<u>1,250,000</u>	Enable EM Mission Accomplishment
			<u>650,000</u>	Enhance SRNL Infrastructure and Facility Safety
			<u>100,000</u>	Establish SRNL as a preferred partner for industry, universities and small businesses
<b><u>Site Infrastructure</u></b>				
Objective			<b>2,000,000</b>	
			<u>800,000</u>	Biomass Project Support
			<u>700,000</u>	D Area Reliability Enhancements
			<u>200,000</u>	Sustainability Plan
			<u>300,000</u>	Road C and Road 4 - rebuild, repair & repave
<b><u>EM Management Comprehensive</u></b>				
All EM Organizations	Subjective	MGT-1	<b>8,900,000</b>	Improve Management Effectiveness and Control of activities
Safeguards & Security	Objective	MGT-2	<b>200,000</b>	
			<u>50,000</u>	Complete installation & startup of Argus components for Bldg 723-A
			<u>150,000</u>	Complete installation & startup of Argus components for remaining A & B Area Bldgs
Safety	Objective	MGT-3a	<b>100,000</b>	Enterprise Integrated Safety Management - Exposure Assessment (EISM-EA)
Safety	Objective	MGT-3b	<b>350,000</b>	Medical Efficiency Improvements
Integrated Groundwater	Objective	MGT -4	<b>200,000</b>	
			<u>100,000</u>	Issue Project Plan to baseline current site plan
			<u>50,000</u>	Issue Groundwater Technical Assessment
			<u>50,000</u>	Issue SRS Integrated Groundwater Program Plan
Quality Assurance	Objective	MGT -5	<b>200,000</b>	
			<u>50,000</u>	Update impacted procedures (est. 5 new procedures & 26 revisions)
			<u>50,000</u>	Develop & deliver training for Procurement & Engineering
			<u>100,000</u>	Implementation of NQA-1-2008 requirements
COBRA Implementation	Objective	MGT -6	<b>200,000</b>	
			<u>50,000</u>	Complete COBRA implementation
			<u>50,000</u>	Determine COBRA interfaces with new Finance replacement systems
			<u>100,000</u>	Determine COBRA interfaces with new Procurement replacement systems

(Continued next page)

U.S. Department of Energy  
Savannah River Operations Office  
Performance Evaluation and Measurement Plan

Contract No. DE-AC09-08SR22470  
Modification No.131  
Revision 1

<b>Business Process Modernization</b>	Objective	MGT -7	<b>750,000</b>	
			<u>125,000</u>	Complete Installation & SRNS Acceptance Testing of Gen Ledger Phase 1
			<u>500,000</u>	Attain system design Stage Exit for Supply Chain Mgmt Phase 2
			<u>125,000</u>	Complete installation & acceptance testing of the Supply Chain Mgmt Phase 2
<b>Work Force Services</b>	Objective	MGT -8	<b>150,000</b>	
			<u>25,000</u>	Expand Talent
			<u>25,000</u>	Increase Leadership Development
			<u>25,000</u>	Continue developing Future Workforce labor resource pipelines
			<u>25,000</u>	Take BCBS Business to Bid
<b>Risk Management</b>	Objective	MGT -9	<b>450,000</b>	
			<u>150,000</u>	Complete assessment of current risk & opportunity mgmt processes
			<u>150,000</u>	Conduct analysis of high value risks currently identified
			<u>150,000</u>	Develop a risk end state vision action plan
<b>Supplier Diversity</b>	Objective	MGT -10	<b>100,000</b>	Consistent with Prime Contract, meet mutually agreed to goals for FY2011
<b>Comprehensive Site Planning</b>	Objective	MGT -11	<b>1,000,000</b>	
			<u>700,000</u>	Implement an integrated Comprehensive Planning System
			<u>100,000</u>	Improve FIMS Data Base
			<u>100,000</u>	Complete Condition Assessments on 20% of Real Property Assets
<b>Baseline Process Improvements</b>	Objective	MGT -12	<b>150,000</b>	
			<u>125,000</u>	Develop & deliver an integrated baseline management & control process
			<u>25,000</u>	Incorporate lessons learned from FY2011-2015 Baseline development
<b>Interface Management</b>	Objective	MGT -13	<b>150,000</b>	
			<u>100,000</u>	Improve cost tracking capability of site tenant scopes
			<u>50,000</u>	Assist DOE in integration efforts
<b>Continuous Improvement</b>	Objective	MGT -14	<b>162,746</b>	Demonstrate the impact of Continuous Improvement deployment
<b>Total EM</b>				
Nuclear Material			8,600,000	
SRNL			2,000,000	
Site Infrastructure			2,000,000	
Management Comprehensive			<u>13,092,746</u>	
			<b>25,662,746</b>	

65% Objective, 35% Subjective

(Continued next page)



<b>NNSA</b>		
<b>Tritium Programs</b>	<b>12,437,254</b>	<b>45% Objective, 65% Subjective</b>
TP-01	3,109,314	Support Nuclear Weapons Stockpile
TP-02	373,118	Extraction of Tritium from TPBARS
TP-03	248,745	Conduct R&D and ST&E related to mission of SRSO
TP-04	621,863	Support Tritium Programs by safe and efficient execution
TP-05	1,243,725	NNSA Multi-Site Incentives
TP-06	2,487,451	Operations: Maintain Tritium Facilities
TP-07	1,865,588	ES&H and S&S: : Maintain Tritium Facilities
TP-08	2,487,451	Business: Maintain Tritium Facilities
<b>Nuclear Nonproliferation</b>	<b>11,650,000</b>	
<b>Less Funding for EM</b>	<b>600,000</b>	MOX support
	<b>3,900,000</b>	PDC
	<b>6,900,000</b>	WSB
	<b>250,000</b>	Pu Disp Inf
<b>Total NNSA (Excluding Funding to EM)</b>	<b>24,087,254</b>	
<b>Total Fee Available</b>		
<b>Total EM</b>	<b>25,662,746</b>	
<b>Total NNSA</b>	<b>24,087,254</b>	
<b>Total Fee Available</b>	<b>49,750,000</b>	

## Attachment A, Integrated Project Team (IPT) Charter

### INTEGRATED PROJECT TEAM (IPT) CHARTER

**IPT NAME:** PEMP Integrated Project Team (IPT)

**LEVEL OF IPT:** Savannah River Operations Office, Deputy Manager for Business Operations

#### IPT MISSION/OBJECTIVES

The purpose of the IPT is to provide site senior federal management a process for evaluating and measuring performance tied to strategic goals. This charter defines roles, responsibilities, authorities and accountabilities for this process. The mission of the IPT is to lead performance, and help avoid potential barriers to success.

The DOE-SR Executive Sponsor for the IPT is the Deputy Manager. The IPT Lead is the Assistant Manager for Integration and Planning (AMIP). The IPT will be composed of both federal and contractor employees. Federal members will include the Deputy Manager for Cleanup Operations, **the DOE Contracting Officer for M&O**, Technical Leads, NNSA SRSO Manager and NNSA NA-262. Contractor members will include the Management and Operations (M&O) Vice President for **Business Services**, the SRNS **Director** of Contracts and ~~Subcontract Management~~, and Technical Leads. The IPT will be augmented, as necessary, with Subject Matter Experts as well as matrix support personnel (both federal and contractor) who possess specific competencies and the skill and expertise required for successful execution of the projects.

The Performance Fee Board will be comprised of select Federal IPT members responsible for reviewing all submitted invoices for payment determination, and making recommendations to the Fee Determining Official (FDO).

#### SCOPE OF IPT RESPONSIBILITIES

The IPT will:

- Provide input to develop and approve Performance Incentive Documents
- Monitor progress made in completing work
- Support the invoicing, validation and approval process.

The IPT shall meet:

- Regularly to monitor progress of submitted invoices for payment
- Identify incentives that will be complete in the next 30 days
- Identify and discuss any changes to incentives

#### ***IPT Executive Sponsor***

The IPT Executive Sponsor will provide performance input to the IPT Lead and members.

The IPT Executive Sponsor will also be the senior DOE member on the Performance Fee Board.

### ***IPT Lead***

The IPT Lead is the federal official responsible for project success. In accordance with DOE O 413.3A and DOE M 413.3-1, the IPT Lead shall perform the following:

- Charter and lead the IPT
- Schedule and hold IPT meetings
- Request support from the DOE functional resources as required to resolve issues
- Assess contractor performance
- Identify and resolve critical issues
- Present any performance evaluation and measurement issues that cannot be resolved by the PEM IPT to the appropriate SR authority for final decision

### ***IPT Members***

IPT members are responsible for supporting the IPT Lead in fulfilling technical and project management responsibilities during project execution. Members conduct and/or coordinate activities for their respective organizational element or functional area of responsibility. The members are assigned specific roles and responsibilities for project success and report to the IPT Lead for execution of these responsibilities. IPT members shall perform the following generic responsibilities:

- Ensure interfaces are identified, defined, and documented
- Review and assess performance and project status against parameters, baselines, milestones, and deliverables
- Support the IPT Lead
- Review and comment on deliverables

The names of IPT members are current as of the issue date of this charter. Names or functional responsibilities may change at the discretion of the IPT Lead without having to modify or update this charter.

The Table identifies the members of the IPT, the Performance Fee Board and the Technical Leads.

NAME	FUNCTION	ORGANIZATION
HINTZE, Doug	IPT and Fee Board Lead	Assistant Manager for Integration and Planning

DEAROLPH, Douglas	NNSA Performance Fee Board Member IPT Member	Manager NNSA SRSO
CLARK, William	NNSA Alternate Performance Fee Board Member IPT Member	Manager NNSA NA-262
LOVETT, James	IPT Member	DOE M&O Contracting Officer
BILSON, Beth	IPT Member	SRNS VP Business Services
TEMPLE, John	IPT Member	SRNS M&O Manager <del>Director of Contracts and Subcontract Management</del>
CHRISTIAN, John	DOE IPT Technical Lead	Mission Planning Division
PENNINGTON, Michele	SRNS IPT Technical Lead	SRNS M&O Business Services
MOODY, Dave	DOE Fee Determining Official	DOE Site Manager

**Attachment B, Performance Incentive Documents**

The Performance Incentive Documents for FY2011 are attached.

[Management Comprehensive Incentive Document](#)

[Infrastructure Incentive Document](#)

[Office of Laboratory/SRNL Incentive Document](#)

[Nuclear Material Stabilization Project Incentive Document](#)

[Tritium Incentive Document](#)

[Nuclear Non-Proliferation Incentive Document](#)





## Performance Incentive Document

PBI Number:	SRNS2011MGT	
Activity Name:	Management Comprehensive	
WBS Number:	Multiple	
Performance Period:	October 1, 2010 - September 30, 2011	
Allocated Fee:	\$8,900,000 (Subjective) \$4,162,746 (Objective)	
Revision Number:	1	
Senior level manager name:	Doug Hintze	
Senior level supervisor/division manager name:	TBD	
<b>Performance Outcome:</b>		
<p>Implement management processes and systems providing timely, accurate and traceable information to enable more transparent and efficient execution of SRS missions.</p> <p>This incentive is a hybrid incentive, containing subjective and objective elements. The subjective element uses an adjectival rating to measure technical performance, cost control, schedule performance and business relations / management for all of the fiscal year 2011 incentives. The objective elements identify specific completion and/or acceptance criteria.</p>		

## Table of Contents

<u>Description</u>	<u>Pg</u>
Contract Output 1 Management Comprehensive Subjective.....	25
Contract Output 2 Safeguards & Security – Argus.....	34
Contract Output 3 Safety	
a. Enterprise Integrated Safety Management – Exposure	
Assessment (EIS-EA).....	35
b. Medical Improvement Process.....	36
Contract Output 4 Integrated Groundwater Program.....	40
Contract Output 5 Quality Assurance.....	41
Contract Output 6 COBRA Interfaces.....	43
Contract Output 7 Business Process Modernization.....	44
Contract Output 8 Workforce Services.....	45
Contract Output 9 Risk Management.....	48
Contract Output 10 Supplier Diversity.....	51
Contract Output 11 Comprehensive Site Planning.....	52
Contract Output 12 Baseline Planning.....	59
Contract Output 13 Interface Management.....	61
Contract Output 14 Continuous Improvement.....	62

**Contract Output: SRNS2011MGT-01 – Subjective Milestone**

Improve management effectiveness and control of activities.

This Contract Output will receive an adjectival grade and numerical score. The following table will be used to define the different levels of performance and the corresponding grade/score that goes with the evaluation thereof.

Adjectival Rating	Percent of allocable fee	Definition
Exceptional	90-100	<p><b>Technical</b> – Met all performance requirements/Exceeded 20% or more; Minor problems/Highly effective corrective actions/Improved performance and quality results</p> <p><b>Cost Control</b> – Significant reductions while meeting all contract requirements; Use of value engineering or other innovative management techniques; Quickly resolved cost issues/Effective corrective actions facilitated cost reductions</p> <p><b>Schedule (Timeliness)</b> – Significantly exceeded delivery requirements (All on-time with many early deliveries to the Government's benefit); Quickly resolved delivery issues/Effective corrective actions</p> <p><b>Business Relations/Management</b> – Highly professional/Responsive/Proactive; Significantly exceeded expectations; High user satisfaction; Significantly exceeded SB/SDB subcontractor goals; Minor changes implemented without cost impact/Limited change proposals/Timely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.</p>
Very Good	81-90	<p><b>Technical</b> – Met all performance requirements/Exceeded 5% or more; Minor problems/Effective corrective actions</p> <p><b>Cost Control</b> – Reduction in overall cost/price while meeting all contract requirements; Use of value engineering or other innovative management techniques; Quickly resolved cost/price issues/Effective corrective actions to facilitate overall cost/price reductions</p> <p><b>Schedule (Timeliness)</b> – On-time deliveries/Some early deliveries to the Government's benefit; Quickly resolved delivery issues/Effective corrective actions</p> <p><b>Business Relations/Management</b> – Professional/Responsive; Exceeded expectations; User satisfaction; Exceeded subcontractor goals; Limited change proposals/Timely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.</p>
Satisfactory	50-80	<p><b>Technical</b> – Met all performance requirements; Minor problems/Satisfactory corrective actions</p> <p><b>Cost Control</b> – Met overall cost/price estimates while meeting all contract requirements</p> <p><b>Schedule (Timeliness)</b> – On-time deliveries; Minor problems/Did not effect delivery schedule</p> <p><b>Business Relations/Management</b> – Professional/Reasonably responsive; Met expectations; Adequate user satisfaction; Met subcontractor goals; Reasonable change proposals/Reasonable definitization schedule; number and significance of audit findings, response to audits and associated corrective actions.</p>
Marginal	26-49	<p><b>Technical</b> – Some performance requirements not met; Performance reflects serious problems/Ineffective corrective actions</p> <p><b>Cost Control</b> – DO not meet cost/price estimates; Inadequate corrective action plans/No innovative techniques to bring overall</p>



		<p>expenditures within limits</p> <p><b>Schedule (Timeliness)</b> – Some late deliveries; No corrective actions</p> <p><b>Business Relations/Management</b> – Less professionalism and responsiveness; Lower user satisfaction/No attempts to improve relations; Unsuccessful in meeting subcontractor goals; Unnecessary change proposals/Untimely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.</p>
Unsatisfactory	0-24	<p><b>Technical</b> – Most performance requirements are not met; Recovery not likely</p> <p><b>Cost Control</b> – Significant cost overruns; Not likely to recover cost control</p> <p><b>Schedule (Timeliness)</b> – Many late deliveries; Negative cost impact/Loss of capability for the Government; Ineffective corrective actions/Not likely to recover</p> <p><b>Business Relations/Management</b> – Delinquent responses/Lack of cooperative spirit; Unsatisfied user/Unable to improve relations; Significantly under subcontractor goals; Excessive unnecessary change proposals to correct poor management; Significantly untimely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.</p>
<p><b>Up to \$8,900,000 of the Comprehensive PBI will be paid for Contract Output 1.</b> Per contract clause H-33: PROVISIONAL PAYMENT OF INCENTIVE FEE, the contractor may request monthly provisional fee payments for subjective incentives up to 1/12th of 50% of the total subjective fee for the performance period. Provisional fee is not considered earned fee and is contingent upon a final fee determination by the Fee Determination Official.</p>		
<p><b>Description/Background/Justification:</b></p> <p>To achieve its vision and implement all desired management improvement efforts will require an organized, systematic approach to project execution. EM has developed and implemented the EM Program Management System (EMPMS) to clarify roles and responsibilities, to provide for more integrated operations, and to further establish a solid baseline for workforce planning.</p> <p>The EMPMS is a performance-based management system. Performance-based management uses performance measurement information to help set agreed-upon performance goals, to allocate and prioritize resources, to inform managers so they can manage program activities to meet those goals, and to report on their status. It also offers opportunity to learn from any failures in performance and to continuously improve management practices.</p> <p>The Performance Fee Board, as identified in the Performance Evaluation Measurement Plan (PEMP) will survey the following organizations:</p> <p><u>Deputy Manager of Business</u> Office of External Affairs Office of Chief Counsel Office of Support Services Office of Civil Rights Chief Financial Officer Office of Human Capital Management</p>		

## **Assistant Manager for Integration and Planning**

### **Deputy Manager of Closure**

Assistant Manager for Closure Projects  
Assistant Manager for Nuclear Material Stabilization Projects  
Assistant Manager for Waste Disposition Projects  
Office of Safety and Quality Assurance  
Office of Safety, Safeguards and Emergency Services  
Office of Acquisition Management  
Office of Laboratory Oversight

SRNS organizations will provide monthly self-assessments throughout the performance period to provide contractor feedback in cross-cutting areas of performance, such as safety, efficient use of trained and qualified human capital, quality, continuous improvement, cost effectiveness, timeliness of deliverables, compliance with contract, etc. The self-assessments will be used to measure and report contractor technical performance (quality of product/service), cost control, adherence to schedule, and business relations / management as these relate to the contractor support of the individual and collective DOE organizations. These self-assessments will be captured on the electronic web-based DOE Scorecard and used to facilitate enhanced communication between DOE-SR and SRNS.

These assessments are critical to record contract performance that is considered implicit, or subjective. Clear measures will be defined and consistent with standards of reporting contractor performance (FAR 42.15, FAR 15.3, FAR 9.1, and DEAR 909.1), The Federal Acquisition Streamlining Act of 1994, and the federal acquisition guide, chapter 42.15.

Subjective incentives use adjectival measures related to quality of service or product. The success of a contractor against subjective measures is determined by the government, which will consider the related conditions under which the work was performed and the contractor's specific performance as measured against the government's objective.

What follows is a listing of organizations and suggested performance measures that will be subject to survey on a regular periodic basis. The listing represents only a sample of performance measures; customer service is an implicit performance expectation. Both federal and contractor employees will strive to reach mutual expectations and conduct beneficial communications in support of site missions.

### **Office of External Affairs:**

SRNS Public Affairs builds and maintains stakeholder trust and confidence through:

- Frequent and effective message development and communications with key SRNS stakeholders;
- Building and maintaining credibility with key media outlets on a local, regional and national basis;
- Developing and implementing proactive employee communications in support of the SRNS Employment Engagement Plan;
- Developing and implementing SRS and SRNS executive and business communications to targeted community

<p>organizations and media outlets;</p> <ul style="list-style-type: none"> <li>▪ Providing video and still photography direction, production and documentation of SRNS and SRS activities – including in hazardous and high-security areas;</li> <li>▪ Developing and implementing comprehensive community relations programs for areas surrounding SRS;</li> <li>▪ Maintaining effective government relations for SRS at local, state and Federal levels;</li> <li>▪ Implementing the DOE education outreach initiatives and mandates on Historical Preservation;</li> <li>▪ Implementing DOE public tours program in conjunction with providing visitor support planning and execution for mission related tours and visits;</li> <li>▪ Providing guidance, direction and implementation of events for SRNS and DOE-SR.</li> </ul>
<p><b><u>Office of Chief Counsel:</u></b></p>
<p>The Contractor shall provide general planning, management and administrative services for all its legal advice, services and litigation for itself, and for other organizations as directed by the CO.</p>
<p><b><u>Office of Support Services:</u></b></p>
<p>The Contractor shall provide general planning, management and administrative services for all its business activities and for other organizations as directed by the CO.</p>
<p><b><u>Office of Civil Rights:</u></b></p>
<ul style="list-style-type: none"> <li>▪ Maintain essential elements of a Model Equal Employment Opportunity program</li> <li>▪ Demonstrate firm commitment to equality of opportunity for all employees and applicants for employment.</li> <li>▪ Strive to meet DOE-SR expectations to be model employers in the area of workforce equal employment opportunity and diversity, and provide policies, procedures, and assign responsibilities and authorities for the oversight of contractor equal employment opportunity and affirmative action at the site as specified in applicable state and federal laws and regulations.</li> </ul>
<p><b><u>Chief Financial Officer:</u></b></p>
<ul style="list-style-type: none"> <li>▪ Provide timely and accurate submittal of monthly Spend Plans for all major and minor Budget and Reporting (B&amp;R) codes prior to issuance of DOE-SR monthly Fin Plan. Submittal shall include all funds control points and should be received by DOE-SR on or before the 15th day of each month.</li> <li>▪ Manage overhead (G&amp;A, ESS, Dept. O/H) consistent with DOE-SR's Program Execution Guidance (PEG) letters.</li> <li>▪ Review service center and unit bill pools for opportunities to reduce cost.</li> <li>▪ Provide timely and accurate performance of SRNS internal audits consistent with Approved Audit Plan.</li> <li>▪ Provide timely and accurate communications to DOE-SR of emerging budget and financial issues.</li> <li>▪ Provide timely and accurate reporting of contractor (SRNS) financial data to DOE corporate financial systems. Monthly submission of Integrated Contractor accounting data is due by noon (local time) on the 2nd business day following the end of the accounting period. Data includes the "Statement of Cash Activity" and the IC Interface.</li> <li>▪ Provide timely and accurate responses to all scheduled monthly, quarterly and annual financial statement/financial reporting requirements. Requirements will be defined and transmitted to SRNS via DOE accounting schedule maintained by the DOE CFO Finance Division. Ad hoc requirements will be transmitted and scheduled on a case-by-case basis.</li> <li>▪ Provide timely and accurate responses as required to support and satisfy DOE IG/KPMG financial statement audit requirements. Requirements will generally be scheduled within known audit schedules; however, requirements may be ad hoc at times.</li> <li>▪ Perform self-assessment of selected contractor financial/accounting policies/procedures to update, incorporate best practices, and insure continued compliance with DOE requirements. Or, provide assurance that policies/procedures are current and in compliance.</li> <li>▪ Report monthly by the 15th day current and cumulative costing actuals by all major and minor Budget and Reporting (B&amp;R) codes for cost actuals tracking and variance analysis against the Spend Plan. This is a</li> </ul>

measure of cost planning accuracy to costing actuals. The cost variance metric is to stay within plus or minus 5%.

**Assistant Manager for Closure Projects:**

- Technical Performance
  - Continue project field performance, including technology deployment
  - Continue progress towards meeting DOE energy intensity reduction goal
  - ~~Contribute toward achieving all high performance sustainable building goals~~
  - Continue successful operation of aged equipment and systems
  - Safety metrics (TRC, DART, etc.)
  - Implement effective feedback and improvement (e.g., MFO, BBS, lessons learned, etc.)
  - Submit quality reports/key documents (e.g., ORPS reports, annual and quarterly reports, planning documents, RODs, etc.)
  - Comply with regulatory requirements, permits, inspections
  - ~~Operate and~~ Improve various infrastructure systems
- Cost Control
  - Develop and maintain an **Critical** Infrastructure IPL
  - Complete additional tasks through effective cost management practices
  - Perform projects within baseline cost (EVMS)
  - Reduce project cost
- Schedule (timeliness)
  - Complete annual environmental reports on time
  - Provide timely notifications to DOE regarding abnormal field events
  - Conduct prompt, effective, fact finding meetings and thorough investigations
  - Customer support to others
  - Corporate support
  - Perform projects within baseline schedules (EVMS)
- Business Relations/Management
  - Identify and implement effective, auditable corrective actions that correct the deficiency, and track them to closure
  - Maintain regulatory documents

**Assistant Manager for Nuclear Material Stabilization Projects:**

- Support programmatic studies on an as needed basis
- Develop and submit Nuclear Materials planning assumptions and planning assumptions roadmap to include a plan, approved by SRNS and issued by 11/30/10, to accomplish disposition of 400 kgs of Pu by the end of FY12. Based on a review of the plan by DOE-SR, the NMO PBI (SRNS2011NMO) may be revised.
- Support overall cost effectiveness by quickly resolving cost issues and identifying opportunities to become more cost effective via improvements or corrective actions
- Provide "lessons learned" from significant readiness reviews or investigations and share with others (DOE, management, other sites, stakeholders, etc.) as appropriate.

**Assistant Manager for Waste Disposition Projects:**

- The Contractor shall manage the Solid Waste Program to safely and effectively prevent and/or minimize the generation of solid waste to include hazardous, low level, transuranic, mixed, and municipal sanitary wastes. The Contractor shall ensure that the handling, treatment, storage, transportation and disposal of existing "legacy" and future solid waste is environmentally sound and in compliance with DOE Directives, and applicable regulations and requirements.
- The Contractor shall manage and integrate site-wide solid waste recycling, treatment, storage, disposal and transportation activities and implement waste minimization/pollution prevention initiatives. The Contractor shall also provide on-site/off-site waste generators with technical support and verification of compliance with waste acceptance criteria, including Safety Basis and Performance Assessment objectives.

**Assistant Manager for Integration and Planning:**

**Project Management and Project Controls (DOE O 413.1B)**

Provide support to federal project management and project controls systems (Earned Value Management System, Risk Management, Baseline and Budget Planning, Environmental Liability) as described below:

**Scheduling:**

- Identification of Risk trigger points
- Identification of GFS/I, and planning for communication, initiation and closure of GFS/I
- Identification of Regulatory milestones
- Identification of PBI
- Full integration of cost, schedule and scope
- Improve schedule communication and reporting

**Earned Value Management System:**

- Certification and maintenance of EVMS
- Development and implementation of a robust EVMS surveillance program
- Provide timely and accurate detailed explanation of EVM variances
- Provide timely resolution and/or well developed proposals to improve negative trends or errors
- Institutionalize DOE Order 413 across all projects

**Risk Management:**

- Full integration of Risk Management into the Project Management process
- Assist DOE with the development/integration of the risk management process throughout the site and with other DOE prime contracts
- Improve Risk Management communication process between SRNS and DOE
- Complete integration of SRNS risk process with a single point of contact for technical, estimate, and schedule risks
- Provide risk documentation in a timely manner to support the DOE mission.
- During the risk assessment process make sure that the risk analysis is thoroughly documented (e.g., assumptions, risk impact, basis of calculations, etc.) with input from all stakeholders
- Hold regularly scheduled meetings that involve DOE to discuss and track (monitor) the project risk status

**Baseline and Budget Planning:**

- Be responsive to and actively participate in developing integrated and defensible site wide budgets as requested by DOE
- Provide accurate and timely turnaround of data to develop creditable planning estimates.
- Propose cost effective alternatives to the budget
- Maintain integrated contract performance baseline
- Effectively communicate changes in direct and indirect work scope and rate changes to all Project Management Staff (DOE and SRNS) and how those changes impact the cost and schedule of other site or departmental programs

**Environmental Liability:**

- Timely delivery of actual cost and out year cost estimate and any known changes or adjustments to the cost estimates as requested by DOE
- Provide assistance during the annual headquarters environmental liability audit by being available to discuss the methodology used in the development of the cost estimates to the auditors when requested
- Have sufficient documentation to support and defend the cost estimates that are submitted to book the environmental liability in the official DOE accounting system

**Site Planning & Real Property (DOE 430.1B)**

Provide support to federal program management of site planning & real property as described below:

**Site Strategic Planning:**

- Coordinate strategic planning process for the Savannah River Site (SRS)
- Publish strategic planning documents as identified by federal program management
- Develop and document horizontal and vertical linkage within and between SRS strategic performance measures and metrics
- Support the development of the EM Program Management Plan (PMP).

**Real Property Asset Management:**

- Manage integrated site real property process in accordance to DOE Order 430.1B
- Enhance and deliver Ten Year Site Plan which incorporates an integrated landlord approach to assess real property assets with respect to mission requirements, a 10 year IFI crosscut budget that identifies projects and funding requirements necessary to sustain mission requirements, and designation of facilities according to mission criticality with projections when facilities will become excess and available for disposition.
- Assist federal program management with the integrated real property asset management process

**Cost Management:**

- Assist federal project management with the development of the monthly cost reporting of ECES data into EM ECAS system.

**Site Integration and Performance Management**

Provide support to federal program management of site integration and performance as described below:

**Site Interface Management:**

- Develop and maintain site interface process, policy and procedures, and communication of the interface process, procedures and issues
- Develop interface agreements and issue resolution metrics

**Performance Measurement Development & Tracking:**

- Develop performance measures aligned with the site strategic plan
- Develop, analyze and report performance metrics that are associated with goals and objectives outlined in management and measurement plans
- Develop and track performance-based incentives
- Develop and provide training to evaluators and staff responsible for administering the program on a daily basis.

**Process Excellence and Continuous Improvement:**

- Supply centralized resources for implementing the Continuous Improvement System (CIS) and facilitating Continuous Improvement (CI) growth
- Facilitate implementation of SRNS initiatives to demonstrate and promote the importance of CI results that leverage customer focused outcomes, improved process efficiency, increased workforce productivity, and greater financial impact
- Communicate CI achievements as a means to encourage employee participation in CI activities and recognition of CI leadership within SRNS

**Business Systems:**

- Effectively manage project resources that maximize value and return on investment for project funding
- Implement concurrent process improvements in business processes and systems that will assure the modernization project captures best practices, and prevents the automation of an existing ineffective or outdated process

- Identify key personnel required for system operation and maintenance following installation and start-up of new process. Manage project and support staffing to prepare personnel to fill roles identified for system operation and maintenance.

**Business Transformation:**

- Evaluate impacts of proposed project changes on operating costs following project completion. Identify and present opportunities for improvement that reduce future operating costs while improving stakeholder satisfaction.
- Develop BPMP system architecture with provisions for integration of additional business systems that also require modernization and may be established in future business system improvements
- Develop strategies to minimize the degree of customization required for implementation of selected vendor software

**Stakeholder Involvement:**

- Maintain project transparency that provides visibility of project goals, scope changes and key performance metrics for DOE and other stakeholders.
- Establish assessment criteria and performance measures to address stakeholder involvement, reengineering core business functions, and establishing improved business processes.

**Office of Safety and Quality Assurance:**

*The words below are not intended to add requirements to the M&O Contract words found in Section C of the Contract.*

- Manage site Quality Assurance Program in accordance with DOE O 414.1C and 10CFR 830, Subpart A.
- Develop baseline QA Staffing Plan and enhance staffing as appropriate.
- Develop QA Performance Measures in alignment with goals and objectives and report to DOE-SR on a monthly basis.
- Manage site Radiation Protection Program in accordance with 10CFR 835 (Does not include Parsons or MOX).
- Manage the site Corrective Action Management Program (CAMP) in accordance with DOE O 414.1C and DOE O 470.2B.
- Manage the improvement initiatives necessary to fully comply with the SRS corrective action management procedure MRP 4.23, in accordance with DOE O 226.1A, DOE O 414.1C and NQA-1.
- Manage the site Lessons Learned/Operating Experience Program in accordance with DOE O 210.2.
- Manage site Price-Anderson Amendments Act (PAAA) noncompliance and Worker Safety and Health (WSH) regulation noncompliance reporting program and associated corrective actions in accordance with 10 CFR 820, appendix A (PAAA) and 10 CFR 820, appendix A (PAAA) and 10 CFR 851 (WSH).
- Manage site occurrence reporting program (ORPS) in accordance with DOE Manual 231.1-2.
- Manage the fire protection program in accordance with SRID Functional Area 12 and DOE Guide 420.1-3. Maintain program integration with other site contractors performing fire protection work (SRR). Staff and maintain the SRS Fire Department in accordance with the latest approved Baseline Needs Assessment.
- Manage the SRNS site Standard/Requirements Identification Document (S/RID) Program for the identification of ES&H standards/requirements in accordance with DOE O 251.1C and S/RID Functional Area 01, Management Systems, S/RID Requirement Number 01.04.155.
- Assess, measure, document, and control employee exposure to workplace chemicals, physical hazards, and environmental conditions in such a manner as to prevent adverse impacts on employee health and well-being and ensure compliance with all applicable regulations (e.g. 10 CFR part 851, 10 CFR 850).
- Improve Hazards Analysis process/procedure to address internal and external assessment issues per established schedule.
- Implement effective Worker Safety and Health Program for all SRNS workforce (i.e. Operations, Construction, and Subcontractors) in accordance with 10 CFR 851 requirements.
- Establish educational programs for Industrial Hygienist and Technicians for continuing education in the industrial hygiene field. Make provisions for industrial hygienists to attend AIHA conference as resources allow.
- Complete and update baseline for Industrial Hygiene program and conduct periodic walk-throughs to determine if any changes in process, chemicals, and controls per the SRNS Exposure Assessment Process.
- Develop sampling strategy based upon hazard assessments and sampling priorities in SRNS facilities.



- NI/PISA Closure
  - Develop and track metrics for timely closure of NIs and PISAs
- USQ Quality
  - Develop plan for measuring and tracking USQ screening quality as an intermediate milestone
  - Measure performance against goals established in plan
- Nuclear Safety Training and Qualification
  - Submit training and Qualification plan as an intermediate milestone including performance goals
  - Meet performance goals established in plan
- Safety Basis Process Improvement Initiative
  - Submit final report including improvement recommendations

**Office of Safeguards, Security and Emergency Services:**

- Joint monthly review meetings are held. At the conclusion of these meeting, DOE will provide a grade for the four categories: Technical, Cost Control, Schedule (Timeliness), and Business Relations / Management.

**Office of Acquisition Management:**

- Measure the extent to which sensitive and high risks personal property subject to physical inventory is located during annual inventory. Inventory data is tabulated either manually or by an automated system and extracted for sensitive and high risk items. The amount that was physically located divided by the amount of formal accountable items subject to physical inventory. Annual Inventories are required of both Federal and contractor entities in order to ensure the accountability and system integrity of the personal property management program. The improper handling of sensitive and high risk items poses a considerable risk to the Department. Inventories of these types of items are conducted annually and require discipline.
- Personal Property Monthly Walk Through Program
- Management of subcontracting and purchasing
- Develop, as required by the clause in Section 1 entitled, DEAR 970.5244-1 "Contractor Purchasing System," procedures for evaluating the ES&H records of companies submitting offers/bids/proposals for performing subcontract work in Government-owned or leased facilities under the contract.
- Management of Contractor Human Capital Programs (Defined Benefit Plan, Compensation, Employee Relations, Labor Relations, Workforce Alignment & Re-structuring, etc.)

**Office of Laboratory Oversight:**

SRNL's three-fold mission is to enable the success of SRS operations; to provide technical leadership for future site missions; and to utilize its technical expertise to provide vital national and regional support in achieving the broader goals of DOE and the federal government in a safe manner. In addition to progress against SRS Strategic Plan goals, performance will be evaluated in the following areas:

- Safe and Secure Operations: Provide a work environment that is protective of workers and the environment through a robust ISMS and ISSMS and performance assurance process. This includes evaluation of SRNL conduct of operations; radiological performance; nuclear safety; quality assurance; feedback and improvement; safety, environmental and security performance; and emergency management.
- Support to SRS and EM Mission Accomplishment: Meet SRS and EM customer milestone and schedule commitments; conduct activities within budget; provide high quality and technically sound products, advice, and communications with customers and DOE; and meet customer technical expectations.
- Progress towards operating SRNL as a defined work activity within the overall M&O contract structure: Implement a clear and consistent vision and effective plans to meet program and DOE goals including fiscal requirements while evaluating alternative options.
- Institutional Management: Progress in timely development and implementation of quality planning documents; use of corporate resources and advisory boards; articulation of a clear and consistent vision; and maintenance of core competencies. Effectively manage laboratory projects on schedule and within budget.
- Laboratory Infrastructure and Maintenance: Effectively manage projects to meet commitments; develop quality and timely documentation to support new projects; develop and implement a comprehensive infrastructure



- plan; and identify and pursue potential funding strategies to address critical need projects.
- Effectiveness of SRNL as EM's Corporate National Laboratory: Progress in implementation of a strategy to be EM's center for coordination of research, development, and deployment of technologies to cleanup the environmental legacy of the Nation's nuclear programs. Diversify customer base and funding sources for SRNL to increase efficiencies for the benefit of customers. Implement an effective LDRD program.
  - Support to National Priorities: Diversify customer base for national and nuclear security; energy security; hydrogen and other initiatives. Meet customer milestone, schedule and quality requirements. Increase opportunities for continued growth through partnerships with industry, academia and small businesses.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-01.01	9/30/2011	Up to \$8,900,000	Provide a monthly report measuring technical, cost, schedule performance and business relations / management in accordance with contract requirements. The report will include trending data and analysis. Fee will be invoiced monthly.	Contractor monthly report measuring technical, cost, schedule performance and business relations / management in accordance with contract requirements. The report will include identification of issues related to the above measurements, root cause analysis of those issues, corrective actions planned to remedy the issues, trending data and analysis.

**Contract Output: SRNS2011MGT-02 – Safeguards and Security**

The contractor will comply with terms and conditions of the contract relating to safeguarding information and comply with security requirements of the contract. This includes oversight of security systems. This Contract Output supports two SRS Strategic Objectives: (13) Improve and maintain Site Infrastructure, and (14) Manage technical challenges of aging systems and equipment to avoid risk of outages and mission disruptions.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 2.**

**Description/Background/Justification:**

The Argus Implementation Project was initiated in 2007 to replace the aging SRS Electronic Safeguards and Security System (E3S) with the DOE-Complex standard Argus Security System. The initial planning has been completed and design was issued for the security interests in SRS A and B Areas. Due to higher funding priorities, the actual field implementation has been on hold for the past two years. With FY10 changes in funding, an additional \$3.0M has become available to implement Argus in A and B Areas. Recently, the Argus System has been successfully implemented for the FBI REEF Project. This success has provided valuable information for final configuration of the equipment and introduced the newer generation of some specialized equipment. The FY11 work will consist of changing the design to incorporate lessons learned and new equipment configurations. Software will be updated, configured, and tested. The field activities, including cutover from E3S to Argus for security force monitoring

and response will be completed on a building by building basis.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-02.01	1/31/11	\$50,000	Complete installation and startup of the Argus components required to manage Building 723-A.	SRNS will provide a copy of the Argus 723-A acceptance test to DOE-SR.
SRNS2011 MGT-02.02	9/30/11	\$150,000	Complete installation and startup of the Argus components required to manage the remaining A Area and B Area buildings with security interest. Completion of Sensitive Compartmented Information Facilities (SCIF) is not included in this scope.	SRNS will provide copies of the Argus acceptance tests for Buildings 703-A, 773-A and 720-2A (this includes B-Area security interests) to DOE-SR.

**Contract Output: SRNS2011MGT-03 – Safety** *(Two sub-parts)*

The contractor is required to execute work in a safe and secure manner. This Contract Output supports three SRS Strategic Objectives: (36) Integrate safety and security into every element of mission accomplishment, and enhance the “safety first” culture to safeguard employees and assets; (37) Establish safety programs and processes that continuously improve safety and security performance; and (42) Establish a corporate, performance-based approach to manage site assets and resources that links planning, budgeting, implementation and evaluation to program mission projections and performance outcomes.

**Up to \$450,000 of the Comprehensive PBI will be paid for Contract Output 3.**

**Description/Background/Justification:**

**3a.**

The Enterprise Integrated Safety Management - Exposure Assessment (EISM-EA) is an industrial hygiene tool that will be utilized to track, trend, and analyze worker industrial exposure at the Savannah River Site. SRS is piloting the Enterprise Integrated Safety Management - Exposure Assessment (EISM-EA) program for DOE. As part of EISM-EA implementation, SRNS is creating interfaces with numerous SRS systems as shown below to enhance the performance of EISM-EA. For the purpose of this performance element, a “facility” is defined as the organization, personnel and complex of structures involved in completing a unique, major, and well-defined portion of the SRS mission (e.g. H-Canyon and all associated operations and structures as being one facility).

<b>SRS Authoritative Source</b>		<b>Data to be shared</b>		<b>Receiving System or Entity</b>	
<b>Site Personnel Roster</b>		Personnel information		EISM-EA	
<b>Field Material Tracking System / Chemical Information System</b>		Chemical Hazard information		EISM-EA	
<b>Site Shared Structures Database</b>		Site Structures (locations)		EISM-EA	
<b>EISM-EA</b>		Medical Surveillance notification		MEDGATE	
<b>Assisted Hazard Analysis</b>		Work Package review notification to IH Professional		E mail to IH with notification to Review Work within EISM-EA	
<b>EISM-EA</b>		Hazards and Controls (from IH exposure assessments)		Assisted Hazard Analysis	
<b>Radiation Monitoring Equipment</b>		IH Instrumentation		EISM-EA	
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Completion Criteria</b>	<b>Acceptance Criteria</b>	
SRNS2011MGT-03a.1	12/10/10	\$100,000	Complete one area / facility exposure assessment pilot using the Enterprise Integrated Safety Management – Exposure Assessment (EISM-EA) data system.	SRNS will document completion of one area / facility exposure assessment pilot using the Enterprise Integrated Safety Management – Exposure Assessment (EISM-EA) data system.	
<b>Description/Background/Justification:</b>					
<b>3b.</b> As part of the strategy to establish a performance-based approach to managing site assets and resources, SRNS is to increase efficiency by at least a 5% reduction in total patient time away from work for medical physical examinations. This will reduce time spent by the site workforce completing medical requirements. SRNS will accomplish this by establishing a Savannah River Site Medical Improvement Process. Two outcomes are expected: <ul style="list-style-type: none"><li>Outcome I - External Impact: The SRS workforce will spend more time attending to the site mission, thereby increasing productivity on the site; and,</li><li>Outcome II - Internal Impact: Medical Operations &amp; Services will develop and implement a comprehensive Disciplined Operations Sustainability Plan. This ensures that Medical Operations &amp; Services continually progresses towards a more disciplined Conduct of Operations culture, institutionalizes the effort, and ensures continuous improvement.</li></ul>					
<b>Savannah River Site Medical Improvement Process</b>					

For Outcome I - External Impact, the following milestones will be completed:

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-03b.1	11/30/2010	\$25,000	Measurement of present outcomes and demand; analysis of scheduling requirements, issues and relationship with staff availability; analysis of medical process and diagramming/process maps for scheduling, medical process, and data distribution.	Measure and analyze current performance and document and transmit results to DOE-SR including pre-intervention data established in May 2010, process description and process maps for behaviors in scheduling, medical process and data distribution required to support the new outcomes.
SRNS2011 MGT-03b.2	01/03/2011	\$50,000	Implementation and problem solving of a new medical process.	Documentation of problem solving activities will be transmitted to DOE-SR describing the implementation process; including key performance indicators, measurement systems and problem solving process that will measure outcomes, maintain gains and integrate continuous improvement into the staff culture.
SRNS2011 MGT-03b.3	06/01/2011	\$50,000	Re-measurement of outcomes to determine increased efficiency of at least 5 % reduction in total patient time away	Measure resulting improvements and provide results to DOE-SR including post-intervention outcome data, comparison with pre-intervention

			from work for medical physical examinations. The reduction will result from medical process change from a two-phase physical exam to one-phase physical exams.	data and measures of value of the change to the Savannah River Site. Fee will be earned if a 5% improvement is demonstrated.
For Outcome II - Internal Impact, the following milestones will be completed:				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-03b.4	12/30/2010	\$50,000	Develop and submit Disciplined Operations Sustainability Plan.	Submit plan to DOE-SR identifying processes for the following critical performance areas: <ul style="list-style-type: none"> <li>Procedures Management</li> <li>STAR Corrective Action Performance</li> <li>Certification and Credentials</li> <li>Staffing &amp; Critical Services Continuity</li> <li>Assessment &amp; Review</li> <li>Continuous Improvement</li> </ul>
SRNS2011 MGT-03b.5	8/30/2011	\$25,000	Complete a review of medical procedures as detailed in Medical Procedures Review Schedule (plan submitted 07/15/10). Review Program-level Medical Procedures: <ul style="list-style-type: none"> <li>Manual Q3.1</li> </ul>	Submit verification of medical procedure review to DOE-SR. Verification should provide evidence that each procedure was reviewed; analyzed for hazards per procedure 8Q122; revised/updated as

			<p>Administrative Policies and Procedures</p> <ul style="list-style-type: none"> <li>• Manual Q3.2 Health Information Services</li> <li>• Manual Q3.3 X-Ray &amp; EKG</li> <li>• Manual Q3.4 Laboratory</li> <li>• Program Q3.6 Substance Abuse Testing</li> <li>• Program Q3.7 First Aid &amp; Nursing</li> </ul>	<p>necessary; approved and issued/put into effect.</p> <p>Note: Fee structure will be indexed and based directly upon percentage of procedures completed (i.e., reviewed, analyzed for hazards, revised/updated, approved and issued). (E.g., 100% of procedures completed earns 100% of fee, 90% of procedures completed earns 90% of fee, and so on.)</p>
SRNS2011 MGT-03b.6	03/01/2011	\$25,000	Complete review of credentialing and certification for medical personnel.	Submit verification of Medical credentials and certifications for positions and functions within Medical Operations & Services to DOE-SR.
SRNS2011 MGT-03b.7	05/31/2011	\$25,000	Complete Medical Staffing Continuity of Operations Plan.	<p>Report will be provided to DOE-SR on Staffing &amp; Critical Services Continuity</p> <ul style="list-style-type: none"> <li>▪ Critical Functions</li> <li>▪ Organizational Core Competencies</li> <li>▪ Minimum Staffing</li> <li>▪ Training and</li> </ul>



				Qualifications ▪ Continuity
SRNS2011 MGT-03b.8	09/16/2011	\$50,000	Analyze Medical Services performance improvement resulting from disciplined operations.	Analysis report will be provided to DOE-SR on qualitative impacts to Medical Services & Operations through revised conduct of operations ▪ Qualitative impact analysis ▪ Cultural and institutional barriers impacting organizational transformation ▪ Lessons learned ▪ Path forward for continuous growth/improvement
SRNS2011 MGT-03b.9	09/30/2011	\$50,000	Complete Accreditation Association for Ambulatory Health Care self-assessment of SRS Medical Services.	Submit completed report and gap analysis to DOE-SR. Report will include a comprehensive plan and cost benefit analysis for achieving AAAHC certification, for discussion and identification of a path forward.

**Contract Output: SRNS2011MGT-04 – Integrated Groundwater Program**

The contractor is required to execute work in an environmentally safe manner. This Contract Output supports four SRS Strategic Objectives: (17) Ensure protection of human health and the environment is factored into mission development and execution; (18) Maintain compliance with environmental permits, clean-up agreements and decision documents; (19) Integrate site-wide regulatory permitting-strategies to ensure operational and future mission flexibility; and (20) Promote long-term stewardship of SRS natural, archeological and cultural resources. This Contract Output will result in SRNS coordinating with other site organizations and contractors

to establish and manage an Integrated Groundwater Program for the Savannah River Site.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 4.**

**Description/Background/Justification:**

SRNS, in cooperation with other site contractors, will establish and maintain an integrated, site-wide groundwater program to support DOE decision-making and regulatory compliance. This Program shall integrate groundwater monitoring information, applicable modeling and risk assessment results, as well as identify emerging issues/opportunities that could impact SRS groundwater. Such a Program will support current and future operations as well as post-closure monitoring of remediated sites. In order to ensure proper breadth of the program, a baselining project will be performed in FY2011.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-04.01	1/15/11	\$100,000	Issue Project Plan to baseline current site program.	SRNS will issue the Project Plan and deliver it to DOE-SR.
SRNS2011MGT-04.02	6/15/11	\$50,000	Issue Groundwater Technical Assessment.	SRNS will issue the Groundwater Technical Assessment and deliver it to DOE-SR.
SRNS2011MGT-04.03	9/30/11	\$50,000	Issue SRS Integrated Groundwater Program Plan.	SRNS will issue the SRS Integrated Program Plan to DOE-SR.

**Contract Output: SRNS2011MGT-05 – Quality Assurance**

The contractor is required to execute work in a safe and secure manner. This Contract Output supports three strategic objectives: (17) Ensure protection of human health and the environment is factored into mission development and execution; (36) Integrate safety and security into every element of mission accomplishment, and enhance the “safety first” culture to safeguard employees and assets; and (37) Establish safety programs and processes that continuously improve safety and security performance. This Contract Output will result in SRNS shifting from NQA-1-2000 to NQA-1-2008.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 5.**

**Description/Background/Justification:**

On November 6, 2008, Ines Triay, Principal Deputy Assistant Secretary for Environmental Management (EM), issued a Corporate Quality Policy Statement and EM Quality Assurance Program (QAP) which was endorsed by the EM QA Corporate Board. This QAP provides the basis to achieve quality across the EM complex for all mission-related work while providing a

consistent approach to QA using the NQA-1-2004 *Quality Assurance requirements for Nuclear Facility Applications*, as the national consensus standard for implementing the EM QAP due to the high hazards and costs of DOE's activities and facilities. The requirements contained within the document apply to EM (HQ), EM Field Offices/Project offices, and contractors as applicable to the work being performed by each entity. The letter required each contractor to develop a Quality Assurance Implementation Plan (QIP). Savannah River Nuclear Solutions (SRNS) submitted a QIP that used NQA-1-2008 instead of NQA-1-2004 as a consensus standard. This QIP was approved by DOE-SR in December of 2009 which included the results of a gap and cost analysis. The gap analysis identified tasks to be completed to bridge the gap between NQA-1-2000 and NQA-1-2008.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-05.01	3/30/11	\$50,000	Update impacted procedures (Current analysis shows 5 new procedures are needed and 26 revisions are needed).	SRNS will issue the needed procedures to support the 2011 NQA-1 update.
SRNS2011MGT-05.02	5/30/11	\$50,000	Develop and deliver training to support the following areas: Procurement – Vendor Surveys and Engineering – Technical Evaluations.	SRNS will provide documentation to DOE-SR that required training for Procurement, Vendor Surveys and Engineering personnel was completed.
SRNS2011MGT-05.03	9/30/11	\$100,000	Implementation of NQA-1-2008 requirements is complete.	<ul style="list-style-type: none"> <li>• Declaration of NQA-1-2008 implementation completion.</li> <li>• S/RIDs revision submitted and approved.</li> <li>• Quality Assurance Management Plan, SRNS-RP-2008-00020, revision submitted and approved.</li> <li>• ALL required training completed and</li> </ul>

				documentation provided to DOE-SR.
<p><b><u>Contract Output: SRNS2011MGT-06 – COBRA Interfaces</u></b> The contractor is required to maintain and manage to an accurate multi-year performance baseline, and provide a systematic project management system which provides cost estimating, scheduling, and risk for establishment and maintenance of an appropriate technical baseline.</p> <p><b>Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 6.</b></p>				
<b>Description/Background/Justification:</b>				
With the SRNS financial system being replaced, and the Procurement and Contracts system scheduled to be replaced by the end of the first quarter, FY2011, effort is required to determine the COBRA interfaces with these new system replacements. Follow-up is also needed to ensure that identified functionalities contained within ICTS are dispositioned accordingly.				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-06.01	12/31/10	\$50,000	Complete COBRA implementation.	Provide DOE-SR IPABS report out of COBRA.
SRNS2011MGT-06.02	12/31/10	\$50,000	Determine COBRA interfaces with the new replacement systems for Finance and Funds Management and establish functionalities as necessary for operation of the cost processor.	Provide DOE-SR requirements document reflecting interface process between the COBRA cost processor and Hyperion and the interfaces established.
SRNS2011MGT-06.03	3/31/11	\$100,000	Determine COBRA interfaces with the new replacement systems for Procurement and Contracts and establish functionalities as necessary for operation of the cost processor.	Provide DOE-SR requirements document reflecting interface process between the COBRA cost processor and PeopleSoft and the interfaces established.

**Contract Output: SRNS2011MGT-07 – Business Process Modernization Project**

The contractor will develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing missions of the site. DOE expects the Contractor to produce effective and efficient business and technical management structures, systems, and operations that maintain high levels of safety and quality in accomplishing the work required under this contract.

This Contract Output supports three SRS Strategic Objectives: (43) Implement solid financial and performance based management systems with metrics that help management to improve efficiency and sustainability, (45) Continuous improvement of Business Systems cost-effectiveness and performance through process, procedure, technology and communications enhancements, and (46) Support development of potential future missions and opportunities for SRS.

**Up to \$750,000 of the Comprehensive PBI will be paid for Contract Output 7.**

**Description/Background/Justification:**

To support SRNS' site business transformation initiatives along with the multi-contractor environment, including the management service agreements, enhanced financial transparency is needed to support both operations and DOE reporting. The current IT technology and architecture have significant issues, which have been identified in the annual OMB-A-11 risk assessment results the past four years. In addition, there are significant needs for system changes to support the business changes required for the project execution of the FY11-15 baseline management.

As identified in FY2010, the current business software and hardware tools are not cost effective, have continuing risk of failure, are inflexible, and are not aligned with the Office of Management and Budget (OMB) Federal Enterprise Architecture guidelines. These legacy applications developed over twenty years ago no longer support efficient, business processes compared to today's industry standards. Current systems require substantial resources to accommodate delivery of real time data in support of project schedule, financial budget and forecast decision making.

SRNS continues FY2011 with a phased approach that began in FY2010 with the identification of Oracle/PeopleSoft as the Commercial Off the Shelf (COTS) software that will enable the business process re-engineering and implementation of industry best practices. SRNS has analyzed business systems for replacement, including Financial Management, Procurement/Supply Chain, and Project Controls systems. DOE Records Management requirements will be integrated into new systems to mitigate risk from a functional and Vital Records perspective. During FY2010, processes were identified for elimination, as well as retirement. The achievement of business driven productivity improvements continue to be supported by new technologies planned and executed where a positive return on investment can be demonstrated. SRNS will proceed in alignment with the SRS Strategic Objectives in support of the business mission, goals, and objectives. SRNS will include business stakeholders, organizations and processes. SRNS will reengineer core business functions to enhance strategic, supportable, and integrated business-enabling solutions.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-07.01	10/31/10	\$125,000	Complete installation and the SRNS acceptance testing of the General Ledger Phase 1.	Specific plans and documents to be provided are listed in the DOE G 413.3-14
SRNS2011MGT-07.02	4/30/11	\$500,000	Attain System Design Stage Exit business system upgrade for the Supply Chain Management Phase 2.	Specific plans and documents to be provided are listed in the DOE G 413.3-14
SRNS2011MGT-07.03	9/30/11	\$125,000	Complete installation and acceptance testing of the Supply Chain Management Phase 2.	Specific plans and documents to be provided are listed in the DOE G 413.3-14

**Contract Output: SRNS2011MGT-08 – Workforce Services**

SRNS Workforce Services manages employee compensation, benefits, performance, and development. Evaluations of current benefit plans will be done to ensure maximum cost effectiveness. A workforce planning initiative is necessary to ensure SRNS will be positioned to accomplish current and future missions.

**Up to \$150,000 of the Comprehensive PBI will be paid for Contract Output 8.**

**Description/Background/Justification:**

SRNS will continue to work toward a diverse and professional work environment that identifies future resource needs that align to achieve program mission projections. This Contract Output supports three SRS Strategic Objectives: (39) Foster a corporate perspective and a teamwork culture through communication of a common vision; (40) Ensure the SRS workforce is diverse and appropriately sized and aligned to achieve the Site vision; and (41) Enhance SRS leadership, administrative and technical skill base while ensuring a diverse and professional work environment.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-08.01	9/30/11	\$25,000	Expand Talent Management and Workforce of the Future	SRNS will document accomplishments on the following to



			developmental efforts, including leadership and labor resource pipelines, to ensure availability of a skilled, knowledgeable workforce required for successful mission accomplishment.	DOE:
SRNS2011MGT-08.01a	9/30/11	\$25,000	Increase Leadership Development through Talent Management developmental opportunities.	<ol style="list-style-type: none"> <li>1. Develop feeder forums for Leadership Development at the division/functional organization level.</li> <li>2. Expand Mentoring Circles.</li> <li>3. Develop and implement leadership talent pipelines.</li> </ol>
SRNS2011MGT-08.01b	9/30/11	\$25,000	Continue developing Future Workforce labor resource pipelines and determine which skill sets will be needed at what time.	<ol style="list-style-type: none"> <li>1. Implement the Workforce Development Simulation (WDS) Phase II to: <ul style="list-style-type: none"> <li>- Collect and analyze workforce transitions and training data.</li> <li>- Determine</li> </ul> </li> </ol>

				<p>skill set sequencing and scheduling.</p> <p>2. Complete roll-out and refinements of the Labor Resource Management (LRM) tool needed to support the WDS.</p> <p>3. Integrate SRNS functional areas, local educational institutions and community organizations into the Workforce of the Future project to gain their support.</p>
SRNS2011MGT-08.02	Begins 2Q 2011 and ends 3Q 2011 with the selection. Implementation will begin 1/01/2012	\$25,000	Take BCBS Business out to Bid	<p>1. Bid current medical / dental / FSA / COBRA plans to determine best value (claims discounts / customer service / networks / admin fees)</p> <p>2. Review retiree medical plan options - both Incumbent and Non-Incumbent options</p> <p>3. Develop Health Savings Account alternative</p>

				4. Revise plan documents/processes to reflect standard market practices
SRNS2011MGT-08.03	Valuation implementation 2Q 2011 and pension calculation component 3Q 2011.	\$50,000	Implement revised Actuary Processes.	1. Improve Actuary valuation by implementing regular file feeds, allowing current information to be accessed through reporting 2. Transition pension calculation process from manual process to automated process housed on vendor website - accessible by deferred vested / terminated plan participants. This will eliminate in house pension estimator tool and allow for more accuracy.

**Contract Output: SRNS2011MGT-09 – Risk Management**

Institutionalize the Risk & Opportunity Management (R&OM) across SRNS entities. Apply DOE 413.3A Risk management principles to include all division functions under the current Contract.

**Up to \$450,000 of the Comprehensive PBI will be paid for Contract Output 9.**

**Description/Background/Justification:**

As part of a Management Excellence strategy, SRNS will implement a process that captures and manages risks associated with meeting Program mission projections and performance milestones.

- Establish a corporate, performance-based approach to manage site assets and resources that links planning, budgeting, implementation and evaluation to program mission projections and performance outcomes.
- Continuous improvement of Business Systems cost-effectiveness and performance through process, procedure, technology and communications enhancements.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-09.01	9/30/11	\$150,000	Complete an assessment of current risk and opportunity management processes for compliance to established procedures and based on DOE Standard Review Plan for RM, and /or Corrective Measure 3.	<p>Documented assessment, including attributes, observations, causal factors and recommendations.</p> <p>Assessment Report will include the following as a minimum:</p> <ul style="list-style-type: none"> <li>• Categories evaluated (Ref Corrective Measure 3): <ul style="list-style-type: none"> <li>▪ Risk planning</li> <li>▪ Risk identification</li> <li>▪ Risk analysis</li> <li>▪ Risk handling</li> <li>▪ Risk monitoring</li> <li>▪ Risk reporting</li> </ul> </li> <li>• Determination of alignment with measurement criteria</li> <li>• Listing of areas for improvement and corrective measures</li> <li>• Identification of management programs, documents and procedures</li> </ul>

				<p>used to integrate risk into project planning</p> <ul style="list-style-type: none"> <li>• Improvement Plan that includes metrics and monitoring process</li> <li>• Corrective actions entered into STARS or current assessment and action tracking system</li> </ul>
SRNS2011MGT-09.02	9/30/11	\$150,000	<p>Conduct an analysis of high value risks currently identified for a specific PBS with focus on improving/optimizing risk reduction by investigating multiple risk-reduction scenarios with considerations to configuration of site assets, change management and controls system, and human capital resource needs. The results of the analysis will lay the ground work for potential use on other PBS.</p>	<p>Documented analysis with multiple scenarios tied directly to the analysis results.</p> <p>Analysis of risks &amp; opportunities will include measurement or standard used to perform analysis, limited analysis of historic, current, and emerging risks &amp; opportunities based on project assumptions, and multiple risk-reduction multi-year scenarios based on configuration of site (Real Property Asset Management) assets, change management &amp; controls system, Contractor Assurance</p>

				Program and human capital resource needs. Scenarios are ranked using a defined methodology and a path forward recommended, including key decision milestones
SRNS2011MGT-09.03	9/30/11	\$150,000	Develop a risk end-state vision action plan, identifying key decision milestones based on each risk-reduction scenario identified in SRNS2011MGT-09.02.	Documented analysis with multiple scenarios tied directly to the analysis results.  Risk end-state vision action plan, identifying key decision milestones based on the recommended risk-reduction scenario identified in SRNS2011MGT-09.02.

**Contract Output: SRNS2011MGT -10 – Supplier Diversity**

This Contract Output addresses Supplier Diversity as required by Federal Acquisition Regulation (FAR) 19, Department of Energy Acquisition Regulation (DEAR) 919 and 13 Code of Federal Regulations (CFR) Chapter 1.

**Up to \$100,000 of the Comprehensive PBI will be paid for Contract Output 10.**

**Description/Background/Justification:**

It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts. This requirement is flowed down to SRNS in the prime contract.

Representatives in the Supplier Diversity Office manage, plan, direct and monitor the activities



of SRNS's Small Business Program including managing the program as it relates to the procurement function and the prime contract with the Department of Energy.

SRNS submits and negotiates an annual supplement to the subcontracting plan that includes goals, expressed in terms of percentages of total planned subcontracting dollars that separately addresses subcontracting with small business concerns, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and with women-owned small business concerns.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-10.01	9/30/11	\$100,000	Develop an action plan identifying activities that support efforts to provide maximum practicable opportunity for small and small disadvantaged businesses to participate in performing subcontracts let by SRNS.	SRNS will provide documentation to support efforts to achieve the majority of the goals defined in the FY 2011 Supplement to the subcontracting plan.

**Contract Output: SRNS2011MGT-11 – Comprehensive Site Planning**

Develop design level recommendations and specific objectives for FY2011 that will improve integration and streamline the processes supporting program mission planning and real property asset planning. These recommendations and objectives will demonstrate improved linkage and dependencies at strategic, operational and tactical levels in support of the successful execution of the EM cleanup mission and landlord functions at SRS. It is the desire of DOE-SR to ensure planning activities are integrated within SRNS. In addition the improved linkages include appropriate levels of interfacing with an NNSA-SR strategic and operational planning. This milestone supports the improvement of the integration of planning and is to be comprehensive, i.e., include objectives that encompass the entire planning process at all levels and for all functions.

**Up to \$1,000,000 of the Comprehensive PBI will be paid for Contract Output 11.**

**Description/Background/Justification:**

The overall goal is to develop and implement an integrated planning process for SRNS that efficiently and effectively links top level strategic missions and mission success goals with operational/functional planning required for goal achievement. This planning process should facilitate the effective flow of information regarding work breakdown, funding, schedules, resource allocation, interface dependencies, and other factors vital to performing the required work.

A joint DOE-SR / SRNS task team has been established to support this contract output.				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-11.01	9/30/2011	\$700,000	Implement a comprehensive planning system that links life-cycle program missions, life-cycle real property asset planning, landlord functions, budgeting, evaluation, and performance outcomes.	<p>1. Completed self-assessment report of planning documents at beginning of performance period to assess integration of planning documents.</p> <p>-The report will include identifying process improvements to be incorporated in the planning management system.</p> <p><del>Assessment performed per WSRC-1B, "Management Requirements and Procedures, MRP 4.23, "Corrective Action Program".</del></p> <p>Assessment findings will be tracked in STARS.</p> <p>2. Provide a planning management system description to include the following attributes:</p> <p>-Demonstrates</p>

				linkage of EM planning and budget formulation -Integrated schedule of plan development and revisions -An integrated planning process flow -Process for configuration control for planning document changes. (e.g. when one plan changes that affects other plans, how are the changes implemented/updated in the other plans?) -Roles and responsibilities (e.g. --SME responsibility structure and team contacts (between organizations) for plan development and updates (e.g. review matrix). Verify participation and ownership from program and project SME in the plan development and updates (e.g. signature page verifying participation
--	--	--	--	---

				<p>and ownership of information in the plan). -Process for centralizing data tracking EM lifecycle performance metrics and milestones. Attributes include: Collection, process flow and schedule, information control, definition control, and document retention compliance.</p> <p>3. DOE- Approved Comprehensive Ten Year Site Plan (TYSP) with attributes that <u>meet the intent of</u> SRNS2011 MGT-13.01 Acceptance Criterion 3 (<i>below</i>).</p> <p>4. Updated SRS Life Cycle Baseline with the integration of Strategic, Programmatic, System and Business Plans. -Integrated SRS Life Cycle Baseline, to include links to all SRS contract</p>
--	--	--	--	--

				<p>baselines. Acceptance will be based upon the same criteria under configuration control used to develop the contract performance baseline.</p> <p>5. Contractor-approved system plans for Nuclear Materials Stabilization (pre-decisional), Waste Disposition-Solid Waste, and Area Completion, Infrastructure and ensure integration of these plans with the NNSA Pu Disposition Program Execution Plan. -Plans should include goals, planning assumptions, planning bases, operational process descriptions, dependencies on other systems, facility and infrastructure requirements, and annual key performance measures with both historical (actual values) and lifecycle projections.</p>
--	--	--	--	---

SRNS2011MGT -11.02 – Infrastructure Assessments				
SRNS2011 MGT -11.02a	9/30/11	\$100,000	Develop a graded approach plan by 3/31/11 to cost effectively put the site on a path to populate the FIMS database with all applicable facilities within three years. By 9/30/11 FIMS will be populated based on the graded approach plan.	<p>1. DOE-SR will review the graded approach plan with schedule and metrics.</p> <p>2. DOE-SR will review evidence of implementation – documentation in FIMS records demonstrated by performance against metrics implementation schedule.</p>
SRNS2011 MGT -11.02b	9/30/11	\$100,000	Per the requirements of DOE Order 430.1B, complete condition assessments on 20% of real property assets identified in FIMS as of 10/1/2010 <b>per the graded approach.</b> Fee will be invoiced for every 5% completed.	<p>1. DOE-SR will review the site graded approach plan with schedule and metrics that outlines the completion of the condition assessments within five years.</p> <p>2. DOE-SR will review the condition assessment reports for the structures inspected in FY11. The facilities assessed should be a representative cross section of facility types.</p>
SRNS2011 MGT-11.02c	9/30/11	\$100,000	Develop and document an integrated process to identify completed	DOE-SR will review documentation to identify completed deferred



			deferred maintenance for major HVAC replacements, roof replacements, and IS direct infrastructure IPL, and update applicable CAIS records.	maintenance for major HVAC replacements, roof replacements, and IS direct infrastructure IPL, and updated CAIS records.
<b>SRNS2011MGT-11.01 Acceptance Criterion 3:</b>				
<p>Development of a Comprehensive Plan/Ten Year Site Plan that meets the intent of DOE Order 430.1B. That is, it will be a meaningful product that is the reflection of actual overarching planning that is integrated and comprehensive, not just a summary of disjointed planning documents resulting from stove piped planning efforts. It will be a tool for bringing planning efforts together and guiding lower level implementing plans as intended. As such, it would reflect the following:</p> <p>The utilization of EM program life cycle plans, System plans, and other Site mission plans (NNSA), including tenant organizations, in determining the real property asset life cycle management requirements. Further, it will reflect the participation of the organizations responsible for those plans in translating the mission plans into the real property asset requirements needed to support the lifecycle of the missions and articulating them in a clear manner.</p> <p>The real property asset requirements to support Site missions will be shown by geographic areas of the site. Planning for each area of the Site will be holistic, reflecting the real property asset requirements for all missions utilizing, or projected to utilize, the areas. This approach would reflect thoughtful consideration of the future and the integration of all aspects such as EM area closure, site specific requirements for clean up projects that will required transition to Long Term Stewardship, support for continuing missions, consideration of potential new missions, as well as recommendation for transitioning the site to more efficient configurations. The information would be developed through the participation of subject matter experts and presented in tables, maps and narrative in sufficient detail to serve as the basis for lower level planning. This would require multiple organizations working together to develop this information.</p> <p>Crosscutting infrastructure planning will be a participant in the process, addressing the path forward for meeting the sum of the requirements from the area by area analysis and projected future site configuration. Such integrated planning will be the basis for determining critical infrastructure projects and priorities and will be reflected in the plan and will constitute the Infrastructure Master Plan.</p>				

The overarching planning described above will serve as the guide and basis for integrating related lower level real property asset life cycle management functions such as acquisition, condition assessments, maintenance, recapitalization, disposition, and long term stewardship and include participation from subject matter experts from these disciplines. Comprehensive planning would include participation from financial organizations and the requirements would in turn be reflected in a transparent manner in the Integrated Facilities & Infrastructure crosscuts budget in the Comprehensive Plan/TYSP.

The Comprehensive Plan/TYSP will be utilized in a unifying manner such that it will result in a consolidated and integrated plan that serves to replace the numerous disjointed, parallel, overlapping and duplicative plans. For example, examining the potential to integrate the PMP requirements as part of the overarching plan. It will be the result of an integrated effort of multiple organizations coordinating their resources and working together for efficiency rather than continuing to approach planning and implementation as isolated stove pipes, looking for additional resources to support the stove pipe approach.

**Contract Output: SRNS2011MGT-12 – Baseline Planning**

The contractor is required to maintain and manage to an accurate multi-year performance baseline, and to support the development and integration of a life cycle baseline to meet the DOE-SR requirements to HQ. The multi-year performance baseline will be updated utilizing a systematic project management approach which provides detailed cost estimating, resource-loaded scheduling and risk for maintaining an appropriate technical baseline.

**Up to \$150,000 of the allocated PBI fee will be paid for Contract Output 12 as follows:**

**Description/Background/Justification:**

The FY11-15 baseline was developed in FY2010 and will be updated / enhanced based on internal and external feedback. An additional year will be developed and included in the baseline using a project management approach. A multi-year baseline update process will be developed to ensure continuous improvement of this product.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-12.01	12/31/2010	\$125,000	Develop and deliver an integrated baseline management and control process.	Provide to DOE-SR the following items: <ul style="list-style-type: none"> <li>• Annual schedule of baseline update deliverables</li> <li>• Corporate plan for baseline and</li> </ul>

				<p>database management and control</p> <ul style="list-style-type: none"> <li>• Procedure for annual baseline updates to incorporate the 5-year rolling scope</li> <li>• Procedure for developing work packages in upcoming fiscal year, including requirements for work package versus planning package content</li> <li>• Procedure for development and incorporation of Management Reserve into operations activities</li> <li>•</li> </ul>
SRNS2011 MGT-12.02	8/15/2011	\$25,000	<p>Develop lessons learned from the FY2011-2015 Baseline development by 12/31/2010. Incorporate these lessons learned and any necessary corrective actions into guidance documents and baseline update by 8/15/2011.</p>	<p>Lessons learned will be provided to DOE-SR. All guidance and the baseline update will incorporate all identified lessons learned and any subsequent corrective actions.</p>

**Contract Output: SRNS2011MGT-13 – Interface Management**

The Contractor shall execute Interface Management with site tenants to deliver landlord services in support of mission completion.

Up to \$150,000 of the allocated PBI fee will be paid for Contract Output 13 as follows:

**Description/Background/Justification:**

Continue to demonstrate effective implementation of the site interface management process and integration of new and existing site tenants and contractors into the program through

- Development and maintenance of site interface process and procedures
- Communication of the interface process, procedures and issues to all site tenants and contractors
- Development of interface agreements with site tenants and contractors for exchange of services, interface boundaries, and responsibilities

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-13.01	1/31/2011	\$100,000	<p>Improve cost tracking capability of site tenant work scopes as follows:</p> <ol style="list-style-type: none"> <li>1. Implement new Service Level Agreements (SLAs) computer program upgrades to accomplish improved cost tracking.</li> <li>2. Develop and issue a cost performance report for USFS.</li> </ol>	DOE-SR will review the new SLA system generated cost tracking and performance reports.
SRNS2011 MGT-13.02	9/30/2011	\$50,000	<p>Perform SRNS integration efforts by:</p> <ol style="list-style-type: none"> <li>1. Executing annual revision</li> </ol>	DOE-SR will review revised interface agreements and identified lessons learned

			of interface agreements (SRR, Shaw-Areva, Parsons, Ameresco, WSI, URS, USFS, US Army, National Guard, SREL). 2. Support DOE in implementation of identified Lessons Learned actions.	deliverables.
--	--	--	---	---------------

**Contract Output: SRNS2011MGT-14 – Continuous Improvement**

The contractor will develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing missions of the site.

This Contract Output supports the SRS Strategic Objectives: (39) foster a corporate perspective and a teamwork culture through communication of a common vision

(43) Implement solid financial and performance based management systems with metrics that help management to improve efficiency and sustainability, and (46) Support development of potential future missions and opportunities for SRS.

**Up to \$162,746 of the Comprehensive PBI will be paid for Contract Output 14.**

**Description/Background/Justification:**

**Continuous Improvement System**

The Process Excellence team is responsible for leading activities that promote maturity of the SRNS Continuous Improvement System (CIS). The resulting process improvements enable SRNS to more effectively respond to customer, employee and corporate interests. In the ideal future state, SRNS personnel are equipped to participate in CI activities, improvements are implemented by local process teams, and non-value added activities are eliminated in each process. The objectives for Process Excellence in FY2011 focus on increasing stakeholder reliance on the results of CI implementation.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-14.01	9/30/11	\$162,746	Demonstrate the impact of CI deployment on core organizational functions including implementation of	1. CI activities communicated in a manner that promotes growth of the CIS and alignment with

			cost reduction proposal, validation of cost savings, communication of process improvements, and management of improvement initiatives.	<p>the SRNS Mission Development Plan.</p> <ol style="list-style-type: none"> <li>2. CI metrics revised to sustain SRNS focus on leading indicators and critical behaviors.</li> <li>3. CI training updated to incorporate program elements identified for new CI Experts.</li> <li>4. Financial validation provided for CI activities that meet savings criteria defined by SRNS.</li> <li>5. CI database upgraded with a web interface to improve access to project data and visibility of CI project results.</li> <li>6. Integrated process for Cost Reduction Proposals established for SRNS and coordinated with DOE-SR AMIP personnel.</li> </ol>
--	--	--	--	---



## Performance Incentive Document

PBI Number:	SRNS2011IS	
Activity Name:	Infrastructure Services	
WBS Number:	Multiple direct and indirect	
Performance Period:	October 1, 2010 - September 30, 2011	
Allocated Fee:	\$2,000,000	
Revision Number:	1	
Senior level manager name:	Karen Guevara	
Senior level supervisor/division manager name:	As identified with each output below	
<b>Performance Outcome:</b>		
<p>The Contractor shall execute assigned Landlord responsibilities and provide a range of services to other organizations doing work on the Savannah River Site. These services include supporting the Biomass Project, ensuring service for utilities' customers, and supporting the DOE complex-wide strategic Sustainability Performance Plan.</p>		
Senior level supervisor/division manager name:	Ben Gould	
<b><u>Contract Output: SRNS2011IS-01 – Biomass Project Support</u></b>		
<p>Biomass Project Support. The Contractor shall meet all SRNS agreed upon scheduled milestones, activities and reviews related to construction and startup of the Biomass Cogeneration Facility and the K and L Area Biomass Heating Plants.</p> <p><b>Up to \$800,000 of the allocated PBI fee will be paid for Contract Output 1.</b></p>		
<b>Description/Background/Justification:</b>		
<p>The purpose of the new Biomass Cogeneration Facility and the K and L Area Biomass Heating Plants is to provide reliable steam while maximizing the use of a renewable energy source. The impacts associated with not successfully constructing and starting up these new facilities in a timely manner include: (1) the inability to provide reliable steam to facilities such as the Tank Farms, DWPF, and K and L Areas, (2) not meeting target dates for deactivation of the 484-D powerhouse, and (3) incurring additional delays in achievement of renewable energy goals</p>		



outlined in current federal legislation. Infrastructure Services will be utilized as a technical agency to provide operational, technical, and logistical input on matters associated with the multitude of utility services, interfaces, and impediments to help ensure successful execution of the project.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011IS-01.01	9/30/2011	\$50,000	Facilitate onsite permit development and approval process.	DOE-SR will review SRNS document log of completed permit documentation activities.
SRNS2011IS-01.02	9/30/2011	\$100,000	Provide infrastructure liaison support (SME, CTM, performing observations, e.g. project schedule, review of commissioning plan, procedure/training, maintenance etc.) to facilitate Ameresco's schedule, and identifying impediments and facilitating GFSI.	DOE-SR will review SRNS document log of reviewed impediments that have been identified and overcome, including documentation of specific mitigation activities.
SRNS2011IS-01.03	5/31/2011	\$100,000	Provide Steam Outage Coordination for Biomass Cogeneration Facility (BCF) steam tie-in per agreed upon schedule.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure tie-ins/modifications <b>review SRNS steam outage documentation.</b>
SRNS2011IS-01.04	9/30/2011	\$100,000	Provide River Water tie-in & Electrical tie-in Coordination for Biomass Cogeneration Facility (BCF).	DOE-SR will review SRNS <del>steam</del> <b>outage documentation electrical and river water outage documentation.</b>
SRNS2011IS-	9/30/2011	\$50,000	Perform document	DOE-SR will

01.05			reviews requested by DOE within agreed upon timeframe.	review SRNS electrical and river water outage documentation document log of completed document reviews, including resulting feedback/ recommendations/ assistance.
SRNS2011IS-01.06	4/30/2011	\$100,000	Support Commissioning of the K & L Biomass Facilities to include consultation to the DOE Readiness Assessment Team.	DOE-SR will review SRNS document log of completed document reviews, including resulting feedback/ recommendations/ assistance. 1. DOE will review the document log of supporting activities provided by SRNS for the commissioning. 2. DOE-SR will review the document log of supporting activities provided by SRNS for the DOE Readiness Assessment.
SRNS2011IS-01.07	6/30/2011	\$300,000	Develop 484-D powerhouse to Biomass Cogeneration Facility (BCF) Transition Strategy with the following: Coordination of the Steam and Electrical Supply Transition, River Water Pump	DOE-SR will review SRNS Transition Strategy for 484-D Powerhouse.

			operating contingency strategy, River Water Supply Line Re-commissioning strategy, SCE&G Contract Re-negotiation strategy, D Area Powerhouse Stand-by operational strategy, Development of a Traffic Plan which establishes traffic flow patterns/options for Biomass Cogeneration Facility (BCF) Project.	
--	--	--	--	--

**Contract Output: SRNS2011IS-02 - D Area Reliability Enhancements**

This scope will facilitate the continued, uninterrupted operation of the D-Area powerhouse by providing necessary or critical equipment upgrades, rebuilding / refurbishments, and/or replacements outside of routine or normal corrective maintenance necessary to meet the Facility's mission of providing steam to the F/H/S Steam System until the Ameresco Biomass Facility is operational in FY2012.

**Up to \$700,000 of the allocated PBI fee will be paid for Contract Output 2.**

Senior level supervisor/division manager name:

Ben Gould

**Description/Background/Justification:**

The D-Area 484-D Powerhouse serves SRS facilities by exporting both steam and electrical power. The powerhouse currently contains four coal-fired boilers, seven turbine generators, and support systems / equipment. Steam is exported to the following facilities: H Canyon, F&H Tank Farms, Tritium, DWPF and F&H Analytical Laboratory. Additionally, electrical power is generated at 484-D and exported to the Site 115KV grid for sitewide use.

This powerhouse has been in operation since the early 1950s, and a need for the facility beyond 2005 was not anticipated as a result of a planned replacement powerhouse. Based on this plan, a

patch / corrective maintenance strategy with little or no preventive maintenance was employed by SCE&G during the ten years the powerhouse was under their jurisdiction (1995 to 2005). Due to the age of the equipment and this maintenance strategy, the reliability of the powerhouse has deteriorated to the point of failure. The replacement powerhouse has since been delayed until FY2012. Therefore, the D-Area 484-D powerhouse must continue to meet the site missions until this new powerhouse is constructed and operational. Upgrades and replacements began in FY2010 with the approval of a PBI milestone.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011IS-02.01	9/30/2011	\$350,000	Provide technical guidance, inspection criteria, materials and labor to perform refurbishment of one of the Turbine generators at 484-D to ensure capability for power and steam generation.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.
SRNS2011IS-02.02	9/30/2011	\$150,000	Perform system analysis and risk assessment to determine strategy for critical repairs on 2 boiler systems (e.g. boiler tubes, bunker walls) to ensure steam generation to support Site missions. Perform critical repairs on 2 boiler systems.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.
SRNS2011IS-02.03	9/30/2011	\$100,000	Perform precipitator structural repairs to a minimum of two boilers to ensure steam generation to support Site missions and air emission compliance.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.
SRNS2011IS-02.04	9/30/2011	\$100,000	Refurbish selected sections of the ash removal system for 484-D powerhouse, based on Engineering evaluations, to ensure environmental compliance and continued steam generation.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.

**Contract Output: SRNS2011IS-03 - Sustainability Initiative**

The Contractor shall meet all SRNS agreed upon scheduled milestones and activities to ensure continued focus and development of sustainability efforts.

**Up to \$200,000 of the allocated PBI fee will be paid for Contract Output 3.**

Senior level supervisor/division manager name:	Donell Jenkins
--	----------------

**Description/Background/Justification:**

In FY10, DOE approved a Complex-wide Strategic Sustainability Performance Plan. This plan addresses such topics as greenhouse gas emission reductions, High Performance Sustainable Buildings, water use, and pollution prevention / waste elimination. DOE sites have been tasked to make progress toward goals established for 2015 and 2020.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011IS-03.01	1/31/2011	\$25,000	Develop an SRS Sustainability Plan to ensure SRS is working toward goals outlined in the Strategic Sustainability Performance Plan (SSPP) prepared by DOE-HQ.	DOE-SR will review the SRS Sustainability Plan.
SRNS2011IS-03.02	9/30/2011	\$175,000	Implement planned FY11 High Performance Sustainability Building Guiding Principles compliance activities in 15% of existing building square footage.	DOE-SR will review summary report of activities accomplished to meet the planned Guiding Principle compliance actions.

**Contract Output: SRNS2010IS-04 Facilities and Infrastructure**

The Contractor shall build, modernize, and/or maintain facilities and infrastructure to achieve mission goals and ensure a safe and secure workplace for all SRS personnel.

**Up to \$300,000 of the allocated PBI fee will be paid for Contract Output 4.**

Senior level supervisor/division manager name:	Ben Gould
--	-----------

**Description/Background/Justification:**

The infrastructure mission is to efficiently configure and optimize SRS infrastructure to meet the 21<sup>st</sup> century stewardship programs. Although SRS is gaining new missions, the infrastructure is approaching 60 years old. In addition, over the past 10 years, funding for infrastructure repairs/replacements has declined considerably as budget pressures increased and funds were needed to support direct mission activities. New and existing missions can be performed safely and efficiently only with a reliable infrastructure in place. The Contractor will re-invest in Site

Infrastructure through the implementation of repairs and upgrades as identified in the approved Infrastructure Mission Alignment Plans. The scope will include projects or purchases from the <b>SRNS Critical Infrastructure Improvement Projects IPL</b> which are currently identified in the SRS FY11-FY16 baseline and emergent work that is performed relative to the improvement of the site infrastructure.				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011IS-04.01	9/30/2011	\$25,000	Rebuild, repair or repave fatigued sections of Road C, to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.	DOE-SR will review Final Acceptance Inspection (FAI) for the project.
SRNS2011IS-04.02	9/30/2011	\$25,000	Rebuild, repair or repave fatigued sections of Road 4, to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.	DOE-SR will review Final Acceptance Inspection (FAI) for the project.
SRNS2011IS-04.03	9/30/2011	\$25,000	Repair/Replace Road Shoulders & Safety Systems, i.e., striping, markings, signs, etc., to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.	DOE-SR will review Final Acceptance Inspection (FAI) for the project.
SRNS2011IS-04.04	9/30/2011	\$200,000	Make intermediate improvements to habitability issues associated with the SRSO/EOC and address obsolescence / performance issues with in the alternate EOC facility, to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.	DOE-SR will review Final Acceptance Inspection (FAI) for the project.
SRNS2011IS-04.05	9/30/2011	\$25,000	Develop option analysis and subsequent design of replacement function for the 785-A Cooling Tower, to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.	DOE-SR will review the design for the 785-A Cooling Tower.





## Performance Incentive Document

<b>PBI Number:</b>	SRNS2011NMO	
<b>Activity Name:</b>	Nuclear Material Operations	
<b>WBS Number:</b>	1.29.20.04.01, 1.29.20.05.01, 1.29.20.04.02	
<b>Performance Period:</b>	October 1, 2010 - September 30, 2011	
<b>Allocated Fee:</b>	\$8,600,000	
<b>Revision Number:</b>	1	
<b>Senior level manager:</b>	Pat McGuire	
<b>Senior level supervisor/division manager:</b>	Brenda Mills	
<b>Contract Performance Outcome:</b>		
<p>Receive, store, ship, and disposition nuclear materials in a safe, and secure manner. Operate and maintain the H Canyon Complex to support disposition of nuclear materials and used nuclear fuel (UNF) in coordination with the NNSA Nuclear Nonproliferation Program and other applicable DOE programs. De-inventory and transition excess nuclear facilities and ancillary structures for D&amp;D.</p>		
<b><u>Contract Output: SRNS2011NMO-01</u></b>		
<p>Receive, store, characterize, and disposition surplus uranium materials and UNF.</p>		
<b>Description/Background/Justification:</b>		
<p>Enriched Uranium Disposition (EUD) requires receiving, dissolving, processing and blending the high enriched uranium (HEU) metals, oxides and UNF down to low enriched uranium (LEU).</p> <p>Activities associated with the contract outputs below support receipt and processing of enriched uranium and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials (including used nuclear fuel), supporting nuclear nonproliferation, utilizing SRS facilities to process surplus</p>		

nuclear materials and UNF for reuse in commercial power reactors.

**GFSI:** ~~Y-12 HEU Np Oxide must all arrive by commercial shipment to HB-Line (not KAC) by June 30, 2011. BRR cask availability required for BRR cask equipment testing, training, dry-runs, and assessment (10/31/10). Approval by DOE for direct disposal of high aluminum UNF by 10/1/10 or within 30 days of receipt of request from SRNS—whichever is later.~~ **The LANL HEU “Fines” must all arrive by commercial shipment to H Canyon (not KAC) by 12/15/10.**

**Assumptions:** NEPA **SA/ROD** for UNF required prior to September 30, 2010 **by January 31, 2011** to meet ~~FY2010~~ **FY 2011** UNF milestones. Contractual Agreement to extend supplying TVA with LEU material for FY2011 expected by ~~December 1, 2010~~ **June 30, 2011.**

**Up to \$3,950,000 \$3,031,000** of the allocated PBI fee will be paid for Contract Output 1 as follows:

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-01.01	9/30/11	<del>\$420,000;</del> <b>\$186,000;</b> \$3000 per bundle shipped; invoiced quarterly	Load and ship <del>140</del> <b>62</b> bundles of UNF from L to H.	DOE-SR will review L-Area UNF to H-Area shipping logs/documentation.
SRNS2011 NMO-01.02	9/30/11	\$500,000; \$125,000 fee paid each quarter	Receive and unload FRR/DRR fuel per schedule.	DOE-SR will validate Cask Data Sheets for casks received and unloaded against the Receipt and Unloading Schedule Agreement.
SRNS2011 NMO-01.03	5/31/11	\$150,000	Declare readiness to receive, unload BRR Cask in L- Area (exclusive of crane readiness)	DOE-SR will perform physical walk down and / or evaluate completed work packages.
SRNS2011 NMO-01.04	<del>9/30/11</del> <b>8/31/11</b>	Up to <del>\$480,000;</del> <b>\$360,000;</b> \$30,000 per trailer; invoiced quarterly	Ship <del>46</del> <b>12</b> LEU trailers in FY11.	DOE-SR will review MC&A form 741 (transfer documentation) for each LEU trailer.



SRNS2011 NMO-01.05	9/30/11	Up to <del>\$1,300,000;</del> \$520,000; \$10,000 per bundle; invoiced quarterly	Charge <del>430</del> 52 bundles of UNF	DOE-SR will review UNF dissolver log sheets / documentation.
SRNS2011 NMO-01.06	9/30/11	Up to \$1,100,000; cans 1 thru 30 at \$10,000 per can, cans 31 thru 50 at \$15,000 per can, cans 51 thru 70 at \$25,000 per can; invoiced quarterly	Repackage and dissolve (70) EU/Pu (in 3013s already at K-Area).	DOE-SR will review EU/Pu dissolver log sheets / documentation.
SRNS2011 NMO-01.07	1/31/11	\$215,000; \$26,875 per drum	Dissolve 8 ES3100 drums of LANL fines in 6.1D. GFSI: Final shipment will be provided by 12/15/10.	DOE-SR will review dissolver log sheets / documentation.

**Contract Output: SRNS2011NMO-02**

Receive, store, characterize and disposition surplus plutonium materials.

**Description/Background/Justification:**

H Area facilities are scheduled to process surplus plutonium materials and transfer the plutonium solution to the Defense Waste Processing Facility for disposition. Plutonium oxide removed from 3013 containers are repackaged and temporarily stored in K-Area until it is shipped to H Area facilities for processing. H Area facilities will also process other surplus plutonium materials such as GFSI metals and EU/Pu metals.

Activities associated with the contract outputs below support receipt, storage, and processing of surplus plutonium and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting

nuclear nonproliferation, and utilizing SRS facilities in collaboration with NNSA to store or disposition surplus plutonium.

**Assumptions:** ~~Eight of the 13 prompt gamma items under IAEA control can be measured or items can be substituted. Implementation of the HB-Line 3009 DSA will not require significant plant modifications.~~ **None.**

**GFSI:** ~~Final shipment of LAP must arrive at HB-Line (not KAC) by 10/15/10.~~ **None.**

**Up to \$2,135,000 of the allocated PBI fee will be paid for Contract Output 2 as follows:**

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-02.01	9/30/11	\$130,000; \$10,000 per can measured; invoiced quarterly	Prompt Gamma measurements of (13) 3013s in KIS	DOE-SR will review prompt gamma measurement data / documentation.
SRNS2011 NMO-02.02	9/30/11	\$360,000; \$20,000 per can; invoiced quarterly	18 Destructive Evaluation (DE) Surveillances.	DOE –SR will review operations log of DE completed and validation of Surveillance Program Authority (SPA) Data Set 1 parameters for the DE samples.
SRNS2011 NMO-02.03	9/30/11	\$100,000; \$25,000; invoiced quarterly	K-Area SNM Receipts	DOE-SR will verify drums stored in K-Area.
SRNS2011 NMO-02.04	9/30/11	\$300,000; \$7,500 per 3013 measured; invoiced quarterly	K-Area Uranium measurements of (40) 3013s; results are not required to fall in acceptance range.	DOE-SR will review uranium measurement data / documentation.
SRNS2011 NMO-02.05	9/30/11	\$300,000; \$75,000; invoiced quarterly	Prepare and ship Pu and EU/Pu items from KAC to support H- Canyon and HB- Line dissolution.	DOE-SR will review documentation of Pu and EU/Pu shipments from KAC to H.
SRNS2011 NMO-02.06	1/31/11	\$50,000	OSA submittal to DOE-SR for 9975	Submit high quality SRNS approved OSA.



			shipments from KAC to H.	
SRNS2011 NMO-02.07	12/31/10	Up to \$150,000; \$50,000 for each drum processed.	Complete 12 drums LAP Dissolution Campaign.	DOE-SR will review LAP dissolver log sheet / documentation.
SRNS2011 NMO-02.08	9/30/11	\$470,000; \$9,400 fee per kg dissolved; invoiced quarterly	Dissolve 50 kgs DE-3013 (total oxide).	DOE-SR will review DE3013 log sheet, FRM 221-HB-830 documentation.
SRNS2011 NMO-02.09	<del>5/9/11</del> 9/30/11	<del>\$100,000</del> \$200,000	HB-Line 3009 DSA Submittal (to include repack of non-moxable 3013 oxides for either dissolution in HB-Line or blending for WIPP).	Submit high quality SRNS approved DSA.
SRNS2011 NMO-02.10	9/30/11	<del>\$100,000</del> \$75,000	HB-Line 3009 DSA Implementation: Revise K-Area DSA to store all "special items" in culverts outside 105-K.	<del>DOE-SR will validate completion of the SRNS Safety Basis Implementation Plan.</del> Submit high quality SRNS approved DSA.

**Contract Output: SRNS2011NMO-03**

Uranium and Plutonium throughput improvement and preparation initiatives.

**Description/Background/Justification:**

In order to disposition all the various Uranium and Plutonium items, preparations for each campaign must be completed including DSA, NCSE, and facility mods. In order to increase throughput and interim storage of plutonium awaiting a sludge batch, additional DSA, NCSE and facility mods are required. This Contract Output integrates both initiatives to minimize changes and maximize work performed.

The contract outputs below support receipt, storage, and processing of surplus nuclear

materials or UNF and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting nuclear nonproliferation, utilizing SRS facilities in collaboration with NNSA to store or disposition surplus plutonium, or utilizing SRS facilities to process surplus nuclear materials and UNF for reuse in commercial power reactors.

**GFSI:** None identified.

Up to ~~\$1,490,000~~ **\$1,976,000** of the allocated PBI fee will be paid for Contract Output 3 as follows:

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-03.01	9/30/11	\$175,000	Install 11.5 Bi-Cell Tank and Jumpers (assumes Tank/Jumpers but not 2 <sup>nd</sup> /3 <sup>rd</sup> level/GV mods)	DOE-SR will review completed crane installation procedures or visually verify by inspection.
SRNS2011 NMO-03.02	5/30/11	\$25,000	Complete HB-Line Phase II flush	DOE-SR will review completed procedures/documentation.
SRNS2011 NMO-03.03	1/31/11	\$100,000	Perform three VSD runs in HB-Line glovebox.	DOE-SR will review completed packages or visually verify by walkdown.
SRNS2011 NMO-03.04	6/15/11	\$70,000	Revise 221-H DSA for EU/Pu and Pu concentration. (DSA revision submittal to DOE, not approval)	Submit high quality SRNS approved DSA.
SRNS2011 NMO-03.05	9/30/11	\$120,000	410 Valve Box Mods, CHAP and Design to 11.1 and 9.6	DOE-SR will review completed CHAP and design documentation.



SRNS2011 NMO-03.06	7/31/11	\$200,000	Complete K-Area PAV Construction, with the exception of opening the KAMS wall and closing the North wall.	DOE-SR will review completed construction work packages and perform a walkdown verification.
SRNS2011 NMO-03.07	9/30/11	\$100,000	3009 DSA Evaporator SC steam valve installations.	DOE-SR will review completed work packages/ documentation or visually verify by walkdown.
SRNS2011 NMO-03.08	8/15/11	\$275,000	H Canyon UNF bundle Storage turnover to Ops complete.	DOE-SR will review completed storage rack installation documentation and/or visual inspection using crane.
SRNS2011 NMO-03.09	9/30/11	\$250,000	Complete redeactivation of F-Canyon	DOE-SR will verify end-point documentation.
SRNS2011 NMO-03.10	9/30/11	\$175,000	Facility Acceptance of PAV MAA	DOE-SR will verify PAV MAA is established.
SRNS2011 NMO-03.11	1/20/11	\$35,000	Develop "Case 3 Preliminary De-inventory and Flush Plan" to remove bulk SNM.	DOE-SR will review De-inventory and Flush Plan.
SRNS2011 NMO-03.12	6/15/11	\$416,000; \$1,000 per kg, invoiced quarterly. (416 kgs is the estimated quantity; the final amount of EU will be determined based on the EUS tank	Complete processing of the EUS tank material through the solvent extraction cycles.	DOE-SR will review processing logs.

		being pumped to heel, refilled, and pumped back to heel.)		
SRNS2011 NMO-03.13	12/31/10	\$35,000	Develop detailed scope and schedule to move Heavy Water from K Area to C Area.	DOE-SR will review scope and schedule.

**Contract Output: SRNS2011NMO -04**

Infrastructure / Facility life extension

**Description/Background/Justification:**

Continuing operations increases the risk of an unplanned failure of a system, structure or component (SSC) that supports nuclear material operations. Many SSCs are old and are very expensive to replace and flat funding for infrastructure upgrades has limited the amount of spares that can be kept in inventory.

772-1F Fire Protection modifications replace the Fire Alarm Control Panels and all associated devices.

The contract outputs below support receipt, storage, and processing of surplus nuclear materials and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting nuclear nonproliferation, utilizing SRS facilities in collaboration with NNSA to store or disposition surplus plutonium, or utilizing SRS facilities to process surplus nuclear materials and UNF for reuse in commercial power reactors.

**GFSI:** NNSA funding (~~allowed per NNSA Contracting Officer letter~~) is available for use by 10/1/10 to refurbish third cask and rail car for UNF shipments. **DOE will approve DSA rev for L Basin Vacuum System within 30 days.**

**Up to \$1,100,000 \$1,458,000 of the allocated PBI fee will be paid for Contract Output 4 as follows:**

Number	Date	Fee	Completion Criteria	Acceptance Criteria
--------	------	-----	---------------------	---------------------



SRNS2011 NMO-04.01	6/15/11	\$150,000 (for completion by 6/15/11); Reduction of \$25,000 for completion by 6/30/11 (\$125,000).	Complete L Area 85/30 ton crane upgrade.	DOE-SR will review completed work packages and verify return to service.
SRNS2011 NMO-04.02	9/30/11	\$200,000	Complete 772-1F Fire Protection Modifications.	DOE-SR will review completed work packages.
SRNS2011 NMO-04.03	<del>2/28/11</del> 1/31/11	<del>\$25,000</del> \$75,000; \$25,000 per installed manipulator.	<del>Provide 235-F Risk Reduction preliminary PEP</del> Install three Z Band Manipulators in 772-F.	<del>Submit high-quality SRNS approved preliminary PEP to DOE-SR.</del> DOE-SR will review completed work packages or visually validate by walkdown.
SRNS2011 NMO-04.04	9/30/11	\$100,000	Complete design for the 285-H substation.	DOE-SR will review approved substation design.
SRNS2011 NMO-04.05	9/30/11	\$100,000	Complete design for the K Area 13.8KV switchgear.	DOE-SR review of approved K-Area switchgear design.
SRNS2011 NMO-04.06	9/30/11	\$100,000	Replace roof over 911 Fan Room in K-Area.	DOE will review completed work packages or visually validate by walkdown.
SRNS2011 NMO-04.07	5/31/11	\$100,000	Replace ARU Condenser Column.	DOE-SR will review completed work packages.
SRNS2011 NMO-04.08	1/15/11 or no later than the L-Area crane outage begins	\$125,000	Complete upgrade of a third 70 ton cask and rail car. <del>and load with UNF for shipment.</del>	DOE-SR will review completed work packages.
SRNS2011 NMO-04.09	9/30/11	\$200,000	Complete final design for DNFSB Recommendation 2004-2 for 772-F	DOE-SR will review design for adequacy to meet ventilation standards for

			ventilation confinement modifications.	confinement.
SRNS2011 NMO-04.10	9/30/11	\$208,000; \$4,000 per connector; invoiced quarterly.	Fabricate and install 52 Hanford dummy connectors on open Cooling Water Out nozzles.	DOE-SR will review completed work packages or visually validate using Crane monitors.
SRNS2011 NMO-04.11	2/28/11	\$100,000	Fabricate, install and functionally test the L Basin Vacuum System to operable service and clean the Transfer Pit.	DOE-SR will review completed work packages or visually validate by walkdown.





## Performance Incentive Document

<b>PBI Number:</b>	SRNS2011SRNL			
<b>Activity Name:</b>	Savannah River National Laboratory (SRNL)			
<b>WBS Number:</b>	Multiple			
<b>Performance Period:</b>	October 1, 2010 - September 30, 2011			
<b>Allocated Fee:</b>	\$2,000,000			
<b>Revision Number:</b>	0			
<b>Senior level manager name:</b>		Karen Hooker		
<b>Senior level supervisor/division manager name:</b>		Ann Thomas		
<b>Performance Outcome:</b>				
SRNL's three-fold mission is to enable the success of SRS and the Office of Environmental Management (EM) operations and projects, to provide technical leadership for future site missions, and to utilize its technical expertise to provide vital national and regional support in achieving the broader goals of DOE and the federal government. The vision for SRNL is to be the nation's premier applied science laboratory in Environmental Management, National & Homeland Security, and Energy Security. A primary goal is to position SRNL into a financially sustaining, distinct business unit.				
<b><u>Contract Output: SRNS2011SRNL-01</u></b>				
<b>Enable EM Mission Accomplishment.</b>				
<b>Up to \$1,250,000 of the allocated PBI fee will be paid for Contract Output 1</b>				
<b>Description/Background/Justification:</b>				
Lead the EM Engineering and Technology program to reduce the risk associated with legacy defense nuclear and industrial cleanup. Develop and implement major new initiatives to provide science-based approaches to the EM mission.				
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Completion Criteria</b>	<b>Acceptance Criteria</b>
SRNS2011 SRNL-	Quarterly	\$1,250,000	The contractor shall provide objective	Review and evaluate work deliverables and

01.01			<p>evidence demonstrating satisfactory completion of quality products and provision of services (such as flow sheets, technology development and deployment) to reduce the technical risks of EM operations and projects at SRS and across DOE. This includes technical support to DOE-EM HQ, Nuclear Materials Stabilization Project, Liquid Waste Operations, Closure Project, and the EM DOE Complex. Quarterly reports of progress will be provided and fee will be assessed quarterly. (Funding, scope and schedule will be provided by EM-HQ and EM Contractors). Customers. As EM customers task SRNL with work scope throughout FY11, SRNL will document the status of deliverables and milestones for each project and track progress.</p>	<p>documentation quarterly to validate milestone completion of milestones and deliverables. and Ssolicit customer feedback to assess quality of SRNL work products and support.</p>
<p><b><u>Contract Output: SRNS2011SRNL-02</u></b></p> <p><b>Enhance SRNL Infrastructure and Facility Safety.</b></p> <p><b>Up to \$650,000 of the allocated PBI fee will be paid for Contract Output 2.</b></p>				
<p><b>Description/Background/Justification:</b> Secure additional sponsors, missions, and funding, including development of enduring funding sources, to support Laboratory infrastructure to meet laboratory needs for future mission support while sustaining safety performance excellence.</p>				

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 SRNL - 02.01	9/30/2011	<p>a. \$35K</p> <p>b. \$35K</p> <p>c. \$35K</p> <p>d. \$35K</p> <p>e. \$30K</p> <p>f. \$30K</p>	<p>Implement the following approved IGPPs for FY11 (assumes \$4M IGPP funds available):</p> <p>a. Replace Air Compressors CMP-2 and CMP-3 and Air Dryers, 775-A (LF0903)</p> <p>b. Replace Plenum Room HVAC Unit for Rooms 131 &amp; 132, 736-A (LF1034)</p> <p>c. Replace HVAC Unit - Standards Lab - Room 124, 736-A (LR0512)</p> <p>d. Install B-Wing HAD Exhaust Filter Housing, 773-A (LF0618)</p> <p>e. Replace Fire Alarm Panel in 773-A, Room C-041 (Control Room) and 773-41A &amp; 42A(LF1212)</p> <p>f. Replace HVAC Unit for Environmental Sciences Lab, 736-A (LF0617)</p>	<p>(a-e) Mechanical Field complete through Final Acceptance Inspection (8Q, 51) ready for turnover for testing.</p> <p>(f) Complete design and issue purchase orders for major equipment in prep for outage and installation in FY2012.</p>
SRNS2011 SRNL - 02.02	9/30/2011	<p>a. \$15K</p> <p>b. \$15K</p> <p>c. \$10K</p> <p>d. \$10K</p>	<p>Complete the following major maintenance cost work items:</p> <p>a. Complete Replacement E-Wing Air Handling Unit, SRNL - EP-20984 HVAC Supply Unit on Upper E-Wing Roof, 773-A (LF0612, Work Order # 953401)</p> <p>b. Replace HVAC-FAN-209004 (Heat pump) located on D Wing Roof - Work Order # 894444.</p> <p>c. Complete design and work package preparation for Installation of New Lighting System in E-079, 773-A - Work Order 920956</p> <p>d. Complete design and work package preparation for Increasing size of 125# Steam Regulator MST-PCV-6105. (This would increase the regulator size to 2" providing greater steam capacity).</p>	<p>(a &amp; b) Mechanical Field complete through Final Acceptance Inspection (8Q, 51) ready for turnover for testing.</p> <p>(c &amp; d) Review and evaluation of design and work package documents.</p>
SRNS2011	6/30/2011	\$15,000	Implement SRNL Multi-Media	Equipment is installed

SRNL - 02.03			capability in 703-41A Conference center. (Includes guest conferencing and video conferencing).	and ready for use.
SRNS2011 SRNL- 02.04	9/30/2011	a. \$50K b. \$50K c. \$50K d. \$60K e. \$50K	Execute DNFSB 2004-2 Projects as follows*: a. SRNL B/C OGE Standby Fan Autostart. b. SRNL B/C CHEX HEPA Bank Blanks. c. SRNL B/C Tertiary Exhaust Interlocks. d. SRNL E Wing Ventilation (Project Y189). e. SRNL E Wing Supply and Exhaust Interlocks. *Assumes funding is approved by 12/1/2010.	(a-c) Complete project Title II design, estimate and major work package development.  (d) Complete and update project Title II design, estimate, and set Fan/HEPA Filters and support structure.  (e) Complete project Title II design.
SRNS2011 SRNL- 02.05	9/30/2011	\$50,000	Execute Elevator Cylinder Replacement Project in 773-A. This assumes funding is approved by 11/1/2010.	Receive replacement cylinders and complete installation for two of the four elevators through Final Acceptance Inspection (8Q, 51) ready for turnover for testing.
SRNS2011 SRNL- 02.06	9/30/2011	\$75,000	SRNL DSA Upgrade Project – Complete Hazards Analysis (CHA), Control Selection and Accident Analysis calculation(s) sections of the DSA.	SRNS approved CHA and Control Selection and Accident Analysis calculation(s) documents/lists.

**Contract Output: SRNS2011SRNL-03**

**Establish SRNL as a preferred partner for industry, universities and small businesses.**

**Up to \$100,000 of the allocated PBI fee will be paid for Contract Output 3.**

**Description/Background/Justification:**

Provide resources and tools for developing leading edge technologies in support of the industrial, economic, and educational strength of the United States.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 SRNL -	2/28/2011	\$25,000	<del>Prepare procurement and WFO procedure revisions</del>	Review and evaluation of revised procurement and



03.01			<p><del>related to foreign-national involvement and submit them for approval; the objective is to eliminate the requirement for identification of foreign nationals if the statement of work provided by SRNS is releasable to the public and no SRS site visit is involved.</del></p> <p>While maintaining compliance with DOE Order 142.3a (Unclassified Foreign Visits and Assignments Program) and DOE Order 481.1C (Work for Others), revise SRNS procurement and Work for Others (WFO) procedures to facilitate work where foreign nationals may be involved.</p>	WFO procedures supporting milestone completion.
SRNS2011 SRNL - 03.02	7/31/2011	\$25,000	Complete partnership agreements with at least 2 more Universities for the Savannah River University Alliance.	Review and evaluation of partnership agreements.
SRNS2011 SRNL - 03.03	9/30/2011	\$25,000	Continue in leadership roles in the Congressionally established DOE Technology Transfer Working Group (TTWG). Select best practices for SRNL from the Speed of Business Study and initiate implementation.	Review and evaluation of all completed documents supporting milestone completion.
SRNS2011 SRNL - 03.04	9/30/2011	\$25,000	Complete an SRNL Skills Inventory as addressed in the SRNL Human Capital Plan. Populate SRNS's data base with R&D (only) current staffing and proposed needs for FY12 and outyears.	Review and evaluation of all completed documents supporting milestone completion.





## Performance Incentive Document

PBI Number:	SRNS2011TP	
Activity Name:	Tritium Programs	
WBS Number:	1.03	
Performance Period:	October 1, 2010 - September 30, 2011	
Allocated Fee:	Objective Amount: <i>(45% of allocated fee)</i> Nominal \$5,596,764	Subjective Amount: <i>(55% of allocated fee)</i> Nominal \$6,840,490
Revision Number:	Revision 0  Senior level manager name: Douglas Dearolph  Senior level supervisor/division manager name: Tim Fischer	
<b>Performance Outcome:</b>		
The Contractor shall manage the Tritium program as a defined severable work activity within the Management and Operating (M&O) contract structure so that it will be positioned to be responsive to any future direction with the National Nuclear Security Administration (NNSA) Nuclear Security Enterprise (NSE).		
<b>Contract Output:</b> SRNS2011TP		
The Tritium Performance Fee Agreement has eight contract outputs which are fully developed in the Tritium Performance Based Incentives (PBI). A summary of each contract output is provided below. The Performance Outcome and associated Contract Outputs and Completion Criteria are based on anticipated fully-funded NNSA-Headquarters (HQ) program level Work Authorizations. In the event there are any substantive differences identified in work scope or funding, this PBI will be modified in a timely manner to allow the allocated fee to be earned in FY 2011. The PBI includes both objective and subjective performance elements. The subjective elements will receive an adjectival rating using the enclosed Subjective Rating and Criteria Description table.		

Number	Value	Indicator
SRNS2011TP-01	\$3,109,314	Support the nuclear weapons stockpile by safely providing tritium and non-tritium loaded reservoirs to the Department of Defense and NNSA (i.e., Pantex Plant) in accordance with NNSA guidance and direction. Provides incentive to the contractor to meet all requirements associated with the Helium 3 mission. This output also provides the contractor incentive to facilitate a reduction in the number of classified parts to reduce inventory of legacy classified materials. Provide the contractor incentive to achieve NNSA Reservoir Surveillance Operations work scope that is required for continuing Stockpile certification, Life Extension Program, First Production Unit and related functions.
SRNS2011TP-02	\$373,118	Extraction of tritium from irradiated Tritium-Producing Burnable Absorber Rods (TPBARs).
SRNS2011TP-03	\$248,745	Conduct research and development and Science, Technology and Engineering (ST&E) sustainment activities that solve complex problems related to mission of SRSO and the NNSA. These activities are sponsored by the Readiness and Engineering Campaigns, and Plant-Directed Research & Development (PDRD) and support development activities for NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.
SRNS2011TP-04	\$621,863	Support the Tritium Programs mission by safe and efficient execution of projects.
SRNS2011TP-05	\$1,243,725	NNSA Multi-Site Incentives
SRNS2011TP-06	\$2,487,451	Operations: Maintain the Tritium Facilities in a safe, secure and responsive operating condition.



		Facility and Site Management Maintenance Effectiveness Operations and Work Planning Quality Assurance Engineering Nuclear Safety and Fire Protection Radiation Protection National Lab Support to NNSA Training and Qualification
SRNS2011TP-07	\$1,865,588	ES&H and S&S: Maintain the Tritium Facilities in a safe, secure and responsive operating condition.  Emergency Management Health & Safety (excludes fire protection) Environmental Management Waste Management Safeguards and Security Cyber Security
SRNS2011TP-08	\$2,487,451	Business: Maintain the Tritium Facilities in a safe, secure and responsive operating condition  Fiscal Management Contractor Assurance System Program Management Project Management Information Technology/Process Control Modernization Governance

**Evaluation Criteria:**

SRNS2011TP	Objective and subjective evaluation criteria will be used to document review and acceptance of this performance fee agreement.
Objective Evaluation Criteria:	Will be evaluated as performance is completed and will be discussed and documented in the monthly SRSO and contractor performance meeting.
Subjective Adjectival Rating Criteria:	For those Completion Criteria that receive an adjectival grade and numerical score the following table will be used to define the different levels of performance and the corresponding grade/score that goes with the evaluation thereof.

Subjective Rating Criteria	Subjective Rating Evaluation Criteria Description	At Risk Fee Earned
Excellent	Contractor has <u>exceeded almost all</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	91 – 100%
Very Good	Contractor has <u>exceeded many</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	76 – 90%
Good	Contractor has <u>exceeded some of</u> the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	51 – 75%
Satisfactory	Contractor has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	1 – 50%
Unsatisfactory	Contractor has failed to meet overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	0%

**Contract Output 1.** Support the nuclear weapons stockpile by safely providing tritium and non-tritium loaded reservoirs to the Department of Defense and NNSA (i.e., Pantex Plant) in accordance with NNSA guidance and direction.

This work is the highest priority Stockpile Stewardship mission at the Savannah River Site. This Contract Output provides the contractor incentive to meet all Production Directive and shipping commitments on schedule. The work covered by this Contract Output is to accomplish the Directed Stockpile Work (DSW) mission to provide loaded reservoirs in support of the nuclear weapons stockpile, and to meet all monthly directive commitments for delivery of Limited Life Components (LLC) to the Department of Defense and Pantex Plant.

In addition to providing reservoirs to meet LLC directive commitments, a goal of this PBI is to drive the improvement of reservoir quality for each weapon system. The goal is to achieve a high Tritium Production Acceptance Group (TPAG) acceptance rate for each reservoir system.

This Contract Output provides contractor incentive to meet all requirements associated with the Helium-3 mission.

This Contract Output provides contractor incentive to facilitate a reduction in the number of classified parts to reduce inventory of legacy classified materials. The decrease of classified parts is accomplished by unloading reservoirs, and disposing of non-reclaimable reservoirs and other components.

This Contract Output also provides the contractor incentive to achieve NNSA Reservoir Surveillance Operations (RSO) work scope that is required for continuing Stockpile certification, Life Extension Program First Production Unit, and related functions. The Gas Transfer System (GTS) testing program is a key activity in the Nuclear Weapons Stockpile Surveillance Program. The NNSA and Design Agencies have placed a high priority on timely GTS testing and reporting. The on-time delivery of GTS test data provides key information on the performance and aging effects of GTS components, and support decisions for future weapon design.

The work scope consists of function testing, burst testing, nondestructive examinations, and metallographic examination of Stockpile Laboratory Tests (SLTs), Retrofit Evaluation System Tests (RESTs), and similar testing of units from the Life Storage Program (LSP). The work scope also includes testing of production samples. Other activities in support of the surveillance program include loading, unloading, reclamation, and storage of LSP reservoirs. Work scope is considered complete when 1) GTS performance data is documented in Rapid Analysis Promulgated To Obtain Results (RAPTOR) reports and 2)

destructive examination results are documented in Reservoir and Integrated Surveillance Information Network (RAISIN) reports for SLT and REST units, Metallurgical reports for LSP units, and annual production sample pinch weld reports for production samples. Specific work scope is documented and tracked to completion in the RSO schedule.

**Up to \$3,109,314 of the allocated Tritium Programs PBI fee may be earned by Contract Output 1. The available fee, portion of the maximum Contract Output 1 fee, and criteria for payment are as follows.**

**Essential Fee**

1. \$870,608 available fee for Completion Criterion 1. Monthly fee payments (1/12th of the available fee) will be earned, consistent with successful monthly performance of Completion Criterion 1.
2. \$621,863 available fee of the Contract Output may be earned at the end of the assessment period for the completion of Completion Criterion 2.
3. \$248,745 available fee of the Contract Output may be earned at the end of the assessment period for the completion of Completion Criterion 3.
4. \$497,490 available fee of this Contract Output may be earned for the completion of Completion Criterion 4
5. \$497,490 available fee for Completion Criterion 5. Fee payments will be made quarterly, consistent with completed performance of Completion Criterion 5 at the end of each quarter (December 31, 2010; March 31, 2011; June 30, 2011 and September 30, 2011).
6. \$373,118 available fee for Completion Criterion 6. Fee payments will be made quarterly consistent with completed performance of Completion Criterion 6 at the end of each quarter (December 31, 2010; March 31, 2011; June 30, 2011 and September 30, 2011).

**Completion Criteria**

1. Complete the monthly loading, packaging, and shipping of reservoirs per Savannah River Site Office (SRSO) Production Directive and the monthly shipping schedule.
2. The total reservoir product of all weapon systems will have a facility TPAG acceptance rate of 98.5% or greater for completed items. The weapon systems to be measured are B61, W76-0, W76-1, W78, W80, B83, W87, and W88. The calculation will be annualized such that the defect rate will be based on the total number of reservoirs submitted for inspection during the year. If the TPAG acceptance rate performance is 98.5% or greater, then 100% of the available fee will be earned. The fee earned for this Completion Criterion will be determined as follows:
  - TPAG acceptance rate greater than or equal to 98.5%, fee earned will be 100% of the available fee.
  - TPAG acceptance rate equal to 98.0% but less than 98.5%, fee earned will be 75% of the available fee.
  - TPAG acceptance rate equal to 97.0% but less than 98.0%, fee earned will be 50% of the available fee.
  - TPAG acceptance rate less than 97.0%, no fee will be earned for this Completion Criterion.
3. The Helium-3 program is executed to support the Memorandum of Understanding between the NNSA-SRSO and the Department of Energy (DOE) Isotope Program.
  - a. Process Helium-3 by-product so that it is available for sale through the DOE Isotope Program. This is to be accomplished without adverse impact to the central mission of the H-Area New Manufacturing (HANM) facility.

- b. Quantify the amount of Helium-3 that is currently not recovered from routine gas processing operations by February 1, 2011.
  - c. Define the operational activities or processes with the potential for improved recovery of Helium-3, and quantify the additional amount that could be recovered from each activity or process by April 1, 2011.
  - d. Develop a proposal that outlines opportunities to increase the amount of Helium-3 recovered from routine gas processing operations. Discuss the difficulty and expected cost of each opportunity by June 1, 2011.
- 4. Dispose of 2634 reservoirs as part of the Classified Parts Reduction program. Criterion is met when reservoirs are stored in waste containers (e.g., B-12/B-25/RD-100) for disposal.
- 5. Function Testing. Completion of 140 Function Test Equivalents with test data documented in RAPTOR reports.
- 6. Post-Function Testing. Completion of destructive examinations of 30 LSP units and documentation of results in Metallurgical reports.

### Assumptions

- 1. For Completion Criterion 1.
  - a. The basis for evaluation will be loading / shipping of Production Directive requirements as specified to the contractor by NNSA-SRSO in a 3 month "look ahead" Production Directive schedule. A new Production Directive will be issued by NNSA-SRSO each month. If SRNS considers that the specified schedule changes will increase costs or delay any delivery, SRNS shall promptly notify the NNSA-SRSO Contracting Officer, orally, followed by confirmation and explanation of the notification in writing within 5 working days. Following submission of the written notice of impacts, SRNS shall await further direction. Shipping is performed in accordance with a monthly shipping schedule. If packaging is completed but a shipment is missed for some reason beyond SRNS control, the Completion Criteria shall be considered complete.
  - b. Performance is evaluated monthly. Any missed shipment as a result of SRNS performance will result in nonpayment for that month's portion of this Contract Output.
  - c. Failure to maintain acceptable quality performance, as indicated by the following established metrics will subject SRNS to the following described fee reductions.
    - 1. Cost of Non-Conformance (CONC) evaluates the Tritium Facilities cost of nonconformance as compared to the Tritium Facilities total product cost. A fee deduction may be imposed if cost exceeds 1.75% in any month. At the end of the PBI period if the annual CONC is less than or equal to 1%, SRSO may grant payment of any previously unearned CONC fee.
    - 2. The maximum total fee deduction associated with any month's reservoir shipment (Completion Criteria 1) cannot exceed the monthly maximum fee payment.
- 2. For Completion Criteria 2, TPAG formula is based on the following;
  - a. The formula for arriving at a Fiscal Year To Date (FYTD) percentage for First- Time Use Evaluation (FUE) is as follows: Combined percentage ((Monthly percentage of finished units accepted + Monthly percentage of reclamation units accepted) /2)

provides the average monthly percentage. To annualize the monthly averages are added together YTD divided by the number of months YTD.

3. For Completion Criterion 5.
  - a. This PBI will use the Function Test Equivalents which have been developed and jointly agreed upon by SRSO and SRNS. Test equivalents may be modified to respond to changes in testing requirements or methodology by SRSO or the Design Agencies.
  - b. Completed function tests that have not had their respective RAPTOR reports issued before the next fiscal year begins for reasons not attributable to SRNS performance shall not be cause for fee reduction.
  - c. Completion Criteria delays resulting from a function test system or environmental conditioning system malfunction not attributable to SRNS performance will allow the adjustment of the Completion Criteria and reallocation of the fee. SRSO has accepted risk for single-point failure in lieu of additional costs to provide redundant and backup capability.

#### **Government Furnished Services / Items**

1. War Reserve components required from other sites to support the Production Directive must be received at SR, free of defects, with sufficient plant required lead time in advance of the scheduled ship date. Processing and shipping of components not meeting these requirements, and / or due to changes to the Production Directive less than 90 days in advance of the ship date, will be accomplished in a "best effort" manner, and SRNS will not be penalized for failure to meet the scheduled date.
2. The number of reservoirs to prepare for disposal is based upon current direction as to which reservoirs were authorized for disposal. In the event that SRNS is directed to delay disposal of additional reservoir types, the number of reservoirs established in Completion Criterion 4 will be reduced consistent with delayed quantities.
3. Supporting agencies must provide timely delivery of components required for testing.
4. There will not be a delay in testing that is directed from the Design Agencies due to systematic anomaly not associated with SRNS negligence.



**Contract Output 2. Extract tritium from irradiated Tritium-Producing Burnable Absorber Rods.**

This Contract Output provides the contractor incentive to complete selected tritium production-related milestones that are significant to support the Tritium Readiness Program and operation of the Tritium Extraction Facility (TEF) to receive and extract TPBARs. The TEF will be operated in accordance with the TEF Annual Operating Plan and the Responsive Operations Plan.

Completion of the activities cited in this Contract Output will replenish the Nuclear Security Enterprise inventory of tritium. Meeting these work requirements is dependent upon the proper functioning and availability of a one-of-a-kind facility, many complex pieces of equipment, and the availability of a knowledgeable staff for operation and maintenance.

**Up to \$373,118 of the allocated Tritium Programs PBI fee may be earned by Contract Output 2 as follows.**

**Essential Fee**

1. \$373,118 of available fee for Contract Output 2 may be earned at the completion of Completion Criterion 1.

**Completion Criteria**

1. Extract Cycle 9B TPBARs by July 31, 2011. Tritium extraction activity is complete when gas has been extracted from the Cycle 9B TPBARs and is accounted for in ARMS.

**Assumptions**

None.

**Government Furnished Services / Items**

None.

**Contract Output 3.** Conduct Research and Development and Science, Technology and Engineering (ST&E) sustainment activities that solve complex problems related to mission of SRSO and the NNSA.

These activities are sponsored by the Readiness and Engineering Campaigns, and Plant-Directed Research & Development (PDRD) and support development activities for NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.

Research and development activities are conducted to solve complex problems related to the mission of SRSO and the NNSA.

A focused research and development program advances the design and manufacture of Gas Transfer System components and manufacturing methods.

This Contract Output provides the contractor incentive to complete research and development activities that support NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.

**Up to \$248,745 of the allocated Tritium Programs PBI fee may be earned by Contract Output 3 as follows.**

**Essential Fee**

1. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 1.
2. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 2.
3. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 3.
4. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 4.
5. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 5.

**Completion Criteria**

1. Complete an annual Enhanced Surveillance stockpile aging assessment and provide a report to support the annual assessment process and the Technical Basis for Stockpile Planning (TBSTP). Issue annual report to NNSA-HQ by December 31, 2010.
2. Support of the Enhanced Surveillance stockpile aging annual assessment. Develop design and cost estimate for enhanced fracture toughness test high-pressure hydrogen apparatus and issue summary report by September 30, 2011.
3. Install next suite of Gas Transfer Systems diagnostics for surveillance by developing ultrasonic inspection method for W76-0 reservoir and issue report on laboratory demonstration of methodology by September 30, 2011.

4. Complete testing of Zinc-65 filter configurations per Test Plan and issue report by June 30, 2011.
5. Complete TMED-4 baseline materials property testing and issue report by September 30, 2011.

**Assumptions**

None

**Government Furnished Services / Items**

None.

**Contract Output 4.** Support the Tritium Programs missions by safe and efficient execution of projects.

**Up to \$621,863 of the allocated Tritium Programs PBI fee may be earned by Contract Output 4 as follows.**

**Essential Fee**

1. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 1.
2. \$124,373 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2a.
3. \$124,373 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2b.
4. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2c.
5. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2d.
6. \$124,373 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2e.
7. 37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2f.
8. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2g.
9. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2h.
10. \$24,875 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2i.

**Completion Criteria**

**1. He-3 Projects**

- a. The Helium-3 program is executed to support the Memorandum of Understanding between the NNSA-SRSO and the DOE Isotope Program.

For Project Y504 He-3 Separation and Bottling Process, mechanical complete (excluding the DI tie in) will be by July 30, 2011.

**2. Facility Projects**

- a. For the Project Y607, Hydro burst Relocation project, a satisfactory completed design will be submitted to SRSO and procure the brazer, drill press, and data acquisition system by September 15, 2011.

- b. For Project Y606, Process Support Building Utilities mechanical complete will be accomplished by March 30, 2011.

c. For Project Y567, PS/ZR Glovebox Piping Modifications, mechanical complete will be accomplished by August 31, 2011.

d. For Project Y600, HOAM Remote Alarm Monitoring, installation, mechanical complete will be by June 30, 2011.

e. For Project Y587, TEF Tie-in DCS to HANM, mechanical complete will be by May 31, 2011.

f. For Project Y556, Wireless Sensor, installation, and prototype testing in 723-A will be completed by December 10, 2010.

g. For Project Y523, 720-H Chiller Replacement, mechanical complete will be by January 30, 2011.

h. For Project Y554, Unloading Line B Modification, a satisfactory completed design will be submitted to SRSO, initial equipment and supplies purchased, and construction work packages prepared and submitted by September 15, 2011 that will allow start of construction in October, 2011.

i. For Project Y568, Control Room Cooling, mechanical complete will be by February 28, 2011.

**Assumptions**

Assumptions are included in the individual Completion Criteria.

**Government Furnished Services / Items**

None

**Contract Output 5.** Participate in the NNSA Multi-Site Incentives and NNSA Nuclear Security Enterprise Initiatives.

Participate in the NNSA Multi-Site Incentives (MSIs) by working with Nuclear Security Enterprise partners to achieve Enterprise-wide goals. Although SRS Tritium Programs' level of participation will vary across the individual Multi-Site Incentives, the distribution of available fee according to Assumption 1 encourages partnership with other Nuclear Security Enterprise (NSE) sites to achieve NNSA's objectives. This is the purpose of Multi-Site Incentives.

**Up to \$1,243,725 of the allocated Tritium Programs PBI fee may be earned by Contract Output 5 as follows.**

**Essential Fee**

1. 10% available fee of the allocated Tritium Program PBI fee may be earned at the completion of Completion Criterion 1. The fee is distributed per Assumptions 1 and 2.

**Completion Criteria**

1. Participate in the FY 2011 MSIs cited in the NNSA Milestone Reporting Tool (MRT) by working with Nuclear Security Enterprise (NSE) partners to achieve NSE-wide goals. Successful completion for each individual milestone within the overall MSI is assigned by NNSA Headquarters. Any unspecified % allocation to the Site Office Manager discretion will be provided as Technical Direction to the Contractor subsequent to this PBI approval.

**Multi-Site Target Assumptions**

1. Letter, NA-10 to Distribution, FY2011 Multi-Site Targets and Success Criteria.
2. Inclusion of specific scope and fee distribution into this PBI will be accomplished through a letter issued by the National Nuclear Security Administration Savannah River Site Office (NNSA-SRSO) Manager to Savannah River Nuclear Solutions, LLC (SRNS).

**Government Furnished Services / Items**

1. NNSA Headquarters defines the FY 2011 Multi-Site Incentives with associated completion criteria and fee distribution method.



**Contract Output 6.** Maintain the Tritium Facilities in a safe, secure and responsive operating condition. (Operations)

This Contract Output emphasizes Operations programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criteria associated with Operations in the following areas:

- Facility and Site Management
- Maintenance Effectiveness
- Operations and Work Planning
- Quality Assurance
- Engineering
- Nuclear Safety and Fire Protection
- Radiation Protection
- National Lab NNSA Support
- Training and Qualification

**Up to \$2,487,451 of the allocated Tritium Programs PBI fee may be earned by Contract Output 6 as follows.**

**Essential Fee**

1. 20% available fee of the allocated Tritium Program PBI fee may be earned at the end of the assessment period for Completion Criteria associated with Operations. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Completion Criteria**

**Operations**

A. Facility and Site Management. SRNS will comprehensively manage the Tritium Facilities and will continuously assess and report on all aspects of the health and condition of Tritium Operations facilities to ensure that issues and problems are raised to the appropriate level for resolution through submittal of appropriate metrics.

Completion criteria include:

1. The ten year site plan for the Tritium Facilities, as required by NNSA and RPAM, will be updated annually to reflect the facility improvements, replacements-in-kind, and general facility maintenance required to support the active programs and missions. This document will comply with the format, content, and schedule provided by NNSA/HQ.

2. Health and condition of the major production facilities, as evidenced by facility assessments and the monthly facility availability metric, will be accurately reported each month and will demonstrate that the facilities are available to meet the mission deliverables.
3. Real property assets will be maintained in a cost-effective manner that includes management of Deferred Maintenance (reported yearly), facility improvements, and Replacement-In-Kind (RIK) projects to ensure facilities and equipment are available to meet mission deliverables. The Facility Information Management System (FIMS) reporting requirements are timely, accurate, and include the Facility Condition Index (FCI).
4. Concurrent with the budget cycle and ten year site plan for the Tritium Facilities, provide NNSA/SRSO an analysis of the Tritium Facilities deferred maintenance, replacement plant value and FCI. Include funding needs to stabilize and improve the FCI along with maintenance and project recommendations.

B. Maintenance Effectiveness. Ensure implementation of a cost-effective, comprehensive, and efficient Maintenance Program that accomplishes the work required to prevent degradation of the condition of the facilities and equipment to ensure that the facilities and equipment are available to support the mission. Metrics (such as locked-in completion, open work activities, corrective maintenance backlog, etc.) shall provide an accurate representation of performance, and will identify areas for improvement.

C. Operations and Work Planning. SRNS Tritium Programs' work will be effectively executed in accordance with Conduct of Operations practices and requirements as defined in the S/RIDs and work will be effectively planned and coordinated.

Completion criteria include:

1. Effective Operations and Work Planning implementation, as indicated with Conduct of Operations issues metrics, the valving performance metric and the lockout/tagout metric will be accurately reported each month and will demonstrate acceptable trends.
2. Implementation of continuous improvement initiatives of Operations and Work Planning, as indicated by the Self-Reported Errors, Assessments, and Reviews for Continuous Improvement metric, will be accurately reported each month and will demonstrate that self assessments and facility personnel are identifying errors and other areas for improvement. The metric will also demonstrate that fact finding and post job reviews are being conducted as appropriate and in a timely manner. In addition, corrective actions identified in the reviews are effective and result in improving trends in operations and work planning activities.

D. Quality Assurance. The Tritium Quality Assurance Program will be managed and implemented in accordance with the requirements of 10 CFR 830, DOE Order 414.IC, NNSA directives (e.g., QC-1, Primary Standards Laboratory memorandum, Development and Production Manual) as defined in S/RIDS and the SRS IQ Manual.

Completion criteria include:

**Business:**

1. The aggregate of survey and assessment (SRSO, SRNS and external) results provide confidence that quality is assured through an effectively implemented QA program.
2. Provide quality and process improvements, report and trend improvements including corrective action/prevention of recurrence.

**Product:**

3. Effectiveness of product/production is evidenced by quality trending of defects and non-conformance metrics from TCNCR, UR, and IMR reports, and the associated Cost of Nonconformance.
4. Effectively perform delegated stamping authority and ship product as scheduled that meets NNSA quality acceptance and shipping requirement

E. Engineering. The Engineering Program will be managed and implemented in accordance with the requirements of DOE O 420.1B Facility Safety (as defined in S/RIDS) and the SRNS Engineering Manual (E7) Procedures.

Completion criteria include:

1. Perform and maintain compliant engineering product deliverables that support operations and projects.
2. Engineering function provides Safety System configuration management and ensures that Safety Systems will perform as described in the safety basis. The engineering function will also support the Defense Programs mission and support design agency requirements. These functions will generally be met by the following expectations:
  - i. Existing system Technical Baseline drawings are current and reflect the field conditions.
  - ii. System Design Descriptions (SDDs), as indicated by the monthly engineering metric, will be updated to reflect the current facility configuration in accordance with the SDD update schedule.
  - iii. The assigned system engineer demonstrates sufficient depth of knowledge of their system to support the operations, maintenance, and safety basis management.
  - iv. Execute field trials and pilots of System Life Planning, System Engineer Notebooks, and System Walkdowns. Monitor and report progress for engineering pilot initiatives through metrics, engineering notebooks, and new electronic system walkdowns. Provide planned actions to abandon modify or fully implement each initiative.
3. Demonstrate Technical Leadership both within SRNS and in the Nuclear Security Enterprise through appropriate participation in DOE-HQ engineering related improvement initiatives, and ongoing staff initiatives.

F. Nuclear Safety & Fire Protection. The Tritium Safety Basis and Fire Protection (FP) Programs will be managed in accordance with applicable regulations, DOE Directives (as defined in S/RIDS), and site requirements

Completion criteria include:

1. SRNS and SRSO review results confirm the Safety Basis Program achieves and maintains full compliance with regulatory requirements (10CFR830, Subpart B), DOE/NNSA requirements, and S/RID applicable safety basis requirements.
2. Perform and maintain compliant safety basis engineering product deliverables that support operations and projects. These products include DSAs, TSRs, hazard evaluations, USQD documents, and supporting analyses.
3. Demonstrate a mature company independent review process for safety basis documents requiring submittal to NNSA SRSO for approval (e.g., DSA and TSR including all annual updates and revisions).
4. Continue the TORC and the process and expectations for assessments. The TORC shall provide routine oversight of the facility safety basis program in accordance with the approved TORC Charter, with review and assessment of emerging facility safety issues as well as major occurrences associated with facility safety performance.
5. Develop and submit the following items per the target completion dates:
  - a. Develop and submit the FY11 Tritium Facilities Annual Safety Basis Update as defined by the Tritium Programs Milestone Schedule.
  - b. Develop and submit the FY11 TEF Annual Safety Basis Update as defined by the Tritium Programs Milestone Schedule.
  - c. Finalize and submit the TEF DSA upgrade as defined by the Tritium Programs Milestone Schedule.
6. Proper implementation and maintenance of the Fire Protection Program will be indicated through metrics which reflect the minimization of system impairments, false alarms, and track and trend system and component failures.

G. Radiation Protection. SRS Tritium Programs' Radiation Protection Program will be managed and implemented in accordance with the requirements of 10 CFR 835, applicable S/RIDs, and the SRNS Radiological Protection Program.

Completion criteria include:

1. The aggregate evaluation of assessment results and metrics, including facility contamination events, personnel contaminations and radiation exposure, habitability survey performance, and breached glove events, shows the radiological protection program is implemented in accordance with requirements.
2. No significant deficiencies occur which negatively impact the performance of Tritium operations or accomplishment of missions.

H. SRNL Support to NNSA

Completion Criteria include:

1. PDRD – Maximize Relevance, Quality, and Performance. List of measures (or demonstrate) PDRD impact, quality and relevance by periodic reports.
1. Training and Qualification. The Tritium Training and Qualification Program will be managed and implemented in accordance with the requirements of DOE Order 462.2, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, as defined in the S/RIDS, and plant policies and procedures.

Completion criteria include:

1. No significant programmatic training deficiencies will occur which affect the performance of Tritium Program activities or accomplishment of mission.
2. Operations Technical Qualification Expiration for all Operations Watchstander employees is tracked, reported, and maintained to demonstrate that fully qualified facility personnel are available to support accomplishment of the mission.

**Contract Output 7. Maintain the Tritium Facilities in a safe, secure and responsive operating condition. (ES&H/S&S)**

This Contract Output emphasizes Safety and Health and Safeguards and Security programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criteria associated with Safety and Health and Safeguards and Security in the following areas:

- Emergency Management
- Health and Safety
- Environmental Management
- Waste Management
- Safeguards and Security
- Cyber Security

**Up to \$1,865,588 of the allocated Tritium Programs PBI fee may be earned by Contract Output 7 as follows.**

**Essential Fee**

1. 15% available fee of the allocated Tritium Program PBI fee may be earned at the end of the assessment period for Completion Criteria associated with Safety and Health and Safeguards and Security. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Completion Criteria**

**Safety & Health / Safeguards & Security**

A. Emergency Management. Ensure implementation of a cost-effective, comprehensive, and efficient Emergency Management Program that ensures response to and mitigation of abnormal events by a knowledgeable and fully trained workforce with minimum impact to mission accomplishment. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

B. Health & Safety. Ensure implementation of a cost-effective, comprehensive, and efficient Health & Safety Program that ensures response to and mitigation of abnormal events by a knowledgeable and fully trained workforce with minimum impact to mission accomplishment. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.



**C. Environmental Management.** Ensure implementation of a cost-effective, comprehensive, and efficient Environmental Management Program that ensures no significant deficiencies will occur that affect the performance of the SRNS Tritium operations accomplishment of missions. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

**D. Waste Management.** Ensure implementation of a cost-effective, comprehensive, and efficient Waste Management Program that ensures minimum waste generation, minimum waste accumulation in the facilities, and compliance with the waste acceptance criteria for disposal. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

**E. Safeguards and Security.**

Operate an effective and efficient Safeguards and Security Program that meets DOE, NNSA, and Site requirements/directives and expectations as verified by Contractor self- assessment, SRSO oversight, and external inspections. Maintain effective performance while completing milestones on schedule and within budget

Completion Criteria include:

1. Support the NNSA Enterprise through DNS Management Excellence.
  - a. Provide transparency into the security budget formulation and execution activities. Site FS-20 budgets must align with NNSA Field CFO issued costing principles.
  - b. Incorporate traceability across all security planning documentation, (i.e., Tritium Programs Work Authorization and Execution Plan (WAEP), Budget Requests, Site Safeguards and Security Plans, Performance Evaluation Plans, including Performance Based Incentives, etc.) Site Office approved FY11 WAEP must be provided to DNS by October 1st for the following Fiscal Year
  - c. Provide 100% alignment of resources, i.e., Full Time Equivalent (FTE) and subcontractors to WAEP.
2. Security plans, policies and procedures are to be updated to reflect NNSA security policy by FY 2011 or as stated in the NNSA security policy.
  - a. Implement security reform to improve mission effectiveness and drive cost efficiency.
  - b. Implement program improvement tied to NNSA security standards in accordance with SRNS Contract Modification process and mutually agreed upon implementation schedule.
3. Achieve efficiencies based on the current state of the site security footprint. (Security footprint includes documents, buildings, clearances, VTRs, etc.)
  - a. Drive cost efficiencies through reducing the Security Footprint.
  - b. S&S should work with site operations to evaluate and implement a plan to achieve a reduction in the site security footprint to include reducing unnecessary facilities and surplus materials (classified parts, documents, VTCs, etc.) to ensure a "cradle to grave" handling of classified
    - reduce classified document holding 5% (Stretch 10%)
    - reduce classified part inventory as described in contract Output No.1.

4. Develop site specific condition assessments and life cycle cost management plans for all FS-20 funded security systems and components. Produce a plan with components that address the following concepts:
    - a. Realize operational efficiencies through modernization or operational/process improvements.
    - b. Evaluate, develop, and implement a systems modernization plan to include economical life cycle management for physical security systems as approved by the Site Office considering the Enterprise-wide perspective.
  5. Achieve overall satisfactory or effective performance on Site Office and external surveys or assessments. There should be no repeat findings or deficiencies to include DNS and HSS OIO identified issues.
    - a. Maintain and sustain an effective S&S programs in all function areas (PM&S, Information Protection, MC&A, Physical Security and SAP).
    - b. Conduct S&S self-assessment in all S&S Tritium functional areas and provide periodic performance conclusions to the Site Office.
    - c. All corrective actions are completed on-time, within agreed budget, and effectively address the performance issues.
  6. Use current Site Lessons Learned program to ensure S&S information is shared throughout the Tritium Facility.
  7. Ensure S&S security staff are trained in accordance with the site S&S Training Plan.
- F. Cyber Security. Operate effective and efficient Cyber Security activities that meet DOE, NNSA, and Savannah River Nuclear Solutions (SRNS) requirements/directives and expectations as verified via contractor self-assessments, SRSO oversight, and external inspections.

Completion Criteria include:

1. Develop and implement an effective risk management framework utilizing NIST guidelines by 12-01-2010. Risk management framework must define cyber governance processes and organizations.
2. Implement an effective management operating system that incorporates a comprehensive self-assessment program that provides assurance to Federal Site Manager that the site is managing the risk envelope appropriately, security weaknesses are identified in a timely manner and corrective action plans are developed, tracked and maintained, corrective action plans are closed per schedule, significant Tritium risks are adequately evaluated and that sensitive information and information systems are properly protected.
3. Provide quarterly status report to NNSA OCIO CSPM on the state of cyber security program to include cyber security requirements implementation.
4. Actively participate in the NNSA Headquarter zero-based review of cyber security.
5. Actively participate in the feasibility study, development of plans and selection of an automated FISMA reporting and data collection capability; risk management registry; asset management, configuration and patch management capability; continuous monitoring capability; and tool sets for network mapping for NNSA environments.
6. Participate in Cyber Tracer (TracerFire) Activities.

**Contract Output 8.** Maintain the Tritium Facilities in a safe, secure, and responsive operating condition. (Business Management)

This Contract Output emphasizes Business programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criterion associated with Business in the following areas:

Fiscal Management  
Contractor Assurance System  
Program Management  
Project Management  
Information Technology/Process Control  
Modernization  
eSourcing  
Governance

**Up to \$2,487,451 of the allocated Tritium Programs PBI fee may be earned by Contract Output 8 as follows.**

**Essential Fee**

1. 20% available fee for the Tritium Programs performance may be earned at the end of the assessment period associated with Business Management. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Business Management**

- A. Fiscal Management. Budget and financial deliverables per the Planning, Programming, Budget, and Evaluation (PPBE) process will be provided in accordance with established due dates.

Completion criteria include:

SRNS Tritium will maintain effective and timely information response processes. Information requests, budget exercises, work insertion requests, etc., will be fully supported and evaluated on criteria such as quality and timeliness, proactive resolution of emergent issues and concerns, communications, etc.

SRNS will maintain an effective and efficient funds controls system.

- i. No legal or administrative violations occur with regards to the management of appropriations for which controls have been established by DOE/HQ, or for which

- funds of other federal agencies or governmental entities have been entrusted to DOE for performance of supporting scopes of work. (Tritium only)
- ii. Uncosted balances are maintained consistent with sound financial management. Due consideration will be given to multi year expense projects, multi-year program and productivity strategies and timing of funding and scope direction.
  - iii. Reprogramming actions and supplemental financial plans will be timely, accurate, comprehensible, and minimized via advance planning and forecasting processes. Any identified need for a reprogramming action will be identified early in the fiscal year, have SRSO program approval, and clearly identify all funding sources. Due consideration will be given for late year reprogramming request driven from customer requested schedule changes and mutually agreed upon program and business opportunities.
  - iv. Indirect costs and rates will be tracked and managed to identify and mitigate potential perturbations to planned direct work.
  - v. Outline a strategy and procedures to maximize the utilization of the unique scientific expertise of the laboratories while providing a rational financial basis for acceptance of such work.

SRNS will have a controlled integrated baseline for all Tritium programs, projects and functions by the end of FY 2011. The baseline will appropriately:

- i. Include the NNSA Uniform Program Cost Reporting Structure format elements
- ii. Be compatible with and in a Work Breakdown Structure (WBS) format ready for incorporation into the NNSA Cost Management Initiative database
- iii. Have tools in place to (1) manage mission changes in scope, cost and schedule, (2) compare Actual Cost to Budgeted Cost (3) accurately forecast estimated cost to complete and estimated total costs at completion, and (4) document deviations from the performance measurement baseline and notify the Contacting Officer of such changes on a timely basis
- iv. Prohibit retroactive changes to records pertaining to work performed that will change previously reported costs, except for correction of errors and routine accounting adjustments
- v. Prohibit retroactive changes for funding fluctuations or revisions in EAC

Completion criteria include:

1. Offline quarterly and year-end reporting will be provided per reporting requirements.
2. Impact analyses and ad hoc exercises will be responded to in a timely manner and be coordinated with SRNS.
3. Budget formulation requirements will be provided per requirements and coordinated with all appropriate organizations.
4. Financial reporting will demonstrate effective and transparent accounting practices.
5. The integrated baseline will be in place and ready for validation by the NNSA CFO by September 30, 2011. (Implementation is predicated on receiving requirements in appropriate timeframe.).

B. Contractor Assurance System. SRNS will have a Tritium-wide, comprehensive, and integrated Contractor Assurance System (CAS). As efforts move forward to implement “Governance” within the Tritium Facilities, SRSO acknowledges that the CAS will be evolving to fit the new governance model.

Completion criteria include:

1. Demonstrate an effective, comprehensive, integrated CAS Program. Elements include the following.
  - i. Integrated assessment schedule (includes internal audit, independent assessments, and management activities)
  - ii. Integrated assessment results (includes all formal assessment activities)
  - iii. Integrated risk management priorities
2. Demonstrate that an issues management system is implemented, and results are regularly reviewed by senior management. (This includes capturing program and performance deficiencies, regardless of their source, in a system or systems that provides for analysis, resolution, and tracking.)
3. Support the Line Oversight Contractor Assurance System (LOCAS) initiative.
  - i. Identify LOCAS control metrics to support the following six Performance Categories. (1) Environment, Safety, and Health (ES&H), (2) Nuclear Safety, (3) Cyber Security, (4) Safeguards and Security, (5) Emergency Management, and (6) Business Management.
  - ii. Review metrics with the SRSO LOCAS Manager quarterly basis to demonstrate the effectiveness of LOCAS control metrics in measuring contract/contractor performance. The metrics may be reviewed more frequently if warranted.
  - iii. Refine metrics as LOCAS performance matures.

C. Program Management. SRNS will manage programs consistent with the NNSA Program Management Policy (BOP-006.001) and the Defense Programs Program Management Manual. A Program is a group of ongoing activities and related projects conducted with a defined set of resources (financial, human, etc.) managed in a coordinated way to achieve mission objectives and obtain benefits not available from managing them individually.

Program Management within Tritium Programs applies primarily to RTBF, DSW, Engineering and Readiness Campaigns, FIRP, S&S, etc.

Program Management philosophy views programs as falling across a spectrum ranging from operational or level-of-effort programs, such as surveillance of the nuclear weapons stockpile at one end, to major capital acquisition projects at the other end. The diversity of programs within the NNSA demands the “tailored” application of the program management principles to accommodate the requirements of each program.

Completion criteria include:

Plan, execute, and manage to established scope, cost, schedule, and risk baselines for all program elements including:

1. Each individual program will be planned, executed, managed, and will maintain acceptable cost and schedule performance as established by Work Authorization Directives,

Prioritized Project Lists, PCD Requirements, Baseline Dismantlement Schedule, program implementation plans, program execution plan, and all other program requirements.

2. Aggregate evaluation of review results indicates programs are routinely implemented in accordance with requirements. No significant deficiencies will occur which affect the performance of the SRNS Tritium operations or accomplishment of missions.
3. SRNS' scope associated with NNSA Milestone Reporting Tool (MRT) Level 1 and 2 milestones will be completed on schedule. This excludes milestones associated with the Multi-Site PBI that are addressed in Contract Output 5.
4. Information requests, budget exercises, work insertion requests, etc., will be supported. Develop and submit business cases as requested.
5. Submit Performance reports as required by individual Programs' Execution Plans.
6. Quarterly program status reviews are conducted that contain overall indices of performance, analysis of baseline variances, trends, funds and reserve management, and risk management. A review of HQ deliverables and issues will also be discussed.

#### D. Project Management.

Completion criteria include:

1. Aggregate evaluation of review results indicates projects are routinely implemented in accordance with requirements. No significant deficiencies will occur which affect the performance of the SRNS Tritium operations or accomplishment of missions.
2. Safety will be emphasized for all aspects of the project from design through startup. Ensure effective integration of safety and security into the design and construction of all nuclear line item projects in accordance with DOE-STD-1189. Projects safety indices demonstrate prime and subcontractor performance meet or exceed national safety performance standards and the Departmental/Site Office safety goals as prescribed. Projects will routinely discuss safety in meetings for project personnel and will emphasize lessons learned at SRS construction sites and projects at other DOE sites. During construction phase each project manager or designee will proactively participate and conduct safety walk downs and document on Management Field Observation forms in STAR.
3. Manage projects within established scope, cost, and schedule baselines per SRSO approved Integrated Priority List. Cost and schedule performance are measured through Cost Performance Index (CPI) and Schedule Performance Index (SPI) for large projects and cost and schedule baselines for small projects. CPI and SPI are at or above 0.90
4. Project activities and resources are effectively planned and integrated to ensure the performance baseline is maintained. This includes the use of integrated, resource loaded schedules in the day –to-day management of projects.
5. Monthly project status reports are timely and submitted for each line item project, GPP/GPE/MIEs, and for selected operating expense funded projects. Reports contain indices of overall project performance. Reports include analysis of baseline variances, trends, funds, and contingency management, risk management. Reports contain baseline change control register.
6. Provide an end state assessment for buildings 234-H (office area), 236-H, 237-H, and 238-H by April 30, 2011.

E. Information Technology/Process Control. Ensure implementation of a cost-effective, comprehensive, and efficient Information Technology/Process Control Management Program that ensures no significant deficiencies will occur that affect the performance of the SRNS Tritium operations accomplishment of missions. Metrics shall provide an accurate representation of performance, and will identify areas for improvement. The system availability of the Tritium classified network and the Enterprise Secure Network (ESN), as evidenced by the System Availability metric, will demonstrate that the classified networks are available to support NNSA missions.

**F. Modernization**

Completion criteria include:

1. Enterprise Initiatives
  - a. Record of Decision
    - i. Facilitate communication and implement actions needed by the Nuclear Security Enterprise to support the Record of Decision.(Tritium R&D)
  - b. Transformation Activities
    - i. Support key modernization and strategic planning initiatives.
  - c. Stockpile Services Modernization Plan (SSMP)
    - i. Work with NNSA-SRSO, NNSA-HQ, and the NSE to support the key Congressional inputs required in SSMP document updates and it's strategies within funding limits.
2. Facility Modernization
  - a. Demonstrate support for implementation of the Tritium Programs transformation strategies and goal per NNSA direction within funding limits.
  - b. Support key facility modernization and strategic planning initiatives, such as the Tritium Programs Strategic Plan, Human Capital Management Plan, and Business Transformation Plan within funding limits.

**G. eSourcing:**

Completion criteria include:

Evaluate the eSourcing tools available at the NNSA Supply Chain Management Center, develop an implementation plan. The plan should address the schedule for (1) incorporating SCMC tools into the SRNS purchasing practices and resources to (2) support SCMC commodity teams as applicable. The evaluation should at a minimum address the available tools and applicability to SRNS purchases, compatibility with the proposed ERP system, an implementation schedule, estimated costs, and potential savings.

**H. Governance:**

Completion criteria include:

SRNS will support the NNSA Governance Reform initiative being implemented across the complex, such as the Enterprise Reengineering Team and the NNSA Directives Review as needed if not addressed by the current facility governance initiative. The current expectation is that the



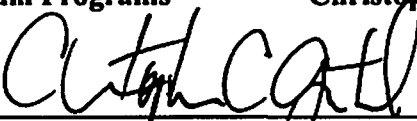
majority of the activities necessary to implement governance within the Tritium facilities will be completed in FY11, but SRSO acknowledges that some activities may extend into FY12.

**Approvals:**

**SRNS Tritium Programs**

**Christopher C. Gentile**

**Date**

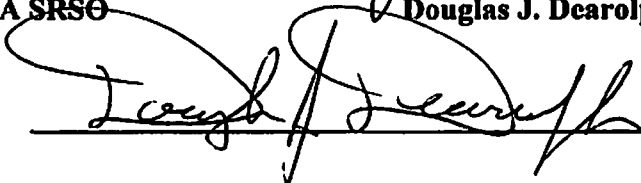
  
\_\_\_\_\_

9/13/11

**NNSA SRSO**

**Douglas J. Dearolph**

**Date**

  
\_\_\_\_\_

9/13/10



## Performance Incentive Document

PBI: SRNS2011NNP

Activity: Nuclear Non-proliferation Program

WBS: 01.25.60

Performance Period: October 1, 2010 – September 30, 2011

Allocated Fee: \$11,650,000

Revision Number: 1

---

### **Performance Outcome:**

Provide cost-effective management and technical support to the Nuclear Nonproliferation Programs so that the program is executed within the Performance Management Baselines and in accordance with DOE Order 413.3A and other applicable DOE directives, regulations, and requirements.

Contract Output	Value	Indicator
SRNS2011NNP-01	\$2,900,000	Safely execute the construction of the Waste Solidification Building (WSB) in accordance with the approved Performance Management Baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).
SRNS2011NNP-02	\$ 750,000	Conduct Title III Design Engineering and Design Authority activities and planning in accordance with the baseline schedule in order to support construction, acceptance testing, and facility operation.
SRNS2011NNP-03	\$ 850,000	Execute Startup and Operations activities and planning in accordance with the baseline schedule in order to support system and facility readiness testing:

SRNS2011NNP-04	\$2,400,000	Safely execute the Waste Solidification Building project activities in a cost effective manner and on the schedule necessary to meet the MFFF need date and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked) and DOE Order 413.3A (or successor).
SRNS2011NNP-05	\$ 600,000	Safely execute SRNS assigned work on the MOX Fuel Fabrication Facility (MFFF) project in accordance with approved cost and schedule baselines for the PDP electrical substation or contained in authorized Work Task Agreements.
SRNS2011NNP-06	\$ 250,000	Execute SRNS assigned work related to NNP Pu Disposition Infrastructure and associated work activities by providing cost-effective support for those activities common to the nonproliferation program and projects.
SRNS2011NNP-07	\$650,000	Support NNSA-SR and NNSA-HQ reviews of the accelerated PDC CD-1 package resulting in NNSA-HQ CD-1 approval. "Pink" document preparations and submissions are ongoing and provide enhanced information to support CD-1. VA documents for CD-1.
SRNS2011NNP-08	\$800,000	Provides Material Storage (MS) design support as design authority (DA), technology development, and operability expert; coordinates and implements safety/security planning and documents; develops long-lead procurement planning and procurement activities; prepares and implements Congressional cost / schedule / baseline preparation for MS CD-2/3A; plan and execute construction / execution readiness activities; project integration role; and CD document preparation / packaging / support.
SRNS2011NNP-09	\$100,000	Earned Value Management System (EVMS) is applied to the PDC Project per DOE O 413.3A.
SRNS2011NNP-10	\$800,000	Stabilization and Packaging (S&P) Conceptual Design (CD) CD-3A Demolition and Removal (D&R) package.
SRNS2011NNP-11	\$250,000	Submit revisions and receive fully coordinated approvals to K-area DSA for MS and S&P D&R activities by 1 June 2011.

SRNS2011NNP-12	\$1,300,000	Subjective Milestones.
NNP Multi-year		Safely execute the construction of the Waste Solidification Building in accordance with the approved project baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

---

**\$6,900,000 of the Nuclear Nonproliferation PBI will be paid for the construction of the WSB.**

**WBS: 01.25.60.01.02**

**Contract Output 1:** Safely execute the construction of the Waste Solidification Building (WSB) in accordance with the approved Performance Management Baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

**42% (\$2,900,000) of the allocated fee for the construction of the WSB will be earned as follows:**

**1A.** Complete the placement of the concrete for the roof deck of the main structure of the Waste Solidification Building by 2/28/2011 (\$500,000)

**Completion Criteria:**

- Correctly install all reinforcing steel, hangers, anchors, and other embeds.
- Remove all concrete forms and temporary supports for the roof
- Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

**Assumptions:**

- Funding is available to support the Balance of Plant (BOP) contract execution.
- Hatches and/or access openings are allowed for equipment installation and ease of construction.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor propose a schedule modification that does not impact the construction critical path, the fee associated with this contract measure will be paid upon completion of roof construction.

**Government Furnished Services / Items:**

None identified

**1B.** Complete wall placements for the main structure of the Waste Solidification Building in accordance with the BOP subcontractor's placement schedule by November 30, 2010. (\$100,000)

**Completion Criteria:**

- Correctly install all reinforcing steel mats, embedded piping, and plate embeds.
- Remove all concrete forms where required.
- Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- Block-outs are allowed for equipment installation and ease of construction.
- The scope does not include any concrete pours associated with adjacent structures or facilities, i.e., diesel generator pad, chemical unloading, etc.
- The completion date is based on the construction subcontractor's schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path; e.g., leaving a construction opening not previously planned, this contract measure will be considered complete. Payment, however, would be withheld until the wall placements are complete (less any necessary construction openings).

**Government Furnished Services / Items:**

None identified

**1C. Place the High Activity Waste (HAW) Tanks and Evaporator in accordance with the BOP subcontractor's placement schedule as delineated below (\$1,300,000)**

**Completion Criteria:**

1. Correctly locate all tanks, components, and related ancillary equipment required prior to placement of roof trusses over the respective High Activity Process Rooms.  
Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

This Contract Output is in effect for the following tanks/components:

HAW Receipt tanks (2):	(\$400,000)	Date: 10/25/2010
HAW Evaporator/Condenser:	(\$200,000)	Date: 10/25/2010
HAW Head Tank:	(\$200,000)	Date: 10/25/2010
HAW Acid Overflow Tank:	(\$200,000)	Date: 11/01/2010
HAW Bottoms Collection Tank:	(\$100,000)	Date: 11/01/2010
HAW Condensate Hold Tank:	(\$200,000)	Date: 11/10/2010

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule.  
Should the subcontractor later propose a schedule modification that does not impact the

construction critical path; e.g., leaving a construction opening not previously planned to facilitate later placement, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

- Setting of the equipment is exclusive of installation of ancillary equipment (dip tubes, agitators, etc.) that:
  - can be installed with the tanks, intermediate deck and roof trusses in place, and
  - does not result in additional cost impacts to the project. Fee will be reduced to cover additional cost impacts resulting from alternative installation strategies.
- Installation of the fluidic transfer pressure vessel within the HAW tanks is included in this contract measure; however, SRNS may elect to install the pump eductors at a later date to support the BOP installation schedule.
- Field piping connections are not included in this contract measure.

#### **Government Furnished Services / Items:**

None identified

**ID.** Place the Low Activity Waste (LAW) Tanks and Evaporator in accordance with the BOP subcontractor's placement schedule as delineated below (\$600,000)

#### **Completion Criteria:**

1. Correctly locate all tanks, components, and related ancillary equipment in the Low Activity Process Area.

Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

This Contract Output is in effect for the following tanks/components:

MFFF LAW Receipt tanks (2):	(\$200,000)	Date: 01/26/2011
PDC LAW Receipt tank:	(\$100,000)	Date: 01/26/2011
LAW Evaporator/Condenser:	(\$100,000)	Date: 01/26/2011
LAW Head Tank:	(\$100,000)	Date: 01/26/2011
LAW Effluent Hold Tank	(\$100,000)	Date: 01/26/2011

#### **Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.



- Setting of the equipment is exclusive of installation of ancillary equipment (dip tubes, agitators, etc.) that:
  - can be installed with the tanks, intermediate deck and roof trusses in place, and
  - does not result in additional cost impacts to the project. Fee will be reduced to cover additional cost impacts resulting from alternative installation strategies.
- Field piping connections are not included in this contract measure.

**Government Furnished Services / Items:**

None identified

**1E. Place the HAW and LAW Cementation Units in accordance with the BOP subcontractor's placement schedule as delineated below: (\$200,000)**

**Completion Criteria:**

Correctly locate four Cementation gloveboxes in the respective cementation rooms. Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

The HAW gloveboxes installed:	(\$100,000)	Date: 02/28/2011
The LAW gloveboxes installed:	(\$100,000)	Date: 02/28/2011

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.
- Setting of the equipment is exclusive of installation of any ancillary equipment (HVAC ductwork, electrical connections, drum handling equipment.) and does not include field piping connections.

**Government Furnished Services / Items:**

None identified

**1F. Place the WSB Main High Efficiency Particulate Air (HEPA) Filter housing by 12/31/2010 (\$50,000)**

**Completion Criteria:**

Correctly locate the main HEPA filter housing. Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

**Government Furnished Services / Items:**

None identified

**1G.** Energize the 13.8 kVA/480V electrical substation and complete testing by May 31, 2011: (\$150,000)

**Completion Criteria:**

Complete the Startup Test procedure for energization and initial checkout of the 13.8kVA/480v electrical substations A, B, & C. This includes verification that the 13.8kVA/480v electrical substations A, B, & C meet that portion of the Acceptance Criteria defined in the Functional Acceptance Criteria for initial energization and is determined to be ready to support downstream loads.

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

**Government Furnished Services / Items:**

None identified

**Contract Output 2:** Conduct Title III Design Engineering and Design Authority activities and planning in accordance with the baseline schedule in order to support construction, acceptance testing, and facility operation.

**11% (\$750,000) of the allocated fee for the construction of the WSB will be earned as follows:**

**2A.** 57% (\$400,000) of the allocated fee for this contract output may be earned for completion of the criteria below. NNSA will provide a periodic evaluation of SRNS' performance with respect to this completion criterion as part of the normal contractor evaluation process. Award fee payments will be made quarterly (\$100,000 at the end of each quarter) based on the acceptability of performance for the quarter as determined by NNSA. If NNSA determines that SRNS' performance for a quarter is not satisfactory, NNSA will determine the amount of quarterly award fee to be deducted.

**Completion Criteria:**

- Engineering support and responses for the BOP subcontractor are provided in a timely manner and ensure the project is constructed to appropriate codes and standards.
- Coordination is achieved between SRNS and the BOP subcontractor in establishing engineering priorities and ensuring timely resolution to support the subcontractor's procurement and construction schedule.
- Requests for deviations and changes are evaluated within the time allotted within the contract, at a minimum. However, communication, coordination, and expediting of requests will be necessary to maintain, improve, or mitigate schedule impacts. Communication between SRNS and the subcontractor will be assessed to ensure that submittals are resolved with minimal iterations for clarifications or corrections.

**Assumptions:**

None

**Government Furnished Services / Items:**

None identified

**2B.** All Functional Acceptance Criteria (FAC) documents are approved by March 31, 2011. (\$100,000)

**Completion Criteria:**

FACs are issued as Rev. 1 or later, with no unresolved comments.  
The following FACs are included under this contract measure:

- HAW
- LAW

- HVAC
- Electrical
- Analytical Laboratory
- Process Sewer
- Sanitary Sewer
- Plant Air
- PCS
- Fire Protection
- Cold Chemical
- Material Handling
- Safety and Health Monitoring
- Compressed Gas
- Plant Water
- Communication
- Process Sewer
- Steam
- Sanitary Sewer
- Building Structure

Individual FAC's are issued on a schedule which supports the needs of the Startup/Testing program and the development of lower-tier startup documents in support of the overall project schedule.

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction crucial path, this contract measure will be considered complete. Payment, however, would be withheld until the FACs are issued and verification of no impact validated.
- Holds and TBDs will be included in the FACs where information is not yet available to complete the FAC. This includes inputs from the BOP construction subcontractor and the GFE vendors that have not been submitted to and approved by SRNS.
- Emergent information (as identified) will be included in future revisions of the FACs as required.

**Government Furnished Services / Items:**

None identified

**2C.** The WSB Documented Safety Analysis Input Deck is approved and issued by June 30, 2011. (\$200,000)

**Completion Criteria:**

The WSB Inputs and Assumptions in support of the DSA, a.k.a. the Input Deck, will be documented in a level 1 calculation that is issued as Rev. 0 or later, with no unresolved comments by June 30, 2011.

The Input Deck is issued on a schedule which supports the needs of the DSA development process in support of the overall project schedule.

The approval and issuance of the Input Deck calculation will be based upon review of all WSB accident scenarios documented in the WSB Consolidated Hazards Analysis by the Safety Design Integration Team.

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction crucial path, this contract measure will be considered complete. Payment, however, would be withheld until the Input Deck is issued and verification of no impact validated.
- Emergent information (as identified) will be included in future revisions of the Input Deck as required.
- External events, such as revision to the DOE Orders which describe safe harbor methodology for DSA preparation or other Orders that have similar impact on the Input Deck/DSA scope, will not be considered without NNSA direction and commensurate revision to this PBI scope/schedule.

**Government Furnished Services / Items:**

None identified

**2D.** The WSB Waste Compliance Plan (WCP) for the solidified HAW waste stream will be written and approved by SRNS by June 30, 2011. (\$50,000)

**Completion Criteria:**

- The WSB WCP will be written, approved and issued to document control as a planning document, with no unresolved comments.
- Waste Management Area Project (WMA) personnel will review the WCP and provide documentation that the WCP as written will meet the IS Manual WAC and that the solidified HAW waste stream will be capable of meeting the WIPP Waste Acceptance Criteria.
- All successor activities necessary for the final approval for the certification process and for the certification of the waste form will be identified and scheduled.

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution and WMA staffing to perform the review.
- Emergent information (as identified) will be included in future revisions of the Waste Compliance Plan as required.
- External events, such as revision to the DOE Orders which describe revisions to TRU waste management requirements or permit revisions altering the WIPP WAC, will not be considered without NNSA direction and commensurate revision to this PBI scope/schedule.
- WMA are procedurally required to approve the WCP after their review of facility implementing procedures, personnel training and qualification, analytical methodologies used for waste characterization, etc. These activities are part of the WSB Project Schedule and will be completed when the operating staff is available. This will preclude WMA from actually approving the WSB WCP for the HAW waste stream in FY11; however, the documentation provided by WMA will clearly document that the WSB WCP meets both IS Manual WAC and the WIPP WAC. WMA documentation that the WSB HAW WCP will meet the IS WAC may include identification of changes required and being pursued by WMA personnel to modify the IS manual requirements to accommodate the WSB waste stream. The document would include the technical justification for the change and demonstration that the revised WAC will meet the WIPP WAC. The documentation may identify actions required by WSB to meet the IS manual requirements as revised.

---

**Contract Output 3:** Execute Startup and Operations activities and planning in accordance with the baseline schedule in order to support system and facility readiness testing:

12% (\$850,000) of the allocated fee for the construction of the WSB will be earned as follows:

**3A.** All Maintenance Loop Calibration Procedures (approximately 75 individual procedures covering approximately 300 instruments) will be in high quality draft form by June 30, 2011. (\$100,000)

### **Completion Criteria:**

Completion of the WSB Maintenance Loop Calibration Procedures will be documented by a letter from the Procedure Lead to WSB Operations Manager showing the completion status of all calibration procedures for the equipment that is part of the design baseline as of June 30, 2011. NNSA will review procedures as necessary to validate the reported status.

### **Assumptions:**

- Draft procedures will include all instrumentation identified in Smartplant on June 30, 2011.
- Procedures will be written, reviewed, and in letter revision ready for first time validation during startup and testing operations.
- Any instruments not in the baseline design as of June 30, 2011 will be written, reviewed, and in letter revision ready for first time validation to support startup and testing of the affected systems

### **Government Furnished Services / Items:**

None identified

**3B.** The first 11 MST's will be assigned to the WSB project by June 30, 2011. (\$100,000)

### **Completion Criteria:**

The Operations Manager will document the assignment of the MSTs to the WSB project via a letter to the WSB Project Owner listing each MST by name, showing their assigned dates and listing their Financial Organizational codes as listed in the Human Capital system documenting their assignment to the WSB.

### **Assumptions:**

- Funding is available to support hiring the additional 11 multi-skilled technicians and to sustain this level of support for the remainder of the project. If funding is not available to support the June 30, 2011 date (i.e., Continuing Resolution or equivalent), then the fee will be earned when the funding supports the additional FTEs. If funding is not provided, then the fee will be earned based on the identification of the FTEs to be assigned to the WSB through the SRNS Human Capital program.
- If an MST leaves the company after they have been assigned to the WSB because of retirement, death, disability, termination or a seniority related transfer, a request for a replacement will be initiated through the Human Capital system. Having personnel leave under these circumstances will not affect the award fee.

### **Government Furnished Services / Items:**



None identified

**3C.** Energize Motor Control Centers 1 – 9 and complete checkout procedures by July 31, 2011. (\$250,000)

**Completion Criteria:**

Complete the Startup Test procedure for energization and initial checkout of the 480v MCCs 1-9. This includes verification that the MCCs meet that portion of the Acceptance Criteria defined in the Functional Acceptance Criteria for initial energization and are determined to be ready to support downstream loads.

**Assumptions:**

- The startup test boundaries for the individual MCCs are defined such that the individual feeder breakers for the MCCs are not part of the startup test boundary.
- The energization for the MCCs will be via normal power; energization via the standby diesel generator will be included in a subsequent Startup Test.

**Government Furnished Services / Items:**

None identified

**3D.** Complete activities necessary to ready Control Systems for software checkout by September 30, 2011. (\$200,000)

**Completion Criteria:**

Complete Factory Acceptance Testing (FAT) and Receipt Inspection of the Basic Process Control System (BPCS) hardware by 12/31/2010. The FAT report will be SRNS approved and in Document Control. (\$50,000)

Complete Factory Acceptance Test of the Balance of Plant Control System (BPCS) software by 06/30/2011. The FAT report will be SRNS approved and in Document Control.(\$50,000)

Complete Process Control System energization by September 30, 201. The energization of the system will be documented through completion of a Startup Test energization procedure, to be performed subsequent to the PCS01 system turnover by the BOP Contractor. Note that the scope of the procedure will include PCS01, but does not include PCS02 or PCS03, etc. as these are turned over at a later time (\$100,000)

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution and BPCS procurement activities.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction crucial path, this contract measure will be considered complete. Payment, however, would be withheld until the criteria identified are completed and verification of no impact validated.
- Emergent information (as identified) will be included in future revisions of the BPCS as required.
- Open items, punch list items and action items will be documented in the FATs reports for future action. The identification of these items does not indicate that the FAT is not complete, but documents the actions required to be performed following FAT completion.

**Government Furnished Services / Items:**

None identified.

**3E.** Pressurize the Service water header and complete checkout procedures by September 30, 2011. (\$200,000)

**Completion Criteria:**

Complete the Startup Test procedure for energization and initial checkout of the Service Water header. This includes verification that the Service Water header meets that portion of the Acceptance Criteria defined in the Functional Acceptance Criteria for initial pressurization and is determined to be ready to support downstream users.

**Assumptions:**

- The startup test boundary for the Service Water header is defined such that verification is made that service water is available to all legs of the system as shown on the system turnover boundaries.
- The PCS may not be available at the time of turnover and pressurization of the service water system, so checkout of any automatic control valves within the system will be covered under a subsequent Startup Test procedure.

**Government Furnished Services / Items:**

None identified

---

**Contract Output 4:** Safely execute the Waste Solidification Building project activities in a cost effective manner and on the schedule necessary to meet the MFFF need date and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked) and DOE Order 413.3A (or successor).

**35% (\$2,400,000) of the allocated fee for the construction of the WSB will be earned as follows:**

58% (\$1,400,000) of the allocated fee for this contract output may be earned for completion of criteria 1. The cumulative Project Cost Performance Index (CPI) will be reviewed by NNSA monthly. Award fee payments will be made quarterly based on cumulative Project Cost Performance Index at the end of each quarter.

42% (\$1,000,000) of the allocated fee for this contract output may be earned for completion of criteria 2. The cumulative overall Project Schedule Performance Index will be reviewed by NNSA monthly. However, award fee payments will be made quarterly based on cumulative Schedule Performance Index for Total Estimated Cost (TEC) construction activities at the end of each quarter (WBS element 01.25.60.01.02.01.03).

**Completion Criteria:**

- The WSB Project is executed with a Cost Performance Index (cumulative) of 0.98 or greater (\$250,000 at the end of each quarter). If the cumulative CPI is 0.95 - 0.98, the PBI will be reduced to \$125,000 for that quarter. If the cumulative CPI is 1.02 or greater, the PBI for the quarter will be increased to \$350,000.
- The WSB Project is executed with a Construction Schedule Performance Index (cumulative) of 0.95 or greater (\$250,000 at the end of each quarter). If the cumulative Construction SPI is less than 0.95, but is 1.0 or greater for the individual quarter, the criteria will be considered to have been met.

**Assumptions:**

- Construction activities associated with other NNSA contractors will not unduly affect the work on the Waste Solidification Building. SRNS has the responsibility for adequately coordinating and integrating the WSB scope of work with other entities on-site.
- Funding is available to complete the task.
- It is recognized that CPI's and SPI's may fluctuate for a variety of reasons, some of which do not accurately reflect project performance. In the event that the cumulative CPI and/or construction SPI falls below the threshold value at the end of a quarter, the quarterly payments for the affected CPI and/or SPI will be withheld. However, the performance fee for a previous quarter under this measure may be earned at the end of a subsequent quarter if the cumulative CPI and/or construction SPI increases above the required threshold. At the conclusion of FY2011, however, any performance fee for the

4<sup>th</sup> or previous quarters not yet earned will not be paid. Available fee under this measure is not eligible to be earned in FY2012.

**Government Furnished Services / Items:**

None identified.

---

**Contract Output 5:** Safely execute SRNS assigned work on the MOX Fuel Fabrication Facility (MFFF) project in accordance with approved cost and schedule baselines for the PDP electrical substation or contained in authorized Work Task Agreements.

\$600,000 of the Nuclear Nonproliferation PBI will be paid on a quarterly basis for providing timely support to the MFFF project and MIFT program in accordance with the integrated project schedule.

**Completion Criteria:**

Oversee the closeout of the PDP electrical substation contract with South Carolina Electric and Gas to ensure all subcontract requirements are met

Support energizing the substation and tie-in to the MFFF temporary power

Complete the physical modifications to the MOX supplied analytical lab equipment in accordance with the approved nuclearization design

Execute assigned support tasks in accordance with approved Work Task Agreements with Shaw AREVA MOX Services in a timely and efficient manner

Construction support (badging, training, utilities, waste hauling/disposal)

Instrument calibration

Execute assigned tasks as requested by NNSA in support of the MFFF project and MIFT program in a timely and efficient manner

Program management

Feed materials characterization

Alternate Feed Stock (AFS) studies

MOX start-up strategy, proposal and operations planning reviews

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified

---

**Contract Output 6:** Execute SRNS assigned work related to NNP Pu Disposition Infrastructure and associated work activities by providing cost-effective support for those activities common to the nonproliferation program and projects.

\$250,000 of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the Nuclear Nonproliferation Program (NNP) Pu Disposition Infrastructure and associated work activities. Each completion criteria is valued as noted below.

WBS: 01.25.60.05

**Completion Criteria:**

Prepare and maintain the MOX Feed Gap Analysis Study

Prepare study to the target PDC funding (project operational in 2024) by October 30, 2010. (\$12,500)

Maintain and update the study throughout the fiscal year (\$12,500)

Complete the Pu Disposition Program Programmatic Risk Assessment by February 28, 2011. (\$25,000)

Prepare a Needs Assessment for a multi-purpose building line item project by March 31, 2011 to support the FY2013 budget process. (\$25,000)

Prepare the Plutonium Disposition Program Execution Plan - Prepare a review quality draft of an updated Plutonium Disposition Program Execution Plan within 60 days of receiving written guidance from NNSA on content and major programmatic assumptions. For planning purposes, assume delivery of product in the 4th quarter of FY 2011. The plan must be consistent with and integrated with other site strategic and system plans. (\$25,000)

Provide support for Pu Disposition Program integration activities:

The Plutonium Disposition Integrated Program schedule is updated, analyzed, and issued not less than quarterly. (\$12,500)

Support two semi-annual project and program reviews consistent with the content and format requested by NNSA-HQ. (\$7,500)

Maintain all required interface control documents for the Pu Disposition Program including development of revisions or new ICD's as requested by NNSA. (\$12,500)

The concurrence version of the revised AFS ICD incorporating AFS-2 material should be submitted by 4/29/11.

The concurrence version of the Pantex – SRS Pit Shipment ICD should be submitted by 4/29/11.

Support the development of the Surplus Pu Disposition Supplemental Environmental Impact Statement including:

Provide timely, quality responses to data calls for technical input for SRS facilities and capabilities including K-Area, H-Canyon, DWPF, PDC, WSB, and the Pu Disposition Program (\$15,000)

Provide technical and programmatic support to NNSA in the development of responses to comments, analysis, revisions, and additional data required for the SEIS (\$15,000)

Demonstrate leadership and management of the NNSA Pu Disposition Program through development of an organizational entity that provides timely, quality, contractor neutral information, recommendations, reports, and studies. Business systems and management structure are adequate to provide clear ownership of the Pu Disposition Program within SRNS, to provide a direct counterpart to NNSA NNP organizations at SRS, and demonstrates SRNS's

commitment to providing the resources necessary to support the projects and programs that make up the Pu Disposition Program. (\$87,500)

Feedback on performance for this objective will be provided in writing on a quarterly basis and will be provided verbally during monthly meetings between counterparts.

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified

---

**\$3,900,000 of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the PDC project activities, per Alternative # 8 level one schedule, dated 6/29/10 and BCP 10-0009.**

**WBS 01.25.60.01.03**

**Contract Output 7:** Support NNSA-SR and NNSA-HQ reviews of the accelerated PDC CD-1 package resulting in NNSA-HQ CD-1 approval. "Pink" document preparations and submissions are ongoing and provide enhanced information to support CD-1. Coordinate preparation, submission, and approval process for the PDC Vulnerability Assessment documents (VA).

**17% (\$650,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**7A.** Coordinate preparation, submission, and approval process for full PDC Vulnerability Assessment document(s) to support ESAAB decision (by 10 Dec 2010 BCP 10-0009). (\$100,000)

**Completion Criteria:**

1. VA supports design, cost and schedule requirements.
2. VA document(s) are fully coordinated and approved by all required stakeholders.
3. Review periods are published and appropriate for all required stakeholders.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC.
3. NNSA-HQ CD-1 approval by December 15, 2010.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**7B. Provide Project Integrator and Design Authority support for NNSA-SR and NNSA-HQ reviews resulting in an accelerated CD-1 package ready for ESAAB approval by 12/15/10. (\$550,000)**

**Completion Criteria:**

1. Per the PDC Integrated Project Team (IPT) accelerated CD-1 schedule, prepare CD-1 NNSA review packages and disposition CD-1 comments in a timely and accurate manner.
2. CD-1 package process is fully supported by SRNS and package is ready for ESAAB and other NNSA reviews in sufficient time to meet a December 15, 2010 scheduled approval.
3. 1<sup>st</sup> QTR FY11 "Pink" documents that support CD-1 approval are of high quality with minimal revisions, and are available per BCP10-0009) scheduled dates.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

---

**Contract Output 8** – Provides Material Storage (MS) design support as design authority (DA), technology development, and operability expert; coordinates and implements safety/security planning and documents; develops long-lead procurement planning and procurement activities; prepares and implements Congressional cost / schedule / baseline preparation for MS CD-2/3A; plan and execute construction / execution readiness activities; project integration role; and CD document preparation / packaging / support.

**20% (\$800,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**8A. Develops, updates, and/or prepares safety documentation for CD-2/3A (30 Sep 2011) for Material Storage subproject in accordance with DOE-STD 1189 and DOE O 413.3A. (\$75,000)**

**Completion Criteria:**

1. All required safety documents are approved and available for MS CD-2/3A package and procurement packages.
2. Design reviews focus on safety systems.

**Assumptions:**



1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**8B.** Develops, updates, and/or prepares security documentation for MS CD-2/3A in accordance with DOE O 413.3A (30 Sep 2011). (\$75,000)

**Completion Criteria:**

1. Update to Preliminary Security Vulnerability Assessment Report is fully tailored to meet MS requirements in preparation for its D&R construction activities for CD-2/3A package and procurement packages.
2. Design reviews focus on security systems.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**8C.** Contractor develops and implements activities for Construction or Execution Readiness activities for MS CD-2/3A (30 June 2011). (\$100,000)

**Completion Criteria:**

1. Prepares for and supports all activities required for an External Independent Review for Construction or Execution Readiness (CD-3A) review by DOE-OECM and DOE-CM.
2. External review generates no substantial comments that would cause a deviation from the PDC Project cost/scope/schedule.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**8D.** Prepare for and baseline the CD-2/3A MS subproject schedule as part of the overall PDC schedule. Schedule, cost, and performance measurement baseline are established and used for variance analysis and indices measures. Functional reviews are completed by the contractor personnel to ensure the schedule elements reflect level of detail to manage project activities effectively (30 June 2011). (\$200,000)

**Completion Criteria:**

1. Prepare and baseline CD-2/3A MS subproject schedule, estimate, and performance measurement baseline that are complete and functionally reviewed.
2. Resource loaded schedule is proactively used to manage cost and schedule performance indices within planned and approved thresholds.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. Funding profiles for planning.

**8E.** Contractor prepares long-lead and other procurement packages for MS in accordance with the approved baseline schedule to support D&R (and construction) (30 July 2011). (\$100,000)

**Completion Criteria:**

1. Prepare long-lead and other MS procurement packages that will support early FY12 requirements per the IPS.
2. Procurement packages are complete and useable packages with required NNSA reviews/approvals planned for and obtained based upon established thresholds. NNSA review and approval periods are established in the IPS.
3. Procurement plans are updated as needed to recognize and accommodate scope, cost, schedule, and procurement methodology revisions.

**Assumptions:**

1. Funding will be available to support this scope.
2. NNSA-HQ CD-1 approval by December 15, 2010.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**8F.** Provides design and technology development support for MS subproject for CD-2/3A. Execution of Design Authority (DA) and project integrator roles ensures a 50% design at CD-2/3A that conforms to procurement strategy (30 May 2011). (\$125,000)

**Completion Criteria:**

1. Design has been reviewed for quality in the areas of technology, constructability, operability and meeting project scope/mission needs, including safety and security requirements.
2. Design documents have been coordinated with design agent, NNSA, and other stakeholders to meet procurement packaging needs, and approved schedule for completion.

**Assumptions:**

1. Funding will be available to support this scope.
2. NNSA-HQ CD-1 approval by December 15, 2010.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**8G.** Contractor provides Project Integrator support for NNSA-SR and NNSA-HQ reviews resulting in a MS CD-2/3A D&R package ready for ESAAB by September 30, 2011. (\$125,000)

**Completion Criteria:**

1. Project integration is functioning and teams are progressing efficiently and effectively toward project execution goals.
2. CD package has fully coordinated disposition comments by document and Project Integrator supports NNSA reviews in a timely and quality manner. Documents meet DOE O 413.3A and project schedule dates.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

---

**Contract Output 9:** Earned Value Management System (EVMS) is applied to the PDC Project per DOE O 413.3A.

**2% (\$100,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**Completion Criteria:**

1. EVMS system meets certification requirements as stipulated in DOE O 413.3A and therein cited standards and threshold(s). Required compliance reviews are fully coordinated with review periods to meet order intent. (\$25,000)
2. Issue Project Controls Plan by ~~November 11, 2010~~ **December 20, 2010**. (\$25,000)
3. Issue EVMS Implementation Plan by ~~December 6, 2010~~ **January 26, 2011**. (\$25,000)
4. Issue TPC Estimate Execution Strategy & Plan October 14, 2010. (\$25,000)

**Assumptions:**

1. Funding will be available to support this scope.
2. Documents are thorough and complete and require minimal rework.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

---

**Contract Output 10 – Stabilization and Packaging (S&P) Conceptual Design (CD) CD-3A Demolition and Removal (D&R) package by September 30, 2011.**

**20% (\$800,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**10A.** Develop and implement Safety CD-3A documentation for S&P in accordance with DOE-STD 1189 and DOE O 413.3A (\$75,000)

**Completion Criteria:**

1. Safety documents support CD-3A approval by NNSA by 30 Sep 2011.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**10B.** Develop and implement Security CD-3A documentation for S&P (30 Sep 2011) (\$75,000)

**Completion Criteria:**

1. Security documents support CD-3A approval by 30 Sep 11.
2. Update to Preliminary Security Vulnerability Assessment Report is fully tailored to meet S&P requirements in preparation for its D&R construction activities for CD-3A package and procurement packages.
3. Design reviews focus on security systems.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**10C.** Contractor develops and implements activities for Construction or Execution Readiness activities for S&P CD-3A (30 June 2011). (\$100,000)

**Completion Criteria:**

1. Supports activities associated with a CD-3A External Independent Review for Construction or Execution Readiness per DOE O 413.3A.
2. Report(s) content is thorough, complete, and provides documentation that provides a sound basis for the subproject's approval for construction.
3. Report(s) are provided in time for review and comment period that supports the decision approval dates.

**Assumptions:**

1. None.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**10D.** Prepare for CD-3A S&P subproject schedule as part of the overall PDC schedule. Schedule, cost, and performance baseline are established and used for variance analysis and indices measures. Functional reviews are completed by the contractor personnel to ensure the schedule elements reflect level of detail to manage project activities effectively. (30 June 2011) (\$200,000)

**Completion Criteria:**

1. Prepare CD-3A S&P subproject schedule, estimate, and performance baseline that are complete and functionally reviewed.

2. Resource loaded schedule is proactively used to manage cost and schedule performance indices within planned and approved thresholds.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**10E.** Prepare long-lead and other procurement packages for S&P in accordance with the approved baseline schedule to support D&R (and construction) (30 July 2011) (\$100,000)

**Completion Criteria:**

1. Prepare long-lead and other S&P procurement packages that will support FY12 requirements per the IPS.
2. Procurement packages are complete and useable packages with required NNSA approvals. NNSA review and approval periods are accommodated in the IPS.
3. Procurement plans are updated as needed to recognize and accommodate scope, cost, schedule, and procurement methodology revisions.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**10F.** Provides design and technology development support for S&P subproject for CD-3A. Execution of Design Authority (DA) and project integrator roles ensures a design at CD-3A that conforms to S&P procurement strategy. (30 May 2011) (\$125,000)

**Completion Criteria:**

1. Design has been reviewed for quality in the areas of technology, constructability, operability and meeting project scope/mission needs, including safety and security requirements.
2. Design documents have been coordinated with design agent, NNSA, and other stakeholders to meet procurement packaging needs, and approved schedule for completion.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**10G.** Contractor provides Project Integrator support for NNSA-SR and NNSA-HQ reviews resulting in an S&P CD-3A D&R package ready for ESAAB by September 30, 2011. (\$125,000)

**Completion Criteria:**

1. Project integration is functioning and teams are progressing efficiently and effectively toward project execution goals.
2. CD package has fully coordinated disposition comments by document and Project Integrator supports NNSA reviews in a timely and quality manner. Documents meet DOE O 413.3A and project schedule dates.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

---

**Contract Output 11** – Submit a contractor approved DSA MS and S&P D&R which has been full coordinated with EM/NNSA by June 1, 2011. (\$250,000)

**6% (\$250,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**Completion Criteria:**

1. Submit revised K-Area DSA to DOE-EM for review and approval that meets project schedule requirements.
2. Support of the SER approval process meets project schedule need date(s).
3. Quality of document(s) is (are) such that minimal revisions are identified.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC.
3. NNSA-HQ CD-1 approval by December 15, 2010.



## **Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

---

**Contract Output 12:** Execute PDC activities in compliance with the current version of DOE Order 413.3A along with all contractual requirements in a quality, responsive, and cost effective manner in accordance with the PDC IPT schedule.

**33% (\$1,300,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

NNSA will provide a periodic evaluation of SRNS' performance with respect to these completion criteria as part of the normal contractor feedback process.

### **12A. Integrated Safety and Security**

NNSA expects SRNS have a mature PDC project integrated safety and security management systems in accordance with DOE Policies 450.4 and 470.1 and have a standard methodology/business model for integrating safety and security within all project systems, processes, and procedures such that there exists a high likelihood of no safety or security events.

It is understood that Excellence goes well beyond maturity. It is understood that SRNS has established some level of maturity already to achieve excellence in integrated safety and security management with respect to completion of smaller projects and operating the SRS in the past. However, because PDC is a unique large major system acquisition and very complex it may take SRNS a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary integrated safety and security management techniques, systems, processes, and procedures to support PDC and the S&P and MS sub-projects. As SRNS continues to mature during project execution, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

### **Completion Criteria:**

1. No safety incidents, issues, or concerns during the performance period.
2. No safeguards and security incidents, issues, or concerns during the performance period.
3. Any incidents, issues, or concerns will be properly communicated and be addressed in a timely manner and evaluated to avoid reoccurrence.
4. Identify corrective actions when incidents occur and monitor effectiveness.

5. Institute a proactive program to avoid safety and security issues and these report activities.
6. Effectively participate in the Safety Design Integration Team and the Security Design Integration Team to optimize PDC design, construction, and operations activities.
7. Respond to IPT members, customer, and stakeholders in an integrated, timely, constructive, and quality manner.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12B. Contractor Assurance**

NNSA expects SRNS have a mature Contractor Assurance system that integrates SRNS Management and Governance, Project Execution Management and NNSA Project Oversight Management System into a single comprehensive Project performance management system. It is expected that Contractor Assurance system establish a standard methodology with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

To be effective, the PDC CAS must integrate project contractor(s) management (SRNS, URS, LANL) governance, and NNSA PDC oversight management systems into a single comprehensive PDC project performance management system:

- 1) The PDC CAS enables PDC contractor management to provide reasonable assurance that project scope, schedule, and cost objectives will be met and contract requirements fulfilled; that site workers, the public, and the environment are protected; and that project execution and business systems are effectively run and continuously improved.
- 2) The PDC CAS enables the project contractor's governance system to define acceptable performance outcomes, to provide oversight of project and contract performance, and to hold contractor management accountable for these outcomes so that the contractor may provide assurance to NNSA.
- 3) Finally, a robust and effectively functioning PDC CAS builds trust between NNSA and its contractors, helps to ensure alignment between the NNSA and executing contractors in accomplishing and addressing Project needs, and allows NNSA to optimize its oversight function to leverage the processes and outcomes of its contractor(s).

It is understood that Excellence goes well beyond maturity. It is understood that SRNS must have maturity to achieve excellence and excellence with the Contractor Assurance System and it may take SRNS and the contractor project team a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary Contractor Assurance system tools, techniques, processes, and procedures. As SRNS begins to mature within the Contractor Assurance system, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

**Completion Criteria:**

1. Perform planned assessments per the approved PDC Contractor Assurance Plan.
2. Submit an approved FY12 Contractor Assurance Plan during the 4<sup>th</sup> quarter of FY11.
3. Submit a Quality Implementation Plan for PDC compliant with ANME NQA-1 version 2008 and 2009 addendum.
4. Monitor and document PDC Project Contractor Assurance through scheduled QA oversight surveillance.
5. Document analyses, resolution, and tracking/retrieval of issues to enhance project performance.
6. Issue Operating Experience to the PDC IPT.
7. Effectively manage the PDC Lessons Learned Program
8. Respond to IPT members, customer, and stakeholders in an integrated, timely, constructive, and quality manner.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12C. Conduct of Project Management**

NNSA expects SRNS have a mature DOE O 413.3A project management system and executes project management with a standard methodology/business model with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

It is expected that SRNS develop a project management culture throughout the entire lifecycle of the PDC project that consistently executes project management tools, techniques, processes, and procedures. Excellence will be achieved when SRNS matures the PDC project environment such that there exists a continuous stream of successfully

managed activities, fragment of activities and/or subprojects and where success is measured by what is in the best interests of both the project and project organizations.

It is understood that Excellence goes well beyond maturity. It is understood that SRNS must have maturity to achieve excellence and excellence in project management may take SRNS a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary project management tools, techniques, processes, and procedures. As SRNS begins to mature within project management, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is a continuous stream of successful set of activities/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

#### **Completion Criteria:**

1. The trend program and CCB function in a disciplined and timely manner.
2. Earned Value Management System is utilized to monitor and report performance and provides required project performance metrics that meet project thresholds.
3. The Risk Management program captures/document risks and identifies opportunities. Identified risks will be managed and monitored for on-going mitigating actions.
4. Accurate monthly reports are provided to NNSA demonstrating prudent project management and ownership.
5. Contract and business management is efficient and documents require little or no revisions. Cost reports accurately demonstrate effective project management, integrator roles and responsibilities, and project status.
6. Project integration role is inculcated within all teams and work proceeds seamlessly toward project goals and milestones.
7. Site coordination efforts provides PDC project with required information, agreements and approvals to meet IPS.
8. A resource loaded Integrated Project Schedule is in place within the first quarter to which the team monitors project performance on at least a weekly basis. Schedule covers the FY12 and 13 activities with sufficient detail to support budget year and out year Federal budget processes.
9. Effectively manage the PDC Value Management program to optimize project performance and document activities and results.
10. Fully support the Federal Budget Process with high quality, timely planning tools and deliverables
11. Respond to IPT members, customer, and stakeholders in an integrated, timely, constructive, and quality manner.

#### **Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12D. Conduct of Engineering**

NNSA expects SRNS have a mature DOE O 413.3A Engineering oversight & Design Authority and execute engineering and oversight with a standard methodology with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

NNSA expects SRNS to be an independent Engineering Authority that is responsible for technical requirements and identification of all waivers/exceptions/exemptions to them, and will build a disciplined, systematic approach to identifying, analyzing, and controlling requirements and hazards throughout the life cycle of the PDC Project execution. It is expected the independent Engineering Authority does the following as a minimum:

- a) Develop and maintain FDD & SDD for the PDC project
- b) Be the sole waiver/exceptions/exemptions authority for technical standards bringing those to the NNSA Authority Having Jurisdiction for approvals
- c) Conduct trend and risk analysis at the component, sub-system, system, and sub-project levels
- d) Conduct, support, and oversee integrated hazard analysis
- e) Independently verify project and operational technical readiness

It is understood that Excellence goes well beyond maturity. It is understood that SRNS has established a level of maturity already to achieve excellence and excellence in engineering management may not take SRNS as long to achieve as the other functional areas.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary engineering tools, techniques, processes, and procedures. As SRNS continues to mature within engineering, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

**Completion Criteria:**

1. Actively participate and provide integrated, timely, constructive, and quality support to the Technical Oversight Group (TOG) and the Integrated Project Team (IPT). Technology maturity issues that have the potential to impact PDC Project scope, cost, or schedule are reported timely to NNSA.

2. SRNS activities and support should enhance, not adversely impact, other IPT activities.
3. Design Authority (DA) role provides solid engineering documents and input to design agent, NNSA, and other stakeholders.
4. GB test bed final design, fabrication, and testing are successful in demonstrating 'real life' GB conditions. Test bed demonstrations confirm design assumptions and/or provide information for input to modify designs through appropriate configuration management.
5. K-Area Complex (KAC) site conditions for as-built structures and infrastructure; seismic analysis information; geotechnical sampling plans, field sampling and analyses meet PDC technical input requirements for design and CD-2/3A documents.
6. Support for studies, technical reviews, technology development review and assessment are supported to provide project scope affirmation and/or changes.
7. Manage Engineering activities to optimize project performance.
8. Fully support project trend program by identifying potential opportunities, cost, or schedule issues as early as possible.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12E. Conduct of Construction**

NNSA expects SRNS have a mature DOE O 413.3A Construction Management and Construction execution organization that has a standard methodology with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

**Construction Management:**

NNSA expects SRNS as the construction manager provide NNSA with specialized knowledge, experience, and resources to navigate through the complexities of the PDC project execution and satisfying the DOE O 413.3A requirements. It is expected that SRNS tailor the construction management services to satisfy the needs of the PDC project. It is expected that SRNS construction management services support the pre-planning, design, construction, post construction award-engineering services, and project management expertise that can assure the best possible project outcome no matter what type of project delivery method used. It is expected that the SRNS CM services with expertise knowledge in organizing, scheduling, mobilizing, and directing equipment, material, and personnel in performance of a construction contracts. SRNS CM should add value by providing the resources and expertise needed to manage quality, cost, schedule, scope, and risks

associated with design and construction to help NNSA achieve its project and programmatic objective.

**Construction Execution:**

NNSA expects SRNS as the prime construction execution contractor be responsible for the best value means and methods to be used in the construction execution of the project in accordance with the approved construction execution plans and detailed work packages. SRNS should be responsible for the supplying of all material, labor, equipment, (engineering vehicles and tools) and services necessary for the construction of the project on schedule and in safe, secure, and quality manner. SRNS may contract portions of the PDC project and NNSA expectations would then be covered under the CM responsibilities.

It is understood that Excellence goes well beyond maturity. It is understood that SRNS has established some level of maturity already to achieve excellence in construction management and execution with respect to completion of smaller projects in the past. However, because of the size and complexity of PDC it may take SRNS a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary construction management and execution tools, techniques, processes, and procedures to support PDC and the S&P and MS sub-projects. As SRNS continues to mature within Construction management and execution, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

**Completion Criteria:**

1. Construction Strategy and Execution Plan are approved by 21 Oct 2010
2. Utility/site infrastructure planning and input provides for sound engineering, timely criteria coordination/planning with site stakeholders to support early FY12 construction-phase activities.
  - a. By 31 Jan 2011, provides a PDC K-Area Master Plan;
    - i. Locating all support facilities buildings and/or new or temporary structures,
    - ii. Locating traffic flow routes
  - b. By 31 Jan 2011, provides proposed functions for the temporary PDC structure.
    - i. Including dimensions/square footage (SF) requirements
    - ii. Identify current and future utility locations
3. Integrates the NNSA PDC federal staff / K-Area operations, and other required stakeholders in the construction planning development process.

4. Contractor actively participates in project design development by performing constructability / operability / maintainability reviews and providing constructability input to the design process.
5. Provides pre-construction site planning and permitting strategy coordination to support timely D&R and FY12 D&R and construction activities.
6. Collaborates on construction plans and strategy with the NNSA Construction Lead.
7. Prepare a PDC Construction Planning and Executing Strategy for KAC support facilities (structures [temporary vs. permanent] and utilities) that is prioritized, and available for execution should construction funding become available in near-term fiscal years.
8. Contractor shall demonstrate a fully functional and efficient QA/QC organization is in place to support all vendors, suppliers, subcontractors, internal self-assessment reviews, etc.
9. Manage Construction activities to optimize project performance.
10. Fully support project trend program by identifying potential opportunities, cost, or schedule issues as early as possible.

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.



## Nuclear Nonproliferation Multi-year PBI

Time Period: October 1, 2009 – September 30, 2013

Allocated Fee: \$TBD (see *Available Fee* below)

Rev. 1

**Performance Outcome:** Provide cost-effective management and technical support to the Nuclear Nonproliferation Programs so that the WSB project is completed within the cost and schedule baselines and in accordance with DOE Order 413.3A (or successor) and other applicable DOE directives, regulations, and requirements.

---

**Contract Output 1:** Safely execute the construction of the Waste Solidification Building in accordance with the approved project baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

**Available Fee:** The fee available for this contract output is structured as an incentive for the sharing of cost under-runs. The fee to be earned will be provided by WSB line-item funds and is in addition to the potential fees earned through the annual award fee pool as delineated in the M&O contract. The fee earned will be 50% of the funds remaining after project closeout. NNSA OPC costs are not included in this determination; therefore, the final actualized TPC will be subtracted from a ceiling of \$341,555,000 for the purpose of calculating fee.

**Contract Measure:** Up to 100% of the allocated incentive fee may be earned by Contract Output as follows:

Complete the WSB project, through project and contract closeout, at a Total Project Cost of less than \$341,555,000.

The approval of Critical Decision 4 must be on a schedule to support the need date of the Mixed Oxide Fuel Fabrication Facility and does not result in cost impacts to that project due to WSB schedule delays.

### Completion Criteria:

Critical Decision 4 is approved by NNSA.

All costs have completed the accrual process.

All contracts and subcontracts have been closed out and any required DOE reviews completed.

All claims for equitable adjustments and contract disputes have been resolved to a point that no further financial liability would be provided from project funds (see *Conditions* below).

All records documenting the completion of the subject activities in accordance with the applicable requirements are complete.

The completion date is currently forecast for 3rd quarter FY13 (see *Conditions* below).

**Cost Overruns:** In the event that project costs exceed the approved WSB project baseline (currently \$341,555,000), SRNS will be responsible for a portion of the actualized overrun. The overrun will be shared with the government at a ratio of 80% (NNSA) – 20% (SRNS). The maximum amount that SRNS will be liable for is capped at \$6,000,000.

**Assumptions:**

- Funding is available to support the project execution.
- In the event that NNSA directed scope changes result in an increase to the project baseline; i.e., additional funds provided for the line-item, the total available fee will be calculated based on the revised cost ceiling. This provision does not apply to a project baseline increased due to project performance.
- It is anticipated that changes will be experienced. Potential changes have been allocated for in project contingency analyses. These changes will be funded through available management reserve/contingency. SRNS should not assume that additional funds will be added to the line item and should expect that all changes will be provided for by current project funds (see *Scope Changes* below).
- Critical Decision 4 will be approved by NNSA in a timely manner to support the WSB schedule. SRNS is not responsible for delays in CD-4 approval, provided:
  - The request for approval is submitted in accordance with the WSB schedule and provides the necessary time for the NNSA review process.
  - The reason for delay is not attributable to SRNS performance or execution.

**Conditions:**

Fee under this incentive will be paid in its entirety upon project completion as delineated above. Completion is based on the Early Finish date, with the overriding goal of not impacting the MFFF schedule. There will be no penalty to SRNS should the MFFF need-date be delayed. In that event, the WSB project may have additional opportunities to save costs by adjusting schedule; e.g., less overtime required. Exceeding the Late Finish date does not necessarily eliminate the ability to earn fee under this incentive provided that Critical Decision 4 is approved prior to the MFFF need-date.

Should the MFFF need-date be earlier, but within the baseline WSB schedule contingency window, the WSB project will expend the funds necessary to meet the need-date. See *Contract Measure 2* above.

Upon payment to SRNS under this incentive, any additional late claims from a subcontractor related to the WSB scope will be paid by SRNS unless specifically accepted by NNSA.

**Scope Changes:** The TPC includes contingency funds to address anticipated events. However, it is expected that the project will be expected to absorb any new scope (including directed scope) using contingency funds. Examples of such scope changes that could impact project cost and/or schedule include, but are not limited to, new or revised DOE Orders/Standards, DNFSB Recommendations, or new laws issued by Congress. Because the only funds available for this incentive are within the project baseline, the contingency currently available will be used to

support project needs and will reduce the fee available as those funds are expended. It is not the intent of NNSA to penalize SRNS potential fee that it could have earned if additional funding had been provided, however fee is available only *as long as a surplus is maintained*. NNSA will make an equitable determination of “new and significant” scope items at the completion of the project for the purposes of identifying those funds available to be earned under this PBI. In this eventuality, costs for these scope increases will be provided first from the NNSA half of any under run to the extent available. If new and significant changes result in cost impacts greater than half of the surplus that would have been available, then NNSA would receive \$0 and the contractor’s fee would be reduced to cover the difference. The potential exists that should project costs rise to the current TPC ceiling, little if any funds may remain available for this incentive. Any adjustment is intended to cover new and significant additions to scope that are driven by external conditions and not addressed by existing risk analyses and will be made at the discretion of NNSA. Finally, if in NNSA’s determination, the WSB project would have been completed within the approved baseline except for such new and significant scope, and the scope resulted in exceeding the TPC, SRNS will not be liable for the cost overrun.

In the event that additional funding is obtained to address new scope, the WSB Performance Measurement Baseline will be revised. Any additional contingency commensurate with the new scope will not necessarily be considered as additional available fee. This PBI will be evaluated at that time to determine if an adjustment to the incentive is warranted.

#### **Government Furnished Services / Items:**

Approval of Critical Decision 4.

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
132		See Block 16C		11EM000716			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$34,746,191.35	
See SRNS FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause i-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (Base Scope) in accordance with SRNS FINPLAN 3. Funds in the amount of \$34,746,191.35 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,321,141,420.76 to \$2,355,887,612.11.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,721,167,943.93. to \$3,755,914,138.28.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/20/2010	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
133		See Block 16C		11EM000716			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$2,506,402.67	
See SRNS FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause i-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (WFO Defense-Related Activities) in accordance with SRNS FY2011 FINPLAN 3. Funds in the amount of \$2,506,402.67 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,355,887,612.11 to \$2,358,394,014.78.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,755,914,138.28. to \$3,758,420,540.95.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/20/2010	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. Administrative corrections: In Mod 128 Paragraph C, the from and to amounts should be from \$3,720,908,487.11 to \$3,721,185,124.36.  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
134		See Block 16C		11EM000716			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:                      -\$24,987.00			
See SRNS FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to deobligate funding from CLIN 00001 (WFO DHS-Related Activities) in accordance with SRNS FY2011 FINPLAN 3. Funds in the amount of -\$24,987.00 are hereby deobligated from CLIN 00001, thereby decreasing the total funds obligated to CLIN 00001 from \$2,358,394,014.78 to \$2,358,369,027.78.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$3,758,420,540.95. to \$3,758,395,553.95.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/22/2010	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
135		See Block 16C		11EM000716			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$4,845.40	
See SRNS FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (WFO State-Related Activities) in accordance with SRNS FY2011 FINPLAN 3. Funds in the amount of \$4,845.40 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,358,369,027.78 to \$2,358,373,873.18.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,758,395,553.95. to \$3,758,400,399.35.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/22/2010	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
136		See Block 16C		11EM000828			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$29,414,042.00	
See SRNS FINPLAN 4							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 Base Scope Funding in accordance with SRNS FY2011 FINPLAN 4. Funds in the amount of \$29,414,042.00 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,358,373,873.18 to \$2,387,787,915.18.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,758,400,399.35 to \$3,787,814,441.35.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/29/2010	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b> 1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b> 137		<b>3. EFFECTIVE DATE</b> See Block 16C		<b>4. REQUISITION/PURCHASE REQ. NO.</b> 11EM001073	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b> Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		<b>7. ADMINISTERED BY (If other than Item 6)</b> Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b> SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		<b>9A. AMENDMENT OF SOLICITATION NO.</b>		<b>9B. DATED (SEE ITEM 11)</b>	
<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470		<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>		<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.			
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b> No change in accounting and appropriation data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>				
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>				
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>				
X	<b>D. OTHER (Specify type of modification and authority)</b> Clause I.28 - DEAR 952.215-70 Key Personnel (DEC 2000) and Letter #SRNS-U1000-2011-00005				
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
Tax ID Number: 26-0240191					
DUNS Number: 798861048					
A. The purpose of this modification is to revise Section J, Appendix D, Key Personnel.					
B. Part III, Section J, Appendix D, Key Personnel, is deleted in its entirety and replaced by Appendix D attached hereto.					
C. All other terms and conditions remain unchanged.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			James Lovett		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				Signature on File	
				(Signature of Contracting Officer)	
				01/21/2011	

**PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS****SECTION J – LIST OF ATTACHMENTS****APPENDIX D****KEY PERSONNEL**

Pursuant to the clause entitled “Key Personnel,” the following positions are considered to be essential to work being performed.

<u>Name</u>	<u>Title</u>
Flowers, Garry	President
Dohse, Fred	Executive Vice President and Chief Operating Officers
Deason, Paul T.	Acting SRNL Director
Chiou, J.D.	Director, Closure Projects & Waste Management
Michalske, Terry A.	Vice President, Nuclear Materials Operations
Feather, David	Acting Lead for NNSA Programs
Fagan, Jon	Chief Engineer & Nuclear Safety Officer
Curtis, Jennifer	General Counsel
Hanna, Jim	Director, Human Resources
Umek, Anthony	Director, ESH&Q
Bilson, Helen E.	Director, Business Services

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1      2		
2. AMENDMENT/MODIFICATION NO. 138		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 11EM001106		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN 5				Net Increase:		\$64,659,762.07	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 Base Scope Fundin in accordance with SRNS FINPLAN 5. Funds in the amount of \$64,659,762.07 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,387,787,915.18 to \$2,452,447,677.25.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,787,814,441.35. to \$3,852,474,203.42.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		01/21/2011	
				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. Administrative Correction: Mod 129, paragraph C is revised to read, "Administrative Correction: Mod 128, paragraph C, the from and to amounts should be from \$3,720,908,487.11 to \$3,721,185,124.36.  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
139		See Block 16C		11EM001106			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$56,803.97	
See SRNS FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (WFO Defense-Related Activities) in accordance with SRNS FINPLAN 5. Funds in the amount of \$56,803.97 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,452,447,677.25 to \$2,452,504,481.22.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,852,474,203.42. to \$3,852,531,007.39.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/24/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
140		See Block 16C		11EM001106			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,637,551.65	
See SRNS FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (WFO DHS-Related Activities) in accordance with SRNS FINPLAN 5. Funds in the amount of \$1,637,551.65 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,452,504,481.22 to \$2,454,142,032.87.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,852,531,007.39 to \$3,854,168,559.04.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/25/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 141		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 11EM001128	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No change in accounting and appropriation data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Clause I.28 - DEAR 952.215-70 Key Personnel (DEC 2000)

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

Tax ID Number: 26-0240191

DUNS Number: 798861048

A. The purpose of this modification is to revise Section J, Appendix D, Key Personnel.

B. Part III, Section J, Appendix Key Personnel, is deleted in its entirety and replaced by Appendix D attached hereto.

C. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) James Lovett	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA Signature on File (Signature of Contracting Officer)	16C. DATE SIGNED 01/25/2011

**PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS**

**SECTION J – LIST OF ATTACHMENTS**

**APPENDIX D**

**KEY PERSONNEL**

Pursuant to the clause entitled “Key Personnel,” the following positions are considered to be essential to work being performed.

<u>Name</u>	<u>Title</u>
Flowers, Garry	President and Chief Executive Officer
Dohse, Fred	Executive Vice President and Chief Operating Officer
Michalske, Terry A.	Director, Savannah River National Laboratory
Eyler, David E.	Vice President, Nuclear Materials Operations
Feather, David	Acting Lead for NNSA Programs
Fagan, Jon	Vice President, Engineering
Curtis, Jennifer	Vice President and Chief Legal Officer
Hanna, Jim	Vice President, Workforce Services
Umek, Anthony	Vice President, ESH&Q
Bilson, Helen E.	Vice President, Business Services

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
142		01/25/2011		11EM001106			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$7,378.00	
See SRNS FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (WFO State-Related Activities) in accordance with SRNS FINPLAN 5. Funds in the amount of \$7,378.00 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,454,142,032.87 to \$2,454,149,410.87.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,854,168,559.04 to \$3,854,175,937.04.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/25/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
143		See Block 16C		11EM001106			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See FINPLAN 5				Net Increase:		\$31,140.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I-53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to provide incremental funding to CLIN 00001 (WFO NRC-Related Activities) in accordance with SRNS FINPLAN 5. Funds in the amount of \$31,140.00 are hereby obligated to CLIN 00001, thereby increasing the total funds obligated to CLIN 00001 from \$2,454,149,410.87 to \$2,454,180,550.87.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,854,175,937.04 to \$3,854,207,077.04.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/25/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1      2		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
144		See Block 16C		11EM001106			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:		-\$11,556.79	
See FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
X		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
		D. OTHER (Specify type of modification and authority)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to deobligate funding from CLIN 00001 (WFO Other Federal Agency - Energy Related Activities) in accordance with SRNS FINPLAN 5. Funds in the amount of -\$11,556.79 are hereby deobligated from CLIN 00001, thereby decreasing the total funds obligated to CLIN 00001 from \$2,454,180,550.87 to \$2,454,168,994.08.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$3,854,207,077.04 to \$3,854,195,520.25.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
146		See Block 16C		11EM001174			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$2,923,000.00	
See SRNS FY2011 FINPLAN 6							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (NNSA Base Scope) in accordance with SRNS FY2011 FINPLAN 6. Funds in the amount of 2,923,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,454,168,994.08 to \$2,457,091,994.08.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,854,195,520.25 to \$3,857,118,520.25.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
147		See Block 16C		11EM001434			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$36,228,632.52	
See SRNS Finplan 7							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 7. Funds in the amount of \$36,228,632.52 are hereby obligated to CLIN 00001, thereby increasing it from \$3,857,118,520.25 to \$3,893,347,152.77.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,857,118,520.25 to \$3,893,347,152.77.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/147	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00001	<p>C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination</p> <p>Change Item 00001 to read as follows (amount shown is the total amount):</p> <p>FOR OFFICIAL USE ONLY MANAGEMENT AND OPERATING CONTRACT FOR THE SAVANNAH RIVER SITE. Line item value is:\$4,000,000,000.00 Incrementally Funded Amount: \$2,871,916,507.77</p>				4,000,000,000.00



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
148		See Block 16C		11EM001434			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$4,550,000.00	
See SRNS Finplan 7							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense-Related Funds) in accordance with SRNS FY2011 FINPLAN 7. Funds in the amount of \$4,550,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,493,320,626.60 to \$2,497,870,626.60.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,893,347,152.77 to \$3,897,897,152.77.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. Administrative corrections: In Mod 147 Paragraph A, The from and to amounts should read as follows: \$2,457,091,994.08 to \$2,493,320,626.60.  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
149		See Block 16C		11EM001434			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,485,049.47	
SRNS FINPLAN 7							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense-Related Funds) in accordance with SRNS FY2011 FINPLAN 7. Funds in the amount of \$1,485,049.47 are hereby obligated to CLIN 00001, thereby increasing it from \$2,497,870,626.60 to \$2,499,355,676.07.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,897,897,152.77 to \$3,899,382,202.24.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
				1		2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
150		See Block 16C		11EM001434			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$25,000.00	
SRNS FINPLAN 7							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense-Related Funds) in accordance with SRNS FY2011 FINPLAN 7. Funds in the amount of \$25,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,499,355,676.07 to \$2,499,380,676.07.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,899,382,202.24 to \$3,899,407,202.24.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
151		See Block 16C		11EM001434			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$19,418.00	
See SRNS FINPLAN 7							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense-Related Funds) in accordance with SRNS FY2011 FINPLAN 7. Funds in the amount of \$19,418.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,499,380,676.07 to \$2,499,400,094.07.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,899,407,202.24 to \$3,899,426,202.24.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
152		See Block 16C		11EM001847			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H.28 - Performance Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised and updated Fiscal Year 2011 Performance Evaluation and Measurement Plan (PEMP) Revision 2 which is attached hereto.							
B. The PEMP is approved with the understanding that additional revision may be necessary when concurrences by the Chief Counsel and Manager are received. When concurrences are received they will be added to the file and no other actions will be required.							
C. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/25/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
153		See Block 16C		11EM001853			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$57,488,407.22	
See SRNS FINPLAN 9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM-Base) in accordance with SRNS FY2011 FINPLAN 9. Funds in the amount of \$57,488,407.22 are hereby obligated to CLIN 00001, thereby increasing it from \$2,499,400,094.07 to \$2,556,888,501.29.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,899,426,620.24 to \$3,956,915,027.46.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. Administrative corrections: In Mod 151 Paragraph B. The from and to amounts should read as follows: \$3,899,407,202.24 to \$3,899,426,620.24.  D. The contract estimated value and all other terms and conditions remain unchanged.  FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
154		See Block 16C		11EM001853			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$110,000.00	
See SRNS FINPLAN 9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense-Related Funds) in accordance with SRNS FY2011 FINPLAN 9. Funds in the amount of \$110,000,00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,556,888,501.29 to \$2,556,998,501.29.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,956,915,027.46 to \$3,957,025,027.46.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
155		See Block 16C		11EM001853			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$4,627,126.92	
See SRNS FINPLAN							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (DHS Funds) in accordance with SRNS FY2011 FINPLAN 9. Funds in the amount of \$4,627,126.92 are hereby obligated to CLIN 00001, thereby increasing it from \$2,556,998,501.29. to \$2,561,625,628.21.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,957,025,027.46 to \$3,961,652,154.38.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
156		See Block 16C		11EM001853			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$24,272.00	
See SRNS FY11 FINPLAN 9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 9. Funds in the amount of \$24,272.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,561,625,628.21 to \$2,561,649,900.21.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,961,652,154.38 to \$3,961,676,426.38.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
157		See Block 16C		11EM001935			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048				FACILITY CODE		10B. DATED (SEE ITEM 13)	
						01/10/2008	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to increase the cost ceiling to 100% for American Recovery and Reinvestment Act Project A (P&R Areas) and Project D (TRU and Solid Waste). The updated Work Authorizations are attached hereto.							
B. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/22/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
158		See Block 16C		11EM001951			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048				FACILITY CODE		10B. DATED (SEE ITEM 13)	
						01/10/2008	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended,    <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause H.28 - Performance Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>      1      </u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised Performance Evaluation and Measurement Plan for the American Recovery and Reinvestment Act projects. The revised Plan is attached hereto.							
B. All other terms and conditions remain unchanged.							
<p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/24/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
159		See Block 16C		11EM001999			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY 11 FINPLAN 10				Net Increase:                      \$38,522,751.06			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 10. Funds in the amount of \$38,522,751.06 are hereby obligated to CLIN 00001, thereby increasing it from \$2,561,649,900.21 to \$2,600,172,651.27 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$3,961,676,426.38 to \$4,000,199,177.44.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1      2			
2. AMENDMENT/MODIFICATION NO. 160		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 11EM001999		5. PROJECT NO. (If applicable)		
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.	
							9B. DATED (SEE ITEM 11)	
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
							10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE						
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>								
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.								
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY11 FINPLAN 10				Net Increase:		\$100,000.00		
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>								
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.								
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)								
Tax ID Number: 26-0240191								
DUNS Number: 798861048								
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense-Related Funds) in accordance with SRNS FY2011 FINPLAN 10. Funds in the amount of \$100,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,600,172,651.27 to \$2,600,272,651.27.								
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,000,199,177.44 to 4,000,299,177.44.								
Continued ...								
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.								
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)				
				James Lovett				
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED		
(Signature of person authorized to sign)				Signature on File		03/30/2011		
				(Signature of Contracting Officer)				

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/160	2	2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00001	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination  Change Item 00001 to read as follows (amount shown is the total amount):  FOR OFFICIAL USE ONLY MANAGEMENT AND OPERATING CONTRACT FOR THE SAVANNAH RIVER SITE. Line item value is:\$4,000,000,000.00 Incrementally Funded Amount: \$2,978,868,532.44				4,000,000,000.00

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
161		See Block 16C		11EM001999			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$33,010.00	
See SRNS FY11 FINPLAN							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2011 FINPLAN 10. Funds in the amount of \$33,010.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,600,272,651.27 to 2,600,305,661.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from 4,000,299,177.44 to 4,000,332,187.44.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/161	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00001	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				
	Change Item 00001 to read as follows (amount shown is the total amount):  FOR OFFICIAL USE ONLY MANAGEMENT AND OPERATING CONTRACT FOR THE SAVANNAH RIVER SITE. Line item value is:\$4,000,000,000.00 Incrementally Funded Amount: \$2,978,901,542.44				4,000,000,000.00

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
162		See Block 16C		11EM001999			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$223,583.25	
See SRNS FY11 FINPLAN 10							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 10. Funds in the amount of \$223,583.25 are hereby obligated to CLIN 00001, thereby increasing it from \$2,600,305,661.27 to \$2,600,529,244.52.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,000,332,187.44 to \$4,000,555,770.69.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1 CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2 AMENDMENT/MODIFICATION NO</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ. NO</b>	
163		04/07/2011		11EM002135	
<b>5 PROJECT NO. (If applicable)</b>		<b>6 ISSUED BY</b>		<b>7 ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)</b>		<b>9A AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B DATED (SEE ITEM 11)</b>			
		x			
		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470			
		<b>10B DATED (SEE ITEM 13)</b> 01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D OTHER (Specify type of modification and authority)</b>
X	FAR 52.250-1, Indemnification under Public Law 85-804 (Apr 1984)

**E. IMPORTANT:** Contractor is not. is required to sign this document and return 1 copies to the issuing office

**14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to extend Public Law 85-804 indemnification to Savannah River Nuclear Solutions, LLC (SRNS) and its subcontractors engaged in tasks or activities directed by the Contracting Officer in response to the Japan earthquake and tsunami, including related events such as the damage to several Japanese nuclear power plants. The H Clause (H-63) that addresses this Public Law is attached hereto.

B. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B CONTRACTOR/OFFEROR</b>	<b>15C DATE SIGNED</b>	<b>16B UNITED STATES OF AMERICA</b>	<b>16C DATE SIGNED</b>
(Signature of person authorized to sign)		Signature on File	04/07/2011
		(Signature of Contracting Officer)	

The following contract clause is added to Section H as H-63:

**H-63 SECRETARIAL DETERMINATION AUTHORIZING PUBLIC LAW 85-804  
INDEMNIFICATION FOR CONTRACTORS ENGAGED IN ACTIVITIES  
RESPONDING TO THE JAPAN EARTHQUAKE AND TSUNAMI**

- (a) The Secretarial Determination and Authorization under FAR Clause 52.250-1, Indemnification under Public Law 85-804 is for the Japan earthquake and tsunami activities only. Therefore, FAR 52.250-1, Indemnification under Public Law 85-804 (Apr 1984) and Alternate 1 (Apr 1984) are incorporated by reference for only Japan as it relates to paragraph (b) below.
- (b) The following activities are covered by this indemnification:  
  
“Participation in tasks or activities by the Contractor or its subcontractors on or after March 11, 2011 that is directed or authorized by the Contracting Officer of the U.S. Department of Energy or the U.S. Department of Energy National Nuclear Security Administration as an element of activities taken in response to the Japanese earthquake and tsunami, including efforts to address and assess damage to nuclear power plants and potential radioactive releases from these plants now and in the future.”

End of Modification 163

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
164		See Block 16C		11EM002205			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$1,464,106.33			
See SRNS FY11 FINPLAN 11							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 11. Funds in the amount of \$1,464,106.33 are hereby obligated to CLIN 00001, thereby increasing it from \$2,600,529,244.52 to \$2,601,993,350.85.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,000,555,770.69 to \$4,002,019,877.02.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/08/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
165		See Block 16C		11EM002205			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$800,000.00	
See SRNS FY11 FINPLAN 11							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. The purpose of this modification is to obligate funding to CLIN 00001 (DHA Related Activities) in accordance with SRNS FY2011 FINPLAN 11. Funds in the amount of \$800,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,601,993,350.85 to \$2,602,793,350.85.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,002,019,877.02 to \$4,002,819,877.02.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/08/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1 CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      3	
<b>2 AMENDMENT/MODIFICATION NO</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO</b>	
166		See Block 16C		11EM002222	
<b>5 PROJECT NO (If applicable)</b>		<b>6 ISSUED BY</b>		<b>7 ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A AMENDMENT OF SOLICITATION NO</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B DATED (SEE ITEM 11)</b>			
		<b>10A MODIFICATION OF CONTRACT/ORDER NO</b>			
		DE-AC09-08SR22470			
		<b>10B DATED (SEE ITEM 13)</b>			
CODE 798861048		FACILITY CODE		01/10/2008	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<p>The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers _____ is extended _____ is not extended _____</p> <p>Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>					
<b>12 ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)					
C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF _____					
D OTHER (Specify type of modification and authority)					
X EM Interim Contract Clause to Implement EISA 2007 and E.O. 13514 at Department of Energy Sites					
<b>E. IMPORTANT:</b> Contractor _____ is not _____ x is required to sign this document and return _____ 1 _____ copies to the issuing office					
<b>14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)</b>					
Tax ID Number: 26-0240191					
A. The purpose of this modification is to incorporate Clause H-65, Interim Contract Clause to Implement EISA 2007 and E.O. 13514 at Department of Energy Sites, into Contract No. DE-AC09-08SR22470.					
B. All other terms and conditions remain unchanged.					
<p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>					
<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			James Lovett		
<b>15B CONTRACTOR/OFFEROR</b>		<b>15C DATE SIGNED</b>		<b>16B UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				Signature on File	
				<b>16C DATE SIGNED</b>	
				05/02/2011	

**H-65 Interim Contract Clause to Implement EISA 2007 and E.O. 13514 at Department of Energy Sites**

The contractor shall:

Assist the Department through direct participation and other support in achieving the Department's scope 1, 2, and 3 greenhouse gas emission reduction goals and other goals and objectives contained in Executive Order 13514.

Report annually a comprehensive inventory of absolute greenhouse gas emissions, including specified scope 3 emissions, as directed by the Contracting Officer. Develop and implement internal policies to calculate and track greenhouse gas emissions following Federal guidelines.

Implement the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act issued by the Environmental Protection Agency.

Use low-GHG-emitting vehicles, optimize number of vehicles in fleet and follow DOE fleet guidance as provided by the Contracting Officer.

Assist the Department in meeting the pollution prevention and waste diversion goals in E.O. 13514 through source reduction and, as supported by cost-benefit analysis, diverting from disposal non-hazardous solid wastes and construction and demolition materials and debris.

Assist the Department in meeting its high performance sustainable building design, construction, operation and management, maintenance, and deconstruction goals as provided in E.O. 13514.

- Pursue cost-effective, innovative strategies, such as highly reflective and vegetated roofs, to minimize consumption of energy, water, and materials and to contribute to efforts to bring facilities into compliance with Federal Guiding Principles for high performance buildings;
- Manage existing building systems to reduce the consumption of energy, water, and materials, and identify alternatives to renovation that reduce existing assets' deferred maintenance costs;
- Identify opportunities to consolidate and dispose of existing assets, optimize the performance of the Department's real-property portfolio, and reduce associated environmental impacts.

[EISA §433]: Assist the Department in ensuring that new Federal buildings and Federal buildings undergoing major renovations reduce their fossil fuel-generated energy consumption (baseline 2003) by 55% (2010), 65% (2015), 80% (2020), 90% (2025), and 100% (2030).

[EISA §434]: Ensure major replacements of installed equipment, renovation, or expansion of existing space employ the most energy efficient designs, systems, equipment, and controls that are life-cycle cost effective. And ensure such activities contribute to compliance with the Federal Guiding Principles for high performance buildings.

[EISA §432]: As directed by the Contracting Officer, designate a facility energy manager and complete energy and water evaluations every 4 years for each facility. Ensure that facility energy managers commission equipment and establish O&M plans for measuring, verifying, and reporting energy and water savings.

Assist the department in advancing sustainable acquisition for products and services as outlined in E.O. 13514.

- Promote electronics stewardship;
- Establish and implement policies to enable power management, duplex printing, and other energy-efficient or environmentally preferable features on all eligible agency electronic products;
- Employ environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products;
- Implement best management practices for energy-efficient management of servers and Federal data centers;

Assist the Department to sustain environmental management, by:

- Continuing implementation of formal environmental management systems at all appropriate organizational levels; and
- Ensuring these formal systems are appropriately implemented and maintained to achieve the performance necessary to meet the goals of E.O. 13514.

End of Modification 166

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
167		See Block 16C		11EM002323			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause H.28 - Performance Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. The purpose of this modification is to incorporate the updates to the Fiscal Year 2011 Performance Evaluation and Measurement Plan (PEMP) Revision 3 which is attached hereto.							
B. In addition, this modification administrative correct the titles and numbering of the following Section H Clauses:							
1. Modification No. M022, added Section H Clause H-60, EVMS. 2. Modification No. A024, added Section H Clause H-61, Special clause for ARRA. 3. Modification No. 0065, added Section H Clause H-62, ITER. 4. Modifications No. 0053, 0085, and 0097 all should be change to identify Section H Clause							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/29/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	H-63 as Project Management Control. 5. Modification No. 0163 shall be corrected and change to Section H Clause H-64, Japan Indemnification. .  C. All other terms and conditions remain unchanged				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
168		04/29/2011		11EM002377			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY11 FINOLAN 12				Net Increase: \$102,662,356.49			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$102,662,356.49 are hereby obligated to CLIN 00001, thereby increasing it from \$2,602,793,350.85 to \$2,705,455,707.34.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,002,819,877.02 to \$4,105,482,233.51.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		04/29/2011	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
169		04/29/2011		11EM002377			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:		-\$66,843.12	
See SRNS FY11 FINPLAN 12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Commerce Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$-66,843.12 are hereby obligated to CLIN 00001, thereby decreasing it from \$2,705,455,707.34 to \$2,705,388,864.22.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,105,482,233.51 to \$4,105,415,390.39.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/29/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
170		See Block 16C		11EM002377			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$15,897.90	
See SRNS FY11 FINPLAN 12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Commerce Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$-66,843.12 are hereby obligated to CLIN 00001, thereby decreasing it from \$2,705,455,707.34 to \$2,705,388,864.22.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,105,482,233.51 to \$4,105,415,390.39.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/29/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
171		See Block 16C		11EM002377			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,580,000.00	
See SRNS FY11 FINPLAN 12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. Administrative correction to Modification 170: Paragraph A is corrected to read: The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$15,897.90 are hereby obligated to CLIN 00001, thereby increasing it from \$2,705,388,864.22 to \$2,705,404,762.12. and Paragraph B is corrected to read: As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,105,415,390.39 to \$4,105,431,288.29							
B. In addition, the purpose of this modification is to obligate funding to CLIN 00001 Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/29/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$1,580,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,705,404,762.12 to \$2,705,984,762.12  C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,105,431,288.29 to \$4,107,011,288.29.  D. The contract estimated value and all other terms and conditions remain unchanged  FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
172		See Block 16C		11EM002377			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$73,787.00	
See SRNS FY11 FINPLAN 12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
A. Administrative correction: In paragraph B. of modification 171 the to and from amount should be "from \$2,705,404,762.12 to \$2,706,984,762.12."							
B. The purpose of this modification is to obligate funding to CLIN 00001 WFO (State Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$73,787.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,706,984,762.12 to \$2,707,058,549.12.							
C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/29/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	increase the total amount of funds obligated to the contract from \$4,107,011,288.29 to \$4,107,085,075.29.  D. The contract estimated value and all other terms and conditions remain unchanged  FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 1									
2. AMENDMENT/MODIFICATION NO. 173		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 11EM002600									
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		5. PROJECT NO. (if applicable) 7. ADMINISTERED BY (if other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)									
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470									
				10B. DATED (SEE ITEM 13) 01/10/2008									
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS													
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.													
12. ACCOUNTING AND APPROPRIATION DATA (if required) No change in accounting and appropriation data													
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td>X</td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28 - Performance-Based Incentives</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28 - Performance-Based Incentives		D. OTHER (Specify type of modification and authority)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.												
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).												
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28 - Performance-Based Incentives												
	D. OTHER (Specify type of modification and authority)												
E. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.													
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Tax ID Number: 26-0240191 A. The purpose of this modification is to incorporate the attached American Recovery and Reinvestment Act (ARRA) Performance Evaluation and Measurement Plan (PEMP), Revision 2, for the performance period of August 1, 2010 through December 31, 2012. Previous editions of the ARRA PEMP incorporated by modifications 092 and 158 are deleted in their entirety.  B. All other terms and conditions remain unchanged.													
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.													
15A. NAME AND TITLE OF SIGNER (Type or print)  John W. Temple, Director Contracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  Charlene Smith											
15B. CONTRACT/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED 5/18/11		16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)									
				16C. DATE SIGNED 5/18/11									
NSN 7540-01-152-8070 Previous edition unusable		STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243											





U.S. DEPARTMENT OF  
**ENERGY**

Savannah River Site



A M E R I C A N   R E C O V E R Y   A N D   R E I N V E S T M E N T   A C T

## **SAVANNAH RIVER RECOVERY ACT PROGRAM**

# **Performance Evaluation and Measurement Plan**

**Savannah River Nuclear Solutions, LLC**  
**Contract No. DE-AC09-08SR22470**

**Performance Period:**  
**August 1, 2010 through December 31, 2012**

***American Recovery and Reinvestment Act of 2009***

U.S. Department of Energy  
Savannah River Operations Office  
Post Office Box A  
Aiken, South Carolina 29802

Contact DOE-SR Office of External Affairs at 803-952-7697, visit [www.srs.gov](http://www.srs.gov), or call the  
SRS ARRA Hotline at 1-866-GO-RECOVER (1-866-467-3268) for more information.

This information is not approved for release to the public or a foreign national; further distribution is prohibited without written approval from the Technical Information Officer of Savannah River Operations Office, U.S. Department of Energy.

Program Document No. SR-ARRA-10-0039  
Revision: 2  
Date: May 18, 2011

Page Intentionally Left Blank

Approvals for Performance Evaluation Measurement Plan

Savannah River Nuclear Solutions, LLC

Contract No. DE-AC09-08SR22470

Performance Period: August 1, 2010 through December 31, 2012

**Approval:**

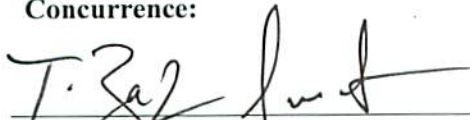


Charlene Smith, Contracting Officer  
*Savannah River Operations Office*  
*U.S. Department of Energy*

5/18/11

Date

**Concurrence:**

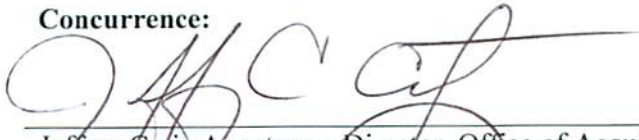


T. Zack Smith, Deputy Manager, Savannah River Operations Office  
*Contracting Officer's Representative*  
*Savannah River Operations Office*  
*U.S. Department of Energy*

05/18/11

Date

**Concurrence:**



Jeffrey Craig Armstrong, Director, Office of Acquisition Management  
*Savannah River Operations Office*  
*U.S. Department of Energy*

5/18/11

Date

Page Intentionally Left Blank

## Change Synopsis

Revision	Effective Date	Affected Pages	Summary of Change
0	August 1, 2010	All	Initial issue.
1	March 23, 2011	Various	<ul style="list-style-type: none"><li>Deleted references in Sections 6.0 and 7.1 regarding payment of \$1,000,000 of provisional fee</li><li>Added Section 10.1.5 contract output SWM-5 for DUO shipments</li><li>Revised sections 11.1.1 through 11.2.2 to move \$1,040,576 from the TRU Waste PBIs to the newly added DUO PBI</li><li>Revised SRNS cost (obligation) amounts based on Mod 145 in Section 2.2</li></ul>
2	May 18, 2011	Various	<ul style="list-style-type: none"><li>Added section 12.1.10, 12.1.10.1, 12.1.10.2, 12.1.10.3. Modified Section 6.0</li></ul>

Page Intentionally Left Blank

## Table of Contents

1.0	PURPOSE AND INTRODUCTION .....	1
2.0	RECOVERY ACT PEMP PROCESS .....	2
2.1	Background .....	2
2.2	Final Obligation of Recovery Act Funds to SRNS .....	4
2.3	Performance Document Hierarchy .....	5
2.4	Performance Planning .....	5
2.5	Completion Criteria and Validation Documentation .....	6
2.6	Performance Fee Agreement.....	7
2.7	Performance Fee Agreement for ARRA Scope .....	7
3.0	CHANGE CONTROL .....	7
4.0	FEDERAL OVERSIGHT OF CONTRACTOR PERFORMANCE .....	8
5.0	PERFORMANCE EVALUATION .....	9
6.0	PAYMENT OF FEE .....	10
7.0	SRRAP FEE.....	11
7.1	Fee Available to SRNS for SRRAP Projects.....	11
7.1.1	Subjective Measures and Fee.....	11
7.2	Cost Limitations.....	12
8.0	FEE INVOICING PROCESS .....	13
9.0	GOVERNMENT FURNISHED SERVICES/ITEMS .....	13
10.0	SOLID WASTE MANAGEMENT FEE AGREEMENT .....	13
10.1	Performance Outcome .....	13
10.1.1	Contract Output SWM-1 .....	14
10.1.1.1	Description/Background/Justification.....	14
10.1.1.2	Fee Schedule .....	15
10.1.2	Contract Output SWM-2.....	15
10.1.2.1	Description/Background/Justification.....	16
10.1.2.2	Fee Schedule .....	16
10.1.3	Contract Output SWM-3.....	16
10.1.3.1	Description/Background/Justification.....	16
10.1.3.2	Fee Schedule .....	16
10.1.4	Contract Output SWM-4.....	17
10.1.4.1	Description/Background/Justification.....	17
10.1.4.2	Fee Schedule .....	17
10.1.5	Contract Output SWM-5.....	17
10.1.5.1	Description/Background/Justification.....	18
10.1.5.2	Fee Schedule .....	18
10.2	GFS/I Requirements for PBI No. SRNSARRA-SWM.....	18
11.0	ACCELERATED LEGACY TRANSURANIC WASTE DISPOSITION FEE AGREEMENT .....	19
11.1	Performance Outcome .....	19
11.1.1	Contract Output TRU-1 .....	20

---

## Table of Contents

11.1.1.1	Description/Background/Justification.....	21
11.1.1.2	Fee Schedule .....	23
11.1.2	Contract Output TRU-2 .....	26
11.1.2.1	Description/Background/Justification.....	26
11.1.2.2	Fee Schedule .....	26
11.1.3	Contract Output TRU-3 .....	27
11.1.3.1	Description/Background/Justification.....	27
11.1.3.2	Fee Schedule .....	27
11.2	GFS/I Requirements for PBI No. SRNSARRA-TRU .....	28
11.2.1	GFS/I to be provided by DOE-SR through DOE-CBFO, Washington TRU Solutions (WTS), and CCP.....	28
11.2.2	GFS/I to be provided by DOE-SR .....	29
12.0	FOOTPRINT REDUCTION (AREA COMPLETION) FEE AGREEMENT	30
12.1	Performance Outcome .....	30
12.1.1	Contract Output FPR-1 .....	31
12.1.1.1	Description/Background/Justification.....	34
12.1.1.2	Fee Schedule .....	34
12.1.2	Contract Output FPR-2 .....	34
12.1.2.1	Description/Background/Justification.....	34
12.1.2.2	Fee Schedule .....	35
12.1.3	Contract Output FPR-3 .....	35
12.1.3.1	Description/Background/Justification.....	35
12.1.3.2	Fee Schedule .....	35
12.1.4	Contract Output FPR-4 .....	36
12.1.4.1	Description/Background/Justification.....	36
12.1.4.2	Fee Schedule .....	36
12.1.5	Contract Output FPR-5 .....	36
12.1.5.1	Description/Background/Justification.....	37
12.1.5.2	Fee Schedule .....	37
12.1.6	Contract Output FPR-6 .....	37
12.1.6.1	Description/Background/Justification.....	37
12.1.6.2	Fee Schedule .....	37
12.1.7	Contract Output FPR-7 .....	38
12.1.7.1	Description/Background/Justification.....	38
12.1.7.2	Fee Schedule .....	38
12.1.8	Contract Output FPR-8 .....	39
12.1.8.1	Description/Background/Justification.....	39
12.1.8.2	Fee Schedule .....	39
12.1.9	Contract Output FPR-9 .....	40
12.1.9.1	Description/Background/Justification.....	40
12.1.9.2	Fee Schedule .....	40
12.1.10	Contract Output FPR-10 .....	40



## Table of Contents

12.1.10.1	Description/Background/Justification.....	40
12.1.10.2	Fee Schedule .....	41
12.1.10.3	Additional GFS/I Requirements Specific to FPR-10.....	41
12.2	GFS/I Requirements for PBI No. SRNSARRA-FPR .....	42
13.0	GLOSSARY .....	42

## List of Figures

Figure 1.	Award Fee Pool Distribution for PBI No. SRNSARRA-SWM .....	14
Figure 2.	Award Fee Pool Distribution for PBI No. SRNSARRA-TRU .....	20
Figure 3.	Award Fee Pool Distribution for PBI No. SRNS ARRA-FPR.....	31

## List of Tables

Table 1.	DOE Financial Source Data for P & R Recovery Act Project.....	3
Table 2.	DOE Financial Source Data for M & D Recovery Act Project .....	3
Table 3.	DOE Financial Source Data for D&D, Soil & Groundwater Activities .....	4
Table 4.	DOE Financial Source Data for TRU & Solid Waste Recovery Act Project .....	4
Table 5.	Financial Source Data for P & R RA Project to Support SRNS Contract Mod. 145.....	4
Table 6.	Financial Source Data for M & D RA Project to Support Contract Mod. 145.....	5
Table 7.	Financial Source Data for D&D, Soil & Groundwater Activities RA Project to Support Contract Mod. 145.....	5
Table 8.	Financial Source Data for TRU & SW RA Project to Support Contract Mod. 145.....	5
Table 9.	Recovery Act Award Fee Summary for PBI No. SRNSARRA-SWM.....	13
Table 10.	Fee Schedule for Contract Output SWM-1 .....	15
Table 11.	Fee Schedule for Contract Output SWM-2.....	16
Table 12.	Fee Schedule for Contract Output SWM-3.....	17
Table 13.	Fee Schedule for Contract Output SWM-4.....	17
Table 14.	Fee Schedule for Contract Output SWM-5.....	18
Table 15.	Recovery Act Award Fee Summary for PBI No. SRNSARRA-TRU .....	19
Table 16.	Fee Schedule for Contract Output TRU-1 .....	23
Table 16a.	Supplemental Fee Schedule for Contract Output TRU-1.01a.....	24
Table 16b.	Supplemental Fee Schedule for Contract Output TRU-1.01b .....	25
Table 16c.	Supplemental Fee Schedule for Contract Output TRU-1.01c.....	25
Table 17.	Fee Schedule for Contract Output TRU-2 .....	27
Table 18.	Fee Schedule for Contract Output TRU-3 .....	28
Table 19.	Recovery Act Award Fee Summary for PBI No. SRNSARRA-FPR .....	30

## List of Tables

Table 20. Technical Basis for Contract Output FPR-1 .....	31
Table 21. Fee Schedule for Contract Output FPR-1 .....	34
Table 22. Fee Schedule for Contract Output FPR-2 .....	35
Table 23. Fee Schedule for Contract Output FPR-3 .....	36
Table 24. Fee Schedule for Contract Output FPR-4 .....	36
Table 25. Fee Schedule for Contract Output FPR-5 .....	37
Table 26. Fee Schedule for Contract Output FPR-6 .....	38
Table 27. Fee Schedule for Contract Output FPR-7 .....	38
Table 28. Fee Schedule for Contract Output FPR-8 .....	39
Table 29. Fee Schedule for Contract Output FPR-9 .....	40
Table 30. Fee Schedule for Contract Output FPR-10 .....	41

## List of Acronyms

AgCl	Silver Chloride
AM	[DOE-SR] Assistant Manager
ARRA	American Recovery and Reinvestment Act of 2009
BCP	Baseline Change Proposal
BOE	Basis of Estimate
CBFO	Carlsbad Field Office
CCB	Configuration Control Board
CCP	Central Characterization Project
CERCLA	<i>Comprehensive Environmental Response, Compensation and Liability Act of 1980</i>
CH	contact-handled [TRU]
CMP	Contractor Management Plan
CPAF	Cost Plus Award Fee [contract]
CY	calendar year
D&D	deactivation and decommissioning
DAOU	D Area Operable Unit
DEAR	Department of Energy Acquisition Regulations
DOE	[U.S.] Department of Energy
DPFR	Decommissioning Project Final Report
DSA	Documented Safety Analysis
EA	Expert Analysis
ECODS	Early Construction and Operations Disposal Site
EM	Office of Environmental Management
EMAAB	Environmental Management Acquisition Advisory Board
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulations
FDO	Fee Determining Official
FFA	Federal Facility Agreement
FIS	Fee Invoicing System
FPD	Federal Project Director
FY	Fiscal Year
GFS/I	Government Furnished Services & Items
HGS	Head Gas Space
HW	hazardous waste
HWCTR	Heavy Water Components Test Reactor
IMP	Interface Management Plan
IPABS	Integrated Planning, Accountability, and Budgeting System
IPABS-IS	IPABS-Information System
IPAM	Integrated Performance Assurance Manual
IPT	Integrated Project Team
ISMS	Integrated Safety Management System
LC	Large Container
LLW	low-level radioactive waste
M&O	Management and Operating [Contractor]

---

## List of Acronyms

MAOU	M Area Operable Unit
MLLW	mixed hazardous low-level radioactive waste
NDA	Non-Destructive Assay
NDE	Non-Destructive Examination
NNSA	National Nuclear Security Administration
NTS	Nevada Test Site
OSA	Onsite Safety Assessment
PAOU	P Area Operable Unit
PBS	Project Baseline Summary
PBI	Performance Based Incentive
PEMP	Performance Evaluation Measurement Plan
PFA	Performance Fee Agreement
POP	Project Operating Plan
RAOU	R Area Operable Unit
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RH	remote-handled [TRU]
RMP	Risk Management Plan
SCDHEC	South Carolina Department of Health and Environmental Control
SLB	Standard Large Box
SME	Subject Matter Expert
SOW	Statement of Work
SRM	[DOE] Savannah River Manual
SRS	Savannah River Site
SRNS	Savannah River Nuclear Solutions, LLC
SWB	Standard Waste Box
TDOP	Ten Drum Overpack Containers
TSCA	<i>Toxic Substances Control Act of 1976</i>
TRU	transuranic waste
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forestry Service
WBS	Work Breakdown Structure
WIPP	Waste Isolation Pilot Plant

---

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	ix
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

---

Page Intentionally Left Blank



Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	1
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

## 1.0 PURPOSE AND INTRODUCTION

This document serves as the Performance Evaluation Measurement Plan (PEMP) for Savannah River Nuclear Solutions, LLC (SRNS) as work is performed under Contract No. DE-AC09-08SR22470 and funded by the *American Recovery and Reinvestment Act of 2009* (ARRA; henceforth referred as Recovery Act). U.S. Department of Energy (DOE) Office of Environmental Management (EM) chartered the Savannah River Recovery Act Program (SRRAP) to execute Recovery Act funds by performing EM mission activities at the Savannah River Site (SRS) in Aiken, South Carolina.

The SRS is government-owned and contractor-operated. At SRS, the DOE utilizes management and operating (M&O) contracts to provide landlord services and perform Departmental mission activities. These contracts are subject to the appropriate provisions of *Code of Federal Regulations* (CFR), Title 48, "Federal Acquisition Regulations System," Chapter 1, "Federal Acquisition Regulation (FAR)," and in CFR, Title 48, Chapter 9, "Department of Energy Acquisition Regulations (DEAR)," and Subchapter I, Agency Supplementary Regulations, Part 970, "DOE Management and Operating Contracts."

SRNS is the M&O Contractor at the SRS. The SRNS Contract is a cost-reimbursable contract with performance-based award fee or, as commonly referred to as cost, plus award fee (CPAF).

Development of a PEMP is identified in Section H-28, "Performance Based Incentives," of the SRNS Contract; a separate Recovery Act PEMP is referenced in Contract Modification A024, awarded on April 8, 2009.

This document addresses development of Performance Fee Agreements (PFA) between DOE-SR and SRNS. This includes administration of performance measures, including Performance-Based Incentives (PBI), and award fee defined in the Contract. The performance incentives that EM established under the Contract are contained in this PEMP as are provisions regarding establishment of the award fee pool and payment of incentives awards.

To ensure compliance with intent of the Recovery Act, guidelines were reviewed and incorporated as applicable. Guidance such as the "Supplement Guidance to CFO/MA Memorandum of March 3, 2009" and the "Guidance for Modifications" were reviewed.

The total scope of this PEMP is based on the total obligation of Recovery Act funding to SRNS of \$1,396,182,026 to execute SRRAP scope during the period of performance from April 8, 2009 through December 31, 2012. For work performed during the period from April 8, 2009 through July 31, 2010, a fixed fee structure was utilized. The PFAs described in this PEMP provide incentives for work performed from August 1, 2010 through December 31, 2012.

## **2.0 RECOVERY ACT PEMP PROCESS**

### **2.1 Background**

The Recovery Act is an unprecedented effort to jumpstart the United States economy, create and retain millions of jobs, and put a down payment on addressing long-neglected challenges to allow the country to thrive in the 21<sup>st</sup> century. The Recovery Act, which was passed by the 111<sup>th</sup> Congress on February 13, 2009 and signed into law by the President on February 17, is an extraordinary response to a crisis unlike any since the Great Depression, and includes measures to modernize the nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need. The purposes of the Recovery Act are the following:

- To preserve and create jobs and promote economic recovery;
- To assist those most impacted by the recession;
- To provide investments needed to increase economic efficiency by spurring technological advances in science and health;
- To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and
- To stabilize state and local government budgets in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

Office of Environmental Management identified several opportunities to significantly reduce its cleanup program lifecycle costs by making upfront investments on its core mission activities as described in *Report to Congress: Status of Environmental Management Initiatives to Accelerate the Reduction of Environmental Risks and Challenges Posed by the Legacy of the Cold War* (January 2009). These upfront investments include:

- Near-Term Completion – Accelerating the completion of mission activities at EM's smaller sites and at DOE's national laboratories thereby reducing EM's remaining work to the larger sites;
- Footprint Reduction – Accelerating the completion of environmental (soil and groundwater) remediation and facility deactivation and decommissioning (D&D) at the larger sites thereby reducing EM's remaining work to the areas of the site where long-term mission activities still need to be completed; and
- Solid Radioactive Waste Disposal – Accelerating the disposal of transuranic waste and low-level radioactive waste in an effort to maximize the use of readily available disposal facilities and capabilities.

Congress and the President have afforded EM the opportunity to execute these initiatives and realize a return on investment by providing funds through the Recovery Act. Title IV—Energy and Water Development, Department of Energy, Energy Programs of the Recovery Act provides a total of \$6,000,000,000 in the following appropriations:

- \$483,000,000 for Non-Defense Environmental Cleanup,
-



Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	3
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

\$390,000,000 for Uranium Enrichment Decontamination and Decommissioning Fund, of which \$70,000,000 shall be available in accordance with Title X, Subtitle A of the *Energy Policy Act of 1992*, and

\$5,127,000,000 for Defense Environmental Cleanup.

At the SRS, an investment of \$1,615,400,000 in the Defense Environmental Cleanup appropriation was made to achieve the objectives of the Recovery Act while executing the EM strategic initiatives. These funds are in addition to those received through the annual appropriations of the *Energy and Water Development Appropriation Act* for EM's base program.

The SRRAP was initially divided into four SRS Recovery Act "projects" with four corresponding Budget Authorities. The DOE financial source data for each of the four "projects" are provided in the tables below. These tables do not reflect obligations to the SRNS contract.

Table 1. DOE Financial Source Data for P & R Recovery Act Project

Recovery Act Project:	Savannah River Site D&D P & R Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002150
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	\$579,000,000
Budget Authority:	06049, FD.05.11.00.0 - \$579,000,000
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM – Defense
Completion Date:	September 30, 2011

Table 2. DOE Financial Source Data for M & D Recovery Act Project

Recovery Act Project:	Savannah River Site D&D M & D Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002151
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	\$130,000,000
Budget Authority:	06049, FD.05.12.00.0 - \$130,000,000
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM – Defense
Completion Date:	September 30, 2011

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	4	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

Table 3. DOE Financial Source Data for D&D, Soil & Groundwater Activities

Recovery Act Project:	Savannah River Site D&D, Soil & Groundwater Activities
TAFS:	89-09/10-0253
Project Identification Code:	2002152
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	\$365,400,000
Budget Authority:	06049, FD.05.13.00.0 - \$365,400,000
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM – Defense
Completion Date:	September 30, 2011

Table 4. DOE Financial Source Data for TRU & Solid Waste Recovery Act Project

Recovery Act Project:	Savannah River Site TRU & Solid Waste Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002153
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	\$541,000,000
Budget Authority:	06049, FD.05.30.00.0 - \$541,000,000
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM – Defense
Completion Date:	September 30, 2011

## 2.2 Final Obligation of Recovery Act Funds to SRNS

In July 2010, the U.S. Office of Management and Budget (OMB) approved the DOE's request to reapportion Recovery Act funds based on the technical scope, performance milestones and measures, funding levels, and cost profile described in the Project Operating Plan (POP) (June 18, 2010) for each of the four Recovery Act Projects. Contract Modification 90 and Modification 91 were issued in August 2010 to obligate funds accordingly. In February 2011, Modification 145 was issued to show the total funds obligated as of September 30, 2010. The tables below reflect the SRNS obligations, and serve as the basis, in part, for determining the award fee pool.

Table 5. Financial Source Data for P & R RA Project to Support SRNS Contract Mod. 145

Recovery Act Project:	Savannah River Site D&D P & R Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002150
<b>SRNS Cost (Obligation):</b>	<b>\$416,711,472.35</b>
Revised Budget Authority:	06049, FD.05.11.00.0 - \$417,715,000
Revised Completion Date:	September 30, 2012
<b>SRNS PEMP Period of Performance:</b>	<b>August 1, 2010 through September 30, 2012</b>

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	5
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

Table 6. Financial Source Data for M & D RA Project to Support Contract Mod. 145

Recovery Act Project:	Savannah River Site D&D M & D Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002151
<b>SRNS Cost (Obligation):</b>	<b>\$23,530,068.83</b>
Revised Budget Authority:	06049, FD.05.12.00.0 - \$23,550,000
Completion Date:	September 30, 2011
<b>SRNS PEMP Period of Performance:</b>	<b>August 1, 2010 through September 30, 2011</b>

Table 7. Financial Source Data for D&D, Soil & Groundwater Activities RA Project to Support Contract Mod. 145

Recovery Act Project:	Savannah River Site D&D, Soil & Groundwater Activities
TAFS:	89-09/10-0253
Project Identification Code:	2002152
<b>SRNS Cost (Obligation):</b>	<b>\$235,738,869.79</b>
Revised Budget Authority:	06049, FD.05.13.00.0 - \$236,199,000
Completion Date:	September 30, 2011
<b>SRNS PEMP Period of Performance:</b>	<b>August 1, 2010 through September 30, 2011</b>

Table 8. Financial Source Data for TRU & SW RA Project to Support Contract Mod. 145

Recovery Act Project:	Savannah River Site TRU & Solid Waste Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002153
<b>SRNS Cost (Obligation):</b>	<b>\$720,201,615.20</b>
Revised Budget Authority:	06049, FD.05.30.00.0 - \$737,936,000
Revised Completion Date:	December 31, 2012
<b>SRNS PEMP Period of Performance:</b>	<b>August 1, 2010 through December 31, 2012</b>

## 2.3 Performance Document Hierarchy

This Recovery Act PEMP is subordinate to the prime contract. Therefore, where matters of interpretation are concerned the original contract supersedes the Recovery Act PEMP and represents the final decision. Any matters of interpretation are to be identified to the CO for resolution.

## 2.4 Performance Planning

This Recovery Act PEMP was developed with federal and contractor staff input. Both federal and contractor parties strive to reach mutual agreement on expected business, operational and technical performance and work together to develop incentives and award fee descriptions and associated measures tied to key end products, DOE strategic goals and objectives. Incentives and fee demonstrate direct flow down of DOE strategic goals and priorities.

---

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	6	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

---

The CO reserves the unilateral right to make final decisions on all performance objectives and incentives (including the associated measures and targets) used to evaluate contractor performance, including any modifications. Only the CO can change the Recovery Act PEMP. No changes will occur to the Recovery Act PEMP in the last 60 days of the evaluation period, unless with bilateral agreement between the DOE-SR and SRNS.

The CO may mutually negotiate with the contractor additional available fee for additional work not covered by the available budget. The funds for such work and the associated available fee is funded through the contractor's efficiencies in accomplishing the otherwise funded work. The additional work must be performed in a safe manner meeting all necessary requirements; and the performance of the additional work cannot affect the safe, proper performance of the otherwise funded work. Any additional work will be authorized in accordance with provision in the contract Section H entitled, *Work Authorization System* and is considered Super Stretch scope. This additional work falls under the management of DOE Order 412.1A, *Work Authorization System*.

A Super Stretch Incentive is defined as a performance-based incentive designed to motivate the contractor to accomplish unbudgeted work through cost efficiencies and/or savings realized during execution of an existing performance measurement baseline and/or contract work authorization document. Work that is associated with a Super Stretch incentive may be initiated under a pre-approved (through the formal change control process) baseline planning package and then executed and completed under a work package. Because Super Stretch-incentivized work and the associated award fee pool are unbudgeted and unfunded, the contractor must provide objective evidence that cost efficiencies/savings are realized or that cost efficiencies/savings are forecasted at a high degree of certainty. In some cases, initiation of a Super Stretch-incentivized planning package may result in an over-target baseline condition. The contractor is expected to exercise diligence and discretion to ensure work is completed and objectives are achieved under the existing approved performance baseline while planning and executing Super Stretch-incentivized work. Because a Super Stretch Incentive is focused on delivery of an end product, measures and metrics must be objective.

## 2.5 Completion Criteria and Validation Documentation

Savannah River Recovery Act Program federal and contractor management developed performance criteria to complete work authorization outputs. The criterion considers fee allocation based on assumption of liability per FAR Subpart 950.71, "General Contract Authority Indemnity," and project risk assumptions, including Government Furnished Services/Items (GFS/I). Assumptions and GFS/I are identified in Work Breakdown Structure (WBS) Basis of Estimate (BOE), and are communicated to the DOE through the contract performance baseline (CPB). In addition, a list of GFS/I is identified for each PFA in this PEMP.

Completion criteria are identified within the PFAs to ensure DOE and the contractor agree what constitutes completion of the performance. This documentation can take many forms such as a shipping manifest, completion of a walk-down, a report, etc. It is important that actual means of verification is agreed to and documented during the PFA development.

NOTE: Performance language should reflect sensitivities relative to site activities and facilities, and operational security, according to DOE Order 470.4A, *Safeguards and Security Program*.

---

## **2.6 Performance Fee Agreement**

A PFA is the agreement between DOE-SR and SRNS that identifies specific performance criteria for executing SRRAP objectives as well as EM mission objectives and contains criteria for evaluating performance completion. The PFAs identify the PBIs and associated contractor outputs that achieve the PBI. The PFAs include:

- Correlation to SRRAP reporting structure and the financial accounts
- Performance period and allocated fee
- Federal and contractor points of contact, review and approval
- Performance outcome
- Contract output (from contract statement of work)
- Output requirement (from contract listing of directives and standards)
- Completion criteria, including specific criteria to demonstrate completion
- Evaluation criteria
- Scope, Schedule, Cost
- GSF/I

The agreements represent formal and binding performance fee expectations on the part of DOE and SRNS and identify the fee allocation amount for each performance component.

The Integrated Project Team (IPT) may determine early fee payment is an appropriate incentive for work completed ahead of schedule, provided all other requirements for completing work are satisfied, and necessary change/configuration controls and risks have been addressed.

## **2.7 Performance Fee Agreement for ARRA Scope**

The fee pool for Recovery Act scope is commensurate with the fee pool percentage SRNS bid on for the competed work scope under the original base prime contract.

A Fee Allocation Model is used to demonstrate distribution of fee based on weighting of funding, priority and complexity. The Fee Allocation Model outcome is used to develop expected fee earning based on the Performance Fee Agreements.

Multiple Performance Fee Agreements were prepared to align with performance-related groupings of project activities.

## **3.0 CHANGE CONTROL**

All correspondence regarding proposed changes to PFAs shall be sent to the CO. The CO consults with the SRRAP FPD to determine if the proposed change impacts the CPB. If the

---

---

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	8	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

---

proposed change does not impact the baseline, the CO will issue correspondence to SRNS that incorporates the advice of a Subject Matter Expert (SME) concerning the proposal.

Action directed by CO correspondence is considered to be within scope of work of the existing contract. If SRNS considers that carrying out this direction may increase contract costs or delay any delivery, SRNS shall promptly notify the CO orally, confirming and explaining the notification in writing as soon as possible, but within no more than five (5) working days. Following oral notification and submission of the written notice of impacts, SRNS shall await further direction from the CO prior to implementing the action.

If the proposed change impacts the baseline and exceeds the established change thresholds, then the CO will request SRNS to develop a BCP for review by the SRRAP Change Control Board. The DOE has an established a Change Control Board (CCB) with assigned levels of approval authority based on change thresholds and/or contractual authority. This approach was designed to ensure changes can be addressed rapidly without compromising control. Both parties recognize that modified work scope may occur and change control actions will be processed in a timely manner.

## **4.0 FEDERAL OVERSIGHT OF CONTRACTOR PERFORMANCE**

Central to administration of the contract is assessment of SRNS performance. All federal staff members performing assessments are expected to understand terms and conditions of the contract. In order to verify performance, a systematic process of assessment, analysis, documentation and feedback will be required. A range of assessment techniques from data/metric reviews and analysis, to review of self-assessments by SRNS, to formal multidisciplinary assessments will be employed. The assessments will be tailored based on the level of definition of the work requirements and complexity of the function.

Procedures for assessing contract performance are described in the SR Manual (SRM) 226.1.1, *Integrated Performance Assurance Manual*. The intent of the oversight processes described in the manual is to assure SRNS compliance with contract requirements, provide for timely identification and correction of deficient conditions, verify effectiveness of completed corrective actions, and pursue excellence through continued improvement. Additionally, the manual is intended to assist DOE in implementing the site contractor oversight system (a management framework of related processes to determine whether DOE and SRNS assurance programs are performing effectively and/or complying with DOE requirements).

The SRNS oversight system is founded on an integrated safety management system (ISMS), emulating DOE Policy 450.4, *Safety Management System*. SR Manual 226.1.1 describes processes comprising the contractor oversight system, which enables DOE to: (1) clearly communicate requirements and expectations to contractors; (2) assess the quality, effectiveness, and efficiency of contractor assurance systems and resulting work products in complying with contract requirements; (3) effect continuous improvement in contractors' operations; and (4) enhance the effectiveness of DOE-SR oversight of contractor performance.

---

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	9
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

The SRNS oversight system provides DOE site management information needed to make informed decisions regarding both contractor and DOE performance and to determine whether program corrections are necessary. Communicating requirements and expectations to the contractor is an essential component in the SRNS oversight system. Requirements and expectations are communicated through the Statement of Work, special clauses, contract modifications, and through technical direction by the CO or representative.

SR Manual 226.1.1 provides detailed requirements for standardized scheduling, planning, conducting, reporting, and follow-up and closure activities for Type 1, 2, and 3 Assessments. Assessments are designed to provide managers with meaningful, accurate, and current information on the status of program compliance, productivity, and quality. Use of standardized assessment methods is a key feature of DOE site performance assurance.

In accordance with DOE Order 226.1A, *Implementation of Department of Energy Oversight Policy*, the site also uses independent and self-assessments to determine effectiveness of site assessment of the implementation of contractor assurance systems for environment, safety, and health; safeguards and security; emergency management; cyber security; and business practices systems and their sub elements. Results from these independent and self-assessments in addition to external assessments provide insight into areas where improvements in contractor oversight can be made. The end result is a management system regularly assessing performance, assuring comprehensive corrective action, and providing continuous improvement by identifying, correcting, and preventing problems hindering achievement of site missions.

The DOE will dedicate resources to verify interface management and interface control activities, led by SRNS, are the result of collaborative efforts on the part of all contractors who perform work at SRS to define system boundary and interfacing systems, document system boundaries and interfacing systems, and define interface functions and requirements. In addition to verifying all required documentation is in place, DOE will resolve disputes between and/or among contractors.

The DOE prime contractors will provide or receive services from other contractors and ensure deliverables, including GFS/I, are identified and documented in accordance with Interface Management plan/program. The Interface Management IPT will verify when SRNS requests services from another contractor; they provide specifications, requirements, hazard information, quality assurance, technical, safety, and environmental requirements for the work to be performed. Contractors requesting services from SRNS are responsible for oversight of requirements related to the specific work task(s) to ensure the performing contractor delivers a product or service meeting requirements of the requesting contractor. The DOE is responsible for the oversight of the individual DOE prime contractors and ensuring they meet the requirements for delivery of services. The performing contractor is expected to consult DOE whenever requirements conflict with, or are greater than, its own baseline requirements.

## 5.0 PERFORMANCE EVALUATION

Upon completion of performance criteria described in the PFA, SRNS will provide documentation in the Fee Invoicing System (FIS) and forward the documentation to the relevant DOE organization technical representative, who in turn will perform a verification to confirm

---

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	10	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

---

output criterion has been met. This may also require an in-field validation. Upon verification and/or in-field validation, recommendation is forwarded through the primary division office to the SRRAP FPD. Results of the verification should be documented per SRM 226.1.1C, *Integrated Performance Assurance Manual (IPAM)*.

Members of the IPT who are federal employees participate in reviewing technical representative verification and/or in-field validation reports, discussions relative to contractor performance, and recommending to the SRRAP FPD a percentage of fee appropriated for a specific incentive. The SRRAP FPD will verify documentation provided demonstrates satisfactory completion according to performance incentive requirements. Fee determination will be made in accordance with the Recovery Act PEMP based on fee identified in the PFA.

SRNS may perform a self-assessment of their performance. The SRRAP FPD will review any assessment provided by SRNS. If the SRRAP FPD does not concur with the SRNS' self-evaluation and recommendation, all such disagreements shall be expressed in a performance evaluation letter to SRNS. The SRNS CO shall submit written comments and any supporting documentation to the SRRAP FPD within five (5) working days of receiving the evaluation letter. Within ten (10) working days of receiving any contractor comments or reclama, the SRRAP FPD shall provide the DOE CO a recommendation, including amount, rationale, and justification.

When disputes occur during the verification process and resolution is not forth coming between SRNS and the appropriate DOE-SR Assistant Manager (AM), the IPT is the avenue for dispute resolution. The parties should request a special IPT review to present the case and the IPT should be responsible for making the determination on an appropriate path forward.

The IPT will routinely measure and report contractor:

- Technical performance (quality of product/service)
- Cost control
- Adherence to schedule
- Business relations

The survey is critical to record contract performance that is considered implicit, or subjective. Clear measures will be defined and consistent with standards of reporting contractor performance (FAR 42.15, FAR 15.3, FAR 9.1, and DEAR 909.1), The *Federal Acquisition Streamlining Act of 1994*, and the *Federal Acquisition Guide*, Chapter 42.15.

## **6.0 PAYMENT OF FEE**

The contractor requests fee payment by submitting an invoice. Following verification by the relevant DOE organization manager/agreement owner, recommendation is forwarded to the SRRAP FPD/Fee Determining Official (FDO). The SRRAP FPD provides a recommendation to the FDO and CO on fee payment for each invoice, or recommends to the CO a change to the fee payment (unearned fee). Fee payment is considered provisional throughout the performance period. Pursuant to Contract Clause I.40 - DEAR 970.5215-1 Total Available Fee: Base Fee Amount and Performance Fee Amount (DEC 2000) ALTERNATE II (DEC 2000) ALTERNATE

---



Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	11
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

IV (DEC 2000), the Government shall, at the conclusion of the SRRAP performance period (i.e., August 1, 2010 through the end of ARRA project), evaluate the contractor's performance of all requirements, including performance based incentives completed during the period, and determine the total available fee earned. Determination of the total available fee earned, including performance incentive fee earned, is the unilateral determination of the FDO.

Total available earned fee amount payments are made by direct payment or withdrawn from funds advanced or available under the contract, as determined by the CO in accordance with contractor's compliance with special terms and statutory conditions of the Recovery Act. The CO may offset against any such fee payment the amounts owed to the government by the contractor, including any amounts owed for disallowed costs under the contract. No Recovery Act earned fee may be withdrawn without the prior written approval of the CO.

The contractor will be advised in writing of the amount and basis of the determination of the total available fee earned. Unearned fee will not be allocated to future performance periods. However, fee may be allocated to new performance-based incentives as developed by the IPT, as long as the completion of the newly developed incentive does not extend beyond the performance period.

## **7.0 SRRAP FEE**

### **7.1 Fee Available to SRNS for SRRAP Projects**

As delineated in Contract Modification A045, "the ARRA PEMP for FY10 & FY11 will be supplemented when the baseline is more defined. The basis for earning fee is included in the ARRA Performance Evaluation and Measurement Plan (PEMP) and contract modifications."

Based on OMB's approval of DOE's request to reapportion funds among the four SRS Recovery Act Projects in July 2010, Contract Modification 90 and Modification 91 were issued in August 2010 to obligate funds according to the new funds distribution.

The total available fee pool is \$87,471,189, from which \$32,076,741 has been paid for the period April 8, 2009 through July 30, 2010. The total remaining fee pool available for SRNS to earn is \$55,394,448 during the remaining SRRAP period from August 2010 through December 2012. The earning of award fee shall be based on completing objective performance milestones as set forth in Section 10.0, "Solid Waste Management Fee Agreement," Section 11.0, "Accelerated Legacy Transuranic Waste Disposition Fee Agreement," and Section 12.0, "Footprint Reduction (Area Completion) Fee Agreement" of this PEMP. Each of the identified performance milestones includes percentage values for fee recovery relative to the remaining fee, along with objective criteria to define completion of the contract output.

#### **7.1.1 Subjective Measures and Fee**

Subjective fee may be earned by SRNS in an amount not to exceed \$1,000,000 through the end of the SRRAP period of performance, payable quarterly (10 quarterly payments, beginning at the

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	12	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

end of 4th quarter 2010) based on DOE-SR's subjective determination of SRNS' SRRAP-specific business performance. In most cases, the SRRAP-specific business services and deliverables are driven by Recovery Act-specific requirements, including those: mandated by OMB; in response to U.S. Government Accounting Office or U.S. Office of the Inspector General recommendations; required by programmatic direction from Office of Environmental Management Recovery Act Program (EM-3.1); and required by SRRAP as needed for business operations and work execution. Examples of the SRRAP-specific business services and deliverables are listed below.

Weekly Plan of the Week (POW) Project Reports

Quarterly reports submitted to federalreporting.gov

Weekly, monthly and quarterly headcount & FTE reports

Supplemental Information Report for Monthly Projects Reviews

Monthly Performance Report of Record for SRRAP

Monthly (2nd Wednesday) SRS Counterparts Meeting: SRRAP Progress Report

EVMS Format 1 and Format 5 reports at the 12 and the 70 subproject levels

Monthly variance package at the 12 and the 70 subproject levels

Monthly Performance Curves at the 12 sub-project level

Monthly Performance Metrics (e.g. EM Gold Metrics, EM Corporate Measures)

Monthly Citizens Advisory Board Metrics

Monthly Certified Cost Report

Monthly report of actual cost plus 60 day spend projection compared to cost authority for each Recovery Act Project

Monthly SRRAP Project Subcontract Commitments

SRRAP Monthly Newsletter

Public Affairs stories for EM Newsletter & EM Recovery Newsletter

Public Affairs SRRAP and Human Interest videos

Public Affairs weekly news releases

Ad hoc data calls and reports requested by DOE-HQ and DOE-SR

The DOE-SR's determination will be based on the timeliness and quality of business services and products delivered. The success of SRNS is determined solely by DOE-SR, which will consider the related conditions under which the work was performed and SRNS' specific performance as measured against the SRRAP objectives.

## 7.2 Cost Limitations

Costs are limited to the Budget Authority established for each Recovery Act Project (refer to tables 5, 6, 7, and 8). Specific Contract cost limitations will be established by Work Authorization Documents consistent with the Budget Authority for each Recovery Act Project.

## 8.0 FEE INVOICING PROCESS

SRNS has developed an automated FIS that utilizes measurement data from each PFA. The contractor works with DOE-SR to identify appropriate DOE-SR approvers. The system assigns responsibility to each output so that the routing process ensures appropriate review by federal and contractor staff. Time limits are assigned to each step to ensure smooth processing and timely approvals. The system notifies responsible approvers when the time limit has been exceeded.

## 9.0 GOVERNMENT FURNISHED SERVICES/ITEMS

Government Furnished Services/Items are factored into the final fee determination. Government Furnished Services/Items are identified in the BOE found in WBS dictionaries for specific tasks and have been attached to the PEMP. The purpose of the GFS/I are to identify inherent government responsibilities and may pose some level of risk to the contractor in completing award fee or performance based incentives. Government Furnished Services/Items are the burden of the government, mutually accepted as part of the performance fee agreements.

## 10.0 SOLID WASTE MANAGEMENT FEE AGREEMENT

Table 9. Recovery Act Award Fee Summary for PBI No. SRNSARRA-SWM

Activity Name	Solid Waste Disposition
PBI Number	SRNSARRA-SWM
Revision Number	0
Allocated Fee	\$5,762,157
Affected Recovery Act Project(s)	This PBI provides Contractor incentives for quality delivery of the following Recovery Act Project(s): <ul style="list-style-type: none"><li>RA Project: SRS TRU &amp; Solid Waste Project ID Code: 2002153 Budget Authority: 06049, FD.05.30.00.0 Completion: 12/31/2012</li></ul>
IPABS PBS Level 3	SR-0013.R1.1
SRNS PEMP Period of Performance	August 1, 2010 through September 30, 2011
Senior Level Manager Name	Terry Spears
Senior Level Supervisor/Division Manager Name	Jonathan (Mike) Simmons

### 10.1 Performance Outcome

Ensure the handling, treatment, storage, transportation and disposal of newly generated and existing “legacy” solid waste is environmentally sound, cost effective, and in compliance with DOE Directives, and applicable regulations and requirements.

---

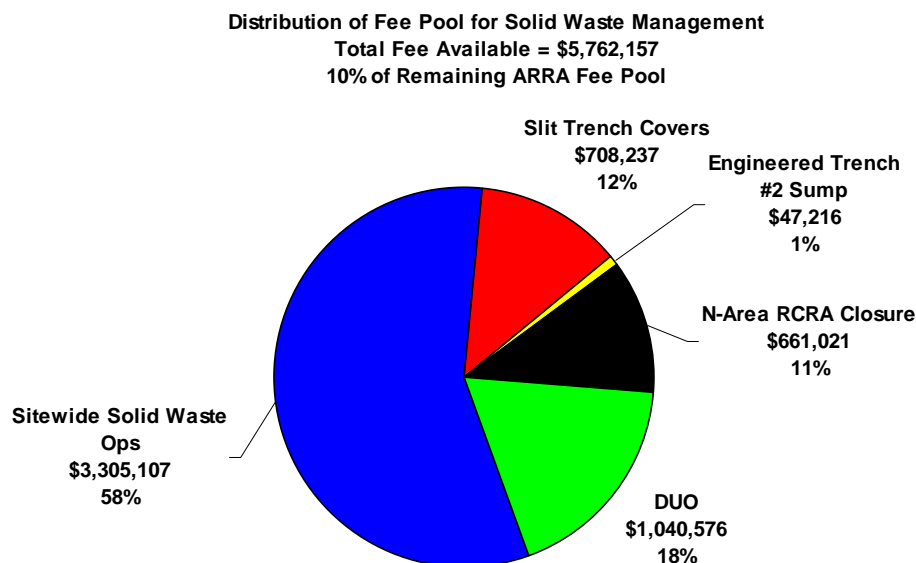


Figure 1. Award Fee Pool Distribution for PBI No. SRNSARRA-SWM

### 10.1.1 Contract Output SWM-1

Treat and dispose of all SRS newly generated sanitary (non-hazardous), low-level radioactive waste (LLW), mixed hazardous low-level radioactive waste (MLLW), and hazardous waste (HW) to prevent future waste accumulation.

#### 10.1.1.1 Description/Background/Justification

Timely disposal of all newly generated sanitary, LLW, HW, and MLLW will facilitate waste generators' normal operations, prevent potential spread of contamination, ensure regulatory compliance, reduce the need for waste storage space, maximize labor resource utilization and reduce the overall cost of SRS waste management. For the purposes of this PBI, a waste is determined to be treated when treatment is completed in accordance with applicable regulations (e.g., DOE Order 435.1, *Resource Conservation and Recovery Act of 1976 (RCRA)*, *Toxic Substances Control Act of 1976 (TSCA)*, etc.) for on-site treatment or has been shipped for off-site treatment. Disposal is defined as being physically placed in an approved disposal location for on-site disposition or shipped off-site for final disposition.

### 10.1.1.2 Fee Schedule

Up to 70% of the Performance Milestone Period allocated fee may be earned by Contract Output SWM-1 as provided in the table below.

Table 10. Fee Schedule for Contract Output SWM-1

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA SWM-1.01	7%	\$377,726	Sanitary Waste-Reduce the amount of routine (i.e. office type) waste being disposed in local land fill sites through recycling at least 30% by weight over a three month rolling average. Incremental quarterly payments through Sept. 30, 2011. First quarterly payment will be Aug/Sept 2010 (2 months).
SRNSARRA SWM-1.02	25%	\$1,416,474	LLW – Newly generated LLW will be disposed in a timely manner such that in-storage volume of newly generated LLW shall not exceed 400 cubic meters at any time over a three month rolling average. Wastes temporarily stored for near-term disposal will not be included in this calculation. Incremental quarterly payments through Sept. 30, 2011. First quarterly payment will be Aug/Sept 2010 (2 months).
SRNSARRA SWM-1.03	13%	\$755,453	HW – Newly generated HW shall not exceed an in-storage timeframe of greater than one year from the accumulation start date, unless being stored for the purpose of accumulation in accordance with 40 <i>CFR</i> 268.50. Incremental quarterly payments through Sept. 30, 2011. First quarterly payment will be Aug/Sept 2010 (2 months).
SRNSARRA SWM-1.04	13%	\$755,453	MW – Newly generated MLLW shall not exceed an in-storage timeframe of greater than one year from the accumulation start date, unless being stored for the purpose of accumulation in accordance with 40 <i>CFR</i> 268.50 or per the <i>SRS Site Treatment Plan</i> . Incremental quarterly payments through Sept. 30, 2011. First quarterly payment will be Aug/Sept 2010 (2 months).

### 10.1.2 Contract Output SWM-2

Timely installation of impermeable covers over LLW Slit Trenches is a *Comprehensive Environmental Response, Compensation and Liability Act of 1980* (CERCLA) requirement.

### **10.1.2.1 Description/Background/Justification**

Slit Trenches 1, 2, 3 and 5 are currently ready for cover installation, while Slit Trench 4 must be completed and filled.

### **10.1.2.2 Fee Schedule**

Up to 15% of the Performance Milestone Period allocated fee may be earned by Contract Output SWM-2 as provided in the table below.

Table 11. Fee Schedule for Contract Output SWM-2

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA SWM-2.01	8%	\$472,158	Slit Trench 1 - 4 Project - Complete construction, perform facility acceptance inspection (FAI-51), and obtain acceptable resolution of punchlist items by 9/30/2011.
SRNSARRA SWM-2.02	4%	\$236,079	Slit Trench 5 Project - Complete construction, perform facility acceptance inspection (FAI-51), and obtain acceptable resolution of punchlist items by 5/15/2011.

### **10.1.3 Contract Output SWM-3**

Install a new sump in Engineered Trench #2.

#### **10.1.3.1 Description/Background/Justification**

Engineered Trenches #1 and #2 are two drive-in earthen trenches used for boxed LLW disposal. These two trenches use a common sump located in Engineered Trench #1. Per procedure, this sump is sampled prior to pumping water to grade. Samples have shown an increase in radiation levels (still below release limits) over the past two years. The reason for the elevated sump sampling results is waste containers are suspected to be leaking due to corrosion. This project is to install a new sump in Engineered Trench #2 and close the Engineered Trench #1 sump.

#### **10.1.3.2 Fee Schedule**

Up to 1% of the Performance Milestone Period allocated fee may be earned by Contract Output SWM-3 as provided in the table below.

---

Savannah River Recovery Act Program	PDN: SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision: 2
Savannah River Nuclear Solutions, LLC	Date: May 18, 2011
Contract No. DE-AC09-08SR22470	Page: 17
Performance Period: Aug. 1, 2010 through Dec. 31, 2012	

Table 12. Fee Schedule for Contract Output SWM-3

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA SWM-3.01	1%	\$47,216	Complete Engineered Trench #2 – Complete construction, perform facility acceptance inspection (FAI-51), and obtain acceptable resolution of punchlist items by 12/15/2010.

## 10.1.4 Contract Output SWM-4

Complete RCRA Closure for the 645-N complex.

### 10.1.4.1 Description/Background/Justification

Hazardous and mixed waste operations will be consolidated from B and N Areas into E Area during the SRRAP. Once the inventories of hazardous and mixed wastes have been removed from the buildings, SRNS will perform RCRA Closure on the facilities and submit a Closure Report to South Carolina Department of Health and Environmental Control (SCDHEC).

### 10.1.4.2 Fee Schedule

Up to 14% of the Performance Milestone Period allocated fee may be earned by Contract Output SWM-5 as provided in the table below.

Table 13. Fee Schedule for Contract Output SWM-4

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA SWM-4.01	11%	\$661,021	Complete RCRA Closure of 645-N Complex and submit Closure Report to SCDHEC by 9/12/2011. This Contract Output does not include removal of structural slab or excavation of underlying soils.

## 10.1.5 Contract Output SWM-5

Complete the remaining shipments of Depleted Uranium Oxide (DUO) waste to Nevada National Security Site (NNSS)

### 10.1.5.1 Description/Background/Justification

Due to issues with disposal of the material at the EnergySolution's Clive, UT facility, approximately 9,400 palletized drums have been in storage awaiting disposal since April 2010. A total of 56 railcars contain 5,776 palletized drums and approximately 3,615 palletized drums that have been stored in multiple locations in N Area. The disposal of this material will reduce the ongoing burden of material storage and potential contamination due to deterioration of aging packaging. The completion of shipping activities will be defined as being physically shipped offsite and accepted by the receiving disposition entity (NNSS) for final disposal. In addition, all 21 gondola railcars belonging to the Paducah Gaseous Diffusion Plant need to be safely returned to the Paducah Gaseous Diffusion Plant once emptied.

### 10.1.5.2 Fee Schedule

Up to 18% of the Performance Milestone Period allocated fee may be earned by Contract Output SWM-5 as provided in the table below.

Table 14. Fee Schedule for Contract Output SWM-5

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA SWM-5.01	7%	\$400,000	Complete shipment of ~3,615 palletized drums stored in N-Area by 9/30/2011
SRNSARRA SWM-5.02	11%	\$640,576	Complete the remaining shipments of DUO waste stored in railcars by 9/30/2011.

## 10.2 GFS/I Requirements for PBI No. SRNSARRA-SWM

- Timely Review/Approval of Regulatory Renewals – DOE's concurrence and approval on all RCRA permit renewals and Site Treatment Plan renewals within 30 days of submittal provided DOE has no unresolved comments.
  - Timely Review/Approval of Documented Safety Analysis (DSA) Updates – DOE's concurrence and approval on all yearly, Documented Safety Analysis updates within 30 days of submittal provided DOE has no unresolved comments.
  - Provision of National Nuclear Security Site (NNSS) – The NNSS remains open to accept SRS MLLW and LLW and is direct DOE funded resulting in no disposal fee to SRNS. (Assumes the waste is properly forecasted and scheduled by SRNS in the NNSS system such as not to require overtime by NTS operations).
  - Timely Processing of LLW/MLLW Profiles – Profiles for new LLW/MLLW streams will be processed by NTS in 45 working days.
  - Timely Approval of NNSS Shipments – Approval to ship by NNSS is received within 10
-



days of the request for shipment.

- Timely Approval of Special Analyses – DOE's concurrence and approval of all Special Analyses and Performance Assessment revisions within 30 days of submittal provided DOE has no unresolved comments.
- Timely Support for Waste Volume Determinations – DOE will respond within 15 days to requests for excluding select volumes of LLW from the three month rolling average storage volume.
- DOE will provide a continuous disposition path for the disposal of DUO waste.
- At least 100 truck/trailers will be provided by the DOE Transportation subcontractor.

## 11.0 ACCELERATED LEGACY TRANSURANIC WASTE DISPOSITION FEE AGREEMENT

Table 15. Recovery Act Award Fee Summary for PBI No. SRNSARRA-TRU

Activity Name	Solid Waste Disposition
PBI Number	SRNSARRA-TRU
Revision Number	0
Allocated Fee	\$26,495,468 (plus \$8,000,000 Super Stretch Fee)
Affected Recovery Act Project(s)	This PBI provides Contractor incentives for quality delivery of the following Recovery Act Project(s): <ul style="list-style-type: none"><li>• RA Project: SRS TRU &amp; Solid Waste Project ID Code: 2002153 Budget Authority: 06049, FD.05.30.00.0 Completion: 12/31/2012</li></ul>
IPABS PBS Level 3	SR-0013.R1.2
SRNS PEMP Period of Performance	August 1, 2010 through December 31, 2012
Senior Level Manager Name	Terry Spears
Senior Level Supervisor/ Division Manager Name	Bert Crapse

### 11.1 Performance Outcome

Complete disposition of all remaining legacy transuranic waste (TRU) at SRS.

The scope of work includes the disposition of 5,000 cubic meters of the estimated total of 5,200 cubic meters of legacy TRU waste, as of April 8, 2009. For purposes of the PEMP and this PFA, the 5,000 cubic meters target is more specifically defined as the total legacy waste inventory minus the TRU very difficult waste as documented in *SRNS-P2100-2010-00048 Legacy TRU*

PDN: SR-ARRA-10-0039  
Revision: 2  
Date: May 18, 2011  
Page: 20

Savannah River Recovery Act Program  
Performance Evaluation and Measurement Plan  
Savannah River Nuclear Solutions, LLC  
Contract No. DE-AC09-08SR22470  
Performance Period: Aug. 1, 2010 through Dec. 31, 2012

*Inventory for PEMP 7-16-10.* It is further agreed and understood that this inventory may be modified in writing from time to time to reflect mutually agreed upon changes. Disposition paths may include shipping to Waste Isolation Pilot Plant (WIPP) as TRU waste; on-site burial as LLW, or treatment and disposal as MLLW. MLLW generated prior to July 1, 2012 as a result of TRU dispositioning operations shall be dispositioned off-site. However, disposition of MLLW after October 1, 2011 is subject to Base Program funds availability. An implementation plan for dispositioning the last 200 cubic meters of waste that currently do not have a disposition path will be developed. When these objectives are accomplished, disposition of all legacy TRU waste at SRS, with the exception as stated above covered by the implementation plan, will be completed. Disposition of the 200 cubic meters is a Super Stretch Contract Output in this PBI to incentivize completion of disposition of all 5,200 cubic meters of legacy TRU waste. An additional Super Stretch Contract Output provides incentives to disposition all newly generated TRU waste such that at the completion of the performance period, no more than 200 cubic meters of TRU waste remains on site that has been generated prior to July 1, 2012. Shipment and placement of TRU containers at WIPP is funded by DOE Carlsbad Field Office (CBFO) and is not included in the SRNS Recovery Act funding.

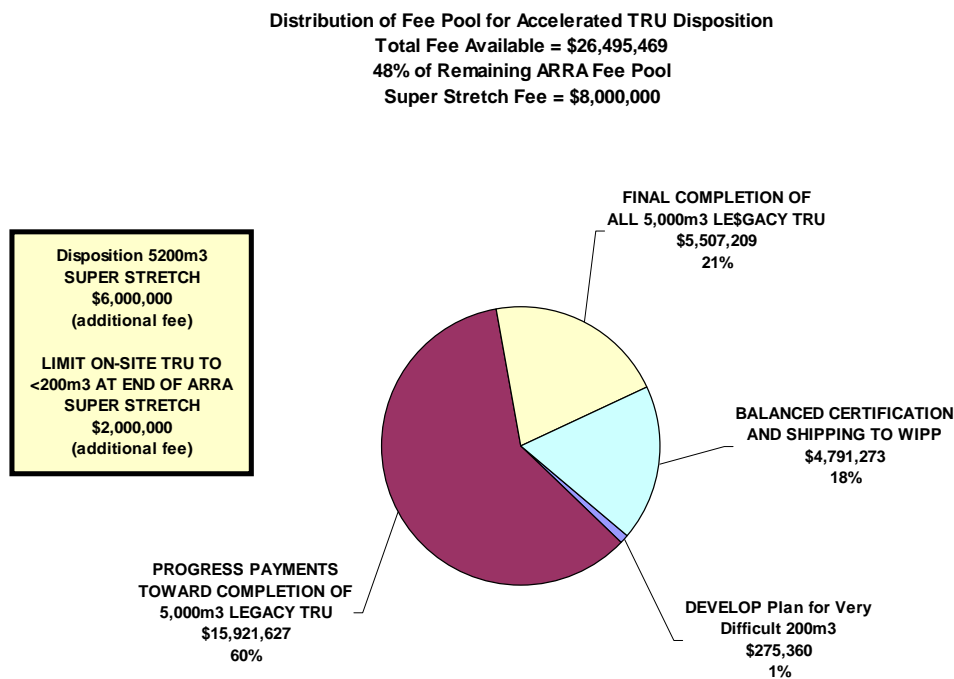


Figure 2. Award Fee Pool Distribution for PBI No. SRNSARRA-TRU

### 11.1.1 Contract Output TRU-1

Complete disposition of 5,000 cubic meters of legacy TRU waste by December 31, 2012.

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	21
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

### **11.1.1.1 Description/Background/Justification**

To complete disposition of 5,000 cubic meters of legacy TRU waste will require safe and very efficient operations in multiple facilities in E Area, F Canyon, and H Canyon as well as full and timely support from the Central Characterization Project (CCP) in terms of waste characterization and shipment to WIPP. Some of the waste will be dispositioned offsite or into the on-site inventory in E Area as MLLW if screened out as non-TRU waste.

The remaining inventory of legacy TRU at SRS is comprised of wastes purposefully set aside during the course of the TRU program because the many unique challenges presented by the material. In general, this waste is presently stored in boxes of varying sizes or aged drums containing high concentrations of plutonium (Pu)-238 with greater than 95% of this inventory requiring invasive hands-on remediation to address non-conforming conditions. The contents and challenges vary on a container by container basis necessitating flexibility in the remediation and processing approaches. This flexibility involves the need to shift priorities as necessary to focus on achieving both early shipments of the more straight forward material while advancing the more problematic, longer duration material to reduce the risk to completion by the established milestone.

The PBIs for the Accelerated TRU Legacy Waste Program will be defined as single PBI focused on properly incentivizing the completion of the disposition of the inventory by a date certain while at the same time focusing on sustaining continuity in the feed to CCP for characterization and shipping. The PBI has been crafted to provide the flexibility SRNS needs to manage the many complex challenges presented by this program, its waste streams and the involved facilities.

This PBI is for the completion of the disposition of 5,000 cubic meters of legacy TRU waste. This PBI contains three subparts to properly incentivize SRNS to: 1) progressively advance toward the final waste volume goal providing benefit for early disposition through the near term receipt of progress payments; 2) focus on the entire waste inventory including the small volume more difficult segments by providing a significant fee allocation to full completion of the final volume by the date certain; and 3) ensure a stable and consistent feed is provided to CCP/WIPP for characterization and shipping to promote optimal utilization of their resources to the maximum extent practical. The attributes of each of the three subparts of the PBI are more thoroughly discussed below.

#### **Part 1 – Incentives for Progressing Toward the Final Volume Goal of 5,000 m3**

As previously stated, the 5,000 cubic meters of TRU waste incentivized by this PBI is comprised of a large number of differing waste streams and differing container types generally exhibiting high concentrations of Pu-238 or Pu-239. To complete the disposition of this inventory requires a series of tasks conducted in one or multiple facilities at SRS. Many of these tasks such as venting or remediation must be tailored specifically to the particulars of the discrete waste stream or container. SRS is simultaneously advancing these waste streams at differing paces based on the complexity of the waste stream to the ultimate goal of producing a compliant container for final CCP characterization and shipping.

To provide a predictive tool for forecasting production levels, predicting

bottlenecks and conducting “what-if” analyses, a model has been developed by SRNS enveloping the many processes and facility capabilities necessary to accomplish this PBI. This modeling shows that an average shipping rate exceeding four and one half (4.5) shipments per week is necessary to achieve the 5,000 cubic meters disposed by December 31, 2012. This requires sufficient waste packages be provided for certification three (3) months in advance of the required shipping schedule.

This component of the PBI incentivizes SRNS to continuously advance toward the 5,000 cubic meters volume goal as expeditiously as possible in full recognition that the available window for shipping and the total number of available shipments is limited and must be taken advantage of from the start of the shipping program in August 2010 to the end in December 2012 (or whenever the annual WIPP shipping period ends). The PBI requires close coordination with WIPP/CCP to ensure that every available shipping date is met through feeding waste into the characterization process at a rate that as individual streams are slowed by complexities in the process are encountered that opportunities to ship are not missed. This part of the PBI in conjunction with the others ensure that SRNS keeps a proper perspective on early shipments while maintaining focus on the small more troublesome streams and the end volume goal.

#### Part 2 – Complete Disposition of 5,000 cubic meters of Legacy TRU Waste by December 31, 2012

This part of the PBI incentivizes SRNS to maintain a continued, vigilant focus on attaining the overall completion volume goal by the date certain. This incentive requires SRNS to utilize strong project management principles to work to the critical path of the project, remove obstacles in a timely manner and maintain a strong focus on the risk to completion. Additionally, during the course of the project, small quantity troublesome waste streams will be identified requiring special and timely attention to develop and implement solutions to achieve the overall completion goal. This part of the PBI strongly incentivizes SRNS to engage on these waste streams as they emerge through a coordinated effort with CCP/WIPP and select and implement the most expeditious, safe course of action to address them.

#### Part 3 – Maintain Optimized Shipping Rate

Part 3 provides incentives for SRNS to work together with CBFO contractors to ensure project success by optimizing resource utilization. The single PBI requires SRNS to produce sufficient WIPP certifiable waste as early in the program as possible. This will allow a level characterization and shipping work load throughout the project period. This will also optimize utilization of both SRNS and CCP resources and contribute to the shipping EM National TRU Program target of 30 contact-handled (CH) shipments and five (5) remote-handled (RH) shipments to WIPP per week. The SRS shipping target is an average of four and one half (4.5) WIPP shipments per week for the shipping period of October 1, 2010 through November 30, 2010 and March 1, 2011 through May 31, 2011 and an average of over five (5) per week thereafter, unless superseded by a revised

---

mutually agreed upon approved shipping schedule, utilizing both TRUPACT-II and TRUPACT-III shipping casks starting in June 2011 for CH TRU with additional RH TRU shipment campaigns in FY 2010 and FY 2011. This will prevent back end loaded characterization and shipping schedule. If during any month the number of shipments exceeds the required monthly average, those additional shipments can be applied to previous month's shipments where the average was not met. In addition, if the total 5,000 m<sup>3</sup> is shipped by December, 31, 2012, all fee under this output can be earned.

### 11.1.1.2 Fee Schedule

Up to 99% of the Performance Milestone Period allocated fee may be earned by Contract Output TRU-1 as provided in the table below.

Disposal of remaining 4,288 cubic meters toward the 5,000 cubic meters target by December 31, 2012 (712 cubic meters already disposed of within SRRAP scope through July 2010).

Table 16. Fee Schedule for Contract Output TRU-1

Number	Target Date	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA TRU-1.01a	12/31/2012	60%	\$15,921,627 See Table	Part 1 – Progress toward completion of 5,000 m <sup>3</sup> of TRU waste by 12/31/2012 <ul style="list-style-type: none"> <li>See table for fee amounts for each of the 22 increments of 200 m<sup>3</sup>**</li> </ul>
SRNS ARRA TRU-1.01b	12/31/2012	21%	\$5,507,209	Part 2 – Final Completion Lump sum payment upon completion of all 5,000 m <sup>3</sup> <ul style="list-style-type: none"> <li>Complete disposition of 5,000 m<sup>3</sup> of legacy TRU waste by 12/31/2012.**</li> </ul>

Number	Target Date	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA TRU-1.01c	12/31/2012	18%	\$4,791,273 See Table	<p>Part 3 – Balanced certification and shipping approach</p> <ul style="list-style-type: none"> <li>Based on a monthly average of 4.5 WIPP shipments per week for the period 10/01/2010 – 11/30/10 and 3/01/2011 through 5/31/2011, and an average of over 5 per week thereafter, unless superseded by a revised mutually agreed upon approved shipping schedule. If during any month the number of shipments exceeds the required monthly average, those additional shipments can be applied to previous month's shipments where the average was not met. In addition, if the total 5,000 m3 is shipped by December 31, 2012, all fee under this output can be earned.</li> </ul>

\*\* The disposition paths for the 5,000 m3 also include LLW and MLLW, if screened out as non TRU waste, transferred offsite or into the on-site inventory in E Area. Also, see attached GFS/I requirements.

[illegible]

Table 16a. Supplemental Fee Schedule for Contract Output TRU-1.01a

SRNSARRA- TRU FEE POOL	\$26,495,470	100%	Total Fee Pool for PBI No. SRNSARRA-TRU		
Contract Output TRU-1.01.a	\$15,921,627	60%	Available Fee for 5,000 cubic meters TRU		
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			200	2.646%	\$700,983
			88	2.646%	\$700,983
TOTAL			4288	60.0%	\$15,921,627

Table 16b. Supplemental Fee Schedule for Contract Output TRU-1.01b

SRNSARRA- TRU FEE POOL	\$26,495,470	100%	Total Fee Pool for PBI No. SRNSARRA-TRU		
Contract Output TRU-1.01.b	\$5,507,209	21%	Complete disposition of 5000 m <sup>3</sup> of Legacy CH- TRU by 12/31/2012		

Table 16c. Supplemental Fee Schedule for Contract Output TRU-1.01c

SRNSARRA- TRU FEE POOL	\$26,495,470	100%	Total Fee Pool for PBI No. SRNSARRA-TRU		
Contract Output TRU-1.01.c	\$4,791,273	18%	Based on a monthly average of 4.5 WIPP shipments per week for the period 10/01/2010 – through 11/30/2010 and 3/1/2011 through 5/31/2011 and an average of over 5 per week thereafter, available to CCP. Paid in 23 monthly payments from October 2010 through December 2012 (excluding shipments in January and February 2011 and December 2011) further defined on Table 16, Part 3.		
August 1, 2010 through December 31, 2012			10/31/2010	0.62%	\$165,216
			11/30/2010	0.83%	\$220,288
			1/31/2011	0.00%	\$0
			2/28/2011	0.00%	\$0
			3/31/2011	0.79%	\$209,799
			4/30/2011	0.79%	\$209,799

Table 16c. Supplemental Fee Schedule for Contract Output TRU-1.01c

SRNSARRA- TRU FEE POOL	\$26,495,470	100%	Total Fee Pool for PBI No. SRNSARRA-TRU		
			5/31/2011	0.79%	\$209,799
			6/30/2011	0.79%	\$209,799
			7/31/2011	0.79%	\$209,799
			8/31/2011	0.79%	\$209,799
			9/30/2011	0.79%	\$209,799
			10/31/2011	0.79%	\$209,799
			11/30/2011	0.79%	\$209,799
			1/31/2012	0.79%	\$209,799
			2/29/2012	0.79%	\$209,799
			3/31/2012	0.79%	\$209,799
			4/30/2012	0.79%	\$209,799
			5/31/2012	0.79%	\$209,799
			6/30/2012	0.79%	\$209,799
			7/31/2012	0.79%	\$209,799
			8/31/2012	0.79%	\$209,799
			9/30/2012	0.79%	\$209,799
			10/31/2012	0.79%	\$209,799
			11/30/2012	0.79%	\$209,799
			12/31/2012	0.79%	\$209,789
TOTAL				18%	\$4,791,273

## 11.1.2 Contract Output TRU-2

Develop and submit a plan by September 30, 2010 for disposition of nominally 200 cubic meters of legacy TRU waste identified as very difficult waste that do not have clear disposition paths.

### 11.1.2.1 Description/Background/Justification

This plan is necessary for developing the BCP to incorporate the final work scope into the Baseline and facilitate the completion of disposition of the last 200 cubic meters of SRS legacy TRU waste. Many technical and security issues will need to be resolved.

### 11.1.2.2 Fee Schedule

Up to 1% of the Performance Milestone Period allocated fee may be earned by Contract Output TRU-2 as provided in the table below.



Savannah River Recovery Act Program	PDN: SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision: 2
Savannah River Nuclear Solutions, LLC	Date: May 18, 2011
Contract No. DE-AC09-08SR22470	Page: 27
Performance Period: Aug. 1, 2010 through Dec. 31, 2012	

Table 17. Fee Schedule for Contract Output TRU-2

Number	Target Date	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA TRU-2.01	9/30/2010	1%	\$275,360	Develop and submit an implementation plan including technical approach, logic-driven schedule, Class 3 cost estimate (based on the AACE International Recommended Practice No. 17R-97; Appendix J) on or before 9/30/2010 for disposition of the estimated 200 cubic meters of VERY difficult wastes that cannot be disposed with the existing processes defined in the baseline.

### 11.1.3 Contract Output TRU-3

Complete disposition of the nominally 200 cubic meters of legacy TRU waste identified as very difficult waste that do not have clear disposition paths. This scope is defined as potential scope in the POP. For purposes of this super stretch objective, “disposition” means removal from the TRU waste inventory and/or shipment off the SR site.

#### 11.1.3.1 Description/Background/Justification

Although not currently included in the Baseline or POP due to the lack of clear disposition paths, it is the strong desire of DOE-SR to complete disposition of this waste as part of the SRS legacy TRU Waste Program completion by December 31, 2010. The plan developed in Contract Output TRU-2 will be the basis of this challenging work scope. This scope will need to be funded from cost efficiencies within the existing Baseline funding level and therefore is considered as a Super-Stretch PBI.

#### 11.1.3.2 Fee Schedule

Up to additional \$8,000,000 fee may be earned, pending the identification of funding sources from cost efficiencies to implement Contract Output TRU-3 Super-Stretch work scope.

Table 18. Fee Schedule for Contract Output TRU-3

Number	Target Date	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA TRU-3.01a	12/31/2012	N/A	<p>\$6,000,000 (total over base fee of \$26,495,469)</p> <p>Split 60/40</p> <p>100% if dispositioned, 40% if ready to certify</p> <p>Fee will be awarded in increments of \$600,000 for each 20 m<sup>3</sup> of very difficult waste dispositioned up to a total of 200 m<sup>3</sup>.</p>	Super-Stretch fee applies to the final nominally 200 cubic meters of very difficult legacy TRU Wastes on or before 12/31/2012. This Super-Stretch fee is contingent on the complete dispositioning of the 5000 m <sup>3</sup> identified in TRU-01.01a and TRU-01.01b.
SRNSARRA TRU-3.01b	12/31/2012	N/A	<p>\$2,000,000 (total over base fee of \$26,495,469)</p>	Remaining inventory of TRU waste at SRS shall not exceed 200 m <sup>3</sup> at end of ARRA. Does not include TRU waste generated after 6/30/2012.

## 11.2 GFS/I Requirements for PBI No. SRNSARRA-TRU

### 11.2.1 GFS/I to be provided by DOE-SR through DOE-CBFO, Washington TRU Solutions (WTS), and CCP

Extended Large Container (LC)/Non-Destructive Assay (NDA) Gamma Detector Calibration Range to 40g Plutonium-238 – Complete by December 31, 2010.

Large Container/Non-Destructive Examination (NDE) Certification – Complete a certification audit in October 2010 and receive approval by March 30, 2010.

NDA, NDE, Head Gas Space (HGS) Sampling Equipment – Provide, maintain, and operate all necessary equipment to characterize and certify TRU waste containers for shipment throughout the project duration achieving less than 15% down time per week including LC/NDA and LC/NDE.

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	29
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

#### Characterization Production Rate

- (A) Provide sufficient resources starting in June 2010 or earlier to build a backlog of certified waste containers and support an average shipment rate of four and one half (4.5) shipments per week starting in August 23, 2010 through May 31, 2011 and increase to up to eight (8) shipments per week by June 2011.
- (B) Maintain a 90 calendar day or less certification period from the day a container is placed in CCP backlog by SRNS to the day it is entered into the Waste Data System.

#### TRUPACT-III

- (A) Provide six (6) TRUPACT-III shipping casks by June 2011.
- (B) Provide and achieve operational status for one (1) mobile loading unit for TRUPACT-III shipments by June 2011
- (C) Maintain shipping capacity of five (5) TRUPACT-III shipments per week starting June 2011 through December 2012

Expert Analysis (EA) Support – Provide timely EA support to evaluate NDA results necessary to maintain the characterization production rate

Standard Waste Box (SWB), Ten Drum Overpack Containers (TDOP), and Standard Large Box (SLB) Delivery

- (A) Deliver new containers at a rate as requested by SRNS and necessary to maintain TRU waste repackaging and remediation operations without any interruptions due to shortage of new containers
- (B) TDOP receipt at a rate of five (5) per week starting the week of July 12, 2010 until an inventory of 48 is attained at SRS
- (C) SLB-2 receipt at a rate of six (6) per week until an inventory of 194 is attained at SRS

Shipping Schedule – Provide appropriate transportation capability for shipments to WIPP using TRUPACT-II, TRUPACT-III, or 72-B shipping casks when backlog of certified containers is available

Loading and Transportation Support – Provide the necessary level of loading and transportation support (expected to be up to eight (8) shipments per week) using TRUPACT-II, TRUPACT-III or the 72-B casks to align with the SRNS container production schedule and the overall objective to disposition 5,000 cubic meters by December 31, 2012.

DOE's CBFO Technical Support – DOE-CBFO and difficult waste team continue to provide technical support in developing acceptable methods of unique waste packaging, characterization, certification, and disposal.

## 11.2.2 GFS/I to be provided by DOE-SR

DSA/Onsite Safety Assessment (OSA) Review Approval – Complete all DSA and OSA

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	30	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

reviews and approvals within the timeframe specified in the approved Baseline.

Baseline Change Proposal (BCP) Approval – Timely approvals and support of the TRU Waste Project BCPs

Continue SLIT Trench and Engineering Trench Operation – Maintain the current LLW SLIT Trench and Engineering Trench operational requirements throughout the project

Offsite MLLW Treatment and Disposal Facilities – Provide viable options of treatment, storage, or disposal facilities for all MLLW screened out from the TRU waste inventory and necessary funding to complete all disposition by calendar year (CY) 2012

## 12.0 FOOTPRINT REDUCTION (AREA COMPLETION) FEE AGREEMENT

Table 19. Recovery Act Award Fee Summary for PBI No. SRNSARRA-FPR

Activity Name	Area Completion Project
PBI Number	SRNSARRA-FPR
Revision Number	0
Allocated Fee	\$22,136,821 (plus \$4,740,768 Super Stretch Fee)
Affected Recovery Act Project(s)	<p>This PBI provides Contractor incentives for quality delivery of the following Recovery Act Project(s):</p> <ul style="list-style-type: none"> <li>• SRS D&amp;D P &amp; R Areas Project ID Code: 2002150 Budget Authority: 06049, FD.05.11.00.0 Completion: 9/30/2012</li> <li>• SRS D&amp;D M &amp; D Areas Project ID Code: 2002151 Budget Authority: 06049, FD.05.12.00.0 Completion: 9/30/2011</li> <li>• SRS D&amp;D, Soil &amp; Groundwater Activities Site-Wide Project ID Code: 2002152 Budget Authority: 06049, FD.05.13.00.0 Completion: 9/30/2011</li> </ul>
IPABS PBS Level 3	SR-0030.R1.1; SR-0030.R1.2; SR-0030.R1.3; SR-0030.R1.4; SR-0030.R1.5; SR-0030.R2.1; SR-0030.R3.1; SR-0030.R3.1; SR-0040C.R1.1
SRNS PEMP Period of Performance	August 1, 2010 through September 30, 2012
Senior Level Manager Name	Karen Guevara, Helen Belencan (Deputy)
Senior Level Supervisor/ Division Manager Name	Wade Whitaker

### 12.1 Performance Outcome

Reduce risk and out-year baseline costs by achieving a strategic goal to reduce the SRS footprint by 75% under ARRA. Completion of waste units and reactor facilities D&D is defined as completion of construction, performance of a facility acceptance inspection consistent with Procedure 51 of the 8Q Manual (form OSR 20-22) and acceptable resolution of DOE-SR

punchlist items. Completion of all other facility D&D is defined as submittal of Revision 0 Decommissioning Project Final Report (DPFR), or equivalent, to DOE-SR.

This Performance Fee Agreement is structure in a manner that expects SRNS to meet all regulatory commitments, to do work safely, to continue to develop and implement cost-effective remedial technologies and approaches to reduce out-year costs, and to maintain an effective and productive working relationship with SRS regulatory agencies.

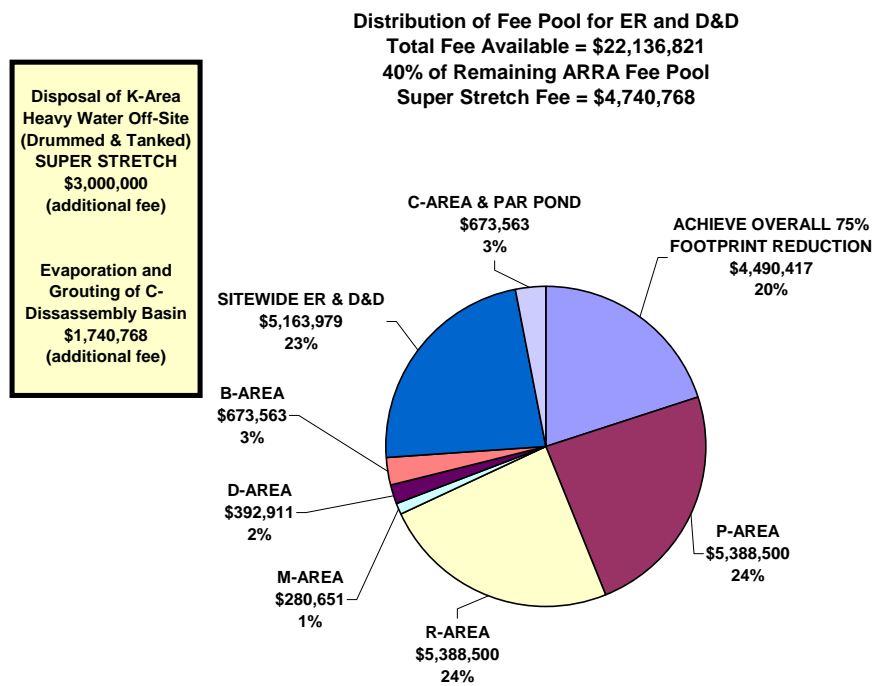


Figure 3. Award Fee Pool Distribution for PBI No. SRNS ARRA-FPR

## 12.1.1 Contract Output FPR-1

Complete 75% footprint reduction at the Savannah River Site upon completion of all waste units and facilities identified in the table below.

Table 20. Technical Basis for Contract Output FPR-1

Square Miles Completed	SRS Index #	Waste Units / Facilities	Area
3.9	477	Complete construction/fieldwork at P-Area REACTOR AREA CASK CAR RR TRACKS, NBN	P

Table 20. Technical Basis for Contract Output FPR-1

Square Miles Completed	SRS Index #	Waste Units / Facilities	Area
3.9	539	Complete submittal of regulatory decision document for ECODS P-2 (South of P-Area) (Issue ROD)	P
1.8	478	Complete construction/fieldwork at R-AREA REACTOR AREA CASK CAR RR TRACKS, NBN	R
1.8	540	Complete submittal of regulatory decision document for ECODS R-1A, -1B, -1C (EAST OF R REACTOR) (Issue ROD)	R
7.0	2243	Complete D&D of 710-B SRTC Hazard Waste Storage Facility	B
1.8	163	Complete construction/field work at GUNSITE 012 RUBBLE PILE, NBN	R
1.8	337	Complete construction/field work at RUBBLE PILE ACROSS FROM GUNSITE 012, NBN	R
1.8	544	Complete construction/field work at ECODS G-3 (ADJACENT TO GUNSITE 012), NBN	R
1.8	288	Complete construction/field work at R-AREA GROUNDWATER, NBN	R
9.9	326	Complete construction/fieldwork at POTENTIAL RELEASE OF HEAVY METALS FROM 321-M SL	M
9.9	340	Complete construction/fieldwork at SALVAGE YARD, 741-A	M
9.9	465	Complete construction/fieldwork at UNDERGROUND SUMP 321 M #001 321-M	M
9.9	466	Complete construction/fieldwork at UNDERGROUND SUMP 321 M #002 321-M	M
3.9	314	Complete submittal of regulatory decision document for POTENTIAL RELEASE FROM P-AREA DISASSEMBLY BASIN, 105-P (Issue ROD)	P
3.9	316	Complete submittal of regulatory decision document for POTENTIAL RELEASE FROM P-AREA RX COOLING WATER, 186/190-P (Issue ROD)	P
36.5	1744	Complete D&D of 185-3K Cooling Tower	K
1.8	39	Complete submittal of regulatory decision document for GUNSITE 218 RUBBLE PILE, 631-23G (Issue ROD)	R
1.8	271	Complete construction/fieldwork at COOLING WATER EFFLUENT SUMP, 107R	R
1.8	556	Complete construction/fieldwork at R-AREA PROCESS SEWER LINES AS ABANDONED	R
7.0	528	Complete construction/fieldwork at ECODS B-3 (East of B Area, South of Road C)	B
7.0	530	Complete construction/fieldwork at ECODS B-5 (Adjacent to ECODS B-3)	B
1.8	231	Complete construction/fieldwork at AREA ON THE NORTH SIDE OF BUILDING 105-R, NBN	R
1.8	233	Complete construction/fieldwork at LAYDOWN AREA NORTH OF 105R, NBN	R
1.8	513	Complete construction/field work at RELEASE FROM DECON R-REACTOR DISASSEMBLY BASIN	R
1.8	517	Complete construction/field work at COMBINED SPILLS NORTH OF BUILDING 105-R, NBN	R

Savannah River Recovery Act Program	PDN: SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision: 2
Savannah River Nuclear Solutions, LLC	Date: May 18, 2011
Contract No. DE-AC09-08SR22470	Page: 33
Performance Period: Aug. 1, 2010 through Dec. 31, 2012	

Table 20. Technical Basis for Contract Output FPR-1

Square Miles Completed	SRS Index #	Waste Units / Facilities	Area
1.8	324	Complete submittal of regulatory decision document for POTENTIAL RELEASE OF NAOH/H2 SO4 FROM 183-2R, NBN (Issue ROD)	R
1.8	330	Complete submittal of regulatory decision document for POTENTIAL RELEASE FROM R-AREA DISASSEMBLY BASIN, 105-R (Issue ROD)	R
3.9	126	Complete construction/fieldwork at SPILL ON 3/15/79 OF 500 GALS OF CONTAM WATER, NBN	P
3.9	557	Complete construction/field work at P-AREA PROCESS SEWER LINES AS ABANDONED	P
1.8	329	Complete construction/fieldwork at R-AREA ASH BASIN, 188-0R	R
5.3	69	Complete construction/fieldwork at 25% of the D-AREA COAL PILE RUNOFF BASIN, 489-D	D
5.3	70	Complete construction/fieldwork at D-AREA WASTE OIL FACILITY, 484-10D	D
5.3	211	Complete construction/fieldwork at D-AREA ASBESTOS PIT, 080-20G	D
5.3	558	Complete construction/fieldwork at D-AREA PROCESS SEWER LINES AS ABANDONED, NBN	D
5.3	570	Complete construction/fieldwork at D-006 PETROLEUM RELEASE SITE, NBN	D
9.9	359	Complete construction/fieldwork at SMALL ARMS TRAINING AREA (SATA), NBN	M
5.30	265	Complete construction/fieldwork at COMBINED SPILLS FROM 483-D AND ASSOCIATED AREAS	D
6.95	2003	Complete D&D of 770-U Heavy Water Component Test Reactor	B
1.80	1921	Complete D&D of 105-R Reactor Building Complex	R
3.90	313	Complete construction/fieldwork at P-AREA ASH BASIN (including Outfall P-007), 188-0P	P
1.60	1483	Complete D&D of 651-6G Primary Transformer Substation/681-6G	PAR Pond
1.60	1491	Complete D&D of 681-6G PAR Pond Pump House	PAR Pond
1.60	1492	Complete D&D of 681-7G Pump House Equip Building - Adjacent to 681-1G	PAR Pond
1.60	1488	Complete D&D of 681-23G Chlorine Building	PAR Pond
1.60	1506	Complete D&D of 735-7G Environmental Support Facility, Par Pond	PAR Pond
1.60	1507	Complete D&D of 735-8G Greenhouse	PAR Pond
3.9	1902	Complete D&D of 105-P Reactor Building Complex	P
1.9	475	Complete construction/field work at C Area Reactor Cask Car Railroad Tracks as Abandoned, NBN	C
1.9	240/242	Complete construction/fieldwork Potential Release from C Area Disassembly Basin & C Area Reactor Cooling Water System 186/190-C	C
1.9	1201	Complete construction/fieldwork at 717-C Contaminated Maintenance Facility	C

Table 20. Technical Basis for Contract Output FPR-1

Square Miles Completed	SRS Index #	Waste Units / Facilities	Area
1.9	2237	Complete construction/fieldwork at 108-3C Fuel Unloading Facilities Power	C
1.9	2240	Complete construction/fieldwork at 904-89G Retention Basin for 100-C Containment	C
1.9	522	Complete construction/fieldwork at of ECODS C-1	C
1.9	555	Complete construction/fieldwork at C Area Process Sewer Lines as Abandoned	C
1.9	511	Complete construction/fieldwork at C Area Reactor Discharge Canal	C
1.9	146	Complete construction/fieldwork at C Area Groundwater Operable Unit	C

### 12.1.1.1 Description/Background/Justification

Compliance with SRS Federal Facility Agreement (FFA) milestones and the SRS RCRA Permit commitments will allow SRS to maintain a steady pace of area completions and reduce site footprint. Establish and complete negotiated regulatory commitments and milestones allowing SRS to demonstrate cleanup progress to regulators and stakeholders.

### 12.1.1.2 Fee Schedule

Up to 20% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-1 as provided in the table below.

Table 21. Fee Schedule for Contract Output FPR-1

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-1.01	20%	\$4,427,364	Achieve 75% footprint reduction by 9/30/2012 by completing all waste units and facilities identified in Table 21 above.

## 12.1.2 Contract Output FPR-2

Complete P Area Operable Unit (PAOU).

### 12.1.2.1 Description/Background/Justification

P Area Operable Unit, composed of P Reactor, ancillary facilities, and waste units as defined in the FFA, is the first reactor at SRS to be addressed using Area Completion Strategy, negotiated with US Environmental Protection Agency (USEPA) and SCDHEC and supported by



Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	35
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

stakeholders. Key near-term waste unit cleanup and facility D&D activities must be performed to achieve PAOU completion.

### 12.1.2.2 Fee Schedule

Up to 24% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-2 as provided in the table below.

Table 22. Fee Schedule for Contract Output FPR-2

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-2.01	4%	\$885,473	Complete evaporation/removal of P Reactor Disassembly Basin water by 9/30/2011
SRNSARRA FPR-2.02	3%	\$664,105	Complete 105-P Reactor vessel cap installation by 9/30/2011.
SRNSARRA FPR-2.03	4%	\$885,473	Complete grouting of the -40 and -20 levels (excluding the reactor vessel) in the 105-P Reactor by 9/30/2011.
SRNSARRA FPR-2.04	2%	\$442,736	Completion of the P-Area Ash Basin waste unit by 9/30/2011.
SRNSARRA FPR-2.05	2%	\$442,736	Complete installation of cover over P Reactor Disassembly Basin by 11/30/2011.
SRNSARRA FPR-2.06	9%	\$1,992,314	Complete PAOU by 12/31/2011.

### 12.1.3 Contract Output FPR-3

Complete R Area Operable Unit (RAOU).

#### 12.1.3.1 Description/Background/Justification

R Area Operable Unit, composed of R Reactor, ancillary facilities, and waste units as defined in the FFA, is the second reactor at SRS to be addressed using Area Completion Strategy, negotiated with USEPA and SCDHEC and supported by stakeholders. Key near-term waste unit cleanup and facility D&D activities must be performed to achieve RAOU completion.

#### 12.1.3.2 Fee Schedule

Up to 24% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-3 as provided in the table below.

Table 23. Fee Schedule for Contract Output FPR-3

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-3.01	2%	\$442,736	Completion of R Area Process Sewer Lines waste unit by 9/30/2011.
SRNSARRA FPR-3.02	3%	\$664,105	Complete 105-R Reactor vessel grouting and cap installation by 9/30/2011.
SRNSARRA FPR-3.03	2%	\$442,736	Completion of R-Area Ash Basin waste unit by 9/30/2011.
SRNSARRA FPR-3.04	4.5%	\$996,157	Complete grouting of -40 and -20 levels (excluding the reactor vessel) in 105-R Reactor by 9/30/2011.
SRNSARRA FPR-3.05	3.5%	\$774,789	Complete installation of cover over R Reactor Disassembly Basin by 9/30/2011.
SRNSARRA FPR-3.06	9%	\$1,992,314	Complete RAOU by 12/31/2011.

## 12.1.4 Contract Output FPR-4

Complete M Area Operable Unit (MAOU).

### 12.1.4.1 Description/Background/Justification

M Area Operable Unit will be the first Area Completion achieved under the Recovery Act. Completing the 45-acre MAOU addresses contaminated soils associated with waste units as defined in the FFA, and removes the remaining known sources to the 1,500-acre groundwater plume in M Area. Key near-term cleanup activities that must be performed to achieve MAOU Completion are described below.

### 12.1.4.2 Fee Schedule

Up to 1.25% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-4 as provided in the table below.

Table 24. Fee Schedule for Contract Output FPR-4

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-4.01	1.25%	\$276,710	Submittal of the Rev 0 Post Construction Report to DOE-SR by 9/30/2010.

## 12.1.5 Contract Output FPR-5

Conduct Area Completion activities at the D Area Operable Unit (DAOU).

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	37
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

### **12.1.5.1 Description/Background/Justification**

In the DAOU, waste units as defined in the FFA will be addressed. The DAOU ARRA scope to support Area Completion is the remediation of soils and sediments that are contaminated with volatile organic compounds, metals and/or pesticides, and soils and concrete that is contaminated with tritium. Key near-term activities that will be conducted at the DAOU are described below.

### **12.1.5.2 Fee Schedule**

Up to 1.75% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-5 as provided in the table below.

Table 25. Fee Schedule for Contract Output FPR-5

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-5.01	0.6%	\$132,821	Start operations of the D-Area Enhanced Soil Vapor Extraction System by 12/31/2010.
SRNSARRA FPR-5.02	1.15%	\$254,573	Start operations of the D-Area soils & concrete thermal detritiation remediation system by 3/31/2011.

### **12.1.6 Contract Output FPR-6**

Complete B-Area, to include the Heavy Water Components Test Reactor (HWCTR), 710-B, and Early Construction and Operations Disposal Site (ECODS) B3/B5.

#### **12.1.6.1 Description/Background/Justification**

Activities that will be conducted for the HWCTR Project, 710-B, and the Remediation of ECODS B3/B5 will support B Area Operable Unit Completion. Key near-term activities that will be performed to complete B-Area are described below.

#### **12.1.6.2 Fee Schedule**

Up to 3% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-6 as provided in the table below.

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	38	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

Table 26. Fee Schedule for Contract Output FPR-6

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-6.01	1.0%	\$221,368	Complete grouting the HWCTR. Complete by 9/30/2011.
SRNSARRA FPR-6.02	1.0%	\$221,368	Complete decommissioning of the HWCTR. Complete by 9/30/2011.
SRNSARRA FPR-6.03	1.0%	\$221,368	Complete decommissioning of 710-B and remediation of ECODS B3/B5. Complete by 9/30/2011.

## 12.1.7 Contract Output FPR-7

Conduct Area Completion activities that support footprint reduction and/or regulatory compliance.

### 12.1.7.1 Description/Background/Justification

This scope includes the F Area Barrier Wall extension, the H Area Silver Chloride (AgCl) Injection System Installation and Operation and the K-Area Cooling Tower Decommissioning.

### 12.1.7.2 Fee Schedule

Up to 23% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-7 as provided in the table below.

Table 27. Fee Schedule for Contract Output FPR-7

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-7.01a	2%	\$442,737	Complete construction of the H Area Base Injection/AgCl System by 12/31/2010.
SRNSARRA FPR-7.01b	2%	\$442,737	Start operations of the H Area Base Injection/AgCl System by 9/30/2011.
SRNSARRA FPR-7.02	3%	\$664,105	Complete decommissioning of the K-Area Cooling Tower by 12/31/2010.
SRNSARRA FPR-7.03	5.5%	\$1,217,525	Completion of the F-Area barrier wall project by 9/30/2011.
SRNSARRA FPR-7.04	6%	\$1,328,209	Complete D&D and cleanup of SATA by 9/30/2011.
SRNSARRA FPR-7.05	0.5%	\$110,684	Submittal of the Rev 0 Statement of Basis/Proposed Plan for the Consolidated Incinerator Facility to DOE-SR by 9/30/2011.

Savannah River Recovery Act Program	PDN: SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision: 2
Savannah River Nuclear Solutions, LLC	Date: May 18, 2011
Contract No. DE-AC09-08SR22470	Page: 39
Performance Period: Aug. 1, 2010 through Dec. 31, 2012	

Table 27. Fee Schedule for Contract Output FPR-7

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-7.06	4%	\$885,473	Completion of the remaining General Plant Projects as identified: ATTA Construction, Gunsite 012 Remediation, and initiation of oxidizing agent injection at the A-014 (MACO II) site by 9/30/2011

## 12.1.8 Contract Output FPR-8

Conduct Area Completion activities that support footprint reduction and/or regulatory compliance.

### 12.1.8.1 Description/Background/Justification

This scope includes the Characterization and Remediation of the C Area Discharge Canal, C Reactor Groundwater, and C Area Operable Unit Waste Units Completion of this scope results in approximately 8% towards the 75% sitewide footprint reduction goal.

### 12.1.8.2 Fee Schedule

Up to 3% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-8 as provided in the table below.

Table 28. Fee Schedule for Contract Output FPR-8

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-8.01	0.30%	\$66,410	Complete C Discharge Canal characterization and remediation by 9/30/2012.
SRNSARRA FPR-8.02	0.30%	\$66,410	Complete C Reactor groundwater characterization and remediation by 9/30/2012.
SRNSARRA FPR-8.03	1.70%	\$376,326	Complete C Area Operable Unit Waste Unit Characterization and Remediation by 9/30/2012.
SRNSARRA FPR-8.04	0.70%	\$154,958	Complete PAR Pond Facilities D&D by 9/30/2011.

## 12.1.9 Contract Output FPR-9

Conduct Area Completion activities that support footprint reduction and/or regulatory compliance.

### 12.1.9.1 Description/Background/Justification

This scope includes the removal of the entire inventory of surplus, bulk reactor moderator (heavy water) from K-Area and the disposal of bulk reactor moderator to an appropriately permitted off-site facility. This scope and the associated fee will need to be funded from cost efficiencies within the existing Baseline funding level and therefore is considered as a Super Stretch PBI.

### 12.1.9.2 Fee Schedule

Up to additional \$3,000,000 fee may be earned, pending the identification of funding sources from cost efficiencies to implement Contract Output FPR-9 Super-Stretch work scope.

Table 29. Fee Schedule for Contract Output FPR-9

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-9.01	SUPER STRETCH	\$1,500,000	Drummed Reactor Moderator: Remove entire surplus inventory from K-Area and disposition to an off-site facility by 9/30/2011.
SRNSARRA FPR-9.02	SUPER STRETCH	\$1,500,000	Tanked (Undrummed) Reactor Moderator: Remove entire surplus inventory from K-Area and disposition to an off-site facility by 9/30/2011.

## 12.1.10 Contract Output FPR-10

Complete C-Area Disassembly Basin Water Evaporation and Grouting. The cost of performing this scope of work and paying additional fee will be funded by efficiencies recognized within the ARRA baseline. This is a super stretch PBI and the associated \$1,740,768 of fee is in addition to the definitized award fee pool.

### 12.1.10.1 Description/Background/Justification

C-Area Disassembly Basin contains approximately 3.0M gallons of contaminated water, sludge, and activated scrap metal. This water needs to be evaporated in addition to approximately 400,000 gallons of contaminated water present in the 100-C Containment Basin Storage Tank which will be pumped into the C Disassembly Basin for evaporation. Once evaporation is

complete, the remaining sludge and activated scrap metal will be stabilized by grouting in place. FPR10.03, FPR10.04, FPR10.05 and FPR 10.06 will be completed at DOE's discretion. In the event that any of the Sub-PBI's listed below are not authorized by DOE to be started, no award fee will be due for these tasks.

### 12.1.10.2 Fee Schedule

Up to additional \$1,740,768 fee may be earned, pending the identification of funding sources from cost efficiencies to implement Contract Output FPR-10 Super-Stretch work scope. Up to 100% of the Performance Milestone Period allocated fee may be earned by Contract Output FPR-10 as provided in the table below.

Table 30. Fee Schedule for Contract Output FPR-10

Number	Allocated PBI Fee %	Fee Amount	Completion Criteria
SRNSARRA FPR-10.01	42%	\$726,802	Complete installation and commence operation of 7 of 10 C-Area Evaporators by 1/31/2012.
SRNSARRA FPR-10.02	11%	\$183,862	Complete evaporation of sufficient amount of water from the assembly basin to allow shield layer of grouting by 9/30/2012 (approximately 1.7M gallons)
SRNSARRA FPR-10.03	13%	\$228,862	Complete the layer of shield grouting sufficient to stabilize the sludge and activated scrap metal in the bottom of the disassembly basin by 9/30/2012
SRNSARRA FPR-10.04	9%	\$166,369	Complete evaporation of the remaining water in the disassembly basin to allow final grouting of the complete basin by 9/30/2012
SRNSARRA FPR-10.05	20%	\$344,873	Complete the final grouting of the disassembly basin to fill to grade level by 9/30/2012..
SRNSARRA FPR-10.06	5%	\$90,000	Complete disposition of D&R equipment via ex-situ disposal by 9/30/2012..

### 12.1.10.3 Additional GFS/I Requirements Specific to FPR-10

- Timely management & resolution of SC State Historic Preservation Office issues
- Timely authorization to proceed with phased execution approach after formal request by SRNS
- DOE reserves the right to not authorize any of the above phases of work. No award fee is due for any phase which has not been authorized.

## 12.2 GFS/I Requirements for PBI No. SRNSARRA-FPR

Timely Review/Approval of Documents – Provide within 15 calendar days of submittal reviews and approvals of final documents and products. Such submittals may include but are not limited to: FFA and RCRA regulatory documents and correspondence; Facility Decommissioning Reports; property disposition documents; Decommissioning End Point documents; Decommissioning Project Final reports; project management documents.

Coordination of Activities for Acceptance Verification – Coordinate required activities support Mechanical Completion commitments, including, but not limited to: participating in timely facility inspections and walk downs upon completion of field construction activities; coordinating facility inspections and walk down inspections with representative(s) of the regulatory agencies (e.g., USEPA, SCDHEC, etc.) upon completion of field construction activities; and, reviewing, signing and submitting regulatory letters documenting the completion of field construction activities and mechanical completion.

Re-alignment of Due Dates in Response to Changed Conditions – Lead the effort to modify regulatory and/or contractual milestones or commitments due to changed or unexpected field conditions, including additional investigations; newly promulgated regulatory requirements or changes to existing regulatory requirements, agreements or vehicles; and, delays in the review and /or approval of regulatory, contractual or project documents.

Inter-Agency Liaison – Serve as the lead agency in interactions with the Department of Defense regarding use of lands and facilities that may impact SRNS contractual and regulatory commitments, milestones and agreements and communicating the results of these interactions to SRNS.

Historical Preservation Coordination – Serve as the lead agency in interactions with the State Historic Preservation Office regarding the preservation of land and facilities that may impact SRNS contractual and regulatory commitments, milestones, and agreements, and communicating the results of these interactions to SRNS.

Regulatory Coordination – Coordinate regulator availability and provide regulators ready access to the Site to support project schedules for accelerated work through FY 2012, e.g. document reviews/approvals, issuance of permits, completion of walk downs.

Notification of any changes in determinations made in accordance with the *Davis–Bacon Act of 1931* – Notify SRNS within 15 days of any work that is determined to be covered under the *Davis–Bacon Act of 1931*.

Coordination of U.S. Forestry Service (USFS) Activities – Coordinate USFS activities such as controlled burns, animal control events (trapping, hunting, etc.) timber harvesting, pesticide application and other land management activities to minimize impact on SRNS activities.

## 13.0 GLOSSARY

Award Fee. See Performance Fee Agreement. Award fee is performance fee developed using subjective criteria.

Base Incentive. An incentive associated with work to be performed under the scope of the

---



Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	43
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

contract and which is believed by the parties to be within available funding.

Baseline change proposal (BCP). The contractor normally generates the BCP for documenting baseline changes. It should provide a complete description of a proposed change and its resulting baseline impacts. The BCP serves as an audit tool for baseline changes. The BCP must be submitted in accordance with the baseline change control guidelines contained in the change control section of this document.

Baseline. The quantitative expression of the project scope, schedule, and cost, against which the status of resources and progress can be measured. The field maintains the project baseline as a collection of documents, including resource loaded schedule networks, cost estimates, and documented assumptions. The baseline is the key component of the project controls system because it documents the program plan for performing the work and provides the information required by DOE business practices for evaluating resources and program performance. For planning purposes, project baselines should reflect full regulatory compliance and should be based on reasonable out-year funding assumptions.

Change Control. A documented process applying technical and management review and approval of changes to technical, schedule, and cost baselines.

Completion Criteria. A defined set of performance actions, the completion of which objectively confirms achievement of a performance milestone

Contractor. The term contractor as used in this document refers to management and operation (M&O) contractor unless otherwise stated. Synonymous with contractor and M&O contractor is site contractor.

Federal Project Director (FPD). The FPD resides at either the field or HQ and serves as the single point of contact between Federal and contractor staff for matters relating to the project and its execution. The Program Secretarial Officer may delegate certain authorities and responsibilities to the FPD.

Fee Determining Official (FDO). The Fee Determining Official for ARRA is the Site Manager, Savannah River Operations Office.

Fiscal Year (FY). The U.S. government fiscal year begins on October 1 and ends on the following September 30 of every year.

Gateway. A gateway creates the requirement that previously incentivized work, usually in the same work package, is to be performed prior to any follow-on incentives being earned (these may be subsequent annual incentives or "Super Stretch" Incentives). Gateways are to be used to ensure that priority work will be performed and that necessary tasks are not deferred as contractors make decisions relative to the application of resources relative to potential fee.

Hybrid Incentives. Hybrid incentives contain both subjective and objective elements. An example of such an incentive might be the achievement of an acceptable Safety Program by a specific date. The extent to which it is acceptable will be determined subjectively, while the date of achievement will be determined objectively.

---

PDN:	SR-ARRA-10-0039	Savannah River Recovery Act Program
Revision:	2	Performance Evaluation and Measurement Plan
Date:	May 18, 2011	Savannah River Nuclear Solutions, LLC
Page:	44	Contract No. DE-AC09-08SR22470
		Performance Period: Aug. 1, 2010 through Dec. 31, 2012

---

Integrated Incentive. An integrated incentive is an incentive that appears in several contracts which has the same end goal and requires the various contractors to work together in achieving that goal. An example would be to include in all contracts addressing the shipment of TRU waste to WIPP an incentive to ship the TRU waste and to coordinate such shipments such that TRUPACTs and trucks would be available to the various contractors when needed.

Integrated Planning, Accountability, and Budgeting System (IPABS). The objective of IPABS is to establish a single integrated EM corporate database to support budget, performance, technical analyses, and inquiries for eliminating redundant requirements and reporting systems and providing a single source for data management. IPABS-IS should correlate to baselines. The IPABS-IS is IPABS user interface for data input and reporting.

Legacy Transuranic (TRU) Waste. The inventory of TRU waste existing at SRS on April 09, 2009.

Life cycle. Project inception through project completion.

Management and operating (M&O). “Management and operating contract” means an agreement under which the Government contracts for the operation, maintenance, or support, on its behalf, of a Government-owned or -controlled research, development, special production, or testing establishment wholly or principally devoted to one or more major programs of the contracting Federal agency (Federal Acquisition Regulations System Section 17.601).

Milestone. A milestone is an important or critical event with no duration required for achieving project objective(s). Milestones are comprised of a noun; modifiers; active, results-oriented verb; and a date. Milestones can signify activity starts and completions.

Objective Incentives. Objective incentives tend to be specific in nature and lend themselves to evaluation against quantifiable measures (i.e., objective performance measures). To the extent that a performance measure is defined and measured in objective terms, the fee associated with its achievement is earned based on the extent to which the contractor’s performance meets those objective terms.

Office of Engineering and Construction Management (OECM). The OECM is a DOE HQ organization within the Office of the Chief Financial Officer. It serves as DOE principal point of contact relating to program and project management and develops policy and assists in the planning, programming, budgeting, and execution process for the acquisition of capital assets in coordination with the PSO and project management support offices.

Office of Environmental Management (EM). DOE created this organization in 1989 to mitigate the risks and hazards posed by the legacy of nuclear weapons production and research. Included are an unprecedented amount of contaminated waste, water, and soil, and a vast number of contaminated structures remaining radioactive for thousands of years. EM is composed of the Offices of ER and Waste Management.

Organizational Breakdown Structure (OBS). The project’s functional organization. Control accounts are identified at a natural intersection point of the Work Breakdown Structure and OBS.

---

Savannah River Recovery Act Program	PDN:	SR-ARRA-10-0039
Performance Evaluation and Measurement Plan	Revision:	2
Savannah River Nuclear Solutions, LLC	Date:	May 18, 2011
Contract No. DE-AC09-08SR22470	Page:	45
Performance Period: Aug. 1, 2010 through Dec. 31, 2012		

Performance Based Incentive (PBI). See Performance Fee Agreement.

Performance Evaluation Measurement Plan (PEMP). The PEMP, required by the Contract, illustrates the process management will use to identify strategic goals that can be achieved by contract, develop performance incentives to accomplish that strategy, and verify completion of invoiced incentives. The Recovery Act PEMP is related to other project documents, such as the Project Execution Plan and the Quality Assurance Surveillance Plan.

Performance Fee Agreement (PFA). The PFA is between the federal government and a contractor, and identifies specific performance criteria that can be documented when completed, and an amount of fee, used as an incentive, associated with completing and documenting performance. The contract defines performance fee can be an incentive fee component for objective performance requirements (e.g. Performance-Based Incentive), and/or an award fee component for subjective performance requirements.

Performance Fee Agreement Schedule. A chronological listing of the Performance Fee Agreement completion criteria, including cost.

Performance Fee Board. Federal staff members of the Integrated Project Team who are responsible for reviewing all Performance Fee Agreement performance reporting, and providing recommendation to the Fee Determining Official concerning payment of fee.

Performance Measurement Baseline. The time-phased budget (budgeted cost of work scheduled) plan plus any undistributed budget against which project performance is measured.

Project Baseline Summary (PBS). The PBS is the main source of summary EM project information needed to support planning, budgeting, execution, and reporting/evaluation. IPABS-IS collects data by PBS, and EM funds projects by PBS. The majority of projects have one PBS. PBS is the common denominator for the planning, budgeting, execution, and reporting/evaluation functions.

Project Risk. A factor, element, constraint, or course of action on a project introducing an uncertainty of outcome and the possibility of technical deficiencies, inadequate performance, schedule delays, or cost overruns that could impact a mission. In the evaluation of project risk, the potential negative or positive impacts and the probability of occurrence must be considered.

Project. A unique effort supporting a program mission, having defined start and end points, undertaken to create a product, facility, or system, and containing interdependent activities planned to meet a common objective or mission. Project types include planning and execution of construction, renovation, modification, line items for maintenance and repair, environmental restoration, deactivation and decommissioning efforts, information technology, and large capital equipment or technology development activities. Tasks such as basic research, grants, ordinary repairs, maintenance of facilities, and operations are not considered projects. For simplicity, this document uses “projects” when referring to both programs and projects.

Stretch. A Stretch incentive motivates the contractor to accelerate contractual work by achieving cost efficiencies, thereby accomplishing all work within the same work package at a cost less than that reflected in the approved baseline. The cost efficiencies achieved are normally within the

range of the original estimate (budget) for the work or achievable through efficiencies in the performance of such work. Any fee associated with the acceleration of such work is part of the basic Total Estimated Fee Pool. By designation as a Stretch Performance Fee Agreement, the contractor is authorized to initiate activity at its discretion at the time the incentive is created. The Contractor does not need to obtain approval from the Change Control Board prior to beginning work on a Stretch Performance Fee Agreement.

Subjective Incentives. Subjective incentives use adjectival measures related to quality of service or product. The success of a contractor against subjective measures is determined by the government, which will consider the related conditions under which the work was performed and the contractor's specific performance as measured against the government's objective.

Super-Stretch. A Super Stretch Incentive is defined as a performance-based incentive designed to motivate the contractor to accomplish unbudgeted work through cost efficiencies and/or savings realized during execution of an existing performance measurement baseline and/or contract work authorization document. Work that is associated with a Super Stretch incentive may be initiated under a pre-approved (through the Change Control process) baseline planning package and then executed and completed under a work package. Because Super Stretch-incentivized work and the associated fee are unbudgeted and unfunded, the contractor must provide objective evidence that cost efficiencies/savings are realized or that cost efficiencies/savings are forecasted at a high degree of certainty. In some cases, initiation of a Super Stretch-incentivized planning package may result in an over-target baseline condition. The contractor is expected to exercise diligence and discretion to ensure work is completed and objectives are achieved under the existing approved performance baseline while planning and executing Super Stretch-incentivized work. Because a Super Stretch incentive is focused on delivery of an end product, measures and metrics must be objective.

Validation. Validation is a method of comparison between a Performance Fee Agreement and physical completion of performance criteria. The comparison is evaluated to determine adequacy of meeting the intent of the Performance Fee Agreement.

Verification. Verification is a method of comparison between a Performance Fee Agreement and documentation of completion of performance criteria. The comparison is evaluated to determine adequacy of documenting completion of the Performance Fee Agreement.

Work Breakdown Structure (WBS). The WBS is a product-oriented family tree subdivision of the work required to produce the end product. The WBS is structured in accordance with the way work will be performed and reflects the way in which project costs and data will be summarized and eventually reported.

---

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
174		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$81,185,189.55	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$81,185,189.55 are hereby obligated to CLIN 00001, thereby increasing it from \$2,707,058,549.12 to \$2,788,243,738.67.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,107,085,075.29 to \$4,188,270,264.84.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
175		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$19,417.00	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Commerce Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$19,417.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,788,243,738.67 to \$2,788,263,155.67.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,188,270,264.84 to \$4,188,289,681.84.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
176		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$698,488.98	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I-53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$698,488.98 are hereby obligated to CLIN 00001, thereby increasing it from \$2,788,263,155.67 to \$2,788,961,644.65.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,188,289,681.84 to \$4,188,988,170.82.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
177		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$2,037,192.86			
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$2,037,192.86 are hereby obligated to CLIN 00001, thereby increasing it from \$2,788,961,644.65 to \$2,790,998,837.51.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,188,988,170.82 to \$4,191,025,363.68.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
178		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$625,000.00	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I-53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (DHS Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$625,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,790,998,837.51 to \$2,791,623,837.51.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,191,025,363.68 to \$4,191,650,363.68.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
179		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$50,526.00	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (NRC Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$50,526.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,791,623,837.51 to \$2,791,674,363.51.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,191,650,363.68 to \$4,191,700,889.68.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
180		See Block 16C		11EM002682			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$43,985.06	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2011 FINPLAN 14. Funds in the amount of \$43,985.06 are hereby obligated to CLIN 00001, thereby increasing it from \$2,791,674,363.51 to \$2,791,718,348.57.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,191,700,889.68 to \$4,191,744,874.74 .							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2 AMENDMENT/MODIFICATION NO</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO</b>	
181		See Block 16C		11EM002761	
<b>6 ISSUED BY</b>		<b>CODE</b>		<b>7 ADMINISTERED BY (If other than Item 6)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		CODE 00901	
<b>9 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)</b>		<b>(X)</b>		<b>9A AMENDMENT OF SOLICITATION NO</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B DATED (SEE ITEM 11)	
		<b>X</b>		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B DATED (SEE ITEM 13)</b>	
<b>CODE</b>		<b>FACILITY CODE</b>		01/10/2008	
798861048					

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15 and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12 ACCOUNTING AND APPROPRIATION DATA (If required)**

No change in accounting and appropriation data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A</b>
	<b>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>
	<b>C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D OTHER (Specify type of modification and authority)</b>
X	DEAR 970.5211-1 WORK AUTHORIZATION (MAY 2007)

**E. IMPORTANT:** Contractor X is not. is required to sign this document and return \_\_\_\_\_ copies to the issuing office

**14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

A. The purpose of this modification is to delete Clause H-54 and add DEAR 970.5211-1 and DOE Order 412.1A.

- (1) Clause H-54 WORK AUTHORIZATION SYSTEM is hereby deleted in its entirety.
- (2) DEAR 970.5211-1 WORK AUTHORIZATION (MAY 2007) is hereby added to Section I of the contract. See page 2 for full text of the clause.
- (3) DOE Order 412.1A WORK AUTHORIZATION SYSTEM is hereby added to Section J, Appendix E - List B/Applicable DOE Directives and Orders.

B. All references in the contract to Clause H-54 WORK AUTHORIZATION SYSTEM are hereby changed to DEAR 970.5211-1 WORK AUTHORIZATION.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		Charlene Smith	
<b>15B CONTRACTOR/OFFEROR</b>	<b>15C DATE SIGNED</b>	<b>16B UNITED STATES OF AMERICA</b>	<b>16C DATE SIGNED</b>
(Signature of person authorized to sign)		Signature on File	06/16/2011
		(Signature of Contracting Officer)	

**DEAR 970.5211-1 WORK AUTHORIZATION (MAY 2007)**

(a) Work authorization proposal. Prior to the start of each fiscal year, the Contracting Officer or designee shall provide the Contractor with program execution guidance in sufficient detail to enable the Contractor to develop an estimated cost, scope, and schedule. In addition, the Contracting Officer may unilaterally assign work. The Contractor shall submit to the Contracting Officer or other designated official, a detailed description of work, a budget of estimated costs, and a schedule of performance for the work it recommends be undertaken during that upcoming fiscal year.

(b) Cost estimates. The Contractor and the Contracting Officer shall establish a budget of estimated costs, description of work, and schedule of performance for each work assignment. If agreement cannot be reached as to scope, schedule, and estimated cost, the Contracting Officer may issue a unilateral work authorization, pursuant to this clause. The work authorization, whether issued bilaterally or unilaterally shall become part of the contract. No activities shall be authorized or costs incurred prior to Contracting Officer issuance of a work authorization or direction concerning continuation of activities of the contract.

(c) Performance. The Contractor shall perform work as specified in the work authorization, consistent with the terms and conditions of this contract.

(d) Modification. The Contracting Officer may at any time, without notice, issue changes to work authorizations within the overall scope of the contract. A proposal for adjustment in estimated costs and schedule for performance of work, recognizing work made unnecessary as a result, along with new work, shall be submitted by the Contractor in accordance with paragraph (a) of this clause. Resolution shall be in accordance with paragraph (b) of this clause.

(e) Increase in estimated cost. The Contractor shall notify the Contracting Officer immediately whenever the cost incurred, plus the projected cost to complete work is projected to differ (plus or minus) from the estimate by 10 percent. The Contractor shall submit a proposal for modification in accordance with paragraph (a) of this clause. Resolution shall be in accordance with paragraph (b) of this clause.

(f) Expenditure of funds and incurrence of costs. The expenditure of monies by the Contractor in the performance of all authorized work shall be governed by the "Obligation of Funds" or equivalent clause of the contract.

(g) Responsibility to achieve environment, safety, health, and security compliance. Notwithstanding other provisions of the contract, the Contractor may, in the event of an emergency, take that corrective action necessary to sustain operations consistent with applicable environmental, safety, health, and security statutes, regulations, and procedures. If such action is taken, the Contractor shall notify the Contracting Officer within 24 hours of initiation and, within 30 days, submit a proposal for adjustment in estimated costs and schedule established in accordance with paragraphs (a) and (b) of this clause.

(End of clause)

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
182		See Block 16C		11EM002788			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$11,133,966.47	
See SRNS FY2011 FINPLAN							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 15. Funds in the amount of \$11,133,966.47 are hereby obligated to CLIN 00001, thereby increasing it from \$2,791,718,348.57 to \$2,802,852,315.04.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,191,744,874.74 to \$4,202,878,841.21.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/07/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
183		See Block 16C		11EM002939			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$96,317,409.11	
See SRNS FY2011 FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 16. Funds in the amount of \$96,317,409.11 are hereby obligated to CLIN 00001, thereby increasing it from \$2,802,852,315.04 to \$2,899,169,724.15.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,202,878,841.21 to \$4,299,196,250.32.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
184		06/21/2011		11EM002939			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$204,884.00	
See SRNS FY2011 FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities) in accordance with SRNS FY2011 FINPLAN 16. Funds in the amount of \$204,884.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,899,169,724.15 to \$2,899,374,608.15.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,299,196,250.32. to \$4,299,401,134.32.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
185		06/22/2011		11EM002939			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY2011 FINPLAN #16				Net Decrease: - \$412.11			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Commerce Funds) in accordance with SRNS FY2011 FINPLAN 12. Funds in the amount of \$-412.11 are hereby obligated to CLIN 00001, thereby decreasing it from \$2,899,374,608.15 to \$2,899,374,196.04.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,299,401,134.32 to \$4,299,400,722.21.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				(Signature of Contracting Officer)		06/22/2011	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
186		See Block 16C		11EM002939			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease: - \$100,000.00			
See SRNS FY2011 FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (DHS Funds) in accordance with SRNS FY2011 FINPLAN 16. Funds in the amount of \$-100,000.00 are hereby obligated to CLIN 00001, thereby decreasing it from \$2,899,374,196.04 to \$2,899,274,196.04 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,299,400,722.21 to \$4,299,300,722.21.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/23/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
187		See Block 16C		11EM002971			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$1,262,717.01			
See SRNS FY2011 FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 16. Funds in the amount of \$1,262,717.01 are hereby obligated to CLIN 00001, thereby increasing it from \$2,899,274,196.04 to \$2,900,536,913.05 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,299,300,722.21 to \$4,300,563,439.22.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/24/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
188		See Block 16C		11EM003121			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H.28 - Performance Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to incorporate the updates to the Fiscal Year 2011 Performance Evaluation and Measurement Plan (PEMP) as Revision 4 which is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
<p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/06/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



**U.S. Department of Energy  
Savannah River Site**

**PERFORMANCE EVALUATION  
MEASUREMENT PLAN, Rev. 4  
Savannah River Nuclear Solutions, LLC  
CONTRACT NO. DE-AC09-08SR22470**

**Evaluation Period:  
October 1, 2010 through September 30, 2011**

Rev. 4 effective: July 6, 2011



## Approval Page

### Approval:

Signature On File

7/06/2011

James Lovett  
Contracting Officer (CO)  
DOE - Savannah River Site

Date

### Concurrence:

Signature On File

7/06/2011

Doug Hintze  
Assistant Manager for Mission Support  
Contracting Officer Representative (COR)  
DOE - Savannah River Site

Date

## Revision Summary Page

Rev. #	Rev. Date	Affected Sections / Pages	Description of Revision
0	10/01/10	All	Initial Issue for this evaluation period
1	12/14/10	Page 13, add paragraph to section 7. Payment of Fee	<b>Contract clause H-33, PROVISIONAL PAYMENT OF INCENTIVE FEE</b> , allows provisional payment of fee for partial completion of subjectively evaluated [subjective] incentives. The contractor may request up to 50% of the total fee available for each subjective incentive. If requests are monthly, the contractor must use a 1/12 divisor; if requests are quarterly, then 1/4 divisor; if semi-annual, then 1/2 divisor. Provisional fee is not considered earned fee, and is contingent upon a final fee determination by the FDO.
1	12/14/10	Page 16	Revise Available Fee amounts for Nuclear Materials' Contract Outputs
1	12/14/10	Pages 19 and 21	Update the titles of the IPT members
1	12/14/10	Page 29, Management PBI, changes in the section for Assistant Manager for Closure Projects	Technical Performance <ul style="list-style-type: none"> <li><del>o Contribute toward achieving all high performance sustainable building goals.</del></li> <li><del>o Operate and</del> Improve various infrastructure systems</li> </ul> Cost Control <ul style="list-style-type: none"> <li><del>o Develop and maintain an</del> Critical Infrastructure IPL</li> </ul>
1	12/14/10	Page 53, revised Acceptance Criteria 1 on milestone SRNS2011-MGT-11.01	<del>Assessment performed per WSRC 1B, "Management Requirements and Procedures, MRP 4.23, "Corrective Action Program".</del> <b>Assessment findings will be tracked in STARS.</b>
1	12/14/10	Page 57, milestone SRNS2011-MGT-11.02b	Added <b>"per the graded approach."</b> to the Completion Criteria.
1	12/14/10	Page 65, milestone SRNS2011IS-01.03, revised Acceptance Criteria	DOE-SR will <del>conduct physical walkdown and final acceptance inspection of completed infrastructure tie-ins/ modifications</del> <b>review SRNS steam outage documentation.</b>
1	12/14/10	Page 65, milestone SRNS2011IS-01.04, revised Acceptance Criteria	DOE-SR will review SRNS <del>steam outage documentation</del> <b>electrical and river water outage documentation.</b>
1	12/14/10	Pages 65-66, milestone SRNS2011IS-01.05, revised Acceptance Criteria	DOE-SR will review SRNS <del>electrical and river water outage documentation</del> <b>document log of completed document reviews, including resulting feedback/ recommendations/ assistance.</b>
1	12/14/10	Page 66, milestone SRNS2011IS-01.06, revised Acceptance Criteria	<del>DOE-SR will review SRNS document log of completed document reviews, including resulting feedback/ recommendations/ assistance.</del> 1. DOE will review the document log of supporting activities provided by SRNS for the commissioning. 2. DOE-SR will review the document log of supporting activities provided by SRNS for the DOE Readiness Assessment.
1	12/14/10	Page 72, Contract Output SRNS2011NMO-01 GFSI revised	<del>GFSI: Y-12 HEU/Np Oxide must all arrive by commercial shipment to HB Line (not KAC) by June 30, 2011.</del> BRR cask availability required for BRR cask equipment testing, training, dry-runs, and assessment (10/31/10). <del>Approval by DOE for direct disposal of high aluminum UNF by 10/1/10 or within 30 days of receipt of request from SRNS—whichever is later.</del> The LANL HEU "Fines" must all arrive by commercial shipment to H Canyon (not KAC) by 12/15/10.
1	12/14/10	Page 72, Contract Output SRNS2011NMO-01 Assumptions revised	<del>Assumptions: NEPA SA/ROD for UNF required prior to September 30, 2010 by January 31, 2011 to meet FY2010 FY 2011 UNF milestones.</del> Contractual Agreement to extend supplying TVA with LEU material for FY2011 expected by <del>December 1, 2010</del> <b>June 30, 2011.</b>

1	12/14/10	Page 72, Contract Output SRNS2011NMO-01	Update allocated fee amount: Up to <del>\$3,950,000</del> <b>\$3,031,000</b> of the allocated PBI fee will be paid for Contract Output 1
1	12/14/10	Page 72, milestone SRNS2011NMO-01.01	Changes to Fee and Completion Criteria: <b>Fee:</b> <del>\$420,000;</del> <b>\$186,000;</b> \$3000 per bundle shipped; invoiced quarterly <b>Completion Criteria:</b> Load and ship <del>140</del> <b>62</b> bundles of UNF from L to H.
1	12/14/10	Page 72, milestone SRNS2011NMO-01.04	Changes to Date, Fee and Completion Criteria: <b>Date:</b> <del>9/30/11</del> <b>8/31/11</b> <b>Fee:</b> Up to <del>\$480,000;</del> <b>\$360,000;</b> \$30,000 per trailer; invoiced quarterly <b>Completion Criteria:</b> Ship <del>16</del> <b>12</b> LEU trailers in FY11.
1	12/14/10	Page 73, milestone SRNS2011NMO-01.05	Changes to Fee and Completion Criteria: <b>Fee:</b> Up to <del>\$1,300,000;</del> <b>\$520,000;</b> \$10,000 per bundle; invoiced quarterly <b>Completion Criteria:</b> Charge <del>130</del> <b>52</b> bundles of UNF.
1	12/14/10	Page 73, added a new milestone SRNS2011NMO-01.07	<b>Date:</b> 1/31/11 <b>Fee:</b> \$215,000; \$26,875 per drum <b>Completion Criteria:</b> Dissolve 8 ES3100 drums of LANL fines in 6.1.D. GFSI: Final shipment will be provided by 12/15/10. <b>Acceptance Criteria:</b> DOE-SR will review dissolver log sheets / documentation.
1	12/14/10	Page 74, Contract Output SRNS2011NMO-02 Assumptions and GFSI deleted	<b>Assumptions:</b> <del>Eight of the 13 prompt gamma items under IAEA control can be measured or items can be substituted. Implementation of the HB-Line 3009 DSA will not require significant plant modifications.</del> <b>None.</b> <b>GFSI:</b> <del>Final shipment of LAP must arrive at HB-Line (not KAC) by 10/15/10.</del> <b>None.</b>
1	12/14/10	Page 74, Contract Output SRNS2011NMO-02 Amount	Up to <b>\$2,135,000</b> of the allocated PBI fee will be paid for Contract Output 2 as follows:
1	12/14/10	Page 75, Contract Output SRNS2011NMO-02.09	Changes to Date, Fee and Completion Criteria: <b>Date:</b> <del>5/9/11</del> <b>9/30/11</b> <b>Fee:</b> Up to <del>\$100,000;</del> <b>\$200,000;</b> <b>Completion Criteria:</b> HB-Line 3009 DSA Submittal (to include repack of non-moxable 3013 oxides for either dissolution in HB-Line or blending for WIPP).
1	12/14/10	Page 75, Contract Output SRNS2011NMO-02.10	Changes to Fee, Completion Criteria, and Acceptance Criteria: <b>Fee:</b> Up to <del>\$100,000;</del> <b>\$75,000;</b> <b>Completion Criteria:</b> <del>HB-Line 3009 DSA Implementation.</del> <b>Revise K-Area DSA to store all "special items" in culverts outside 105-K.</b> <b>Acceptance Criteria:</b> <del>DOE-SR will validate completion of the SRNS Safety Basis Implementation Plan.</del> <b>Submit high quality SRNS approved DSA.</b>
1	12/14/10	Page 76, Contract Output SRNS2011NMO-03 Amount	Up to <del>\$1,490,000</del> <b>\$1,976,000</b> of the allocated PBI fee will be paid for Contract Output 3 as follows:
1	12/14/10	Page 77, added a new milestone SRNS2011NMO-03.11	<b>Date:</b> 1/20/11 <b>Fee:</b> \$35,000 <b>Completion Criteria:</b> Develop "Case 3 Preliminary Deinventory and Flush Plan" to remove bulk SNM. <b>Acceptance Criteria:</b> DOE-SR will review Deinventory and Flush plan.
1	12/14/10	Pages 77-78, added a new milestone SRNS2011NMO-03.12	<b>Date:</b> 6/15/11 <b>Fee:</b> \$416,000; \$1,000 per kg, invoiced quarterly. (416 kgs is the estimated quantity; the final amount of EU will be determined based on the EUS tank being pumped to heel, refilled, and pumped back to heel). <b>Completion Criteria:</b> Complete processing of the EUS tank material through the solvent extraction cycles.

			<b>Acceptance Criteria:</b> DOE-SR will review processing logs.
1	12/14/10	Page 78, added a new milestone SRNS2011NMO-03.13	<b>Date:</b> 12/31/10 <b>Fee:</b> \$35,000 <b>Completion Criteria:</b> Develop detailed scope and schedule to move Heavy Water from K Area to C Area. <b>Acceptance Criteria:</b> DOE-SR will review scope and schedule.
1	12/14/10	Page 78, Contract Output SRNS2011NMO-04 revised GFSI	<b>GFSI:</b> NNSA funding ( <del>allowed per NNSA Contracting Officer letter</del> ) is available for use by 10/1/10 to refurbish third cask and rail car for UNF shipments. <b>DOE will approve DSA rev for L Basin Vacuum System within 30 days.</b>
1	12/14/10	Page 78, Contract Output SRNS2011NMO-04 Amount	Up to <del>\$1,100,000</del> <b>\$1,458,000</b> of the allocated PBI fee will be paid for Contract Output 4 as follows:
1	12/14/10	Page 78, revised milestone SRNS2011NMO-04.03	<b>Date:</b> <del>2/28/11</del> <b>1/31/11</b> <b>Fee:</b> <del>\$25,000</del> <b>\$75,000; \$25,000 per installed manipulator.</b> <b>Completion Criteria:</b> <del>Provide 235 F Risk Reduction preliminary PEP.</del> <b>Install three Z Band Manipulators in 772-F.</b> <b>Acceptance Criteria:</b> <del>Submit high quality SRS approved preliminary PEP to DOE-SR.</del> <b>DOE-SR will review completed work packages or visually validate by walkdown.</b>
1	12/14/10	Page 79, deleted words on completion criteria for SRNS2011NMO-04.08	<b>Completion Criteria:</b> Complete upgrade of a third 70 ton cask and rail car <del>and load with UNF for shipment.</del>
1	12/14/10	Page 780, added a new milestone SRNS2011NMO-04.10	<b>Date:</b> 9/30/11 <b>Fee:</b> \$208,000; \$4,000 per connector' invoiced quarterly <b>Completion Criteria:</b> Fabricate and install 52 Hanford dummy connectors on open cooling Water Out nozzles. <b>Acceptance Criteria:</b> DOE-SR will review completed work packages or visually validate using Crane monitors.
1	12/14/10	Page 80, added a new milestone SRNS2011NMO-04.11	<b>Date:</b> 2/28/11 <b>Fee:</b> \$100,000; \$50,000 per installed manipulator <b>Completion Criteria:</b> Fabricate, install and functionally test the L Basin Vacuum System to operable service and clean the Transfer Pit. <b>Acceptance Criteria:</b> DOE-SR will review completed work packages or visually validate by walkdown.
1	12/14/10	Page 82, SRNS2011SRNL-01.01 revised Completion Criteria and Acceptance Criteria	<b>Completions Criteria:</b> The contractor shall provide objective evidence demonstrating satisfactory completion of quality products and provision of services (such as flow sheets, technology development and deployment) to reduce the technical risks of EM operations and projects at SRS and across DOE. <b>This includes technical support to DOE-EM HQ, Nuclear Materials Stabilization Project, Liquid Waste Operations, Closure Project, and the EM DOE Complex.</b> Quarterly reports of progress will be provided <del>and fee will be assessed quarterly.</del> (Funding, scope and schedule will be provided by EM-HQ and EM Contractors). <b>Customers. As EM customers task SRNL with work scope throughout FY11, SRNL will document the status of deliverables and milestones for each project and track progress.</b> <b>Acceptance Criteria:</b> Review and evaluate work deliverables and documentation quarterly to validate <del>milestone completion of milestones and deliverables.</del> <b>and Solicit customer feedback to assess quality of SRNL work products and support.</b>
1	12/14/10	Page 84-85, SRNS2011SRNL-03.01 revised Completion Criteria	<del>Prepare procurement and WFO procedure revisions related to foreign national involvement and submit them for approval; the objective is to eliminate the requirement for identification of foreign nationals if the statement of work provided by SRNS is releasable to the public and no SRS site visit is involved.</del>

			While maintaining compliance with DOE Order 142.3a (Unclassified Foreign Visits and Assignments Program) and DOE Order 481.1C (Work for Others), revise SRNS procurement and Work for Others (WFO) procedures to facilitate work where foreign nationals may be involved.
1	12/14/10	Page 138, revised milestone SRNS2011NNP-09.02 date	2. Issue Project Controls Plan by <del>November, 11, 2010</del> <b>December 20, 2010</b>
1	12/14/10	Page 138, revised milestone SRNS2011NNP-09.03 date	3. Issue EVMS Implementation Plan by <del>December, 6, 2010</del> <b>January 26, 2011</b>
2	3/25/11	Page 20, revised the EM individual NMO Contract Output amounts (NMO total fee remains the same, \$8.6M)	Objective NMO-1 <u>1,848,000</u> NMO-2 <u>2,538,000</u> NMO-3 <u>2,481,000</u> NMO-4 <u>1,733,000</u>
2	3/25/11	Page 71-72, revised milestone SRNS2011-IS-02.01 completion criteria	Provide <del>technical guidance, inspection criteria,</del> materials and labor to <b>inspect and perform corrective maintenance and repairs to four (4) refurbishment of one of the</b> Turbine generators at 484-D to ensure capability for power and steam generation.
2	3/25/11	Page 74, revised SRNS2011IS-04.04	Fee: <del>\$200,000</del> <b>\$25,000</b> Completion Criteria: Make intermediate improvements to habitability issues associated with the SRSO/EOC and address obsolescence / performance issues within the "alternate" EOC facility <b>and develop a scope of work which will identify future funding needs, to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.</b> Acceptance Criteria: DOE-SR <b>will conduct a physical walkdown, and</b> will review Final Acceptance Inspection (FAI) for the <b>completed project, and will review the scope of work for the "alternate" EOC facility.</b>
2	3/25/11	Page 74, revised SRNS2011IS-04.05	Fee: <del>\$25,000</del> <b>\$150,000</b> Completion Criteria: <del>Develop option analysis and subsequent design of replacement function for</del> <b>Replace</b> the 785-A Cooling Tower, <del>to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.</del> Acceptance Criteria: <del>DOE-SR will review the design for the 785-A Cooling Tower,</del> <b>DOE-SR will conduct a physical walkdown and will review Final Acceptance Inspection (FAI) for the completed project.</b>
2	3/25/11	Page 74, added milestone SRNS2011IS-04.06	Date: <b>9/30/2011</b> Amount: <b>\$25,000</b> Completion Criteria: <b>Replace 50 older HVAC units (at 8 to 10 SEER) with 410-A units that are more efficient with 13 to 14 SEER ratings.</b> Acceptance Criteria: <b>DOE-SR will conduct physical walkdown and review Final Acceptance Inspection (FAI) of completed infrastructure upgrades and completed work packages.</b>
2	3/25/11	Page 74-5, added milestone SRNS2011IS-04.07	Date: <b>7/31/2011</b> Amount: <b>\$25,000</b> Completion Criteria: <b>Coordinate and conduct a sitewide steam outage and ensure necessary repair work is completed with minimal disruption in mission work.</b> Acceptance Criteria: <b>DOE-SR will review the schedule performance, the assessment of the outage performance (including level of disruption), and the completed work packages.</b>
2	3/25/11	Page 77 revised Contract Output SRNS2011NMO-01	GFSI: BRR cask availability required for BRR cask equipment testing, training, dry-runs, and assessment (10/31/10). The LANL HEU "Fines" must all arrive by commercial shipment to H Canyon (not KAC) by 12/15/10.

			<p>SA/ROD for UNF required by July 1, 2011 to meet FY 2011 UNF milestones. If SA/ROD is not approved by July 1, 2011, DOE authorizes SRNS to renegotiate the fee from milestones NMO-01.01 and NMO-01.05 after July 1, 2011 to other work scope.</p> <p>Assumptions: <del>SA/ROD for UNF required by January 31, 2011 to meet FY 2011 UNF milestones. Contractual Agreement to extend supplying TVA with LEU material for FY2011 expected by June 30, 2011.</del> None.</p> <p>Up to <del>\$3,031,000</del> \$1,848,000 of the allocated PBI fee will be paid for Contract Output 1 as follows:</p>
2	3/25/11	Page 77, revised milestone SRNS2011NMO-01.01	<p>Fee: <del>\$186,000;</del> \$93,000; \$3000 per bundle shipped; invoiced quarterly</p> <p>Completion Criteria: Load and ship <del>62</del> 31 bundles of UNF from L to H.</p>
2	3/25/11	Page 77, revised milestone SRNS2011NMO-01.02	<p>Acceptance Criteria: DOE-SR will <del>validate</del> review Cask Data Sheets for casks received and unloaded against the Receipt and Unloading Schedule Agreement</p>
2	3/25/11	Page 77, revised milestone SRNS2011NMO-01.03	<p>Completion Criteria: <del>Declare readiness</del> Complete actions to receive and unload BRR Cask in L-Area (exclusive of crane readiness)</p> <p>Acceptance Criteria: DOE-SR will <del>perform physical walk down and / or evaluate completed work packages.</del> confirm: SRNS submitted high quality SRNS-approved DSA: SRNS approved procedure (SOP-DHS-160-L) has been SRNS validated, CHAP/NCSE has been SRNS approved, and BRR cask rigging is located in L Area.</p>
2	3/25/11	Page 78, revised milestone SRNS2011NMO-01.04	<p>Fee: Up to <del>\$360,000;</del> \$460,000; \$30,000 per trailer for the first 12; invoiced quarterly; \$50,000 per trailer for the two additional trailers.</p> <p>Completion Criteria: 1) Ship 12 LEU trailers in FY11, 2) Ship two additional full (9 containers each) LEU trailers (numbers 13 and 14).</p>
2	3/25/11	Page 78, revised milestone SRNS2011NMO-01.05	<p>Fee: Up to <del>\$520,000;</del> \$260,000; \$10,000 per bundle; invoiced quarterly</p> <p>Completion Criteria: Charge <del>52</del> 26 bundles of UNF</p>
2	3/25/11	Page 78, deleted milestone SRNS2011NMO-01.06	
2	3/25/11	Page 78, added milestone SRNS2011NMO-01.08	<p>Date: 6/30/11</p> <p>Fee: \$50,000; \$25,000 on 3/31/11 and \$25,000 on 6/30/11.</p> <p>Completion Criteria: Maintain L Area proficiency by periodically shipping cask cars with dummy bundles from L to H. This ensures compliance with Public Law 108-136.</p> <p>Acceptance Criteria: DOE-SR will review L Area logbooks to verify periodic cask car shipments.</p>
2	3/25/11	Page 78-79, added milestone SRNS2011NMO-01.09	<p>Date: 6/30/11</p> <p>Fee: \$120,000; \$60,000 on 3/31/11 and \$60,000 on 6/30/11.</p> <p>Completion Criteria: Maintain H Canyon operator proficiency on Dissolving Unit Ops. This ensures compliance with Public Law 108-136.</p> <p>Acceptance Criteria: DOE-SR will review H Area logbooks to verify periodic charging of dummy bundles into the Mockup Dissolver.</p>
2	3/25/11	Page 79, revised Contract Output SRNS21011NMO-02	<p>GFSI: <del>None.</del> DOE will provide WIPP Termination of Safeguards (downgrade to Type D material without ball milling) by 5/15/11. DOE will revise existing NEPA Interim Action for direct disposal of DE-3013 by 5/15/11. DOE will provide 3 WIPP acceptable pipe overpack containers (POCs) for training by 5/30/11 and an additional 70 POCs by 6/30/11. Approval of WIPP Acceptable Knowledge (AK)</p>

			<p>characterization by 6/30/11 assuming SRNS provides AK by 5/31/11. DOE will approve Onsite Shipping Analysis for POCs by 6/30/11 if SRNS delivers a high quality document by 5/31/11.</p> <p>Up to <del>\$2,135,000</del> \$2,538,000 of the allocated PBI fee will be paid for Contract Output 2 as follows:</p>
2	3/25/11	Page 80, revised milestone SRNS2011NMO-02.02	<p>Fee: <del>\$360,000</del>; \$240,000;</p> <p>Completion Criteria: <del>18</del> 12 Destructive Evaluation (DE) Surveillances</p> <p>Acceptance Criteria: DOE-SR will review operations log of DE completed and <del>validation</del> review of Surveillance Program Authority (SPA) Data Set 1 parameters for the DE samples.</p>
2	3/25/11	Page 81, revised milestone SRNS2011NMO-02.08	<p>Fee: <del>\$470,000</del>; \$235,000;</p> <p>Completion Criteria: Dissolve <del>50</del> 25 kgs DE-3013 (total oxide).</p>
2	3/25/11	Page 81, revised milestone SRNS2011NMO-02.10	Completion Criteria: Revise K-Area DSA to allow storage of <del>store all</del> "special items" in culverts outside 105-K
2	3/25/11	Page 81, added milestone SRNS2011NMO-02.11	<p>Date: 9/30/11</p> <p>Fee: \$300,000</p> <p>Completion Criteria: Consolidate Bulk Pu for H Canyon and HB-Line for Sludge Batch 8.</p> <p>Acceptance Criteria: DOE-SR will review that bulk Pu is stored in three or less Canyon tanks by a review of Pu Concentration round sheet.</p>
2	3/25/11	Page 81, added milestone SRNS2011NMO-02.12	<p>Date: 3/31/11</p> <p>Fee: \$75,000</p> <p>Completion Criteria: Detailed Bulk Flush Plan for HB-Line from RD-13 / 14 to 11.1.</p> <p>Acceptance Criteria: DOE-SR will review the SRNS approved Bulk (single volume) Flush Plan.</p>
2	3/25/11	Page 81, added milestone SRNS2011NMO-02.13	<p>Date: 9/30/11</p> <p>Fee: \$300,000; 1); \$45,000; 2) \$45,000; and 3) \$210,000, payable at \$3000 for each Pipe Overpack Container (POC).</p> <p>Completion Criteria: 1) Complete WIPP demonstration CHAP and USQ. 2) Develop and approve procedures for WIPP demonstration. 3) Blend and package 70 POCs, not shipped to WIPP.</p> <p>Acceptance Criteria: DOE-SR will review that: 1) SRNS approved WIPP demonstration CHAP and USQ. 2) all Operations procedures for WIPP demonstration have been SRNS validated. 3) SRNS has loaded 70 POCs and transferred at least 35 POCs to E Area, but not shipped to WIPP.</p>
2	3/25/11	Page 82, added milestone SRNS2011NMO-02.14	<p>Date: 9/30/11</p> <p>Fee: \$83,000</p> <p>Completion Criteria: Technical evaluation whether a single F Canyon Exhaust Fan is sufficient after TRU processing.</p> <p>Acceptance Criteria: DOE-SR will review technical evaluation that shows whether on Canyon Exhaust Fan is required after TRU processing.</p>
2	3/25/11	Page 82, revised Contract Output SRNS21011NMO-03	Up to <del>\$1,976,000</del> \$2,481,000 of the allocated PBI fee will be paid for Contract Output 3 as follows:
2	3/25/11	Page 82, revised milestone SRNS2011NMO-03.01	<p>Date: <del>9/30/11</del> 5/15/11</p> <p>Fee: <del>\$175,000</del> \$200,000</p> <p>Completion Criteria: Install 11.5 Bi-Cell Tank and Jumpers <del>(assumes Tank/Jumpers but not 2<sup>nd</sup>/3<sup>rd</sup> level/GV mods)</del></p> <p>Modify waste processing route (8.7 to 8.1) for 1DW to be processed in HAW 9.1E and 9.2E to reduce 2nd U cycle time.</p> <p>Acceptance Criteria: <del>DOE-SR will review completed crane installation procedures or visually verify by inspection.</del> DOE-SR will review completed procedures and work packages.</p>



2	3/25/11	Page 83, revised milestone SRNS2011NMO-03.04	Date: <del>6/15/11</del> 3/31/11 Completion Criteria: Revise 221-H DSA for EU/Pu and Pu concentration. Examples include: reduced cell cover restrictions during waste neutralization, LR-56 increased MAR limits, HAW temperature controls to SC, increase post seismic air purge. (DSA revision submittal to DOE, not approval).
2	3/25/11	Page 83, revised milestone SRNS2011NMO-03.05	Date: <del>9/30/11</del> 3/31/11 Fee: <del>\$120,000</del> \$50,000 Completion Criteria: <del>410 Valve Box Mods, CHAP and Design to 11.1 and 9.6.</del> Develop Staffing Plan and impacts from DOE Letter of Direction, 2/8/11. Acceptance Criteria: DOE-SR will review completed CHAP and design documentation. SRNS submitted high quality documents.
2	3/25/11	Page 84, revised milestone SRNS2011NMO-03.08	Fee: <del>\$275,000</del> \$200,000 Completion Criteria: <del>H Canyon UNF bundle Storage turnover to Ops complete.</del> Complete design and model of bundle storage rack in 717-F Acceptance Criteria: DOE-SR will review completed storage rack installation documentation and/or visual inspection using crane. Bundle storage rack design and model in 717-F.
2	3/25/11	Page 84, revised milestone SRNS2011NMO-03.09	Fee: <del>\$250,000</del> \$150,000 Completion Criteria: <del>Complete redeactivation of F Canyon</del> Complete "Proof of Concept" study to determine use of the VSD to potentially convert non-MOXable to MOXable plutonium. Acceptance Criteria: DOE-SR will verify end point documentation review study.
2	3/25/11	Page 85, added milestone SRNS2011NMO-03.14	Date: 9/30/11 Fee: \$475,000 Completion Criteria: Up to \$475,000; reduce F Canyon S&M to: 1) \$10M or less (at a 0.74 burden rate) per year starting in FY12 for \$475,000; or 2) \$12M or less (at a 0.74 burden rate) per year starting in FY12 for \$350,000. Acceptance Criteria: DOE-SR will review FY12 BOE for F Canyon PBS 11C.
2	3/25/11	Page 85, added milestone SRNS2011NMO-03.15	Date: 9/30/11 Fee: \$100,000 Completion Criteria: SRNS will submit L Area DSA to DOE, to include 420.1B. Acceptance Criteria: DOE-SR will submit high quality SRNS-approved DSA.
2	3/25/11	Page 86, added milestone SRNS2011NMO-03.16	Date: 9/30/11 Fee: \$100,000 Completion Criteria: Complete actions to make VTS racks in the dry cave available for use. Acceptance Criteria: DOE-SR will review the SRNS approved DCA, 302 manual revision, rack positions are labeled and the positions in LANMAS are enabled.
2	3/25/11	Page 86, added milestone SRNS2011NMO-03.17	Date: 9/30/11 Fee: \$50,000 Completion Criteria: Implement a plan to reduce the quantity of each SRNL DE sample to 28 grams or less. Acceptance Criteria: DOE-SR will review the SRNS implementation for the reduction of DE sample quantity.
2	3/25/11	Page 86, revised Contract Output SRNS21011NMO-04	GFSI: NNSA funding is available for use by 10/1/10 to refurbish third cask and rail car for UNF shipments. DOE will approve DSA rev for L Basin Vacuum System within 30 days. Source of funding for the Purification roof repair (Contract Output 04.13) must be identified and made available by 4/15/11.



			Up to <del>\$1,458,000</del> <b>\$1,733,000</b> of the allocated PBI fee will be paid for Contract Output 4 as follows:
2	3/25/11	Page 86, revised milestone SRNS2011NMO-04.01	Fee: \$150,000 <del>(for completion by 6/15/11); Reduction of \$25,000 for completion by 6/30/11 (\$125,000).</del> <b>1) \$125,000 if completed by 7/31/11; 2) \$150,000 if completed by 6/15/11</b>
2	3/25/11	Page 88, revised milestone SRNS2011NMO-04.09	Fee: <del>\$200,000</del> <b>\$150,000</b> Completion Criteria: <del>Complete final design for DNFSB Recommendation 2004-2 for 772-F ventilation confinement modifications.</del> <b>Install three cryostats in 772-1F.</b> Acceptance Criteria: <del>DOE-SR will review design for adequacy to meet ventilation standards for confinement.</del> <b>DOE-SR will review completed work packages or visually review by walkdown.</b>
2	3/25/11	Page 88, added milestone SRNS2011NMO-04.12	Date: <b>9/30/11</b> Fee: <b>\$50,000</b> Completion Criteria: <b>Vacuum HTS (excluding resin affected zone).</b> Acceptance Criteria: <b>DOE-SR will review completed work packages or visually validate by walkdown.</b>
2	3/25/11	Page 88, added milestone SRNS2011NMO-04.13	Date: <b>9/30/11</b> Fee: <b>\$100,000</b> Completion Criteria: <b>Complete Purification roof repair in KAC.</b> Acceptance Criteria: <b>DOE-SR will review completed work packages or visually validate by walkdown.</b>
2	3/25/11	Page 88, added milestone SRNS2011NMO-04.14	Date: <b>9/30/11</b> Fee: <b>\$75,000; \$25,000 per installed manipulator.</b> Completion Criteria: <b>Purchase 4 Z Band Manipulators and install 3 in 772-1F.</b> Acceptance Criteria: <b>DOE-SR will review completed work packages or visually validate by walkdown.</b>
2	3/25/11	Page 88-89, added milestone SRNS2011NMO-04.15	Date: <b>9/30/11</b> Fee: <b>\$100,000; \$25,000 per SOM reduced.</b> Completion Criteria: <b>Consolidate and reduce headcount in PBS 11C by one SOM in F Area per shift after completion of cross qualification.</b> Acceptance Criteria: <b>DOE-SR will review revised organization chart and qualification records.</b>
3	4/29/11	Page 32, revised Contract Output SRNS2011MGT-01, deleted reference to H-33, and fee reference on completion criteria.	<b>Up to \$8,900,000 of the Comprehensive PBI will be paid for Contract Output 1. Per contract clause H-33:</b> <del>PROVISIONAL PAYMENT OF INCENTIVE FEE, the contractor may request monthly provisional fee payments for subjective incentives up to 1/12th of 50% of the total subjective fee for the performance period. Provisional fee is not considered earned fee and is contingent upon a final fee determination by the Fee Determination Official.</del> Completion Criteria: <del>Fee will be invoiced monthly.</del>
3	4/29/11	Page 39, revised Subjective measures for Office of Acquisition Management	<del>Measure the extent to which sensitive and high risks personal property subject to physical inventory is located during annual inventory. Inventory data is tabulated either manually or by an automated system and extracted for sensitive and high risk items. The amount that was physically located divided by the amount of formal accountable items subject to physical inventory. Annual Inventories are required of both Federal and contractor entities in order to ensure the accountability and system integrity of the personal property management program. The improper handling of sensitive and high risk items poses a considerable risk to the Department. Inventories of these types of items are conducted annually and require discipline.</del>

			<del>Personal Property Monthly Walk Through Program</del> SRNS personal property management of their system requirements whereby effectively implementing a life-cycle management program of Government furnished and contractor acquired materials. This element includes the proper handling and control of subcontract issued materials, loans, transfers, and the effective utilization and proper disposition of assigned Government owned personal property assets.
3	4/29/11	Page 75, revised Contract Output SRNS2011IS-04	The Contractor shall build, modernize, and/or maintain facilities and infrastructure to achieve mission goals and ensure a safe and secure workplace for all SRS personnel. <b>In support of this, the Contractor will also execute a strategy to disposition legacy Oil filled Circuit Breakers (OCBs) and Transformers per the regulatory requirements of Toxic Substances Control Act (TSCA) Regulations 40 CFR 761.</b>
3	4/29/11	Page 76, revised milestone SRNS2011IS-04.01	Fee: <del>\$25,000</del> <b>\$75,000</b> Completion Criteria: <del>Rebuild, repair or repave fatigued sections of Road C, to be identified upon receipt of funding and authorization of FY11 scope by 12/31/10.</del> <b>Develop a scope of work, and complete the disposition of 35 legacy Oil filled Circuit Breakers (OCBs) and 12 Transformers.</b> Acceptance Criteria: <del>DOE-SR will review Final Acceptance Inspection (FAI) for the project.</del> <b>conduct physical walkdown to verify all Transformers and OCBs have been shipped offsite and/or review the applicable shipping documentation (either waste manifest or bill of lading) for validation of the completion of the project.</b>
3	4/29/11	Page 76, deleted milestone SRNS2011IS0-04.02	
3	4/29/11	Page 76, deleted milestone SRNS2011IS0-04.03	
3	4/29/11	Page 79 revised milestone date on SRNS2011NMO-01.04	Date: <del>8/31/11;</del> <b>9/30/11</b>
3	4/29/11	Page 92, revised milestone SRNS2011SRNL-02.01	Fee: added <b>g. \$15k, h. \$50k</b> Completion Criteria: <b>g. Y626, Replace HVAC Unit, 736-A, Environmental Sciences Lab: Set HVAC unit assembly in place on pad.</b> <b>h. Y625, Connect Chilled Water Supply to 735-11A: Set underground piping in place and complete hydrotest for underground piping.</b> Acceptance Criteria: <b>(g) Field walk down of unit set in place on pad.</b> <b>(h) Review and evaluation of hydrotest documentation for underground piping.</b>
3	4/29/11	Page 92-93, revised milestone SRNS2011SRNL-02.02	Fee: <del>a. \$15k b. \$15k c. \$10k d. \$10k;</del> <b>\$70,000</b> Completion Criteria: <b>e. Replace 15 HVAC package units.</b> Acceptance Criteria: <b>(a &amp; b &amp; e) Mechanical Field complete through Final Acceptance Inspection (8Q, 51) ready for turnover for testing.</b>
3	4/29/11	Page 93, revised milestone SRNS2011SRNL-02.04	Fee: <del>a. \$50k b. \$50k c. \$50k d. \$60k e. \$50k;</del> <b>\$95,000</b> Completion Criteria: Execute DNFSB 2004-2 Projects as follows: <b>a. SRNL B/C OGE Standby Fan Autostart. Complete Design Input Document (Modification Traveler). Issue Autostart Design for review.</b> <b>b. SRNL B/C CHEX HEPA Bank Blanks. Develop Work Package for first HEPA Bank Blank installation. Complete first HEPA Bank Blank installation as model for remaining locations for finalizing schedule and costs.</b> <del>e. SRNL B/C Tertiary Exhaust Interlocks.</del>

			<p>d. c. SRNL E Wing Ventilation (Project Y189). <b>Complete Power Feed Modification Design. Complete Shop Work Packaging and Shop Fabrication of HEPA support structure.</b></p> <p>e. d. SRNL E Wing Supply and Exhaust Interlocks. <b>Complete Design Input document (Modification Traveler). Issue Interlock Design for review.</b></p> <p>*Assumes funding is approved by 12/1/2010.</p> <p>Acceptance Criteria: <del>(a-e) Complete project Title II design, estimate and major work package development.</del></p> <p><del>(d) Complete and update project Title II design, estimate, and set Fan/HEPA Filters and support structure.</del></p> <p><del>(e) Complete project Title II design.</del></p> <p>a. Review and evaluation of design review package.</p> <p>b. Review and evaluation of Work Package and installation.</p> <p>c. Review and evaluation of design and fabrication.</p> <p>d. Review and evaluation of design review package.</p>
3	4/29/11	Page 94 revised milestone fee on SRNS2011SRNL-02.05	Fee: <del>\$50,000</del> ; <b>\$55,000</b>
3	4/29/11	Page 94, revised milestone SRNS2011SRNL-02.06	<p>Fee: <del>\$75,000</del>; <b>\$150,000</b></p> <p>Completion Criteria: SRNL DSA Upgrade Project – Complete Hazards Analysis (CHA), Control Selection and Accident Analysis calculation(s) sections of the DSA. <b>Also, submit DSA update related to Defense in Depth/Important to Safety (DID/ITS) controls.</b></p> <p>Acceptance Criteria: <b>Review</b> SRNS approved CHA and Control Selection and Accident Analysis calculation(s) documents/lists. <b>Review DSA update submittal associated with DID/ITS controls.</b></p>
3	4/29/11	Page 125, revised Contract Output 8 total	<del>\$800,000</del> <b>\$700,000</b>
3	4/29/11	Page 125, deleted Contract Output 11 summary	
3	4/29/11	Page 125, revised Contract Output 12 total	<del>\$1,300,000</del> <b>\$1,650,000</b>
3	4/29/11	Page 143, revised Contract Output 8 percentage and amount	<del>20% (\$800,000)</del> <b>18% (\$700,000)</b> of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:
3	4/29/11	Page 144, deleted Contract Output 8C	
3	4/29/11	Page 146, revised Contract Output 9 percentage	<b>2.5%</b> (\$100,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:
3	4/29/11	Page 147, revised Contract Output 10 percentage	<b>20.5%</b> (\$800,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:
3	4/29/11	Page 150-151, deleted Contract Output 11	
3	4/29/11	Page 151, revised Contract Output 12 percentage and amount	<del>33% (\$1,300,000)</del> <b>42% (\$1,650,000)</b> of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:
3	4/29/11	Page 158-159, added contract output 12F with Completion Criteria 1 and 2 and assumptions.	<b>12F. PDC Alternatives Analysis</b> <b>Integrate, and lead as appropriate, the evaluation of the fifteen (15) K-Area low cost opportunities and final report for opportunities and perform a qualitative evaluation of the PDC Alternatives Analysis. (\$350,000)</b>
4	6/xx/11	Page 81, revised Contract Output 1 total.	<del>\$1,848,000</del> <b>\$1,580,000</b>
4	6/xx/11	Page 81, deleted milestone SRNS2011NMO-01.01	
4	6/xx/11	Page 82, deleted milestone	

		SRNS2011NMO-01.05	
4	6/xx/11	Page 82, revised milestone SRNS2011NMO-01.08 fee and Completion Criteria wording.	<del>\$50,000; \$75,000;</del> \$25,000 on 3/31/11 and \$25,000 on 6/30/11. <del>\$25,000 on 9/30/11</del> <del>This ensures compliance with Public Law 108-136.</del>
4	6/xx/11	Page 82, revised milestone SRNS2011NMO-01.09 fee and Completion Criteria wording.	<del>\$120,000; \$180,000;</del> \$60,000 on 3/31/11 and \$60,000 on 6/30/11. <del>\$60,000 on 9/30/11</del> <del>This ensures compliance with Public Law 108-136.</del>
4	6/xx/11	Page 83, revised Contract Output 2 total	<del>\$2,538,000</del> <del>\$2,763,000</del>
4	6/xx/11	Page 84, revised milestone SRNS2011NMO-02.04 fee and number of units	<del>\$300,000; \$525,000;</del> \$7,500 per 3013 measured; invoiced quarterly K-Area Uranium measurements of <del>(40)</del> (70) 3013s; results are not required to fall in acceptance range
4	6/xx/11	Page 90, revised Contract Output 4 total	<del>\$1,733,000</del> <del>\$1,776,000</del>
4	6/xx/11	Page 91, added milestone SRNS2011NMO-04.16	9/30/11 \$43,000 Complete 2 design packages to install a post indicator valve in the 772-1F courtyard, a fire department connection on the north wall of 772-1F and expand sprinkler coverage. DOE-SR will review completed design packages.
4	6/xx/11	Page 109, changed date on Completion Criteria 1a.	For Project Y504 He-3 Separation and Bottling Process, mechanical complete (excluding the DI tie in) will be by <del>July 30</del> September 15, 2011.
4	6/xx/11	Page 110, changed date on Completion Criteria 1e.	For Project Y587, TEF Tie-in DCS to HANM, mechanical complete will be by <del>May 31</del> , August 31, 2011.
4	6/xx/11	Page 110, deleted several words on Completion Criteria 2h.	For Project Y554, Unloading Line B Modification, a satisfactory completed design will be submitted to SRSO, <del>initial equipment and supplies purchased, and construction work packages prepared and submitted by September 15, 2011 that will allow start of construction in October, 2011.</del>
4	6/xx/11	Page 127, updated NNP Contract Output summary	Deleted SRNS2011NNP-08, SRNS2011NNP-10, SRNS2011NNP-11. Changed amounts on SRNS2011NNP-06, SRNS2011NNP-09 and SRNS2011NNP-12
4	6/xx/11	Page 143, NNP Contract Output 6 amount changed	<del>\$250,000</del> <del>\$1,050,000</del> of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the Nuclear Nonproliferation Program (NNP) Pu Disposition Infrastructure and associated work activities.
4	6/xx/11	Page 143-144, NNP Contract Output 6 two completion criteria deleted, amount changed on one, and one was added	<del>Maintain and update the study throughout the fiscal year (\$12,500)</del> <del>Complete the Pu Disposition Program Programmatic Risk Assessment by February 28, 2011. (\$25,000)</del> Demonstrate leadership and management of the NNSA Pu Disposition Program through development of an organizational entity that provides timely, quality, contractor neutral information, recommendations, reports, and studies. Business systems and management structure are adequate to provide clear ownership of the Pu Disposition Program within SRNS, to provide a direct counterpart to NNSA NNP organizations at SRS, and demonstrates SRNS's commitment to providing the resources necessary to support the projects and programs that make up the Pu Disposition Program. <del>(\$87,500)</del> <del>(\$100,000)</del> Develop a Test Plan with Los Alamos National Laboratory to demonstrate 3013 container equivalency is achieved at a lower oxidation temperature and that no metal exists in oxides after oxidization at lower temperatures, consistent with the MOX feed specification. (\$25,000)
4	6/xx/11	Page 144-145, added a subjective milestone to	Subjective milestone added.

		Contract Output 6	
4	6/xx/11	Page 145, changed amount for PCD project activities	<del>\$3,900,000</del> <b>\$3,100,000</b> of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the PDC project activities, per Alternative # 8 level one schedule, dated 6/29/10 and BCP 10-0009.
4	6/xx/11	Page 146, changed NNP Contract Output 7 percentage	<del>47%</del> <b>21%</b> (\$650,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:
4	6/xx/11	Pages 147-150, deleted NNP Contract Output 8	
4	6/xx/11	Page 150, revised NNP Contract Output 9	<del>2.5% (\$100,000)</del> <b>2.4% (\$75,000)</b> of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:  Completion Criteria: 1. <del>EVMS system meets certification requirements as stipulated in DOE O 413.3A and therein cited standards and threshold(s). Required compliance reviews are fully coordinated with review periods to meet order intent.</del> <del>(\$25,000)</del> 2. Issue Project Controls Plan by December 20, 2010. (\$25,000) 3. Issue EVMS Implementation Plan by January 26, 2011. (\$25,000) 4. Issue TPC Estimate Execution Strategy & Plan October 14, 2010. (\$25,000)
4	6/xx/11	Pages 150-153, deleted NNP Contract Output 10	
4	6/xx/11	Page 154, revised NNP Contract Output 12 percentage and amount	<del>42% (\$1,650,000)</del> <b>76.6% (\$2,375,000)</b> of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:
4	6/xx/11	Page 155, added NNP Contract Output 12A Completion Criteria 8	8. Provides support of tasks for evaluations of: a. K Area 2 MT Low Scope Option b. K Area 3.5 MT more cost effective project c. 3.5 MT K Area Feasibility Study d. Integrated Priority List
4	6/xx/11	Page 156, added NNP Contract Output 12B Completion Criteria 9	9. Provides support of tasks for evaluations of: a. K Area 2 MT Low Scope Option b. K Area 3.5 MT more cost effective project c. 3.5 MT K Area Feasibility Study d. Integrated Priority List
4	6/xx/11	Page 158, added NNP Contract Output 12C Completion Criteria 12	12. Provides support of tasks for evaluations of: a. K Area 2 MT Low Scope Option b. K Area 3.5 MT more cost effective project c. 3.5 MT K Area Feasibility Study d. Integrated Priority List
4	6/xx/11	Page 159, added NNP Contract Output 12D Completion Criteria 9	9. Provides support of tasks for evaluations of: a. K Area 2 MT Low Scope Option b. K Area 3.5 MT more cost effective project c. 3.5 MT K Area Feasibility Study d. Integrated Priority List
4	6/xx/11	Pages 161, added NNP Contract Output 12E Completion Criteria 11	11. Provides support of tasks for evaluations of: a. K Area 2 MT Low Scope Option b. K Area 3.5 MT more cost effective project c. 3.5 MT K Area Feasibility Study d. Integrated Priority List

## **Table of Contents**

1. Purpose.....	16
2. PEMP Integrated Project Team (IPT).....	16
3. The PEMP Process.....	16
3.1 Incorporating DOE, EM and Site Mission.....	16
3.2 Performance Planning.....	17
3.3 Risk Management .....	17
3.4 Performance Incentive Document.....	18
3.5 Other Incentives .....	18
4. Change Control .....	18
5. Federal Oversight of Contractor Performance .....	19
6. Performance Evaluation.....	20
7. Payment of Fee .....	21
8. Government Furnished Services/Items (GFS/I).....	22
9. Reporting Requirements .....	22
10. Fee Allocation Model .....	23
Attachment A, Integrated Project Team (IPT) Charter.....	27
Attachment B, Performance Incentive Documents.....	30

## **1. Purpose**

This document serves as the fiscal year 2011 Performance Evaluation Measurement Plan (PEMP) identified in Section H-28, *Performance Based Incentives*, of Contract No. DE-AC09-08SR22470 between the U.S. Department of Energy (DOE) Environmental Management (EM) Savannah River (SR) and Savannah River Nuclear Solutions (SRNS) LLC, approved January 10, 2008.

The PEMP is developed annually by DOE and SRNS to provide lessons learned from the previous evaluation period; illustrate performance improvements for the fiscal year, and identify performance incentives and measures for all work performed by the contractor during the evaluation period. Fee-bearing scope and incentives in support of the American Recovery and Reinvestment Act (ARRA) are addressed in a separate PEMP.

The SRNS contract is a cost plus award fee (CPAF) performance-based management and operating (M&O) contract, regulated under Department of Energy Acquisition Regulation (DEAR), Subchapter I, *Agency Supplementary Regulations*, Part 970, *DOE Management and Operating contracts*.

This document addresses development of Performance Incentive Documents between DOE-SR and SRNS. This includes administration of performance measures, including Performance-Based Incentives (PBI), and award fee defined in the contract, Section B, *Supplies or Services and Prices/Costs*.

National Nuclear Security Administration (NNSA) and EM incentives established under the contract are contained in the PEMP as are provisions regarding payment of incentives and award fee. Specific requirements regarding payment of an incentive, or an award fee, may also be included in the incentive document.

## **2. PEMP Integrated Project Team (IPT)**

An Integrated Project Team (IPT) has been established in accordance with DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*. The team's charter defines specific roles and responsibilities of the IPT. IPT roles and responsibilities are further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement*. Reference Attachment A, *Integrated Project Team (IPT) Charter*.

## **3. The PEMP Process**

The PEMP process for SRNS is based on fiscal year performance as identified in the contract. The PEMP process is further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement*.

### **3.1 Incorporating DOE, EM and Site Mission**

The Savannah River Site publishes a Strategic Plan each year in support of DOE-EM and NNSA missions. The Strategic Plan articulates the site vision and missions to successfully execute current missions while welcoming and preparing for new opportunities.

During the past several years federal and contractor staff have worked together to define performance measures for those strategies in order to develop performance statements, metrics and milestones. As a result of this effort, EM, NNSA and site missions are tied to the contract statement of work.

Functional areas of the contract statement of work identify mission-critical outcomes. Outputs and measures define how work is performed in order to meet the outcomes. This framework is used to develop criteria in the Performance Incentive Document.

### **3.2 Performance Planning**

The PEMP is developed with federal and contractor staff input. Both federal and contractor parties strive to reach mutual agreement on expected business, operational and technical performance and work together to develop incentives and award fee descriptions and associated measures tied to key end products, DOE strategic goals and objectives. Incentives and fee demonstrate direct flow down of DOE strategic goals and priorities.

The CO reserves the unilateral right to make final decisions on all performance objectives and incentives (including the associated measures and targets) used to evaluate contractor performance, including any modifications.

The PEMP is revised and approved prior to the beginning of each evaluation period. Only the CO can change the PEMP. No changes will occur to the PEMP in the last 60 days of the evaluation period, unless with bilateral agreement between the CO and the contractor.

### **3.3 Risk Management**

DOE site management uses an integrated risk management process for the EM Life Cycle baseline. This process provides programmatic risk analyses of the EM Scope of Work, establishes a process for identification and management of risks within, and integrates risk data from prime contractors, including SRNS.

The SRS integrated approach to risk management ensures project teams and management are involved in the risk management process: risk identification, grading, handling, impact determination, and integration. The process concludes with preparation of the Risk Management Plan (RMP) and contingency estimates contained in the SRS Risk Summary and Integrated Contingency Analysis. Each project RMP provides a summary description of the integrated approach employed in the development of a project risk plan.



An assessment process is used to identify risks and opportunities associated with each project. The risks and opportunities are analyzed and handling strategies developed to ensure risks are managed to acceptable levels and opportunities are availed to improve the probability of successful completion of the project work scope. A detailed description of the methodology employed for the risk and opportunity assessment conducted by each of the Integrated Project Risk Teams appears in *Systems Engineering Methodology Guidance Manual*.

### **3.4 Performance Incentive Document**

A Fee Allocation Model is developed by the IPT and used to demonstrate distribution of contract fee based on weighting of funding, priority and complexity. Analysis is used to develop expected fee earning based on the Performance Incentive Documents.

A Performance Incentive Document includes: A Performance Outcome statement, Contract Output performance statements, metrics, Completion Criteria, and Acceptance (documentation) Criteria. The Performance Incentive Document is further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement*.

### **3.5 Other Incentives**

Incentives that are negotiated as a result of the cost reduction process per SRNS-RP-2009-01188, *SRNS Continuous Improvement System Implementation*, will be managed per SRNS Contract clause I.42, DEAR 970.5215-4, Cost Reduction, in conjunction with the SRNS Continuous Improvement Process. This process replaces incentives formerly identified as "Super-Stretch."

The CO may mutually negotiate with the contractor additional available fee for additional work not covered by the available budget. The funds for such work and the associated available fee are funded through the contractor's efficiencies in accomplishing the otherwise funded work. The additional work must be performed in a safe manner meeting all necessary requirements; and the performance of the additional work cannot affect the safe, proper performance of the otherwise funded work. Any additional work will be authorized in accordance with provision in the contract Section H-54 entitled, *Work Authorization System* and is considered above base scope. This additional work falls under the management of DOE O 412.1A, *Work Authorization System*.

Incentives created as a result of implementing the above contract clause and/or directive will be managed per separate contract requirements, and authorized through contract modification.

## **4. Change Control**

1. All proposed changes to Performance Incentive Documents will be discussed at scheduled Performance Fee Board/IPT meetings.

2. Following Fee Board/IPT discussion, the contractor will submit formal correspondence to the Contracting Officer (CO) requesting the proposed change to the Performance Incentive Document. The correspondence should include:
  - a. Any proposed change to the original incentive document
  - b. Proposed new incentives tied to the current Contract Performance Baseline (CPB)
  - c. Proposed fee allocation adjustment between current incentives and/or new incentives
  - d. Elimination of current incentives
3. Upon receiving correspondence from the contractor, the CO will consult the appropriate Assistant Manager/Office Director (AM/OD) and Subject Matter Expert to determine:
  - a. If the proposed change impacts the CPB
  - b. If the proposed change identifies new and/or unfunded scope
  - c. If the proposed change impacts multiple site organizations
4. If the proposed change **does not meet** any one of the above determinations, the CO will issue correspondence to the contractor approving such change to the Performance Incentive Document that incorporates advice of the AM/OD and/or Subject Matter Expert.
5. If the proposed change **meets** any one of the above determinations, the CO will request the contractor develop and submit a Baseline Change Proposal (BCP) for review by the federal (site) configuration control board.
  - a. Following the recommendation of the federal configuration control board, the CO will issue correspondence to the contractor approving such change to the Performance Incentive Document that incorporates the advice of the board.
6. The CO will issue a modification to the contract for any change to the currently approved PEMP.
7. The CO may deny any proposed changes to the Performance Incentive Document.

Action directed by CO correspondence is considered to be within scope of work of the existing contract. If the contractor considers that carrying out direction may increase contract costs or delay any delivery, the contractor shall promptly notify the CO orally, confirming and explaining the notification in writing as soon as possible, but within no more than five (5) working days. Following oral notification and submission of the written notice of impacts, the Contractor shall await further direction from the CO prior to implementing the action.

## 5. Federal Oversight of Contractor Performance

Central to administration of the contract is assessment of contractor performance. All federal staff members performing assessments are expected to understand terms and conditions of the contract. In order to verify performance, a systematic process of assessment, analysis, documentation and feedback will be required. A range of assessment techniques from data/metric reviews and analysis, to review of self-assessments by the contractor, to formal multidisciplinary assessments will be employed. The assessments will be tailored based on the level of definition of the work requirements and complexity of the function.

Procedures for assessing contract performance are described in the SR Manual (SRM) 226.1.1, *Integrated Performance Assurance Manual*. The intent of the oversight processes described in the manual is to assure contractor compliance with contract requirements, provide for timely identification and correction of deficient conditions, verify effectiveness of completed corrective actions, and pursue excellence through continued improvement. Additionally, the manual is intended to assist DOE in implementing the site contractor oversight system (a management framework of related processes to determine whether federal and contractor assurance programs are performing effectively and/or complying with DOE requirements).

The contractor oversight system is founded on an integrated safety management system (ISMS), emulating DOE P 450.4, *Safety Management System*. SRM 226.1.1 describes processes comprising the contractor oversight system, which enables DOE to: (1) clearly communicate requirements and expectations to contractors; (2) assess the quality, effectiveness, and efficiency of contractor assurance systems and resulting work products in complying with contract requirements; (3) effect continuous improvement in contractors' operations; and (4) enhance the effectiveness of DOE-SR oversight of contractor performance.

The contractor oversight system provides DOE site management information needed to make informed decisions regarding both contractor and DOE performance and to determine whether program corrections are necessary. Communicating requirements and expectations to the contractor is an essential component in the contractor oversight system. Requirements and expectations are communicated through the Statement of Work, special clauses, contract modifications, and through technical direction by the CO or representative.

SRM 226.1.1 provides detailed requirements for standardized scheduling, planning, conducting, reporting, and follow-up and closure activities for Type 1, 2, and 3 Assessments. Assessments are designed to provide managers with meaningful, accurate, and current information on the status of program compliance, productivity, and quality. Use of standardized assessment methods is a key feature of DOE site performance assurance.

## **6. Performance Evaluation**

Upon completion of performance criteria described in the Performance Incentive Document, the contractor will document completion in the Fee Invoicing System (FIS) and forward the documentation to the relevant DOE organization technical representative, who in turn will perform a verification of documentation to confirm output criterion has been met. This may also require an in-field validation.

Upon verification, recommendation is forwarded through management to the Performance Fee Board. The Board verifies documentation provided demonstrates satisfactory completion according to performance incentive requirements through presentation by the AM/OD, and peer-level discussion. Fee recommendation (to the FDO) will be made according to the Performance Incentive Document.

The contractor may perform self-assessment of their performance. The Board will review any assessment provided by the contractor. If the Board does not concur with the contractor's self-

evaluation and recommendation, all such disagreements shall be expressed in a performance evaluation letter to the contractor. The contractor shall submit written comments and any supporting documentation to the Board within five (5) working days of receiving the evaluation letter. Within ten (10) working days of receiving any contractor comments or reclama, the Board shall provide the FDO a recommendation, including amount, rationale, and justification.

Disputes that occur during verification, and resolution is not forth coming between the contractor and the appropriate AM/OD, will be resolved by the Performance Fee Board during regularly scheduled meetings.

## **7. Payment of Fee**

The contractor requests fee payment by submitting an invoice. Following verification by the relevant AM/OD recommendation is forwarded to the Performance Fee Board and FDO. The FDO determines fee payment, following Performance Fee Board review and recommendation. Determination of fee earned is the unilateral decision of the FDO.

The contractor will be advised in writing of the amount and basis of the performance incentive fee determination. Performance incentive fee not earned during the performance period will not be allocated to future performance periods. However, fee may be allocated to new performance-based incentives as developed by the IPT, as long as the completion of the newly developed incentive does not extend beyond the evaluation period.

Fee is considered provisional throughout the performance period. The FDO determines the total fee awarded to the contractor. Fee may be reduced per contract Section B.5 *DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts (JAN 2004) ALTERNATE II (JAN 2004) (DEVIATION)*.

Contract clause **H-33, PROVISIONAL PAYMENT OF INCENTIVE FEE**, allows provisional payment of fee for partial completion of subjectively evaluated [subjective] incentives. The contractor may request up to 50% of the total fee available for each subjective incentive. If requests are monthly, the contractor must use a 1/12 divisor; if requests are quarterly, then 1/4 divisor; if semi-annual, then 1/2 divisor. Provisional fee is not considered earned fee, and is contingent upon a final fee determination by the FDO.

Total available fee amount earned payments are made by direct payment or withdrawn from funds advanced or available under the contract, as determined by the CO. The CO may offset against any such fee payment the amounts owed to the government by the contractor, including any amounts owed for disallowed costs under the contract. No base fee amount, or total available fee amount, payment may be withdrawn against the cleared payments financing arrangement without the prior written approval of the CO.

The contractor has developed an automated Fee Invoicing System (FIS) that uses measurement data from each Performance Incentive Document. The contractor works with DOE to identify appropriate DOE approvers. The system assigns responsibility to each output so that the routing

process ensures appropriate review by federal and contractor staff. Time limits are assigned to each step to ensure smooth processing and timely approvals. The system notifies responsible approvers when the review / approval allotted time has been exceeded.

## **8. Government Furnished Services/Items (GFS/I)**

GFS/I are factored into the final fee determination for this incentive contract. GFS/I are identified in the Basis of Estimates (BOE) found in WBS dictionaries for specific tasks. The purpose of the GFS/I are to identify inherent government responsibilities that may pose some level of risk to the contractor in completing award fee or performance based incentives. GFS/I are the burden of the government, mutually accepted as part of the performance agreement. If the government fails to achieve GFS/I equitable adjustment may be made specific to the incentive. These adjustments, however, cannot exceed the maximum available fee for the specific incentive.

## **9. Reporting Requirements**

The contract requires each report must be accompanied by a letter or other document which:

- Identifies the contract number under which the item is being delivered; and
- Identifies the contract requirement or other instruction which requires the delivered item(s).

The contractor is responsible for maintaining all records and controlled documents related to the PEMP per DOE O 200.1, *Information Management Program*, and DOE Order 243.1, *Records Management Program*.

## 10. Fee Allocation Model

### 2011 SRNS Fee ( \$ )

	Available Fee
<b>EM - Base*</b>	
PBS (11C, 12, 20)	<b>25,662,746</b>
<b>NNSA</b>	
DP - Tritium	12,437,254
NN	11,650,000
Total NNSA	<b>24,087,254</b>
<b>Total EM Base &amp; NNSA</b>	<b>49,750,000</b>

\* Excludes ARRA

**2011 SRNS PBI Fee Structure Supporting EM & NNSA**  
**\$49,750,000**

<b><u>Award Type</u></b>	<b><u>Contract Output</u></b>	<b><u>Avail Fee (000)</u></b>	<b><u>Description</u></b>
<b><u>EM</u></b>			
<b><u>Nuclear Materials</u></b>		<b>8,600,000</b>	
Objective	NMO-1	1,848,000	Receive, Store, characterize, disposition uranium materials & SNF
	NMO-2	2,538,000	Receive, Store, characterize, disposition plutonium materials
	NMO-3	2,481,000	Uranium and Plutonium throughput improvement & preparation
	NMO-4	1,733,000	Infrastructure / Facility life extension
<b><u>SRNL</u></b>		<b>2,000,000</b>	
Objective	SRNL-1	1,250,000	Enable EM Mission Accomplishment
	SRNL-2	650,000	Enhance SRNL Infrastructure and Facility Safety
	SRNL-3	100,000	Establish SRNL as a preferred partner for industry, universities and small businesses
<b><u>Site Infrastructure</u></b>		<b>2,000,000</b>	
Objective	IS-1	800,000	Biomass Project Support
	IS-2	700,000	D Area Reliability Enhancements
	IS-3	200,000	Sustainability Plan
	IS-4	300,000	Road C and Road 4 - rebuild, repair & repave
<b><u>EM Management Comprehensive</u></b>			
<b>All EM Organizations</b>	Subjective	MGT-1	<b>8,900,000</b> Improve Management Effectiveness and Control of activities
<b>Safeguards &amp; Security</b>	Objective	MGT-2	<b>200,000</b>
			50,000 Complete installation & startup of Argus components for Bldg 723-A
			150,000 Complete installation & startup of Argus components for remaining A & B Area Bldgs
<b>Safety</b>	Objective	MGT-3a	<b>100,000</b> Enterprise Integrated Safety Management - Exposure Assessment (EISM-EA)
<b>Safety</b>	Objective	MGT-3b	<b>350,000</b> Medical Efficiency Improvements
<b>Integrated Groundwater</b>	Objective	MGT -4	<b>200,000</b>
			100,000 Issue Project Plan to baseline current site plan
			50,000 Issue Groundwater Technical Assessment
<b>Quality Assurance</b>	Objective	MGT -5	50,000 Issue SRS integrated Groundwater Program Plan
			200,000
			50,000 Update impacted procedures (est. 5 new procedures & 26 revisions)
<b>COBRA Implementation</b>	Objective	MGT -6	50,000 Develop & deliver training for Procurement & Engineering
			200,000 Implementation of NQA-1-2008 requirements
			50,000
			200,000 Complete COBRA implementation
			50,000 Determine COBRA interfaces with new Finance replacement systems
			100,000 Determine COBRA interfaces with new Procurement replacement systems

(Continued next page)

<b>Business Process Modernization</b>	Objective	MGT -7	<b>750,000</b>	
			<u>125,000</u>	Complete Installation & SRNS Acceptance Testing of Gen Ledger Phase 1
			<u>500,000</u>	Attain system design Stage Exit for Supply Chain Mgmt Phase 2
			<u>125,000</u>	Complete installation & acceptance testing of the Supply Chain Mgmt Phase 2
<b>Work Force Services</b>	Objective	MGT -8	<b>150,000</b>	
			<u>25,000</u>	Expand Talent
			<u>25,000</u>	Increase Leadership Development
			<u>25,000</u>	Continue developing Future Workforce labor resource pipelines
			<u>25,000</u>	Take BCBS Business to Bid
<b>Risk Management</b>	Objective	MGT -9	<b>450,000</b>	
			<u>150,000</u>	Complete assessment of current risk & opportunity mgmt processes
			<u>150,000</u>	Conduct analysis of high value risks currently identified
			<u>150,000</u>	Develop a risk end state vision action plan
<b>Supplier Diversity</b>	Objective	MGT -10	<b>100,000</b>	Consistent with Prime Contract, meet mutually agreed to goals for FY2011
<b>Comprehensive Site Planning</b>	Objective	MGT -11	<b>1,000,000</b>	
			<u>700,000</u>	Implement an integrated Comprehensive Planning System
			<u>100,000</u>	Improve FIMS Data Base
			<u>100,000</u>	Complete Condition Assessments on 20% of Real Property Assets
<b>Baseline Process Improvements</b>	Objective	MGT -12	<b>150,000</b>	
			<u>125,000</u>	Develop & deliver an integrated baseline management & control process
			<u>25,000</u>	Incorporate lessons learned from FY2011-2015 Baseline development
<b>Interface Management</b>	Objective	MGT -13	<b>150,000</b>	
			<u>100,000</u>	Improve cost tracking capability of site tenant scopes
			<u>50,000</u>	Assist DOE in integration efforts
<b>Continuous Improvement</b>	Objective	MGT -14	<b>162,746</b>	Demonstrate the impact of Continuous Improvement deployment
<b>Total EM</b>				
Nuclear Material			8,600,000	
SRNL			2,000,000	
Site Infrastructure			2,000,000	
Management Comprehensive			<u>13,062,746</u>	
			<b>25,662,746</b>	65% Objective, 35% Subjective

(Continued next page)



<b>NNSA</b>
-------------

<b>Tritium Programs</b>	<b>12,437,254</b>	45% Objective, 65% Subjective
TP-01	<u>3,109,314</u>	Support Nuclear Weapons Stockpile
TP-02	<u>373,118</u>	Extraction of Tritium from TPBARS
TP-03	<u>248,745</u>	Conduct R&D and ST&E related to mission of SRSO
TP-04	<u>621,863</u>	Support Tritium Programs by safe and efficient execution
TP-05	<u>1,243,725</u>	NNSA Multi -Site Incentives
TP-06	<u>2,487,451</u>	Operations: Maintain Tritium Facilities
TP-07	<u>1,865,588</u>	ES&H and S&S : Maintaion Tritium Facilities
TP-08	<u>2,487,451</u>	Business: Maintain Tritium Facilities

<b>Nuclear Nonproliferation</b>	<b>11,650,000</b>	
<b>Less Funding for EM</b>	<u>600,000</u>	MOX support
	<u>3,900,000</u>	PDC
	<u>6,900,000</u>	WSB
	<u>250,000</u>	Pu Disp Inf

<b>Total NNSA (Excluding Funding to EM)</b>	<b>24,087,254</b>
---	-------------------

<b>Total Fee Available</b>
----------------------------

<b>Total EM</b>	25,662,746
<b>Total NNSA</b>	<u>24,087,254</u>
<b>Total Fee Available</b>	<b>49,750,000</b>

## **Attachment A, Integrated Project Team (IPT) Charter**

### **INTEGRATED PROJECT TEAM (IPT) CHARTER**

**IPT NAME:** PEMP Integrated Project Team (IPT)

**LEVEL OF IPT:** Savannah River Operations Office, Deputy Manager for Business Operations

#### **IPT MISSION/OBJECTIVES**

The purpose of the IPT is to provide site senior federal management a process for evaluating and measuring performance tied to strategic goals. This charter defines roles, responsibilities, authorities and accountabilities for this process. The mission of the IPT is to lead performance, and help avoid potential barriers to success.

The DOE-SR Executive Sponsor for the IPT is the Deputy Manager. The IPT Lead is the Assistant Manager for Integration and Planning (AMIP). The IPT will be composed of both federal and contractor employees. Federal members will include the Deputy Manager for Cleanup Operations, the DOE Contracting Officer for M&O, Technical Leads, NNSA SRSO Manager and NNSA NA-262. Contractor members will include the Management and Operations (M&O) Vice President for Business Services, the SRNS Director of Contracts, and Technical Leads. The IPT will be augmented, as necessary, with Subject Matter Experts as well as matrix support personnel (both federal and contractor) who possess specific competencies and the skill and expertise required for successful execution of the projects.

The Performance Fee Board will be comprised of select Federal IPT members responsible for reviewing all submitted invoices for payment determination, and making recommendations to the Fee Determining Official (FDO).

#### **SCOPE OF IPT RESPONSIBILITIES**

The IPT will:

- Provide input to develop and approve Performance Incentive Documents
- Monitor progress made in completing work
- Support the invoicing, validation and approval process.

The IPT shall meet:

- Regularly to monitor progress of submitted invoices for payment
- Identify incentives that will be complete in the next 30 days
- Identify and discuss any changes to incentives

#### ***IPT Executive Sponsor***

The IPT Executive Sponsor will provide performance input to the IPT Lead and members. The IPT Executive Sponsor will also be the senior DOE member on the Performance Fee

Board.

### ***IPT Lead***

The IPT Lead is the federal official responsible for project success. In accordance with DOE O 413.3A and DOE M 413.3-1, the IPT Lead shall perform the following:

- Charter and lead the IPT
- Schedule and hold IPT meetings
- Request support from the DOE functional resources as required to resolve issues
- Assess contractor performance
- Identify and resolve critical issues
- Present any performance evaluation and measurement issues that cannot be resolved by the PEM IPT to the appropriate SR authority for final decision

### ***IPT Members***

IPT members are responsible for supporting the IPT Lead in fulfilling technical and project management responsibilities during project execution. Members conduct and/or coordinate activities for their respective organizational element or functional area of responsibility. The members are assigned specific roles and responsibilities for project success and report to the IPT Lead for execution of these responsibilities. IPT members shall perform the following generic responsibilities:

- Ensure interfaces are identified, defined, and documented
- Review and assess performance and project status against parameters, baselines, milestones, and deliverables
- Support the IPT Lead
- Review and comment on deliverables

The names of IPT members are current as of the issue date of this charter. Names or functional responsibilities may change at the discretion of the IPT Lead without having to modify or update this charter.

The Table identifies the members of the IPT, the Performance Fee Board and the Technical Leads.

NAME	FUNCTION	ORGANIZATION
HINTZE, Doug	IPT and Fee Board Lead	Assistant Manager for Integration and Planning

DEAROLPH, Douglas	NNSA Performance Fee Board Member IPT Member	Manager NNSA SRSO
CLARK, William	NNSA Alternate Performance Fee Board Member IPT Member	Manager NNSA NA-262
LOVETT, James	IPT Member	DOE M&O Contracting Officer
BILSON, Beth	IPT Member	SRNS VP Business Services
TEMPLE, John	IPT Member	SRNS Director of Contracts
CHRISTIAN, John	DOE IPT Technical Lead	Mission Planning Division
PENNINGTON, Michele	SRNS IPT Technical Lead	SRNS M&O Business Services
MOODY, Dave	DOE Fee Determining Official	DOE Site Manager

### **Attachment B, Performance Incentive Documents**

The Performance Incentive Documents for FY2011 are attached.

[Management Comprehensive Incentive Document](#)

[Infrastructure Incentive Document](#)

[Office of Laboratory/SRNL Incentive Document](#)

[Nuclear Material Stabilization Project Incentive Document](#)

[Tritium Incentive Document](#)

[Nuclear Non-Proliferation Incentive Document](#)



## Performance Incentive Document

PBI Number:	SRNS2011MGT	
<b>Activity Name:</b>	Management Comprehensive	
WBS Number:	Multiple	
Performance Period:	October 1, 2010 - September 30, 2011	
Allocated Fee:	\$8,900,000 (Subjective) \$4,162,746 (Objective)	
Revision Number:	2	
Senior level manager name:	Doug Hintze	
Senior level supervisor/division manager name:	TBD	
<b>Performance Outcome:</b>		
<p>Implement management processes and systems providing timely, accurate and traceable information to enable more transparent and efficient execution of SRS missions.</p> <p>This incentive is a hybrid incentive, containing subjective and objective elements. The subjective element uses an adjectival rating to measure technical performance, cost control, schedule performance and business relations / management for all of the fiscal year 2011 incentives. The objective elements identify specific completion and/or acceptance criteria.</p>		

<u>Description</u>	<u>Pg</u>	
Contract Output 1	Management Comprehensive Subjective.....	31
Contract Output 2	Safeguards & Security – Argus.....	40
Contract Output 3	Safety	
	a. Enterprise Integrated Safety Management – Exposure Assessment (EIS-EA).....	41
	b. Medical Improvement Process.....	42
Contract Output 4	Integrated Groundwater Program.....	46
Contract Output 5	Quality Assurance.....	47
Contract Output 6	COBRA Interfaces.....	49
Contract Output 7	Business Process Modernization.....	50
Contract Output 8	Workforce Services.....	51
Contract Output 9	Risk Management.....	54
Contract Output 10	Supplier Diversity.....	57
Contract Output 11	Comprehensive Site Planning.....	58
Contract Output 12	Baseline Planning.....	65
Contract Output 13	Interface Management.....	66
Contract Output 14	Continuous Improvement.....	68

**Contract Output: SRNS2011MGT-01 – Subjective Milestone**

Improve management effectiveness and control of activities.

This Contract Output will receive an adjectival grade and numerical score. The following table will be used to define the different levels of performance and the corresponding grade/score that goes with the evaluation thereof.

Adjectival Rating	Percent of allocable fee	Definition
Exceptional	90-100	<p><b>Technical</b> – Met all performance requirements/Exceeded 20% or more; Minor problems/Highly effective corrective actions/Improved performance and quality results</p> <p><b>Cost Control</b> – Significant reductions while meeting all contract requirements; Use of value engineering or other innovative management techniques; Quickly resolved cost issues/Effective corrective actions facilitated cost reductions</p> <p><b>Schedule (Timeliness)</b> – Significantly exceeded delivery requirements (All on-time with many early deliveries to the Government's benefit); Quickly resolved delivery issues/Effective corrective actions</p> <p><b>Business Relations/Management</b> – Highly professional/Responsive/Proactive; Significantly exceeded expectations; High user satisfaction; Significantly exceeded SB/SDB subcontractor goals; Minor changes implemented without cost impact/Limited change proposals/Timely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.</p>
Very Good	81-90	<p><b>Technical</b> –Met all performance requirements/Exceeded 5% or more; Minor problems/Effective corrective actions</p> <p><b>Cost Control</b> – Reduction in overall cost/price while meeting all contract requirements; Use of value engineering or other innovative management techniques; Quickly resolved cost/price issues/Effective corrective actions to facilitate overall cost/price reductions</p> <p><b>Schedule (Timeliness)</b> – On-time deliveries/Some early deliveries to the Government's benefit; Quickly resolved delivery issues/Effective corrective actions</p> <p><b>Business Relations/Management</b> – Professional/Responsive; Exceeded expectations; User satisfaction; Exceeded subcontractor goals; Limited change proposals/Timely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.</p>
Satisfactory	50-80	<p><b>Technical</b> – Met all performance requirements; Minor problems/Satisfactory corrective actions</p> <p><b>Cost Control</b> – Met overall cost/price estimates while meeting all contract requirements</p> <p><b>Schedule (Timeliness)</b> – On-time deliveries; Minor problems/Did not effect delivery schedule</p> <p><b>Business Relations/Management</b> – Professional/Reasonably responsive; Met expectations; Adequate user satisfaction; Met subcontractor goals; Reasonable change proposals/Reasonable definitization schedule; number and significance of audit findings, response to audits and associated corrective actions.</p>
Marginal	26-49	<p><b>Technical</b> – Some performance requirements not met; Performance reflects serious problems/Ineffective corrective actions</p> <p><b>Cost Control</b> – DO not meet cost/price estimates; Inadequate corrective action plans/No innovative techniques to bring overall</p>



		expenditures within limits <b>Schedule (Timeliness)</b> – Some late deliveries; No corrective actions <b>Business Relations/Management</b> – Less professionalism and responsiveness; Lower user satisfaction/No attempts to improve relations; Unsuccessful in meeting subcontractor goals; Unnecessary change proposals/Untimely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.
Unsatisfactory	0-24	<b>Technical</b> – Most performance requirements are not met; Recovery not likely <b>Cost Control</b> – Significant cost overruns; Not likely to recover cost control <b>Schedule (Timeliness)</b> – Many late deliveries; Negative cost impact/Loss of capability for the Government; Ineffective corrective actions/Not likely to recover <b>Business Relations/Management</b> – Delinquent responses/Lack of cooperative spirit; Unsatisfied user/Unable to improve relations; Significantly under subcontractor goals; Excessive unnecessary change proposals to correct poor management; Significantly untimely definitization of change proposals; number and significance of audit findings, response to audits and associated corrective actions.

**Up to \$8,900,000 of the Comprehensive PBI will be paid for Contract Output 1.**

**Description/Background/Justification:**

To achieve its vision and implement all desired management improvement efforts will require an organized, systematic approach to project execution. EM has developed and implemented the EM Program Management System (EMPMS) to clarify roles and responsibilities, to provide for more integrated operations, and to further establish a solid baseline for workforce planning.

The EMPMS is a performance-based management system. Performance-based management uses performance measurement information to help set agreed-upon performance goals, to allocate and prioritize resources, to inform managers so they can manage program activities to meet those goals, and to report on their status. It also offers opportunity to learn from any failures in performance and to continuously improve management practices.

The Performance Fee Board, as identified in the Performance Evaluation Measurement Plan (PEMP) will survey the following organizations:

Deputy Manager of Business

Office of External Affairs  
Office of Chief Counsel  
Office of Support Services  
Office of Civil Rights  
Chief Financial Officer  
Office of Human Capital Management  
Assistant Manager for Integration and Planning

Deputy Manager of Closure

Assistant Manager for Closure Projects

Assistant Manager for Nuclear Material Stabilization Projects  
Assistant Manager for Waste Disposition Projects  
Office of Safety and Quality Assurance  
Office of Safety, Safeguards and Emergency Services  
Office of Acquisition Management  
Office of Laboratory Oversight

SRNS organizations will provide monthly self-assessments throughout the performance period to provide contractor feedback in cross-cutting areas of performance, such as safety, efficient use of trained and qualified human capital, quality, continuous improvement, cost effectiveness, timeliness of deliverables, compliance with contract, etc. The self-assessments will be used to measure and report contractor technical performance (quality of product/service), cost control, adherence to schedule, and business relations / management as these relate to the contractor support of the individual and collective DOE organizations. These self-assessments will be captured on the electronic web-based DOE Scorecard and used to facilitate enhanced communication between DOE-SR and SRNS.

These assessments are critical to record contract performance that is considered implicit, or subjective. Clear measures will be defined and consistent with standards of reporting contractor performance (FAR 42.15, FAR 15.3, FAR 9.1, and DEAR 909.1), The Federal Acquisition Streamlining Act of 1994, and the federal acquisition guide, chapter 42.15.

Subjective incentives use adjectival measures related to quality of service or product. The success of a contractor against subjective measures is determined by the government, which will consider the related conditions under which the work was performed and the contractor's specific performance as measured against the government's objective.

What follows is a listing of organizations and suggested performance measures that will be subject to survey on a regular periodic basis. The listing represents only a sample of performance measures; customer service is an implicit performance expectation. Both federal and contractor employees will strive to reach mutual expectations and conduct beneficial communications in support of site missions.

**Office of External Affairs:**

SRNS Public Affairs builds and maintains stakeholder trust and confidence through:

- Frequent and effective message development and communications with key SRNS stakeholders;
- Building and maintaining credibility with key media outlets on a local, regional and national basis;
- Developing and implementing proactive employee communications in support of the SRNS Employment Engagement Plan;
- Developing and implementing SRS and SRNS executive and business communications to targeted community organizations and media outlets;
- Providing video and still photography direction, production and documentation of SRNS and SRS activities – including in hazardous and high-security areas;
- Developing and implementing comprehensive community relations programs for areas surrounding SRS;
- Maintaining effective government relations for SRS at local, state and Federal levels;

- Implementing the DOE education outreach initiatives and mandates on Historical Preservation;
- Implementing DOE public tours program in conjunction with providing visitor support planning and execution for mission related tours and visits;
- Providing guidance, direction and implementation of events for SRNS and DOE-SR.

**Office of Chief Counsel:**

The Contractor shall provide general planning, management and administrative services for all its legal advice, services and litigation for itself, and for other organizations as directed by the CO.

**Office of Support Services:**

The Contractor shall provide general planning, management and administrative services for all its business activities and for other organizations as directed by the CO.

**Office of Civil Rights:**

- Maintain essential elements of a Model Equal Employment Opportunity program
- Demonstrate firm commitment to equality of opportunity for all employees and applicants for employment.
- Strive to meet DOE-SR expectations to be model employers in the area of workforce equal employment opportunity and diversity, and provide policies, procedures, and assign responsibilities and authorities for the oversight of contractor equal employment opportunity and affirmative action at the site as specified in applicable state and federal laws and regulations.

**Chief Financial Officer:**

- Provide timely and accurate submittal of monthly Spend Plans for all major and minor Budget and Reporting (B&R) codes prior to issuance of DOE-SR monthly Fin Plan. Submittal shall include all funds control points and should be received by DOE-SR on or before the 15th day of each month.
- Manage overhead (G&A, ESS, Dept. O/H) consistent with DOE-SR's Program Execution Guidance (PEG) letters.
- Review service center and unit bill pools for opportunities to reduce cost.
- Provide timely and accurate performance of SRNS internal audits consistent with Approved Audit Plan.
- Provide timely and accurate communications to DOE-SR of emerging budget and financial issues.
- Provide timely and accurate reporting of contractor (SRNS) financial data to DOE corporate financial systems. Monthly submission of Integrated Contractor accounting data is due by noon (local time) on the 2nd business day following the end of the accounting period. Data includes the "Statement of Cash Activity" and the IC Interface.
- Provide timely and accurate responses to all scheduled monthly, quarterly and annual financial statement/financial reporting requirements. Requirements will be defined and transmitted to SRNS via DOE accounting schedule maintained by the DOE CFO Finance Division. Ad hoc requirements will be transmitted and scheduled on a case-by-case basis.
- Provide timely and accurate responses as required to support and satisfy DOE IG/KPMG financial statement audit requirements. Requirements will generally be scheduled within known audit schedules; however, requirements may be ad hoc at times.
- Perform self-assessment of selected contractor financial/accounting policies/procedures to update, incorporate best practices, and insure continued compliance with DOE requirements. Or, provide assurance that policies/procedures are current and in compliance.
- Report monthly by the 15th day current and cumulative costing actuals by all major and minor Budget and Reporting (B&R) codes for cost actuals tracking and variance analysis against the Spend Plan. This is a measure of cost planning accuracy to costing actuals. The cost variance metric is to stay within plus or minus 5%.

**Assistant Manager for Closure Projects:**

- Technical Performance
  - Continue project field performance, including technology deployment
  - Continue progress towards meeting DOE energy intensity reduction goal
  - Continue successful operation of aged equipment and systems
  - Safety metrics (TRC, DART, etc.)
  - Implement effective feedback and improvement (e.g., MFO, BBS, lessons learned, etc.)
  - Submit quality reports/key documents (e.g., ORPS reports, annual and quarterly reports, planning documents, RODs, etc.)
  - Comply with regulatory requirements, permits, inspections
  - Improve various infrastructure systems
- Cost Control
  - Develop and maintain Critical Infrastructure IPL
  - Complete additional tasks through effective cost management practices
  - Perform projects within baseline cost (EVMS)
  - Reduce project cost
- Schedule (timeliness)
  - Complete annual environmental reports on time
  - Provide timely notifications to DOE regarding abnormal field events
  - Conduct prompt, effective, fact finding meetings and thorough investigations
  - Customer support to others
  - Corporate support
  - Perform projects within baseline schedules (EVMS)
- Business Relations/Management
  - Identify and implement effective, auditable corrective actions that correct the deficiency, and track them to closure
  - Maintain regulatory documents

**Assistant Manager for Nuclear Material Stabilization Projects:**

- Support programmatic studies on an as needed basis
- Develop and submit Nuclear Materials planning assumptions and planning assumptions roadmap to include a plan, approved by SRNS and issued by 11/30/10, to accomplish disposition of 400 kgs of Pu by the end of FY12. Based on a review of the plan by DOE-SR, the NMO PBI (SRNS2011NMO) may be revised.
- Support overall cost effectiveness by quickly resolving cost issues and identifying opportunities to become more cost effective via improvements or corrective actions
- Provide "lessons learned" from significant readiness reviews or investigations and share with others (DOE, management, other sites, stakeholders, etc.) as appropriate.

**Assistant Manager for Waste Disposition Projects:**

- The Contractor shall manage the Solid Waste Program to safely and effectively prevent and/or minimize the generation of solid waste to include hazardous, low level, transuranic, mixed, and municipal sanitary wastes. The Contractor shall ensure that the handling, treatment, storage, transportation and disposal of existing "legacy" and future solid waste is environmentally sound and in compliance with DOE Directives, and applicable regulations and requirements.
- The Contractor shall manage and integrate site-wide solid waste recycling, treatment, storage, disposal and transportation activities and implement waste minimization/pollution prevention initiatives. The Contractor shall also provide on-site/off-site waste generators with technical support and verification of compliance with waste acceptance criteria, including Safety Basis and Performance Assessment objectives.

**Assistant Manager for Integration and Planning:**

**Project Management and Project Controls (DOE O 413.1B)**

Provide support to federal project management and project controls systems (Earned Value Management System, Risk Management, Baseline and Budget Planning, Environmental Liability) as described below:

**Scheduling:**

- Identification of Risk trigger points
- Identification of GFS/I, and planning for communication, initiation and closure of GFS/I
- Identification of Regulatory milestones
- Identification of PBI
- Full integration of cost, schedule and scope
- Improve schedule communication and reporting

**Earned Value Management System:**

- Certification and maintenance of EVMS
- Development and implementation of a robust EVMS surveillance program
- Provide timely and accurate detailed explanation of EVM variances
- Provide timely resolution and/or well developed proposals to improve negative trends or errors
- Institutionalize DOE Order 413 across all projects

**Risk Management:**

- Full integration of Risk Management into the Project Management process
- Assist DOE with the development/integration of the risk management process throughout the site and with other DOE prime contracts
- Improve Risk Management communication process between SRNS and DOE
- Complete integration of SRNS risk process with a single point of contact for technical, estimate, and schedule risks
- Provide risk documentation in a timely manner to support the DOE mission.
- During the risk assessment process make sure that the risk analysis is thoroughly documented (e.g., assumptions, risk impact, basis of calculations, etc.) with input from all stakeholders
- Hold regularly scheduled meetings that involve DOE to discuss and track (monitor) the project risk status

**Baseline and Budget Planning:**

- Be responsive to and actively participate in developing integrated and defensible site wide budgets as requested by DOE
- Provide accurate and timely turnaround of data to develop creditable planning estimates.
- Propose cost effective alternatives to the budget
- Maintain integrated contract performance baseline
- Effectively communicate changes in direct and indirect work scope and rate changes to all Project Management Staff (DOE and SRNS) and how those changes impact the cost and schedule of other site or departmental programs

**Environmental Liability:**

- Timely delivery of actual cost and out year cost estimate and any known changes or adjustments to the cost estimates as requested by DOE
- Provide assistance during the annual headquarters environmental liability audit by being available to discuss the methodology used in the development of the cost estimates to the auditors when requested
- Have sufficient documentation to support and defend the cost estimates that are submitted to book the environmental liability in the official DOE accounting system

**Site Planning & Real Property (DOE 430.1B)**

Provide support to federal program management of site planning & real property as described below:

**Site Strategic Planning:**

- Coordinate strategic planning process for the Savannah River Site (SRS)
- Publish strategic planning documents as identified by federal program management
- Develop and document horizontal and vertical linkage within and between SRS strategic performance measures and metrics
- Support the development of the EM Program Management Plan (PMP).

**Real Property Asset Management:**

- Manage integrated site real property process in accordance to DOE Order 430.1B
- Enhance and deliver Ten Year Site Plan which incorporates an integrated landlord approach to assess real property assets with respect to mission requirements, a 10 year IFI crosscut budget that identifies projects and funding requirements necessary to sustain mission requirements, and designation of facilities according to mission criticality with projections when facilities will become excess and available for disposition.
- Assist federal program management with the integrated real property asset management process

**Cost Management:**

- Assist federal project management with the development of the monthly cost reporting of ECES data into EM ECAS system.

**Site Integration and Performance Management**

Provide support to federal program management of site integration and performance as described below:

**Site Interface Management:**

- Develop and maintain site interface process, policy and procedures, and communication of the interface process, procedures and issues
- Develop interface agreements and issue resolution metrics

**Performance Measurement Development & Tracking:**

- Develop performance measures aligned with the site strategic plan
- Develop, analyze and report performance metrics that are associated with goals and objectives outlined in management and measurement plans
- Develop and track performance-based incentives
- Develop and provide training to evaluators and staff responsible for administering the program on a daily basis.

**Process Excellence and Continuous Improvement:**

- Supply centralized resources for implementing the Continuous Improvement System (CIS) and facilitating Continuous Improvement (CI) growth
- Facilitate implementation of SRNS initiatives to demonstrate and promote the importance of CI results that leverage customer focused outcomes, improved process efficiency, increased workforce productivity, and greater financial impact
- Communicate CI achievements as a means to encourage employee participation in CI activities and recognition of CI leadership within SRNS

**Business Systems:**

- Effectively manage project resources that maximize value and return on investment for project funding
- Implement concurrent process improvements in business processes and systems that will assure the modernization project captures best practices, and prevents the automation of an existing ineffective or outdated process
- Identify key personnel required for system operation and maintenance following installation and start-up of new process. Manage project and support staffing to prepare personnel to fill roles identified for system operation and maintenance.

**Business Transformation:**

- Evaluate impacts of proposed project changes on operating costs following project completion. Identify and present opportunities for improvement that reduce future operating costs while improving stakeholder satisfaction.
- Develop BPMP system architecture with provisions for integration of additional business systems that also require modernization and may be established in future business system improvements
- Develop strategies to minimize the degree of customization required for implementation of selected vendor software

**Stakeholder Involvement:**

- Maintain project transparency that provides visibility of project goals, scope changes and key performance metrics for DOE and other stakeholders.
- Establish assessment criteria and performance measures to address stakeholder involvement, reengineering core business functions, and establishing improved business processes.

**Office of Safety and Quality Assurance:**

*The words below are not intended to add requirements to the M&O Contract words found in Section C of the Contract.*

- Manage site Quality Assurance Program in accordance with DOE O 414.1C and 10CFR 830, Subpart A.
- Develop baseline QA Staffing Plan and enhance staffing as appropriate.
- Develop QA Performance Measures in alignment with goals and objectives and report to DOE-SR on a monthly basis.
- Manage site Radiation Protection Program in accordance with 10CFR 835 (Does not include Parsons or MOX).
- Manage the site Corrective Action Management Program (CAMP) in accordance with DOE O 414.1C and DOE O 470.2B.
- Manage the improvement initiatives necessary to fully comply with the SRS corrective action management procedure MRP 4.23, in accordance with DOE O 226.1A, DOE O 414.1C and NQA-1.
- Manage the site Lessons Learned/Operating Experience Program in accordance with DOE O 210.2.
- Manage site Price-Anderson Amendments Act (PAAA) noncompliance and Worker Safety and Health (WSH) regulation noncompliance reporting program and associated corrective actions in accordance with 10 CFR 820, appendix A (PAAA) and 10 CFR 820, appendix A (PAAA) and 10 CFR 851 (WSH).
- Manage site occurrence reporting program (ORPS) in accordance with DOE Manual 231.1-2.
- Manage the fire protection program in accordance with SRID Functional Area 12 and DOE Guide 420.1-3. Maintain program integration with other site contractors performing fire protection work (SRR). Staff and maintain the SRS Fire Department in accordance with the latest approved Baseline Needs Assessment.
- Manage the SRNS site Standard/Requirements Identification Document (S/RID) Program for the identification of ES&H standards/requirements in accordance with DOE O 251.1C and S/RID Functional Area 01, Management Systems, S/RID Requirement Number 01.04.155.
- Assess, measure, document, and control employee exposure to workplace chemicals, physical hazards, and environmental conditions in such a manner as to prevent adverse impacts on employee health and well-being and ensure compliance with all applicable regulations (e.g. 10 CFR part 851, 10 CFR 850).
- Improve Hazards Analysis process/procedure to address internal and external assessment issues per established schedule.
- Implement effective Worker Safety and Health Program for all SRNS workforce (i.e. Operations, Construction, and Subcontractors) in accordance with 10 CFR 851 requirements.
- Establish educational programs for Industrial Hygienist and Technicians for continuing education in the industrial hygiene field. Make provisions for industrial hygienists to attend AIHA conference as resources allow.
- Complete and update baseline for Industrial Hygiene program and conduct periodic walk-throughs to determine if any changes in process, chemicals, and controls per the SRNS Exposure Assessment Process.
- Develop sampling strategy based upon hazard assessments and sampling priorities in SRNS facilities.
- NI/PISA Closure
  - Develop and track metrics for timely closure of NIs and PISAs
- USQ Quality
  - Develop plan for measuring and tracking USQ screening quality as an intermediate milestone
  - Measure performance against goals established in plan

- Nuclear Safety Training and Qualification
  - Submit training and Qualification plan as an intermediate milestone including performance goals
  - Meet performance goals established in plan
- Safety Basis Process Improvement Initiative
  - Submit final report including improvement recommendations

**Office of Safeguards, Security and Emergency Services:**

- Joint monthly review meetings are held. At the conclusion of these meeting, DOE will provide a grade for the four categories: Technical, Cost Control, Schedule (Timeliness), and Business Relations / Management.

**Office of Acquisition Management:**

- SRNS personal property management of their system requirements whereby effectively implementing a life-cycle management program of Government furnished and contractor acquired materials. This element includes the proper handling and control of subcontract issued materials, loans, transfers, and the effective utilization and proper disposition of assigned Government owned personal property assets.
- Management of subcontracting and purchasing
- Develop, as required by the clause in Section 1 entitled, DEAR 970.5244-1 "Contractor Purchasing System," procedures for evaluating the ES&H records of companies submitting offers/bids/proposals for performing subcontract work in Government-owned or leased facilities under the contract.
- Management of Contractor Human Capital Programs (Defined Benefit Plan, Compensation, Employee Relations, Labor Relations, Workforce Alignment & Re-structuring, etc.)

**Office of Laboratory Oversight:**

SRNL's three-fold mission is to enable the success of SRS operations; to provide technical leadership for future site missions; and to utilize its technical expertise to provide vital national and regional support in achieving the broader goals of DOE and the federal government in a safe manner. In addition to progress against SRS Strategic Plan goals, performance will be evaluated in the following areas:

- Safe and Secure Operations: Provide a work environment that is protective of workers and the environment through a robust ISMS and ISSMS and performance assurance process. This includes evaluation of SRNL conduct of operations; radiological performance; nuclear safety; quality assurance; feedback and improvement; safety, environmental and security performance; and emergency management.
- Support to SRS and EM Mission Accomplishment: Meet SRS and EM customer milestone and schedule commitments; conduct activities within budget; provide high quality and technically sound products, advice, and communications with customers and DOE; and meet customer technical expectations.
- Progress towards operating SRNL as a defined work activity within the overall M&O contract structure: Implement a clear and consistent vision and effective plans to meet program and DOE goals including fiscal requirements while evaluating alternative options.
- Institutional Management: Progress in timely development and implementation of quality planning documents; use of corporate resources and advisory boards; articulation of a clear and consistent vision; and maintenance of core competencies. Effectively manage laboratory projects on schedule and within budget.
- Laboratory Infrastructure and Maintenance: Effectively manage projects to meet commitments; develop quality and timely documentation to support new projects; develop and implement a comprehensive infrastructure plan; and identify and pursue potential funding strategies to address critical need projects.
- Effectiveness of SRNL as EM's Corporate National Laboratory: Progress in implementation of a strategy to be EM's center for coordination of research, development, and deployment of technologies to cleanup the environmental legacy of the Nation's nuclear programs. Diversify customer base and funding sources for SRNL to increase efficiencies for the benefit of customers. Implement an effective LDRD program.
- Support to National Priorities: Diversify customer base for national and nuclear security; energy security; hydrogen and other initiatives. Meet customer milestone, schedule and quality requirements. Increase opportunities for continued growth through partnerships with industry, academia and small businesses.



Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-01.01	9/30/2011	Up to \$8,900,000	Provide a monthly report measuring technical, cost, schedule performance and business relations / management in accordance with contract requirements. The report will include trending data and analysis.	Contractor monthly report measuring technical, cost, schedule performance and business relations / management in accordance with contract requirements. The report will include identification of issues related to the above measurements, root cause analysis of those issues, corrective actions planned to remedy the issues, trending data and analysis.

**Contract Output: SRNS2011MGT-02 – Safeguards and Security**

The contractor will comply with terms and conditions of the contract relating to safeguarding information and comply with security requirements of the contract. This includes oversight of security systems. This Contract Output supports two SRS Strategic Objectives: (13) Improve and maintain Site Infrastructure, and (14) Manage technical challenges of aging systems and equipment to avoid risk of outages and mission disruptions.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 2.**

**Description/Background/Justification:**

The Argus Implementation Project was initiated in 2007 to replace the aging SRS Electronic Safeguards and Security System (E3S) with the DOE-Complex standard Argus Security System. The initial planning has been completed and design was issued for the security interests in SRS A and B Areas. Due to higher funding priorities, the actual field implementation has been on hold for the past two years. With FY10 changes in funding, an additional \$3.0M has become available to implement Argus in A and B Areas. Recently, the Argus System has been successfully implemented for the FBI REEF Project. This success has provided valuable information for final configuration of the equipment and introduced the newer generation of some specialized equipment. The FY11 work will consist of changing the design to incorporate lessons learned and new equipment configurations. Software will be updated, configured, and tested. The field activities, including cutover from E3S to Argus for security force monitoring and response will be completed on a building by building basis.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-02.01	1/31/11	\$50,000	Complete installation and startup of the Argus components required to manage	SRNS will provide a copy of the Argus 723-A acceptance test to DOE-SR.

			<b>Building 723-A.</b>	
SRNS2011 MGT-02.02	9/30/11	\$150,000	Complete installation and startup of the Argus components required to manage the remaining A Area and B Area buildings with security interest. Completion of Sensitive Compartmented Information Facilities (SCIF) is not included in this scope.	SRNS will provide copies of the Argus acceptance tests for Buildings 703-A, 773-A and 720-2A (this includes B-Area security interests) to DOE-SR.

**Contract Output: SRNS2011MGT-03 – Safety** *(Two sub-parts)*

The contractor is required to execute work in a safe and secure manner. This Contract Output supports three SRS Strategic Objectives: (36) Integrate safety and security into every element of mission accomplishment, and enhance the “safety first” culture to safeguard employees and assets; (37) Establish safety programs and processes that continuously improve safety and security performance; and (42) Establish a corporate, performance-based approach to manage site assets and resources that links planning, budgeting, implementation and evaluation to program mission projections and performance outcomes.

**Up to \$450,000 of the Comprehensive PBI will be paid for Contract Output 3.**

**Description/Background/Justification:**

**3a.**

The Enterprise Integrated Safety Management - Exposure Assessment (EISM-EA) is an industrial hygiene tool that will be utilized to track, trend, and analyze worker industrial exposure at the Savannah River Site. SRS is piloting the Enterprise Integrated Safety Management - Exposure Assessment (EISM-EA) program for DOE. As part of EISM-EA implementation, SRNS is creating interfaces with numerous SRS systems as shown below to enhance the performance of EISM-EA. For the purpose of this performance element, a “facility” is defined as the organization, personnel and complex of structures involved in completing a unique, major, and well-defined portion of the SRS mission (e.g. H-Canyon and all associated operations and structures as being one facility).

<b>SRS Authoritative Source</b>	<b>Data to be shared</b>	<b>Receiving System or Entity</b>
<b>Site Personnel Roster</b>	Personnel information	EISM-EA
<b>Field Material Tracking System / Chemical Information System</b>	Chemical Hazard information	EISM-EA
<b>Site Shared Structures Database</b>	Site Structures (locations)	EISM-EA
<b>EISM-EA</b>	Medical Surveillance notification	MEDGATE

<b>Assisted Hazard Analysis</b>		Work Package review notification to IH Professional	E mail to IH with notification to Review Work within EISM-EA	
<b>EISM-EA</b>		Hazards and Controls (from IH exposure assessments)	Assisted Hazard Analysis	
<b>Radiation Monitoring Equipment</b>		IH Instrumentation	EISM-EA	
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Completion Criteria</b>	<b>Acceptance Criteria</b>
SRNS2011MGT-03a.1	12/10/10	\$100,000	Complete one area / facility exposure assessment pilot using the Enterprise Integrated Safety Management – Exposure Assessment (EISM-EA) data system.	SRNS will document completion of one area / facility exposure assessment pilot using the Enterprise Integrated Safety Management – Exposure Assessment (EISM-EA) data system.
<b>Description/Background/Justification:</b>				
<p><b>3b.</b></p> <p>As part of the strategy to establish a performance-based approach to managing site assets and resources, SRNS is to increase efficiency by at least a 5% reduction in total patient time away from work for medical physical examinations. This will reduce time spent by the site workforce completing medical requirements. SRNS will accomplish this by establishing a Savannah River Site Medical Improvement Process. Two outcomes are expected:</p> <ul style="list-style-type: none"> <li>Outcome I - External Impact: The SRS workforce will spend more time attending to the site mission, thereby increasing productivity on the site; and,</li> <li>Outcome II - Internal Impact: Medical Operations &amp; Services will develop and implement a comprehensive Disciplined Operations Sustainability Plan. This ensures that Medical Operations &amp; Services continually progresses towards a more disciplined Conduct of Operations culture, institutionalizes the effort, and ensures continuous improvement.</li> </ul>				
<b>Savannah River Site Medical Improvement Process</b>				
For Outcome I - External Impact, the following milestones will be completed:				
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Completion Criteria</b>	<b>Acceptance Criteria</b>
SRNS2011 MGT-03b.1	11/30/2010	\$25,000	Measurement of present outcomes and demand; analysis of	Measure and analyze current performance and document and

			scheduling requirements, issues and relationship with staff availability; analysis of medical process and diagramming/process maps for scheduling, medical process, and data distribution.	transmit results to DOE-SR including pre-intervention data established in May 2010, process description and process maps for behaviors in scheduling, medical process and data distribution required to support the new outcomes.
SRNS2011 MGT-03b.2	01/03/2011	\$50,000	Implementation and problem solving of a new medical process.	Documentation of problem solving activities will be transmitted to DOE-SR describing the implementation process; including key performance indicators, measurement systems and problem solving process that will measure outcomes, maintain gains and integrate continuous improvement into the staff culture.
SRNS2011 MGT-03b.3	06/01/2011	\$50,000	Re-measurement of outcomes to determine increased efficiency of at least 5 % reduction in total patient time away from work for medical physical examinations. The reduction will result from medical process change from a two-phase	Measure resulting improvements and provide results to DOE-SR including post-intervention outcome data, comparison with pre-intervention data and measures of value of the change to the Savannah River Site. Fee will be earned if a 5% improvement is demonstrated.

			physical exam to one-phase physical exams.	
For Outcome II - Internal Impact, the following milestones will be completed:				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-03b.4	12/30/2010	\$50,000	Develop and submit Disciplined Operations Sustainability Plan.	Submit plan to DOE-SR identifying processes for the following critical performance areas: <ul style="list-style-type: none"> <li>▪ Procedures Management</li> <li>▪ STAR Corrective Action Performance</li> <li>▪ Certification and Credentials</li> <li>▪ Staffing &amp; Critical Services Continuity</li> <li>▪ Assessment &amp; Review</li> <li>▪ Continuous Improvement</li> </ul>
SRNS2011 MGT-03b.5	8/30/2011	\$25,000	Complete a review of medical procedures as detailed in Medical Procedures Review Schedule (plan submitted 07/15/10). Review Program-level Medical Procedures: <ul style="list-style-type: none"> <li>• Manual Q3.1 Administrative Policies and Procedures</li> <li>• Manual Q3.2 Health Information Services</li> </ul>	Submit verification of medical procedure review to DOE-SR. Verification should provide evidence that each procedure was reviewed; analyzed for hazards per procedure 8Q122; revised/updated as necessary; approved and issued/put into effect.  Note: Fee structure will be indexed and based directly

			<ul style="list-style-type: none"> <li>• Manual Q3.3 X-Ray &amp; EKG</li> <li>• Manual Q3.4 Laboratory</li> <li>• Program Q3.6 Substance Abuse Testing</li> <li>• Program Q3.7 First Aid &amp; Nursing</li> </ul>	upon percentage of procedures completed (i.e., reviewed, analyzed for hazards, revised/updated, approved and issued). (E.g., 100% of procedures completed earns 100% of fee, 90% of procedures completed earns 90% of fee, and so on.)
SRNS2011 MGT-03b.6	03/01/2011	\$25,000	Complete review of credentialing and certification for medical personnel.	Submit verification of Medical credentials and certifications for positions and functions within Medical Operations & Services to DOE-SR.
SRNS2011 MGT-03b.7	05/31/2011	\$25,000	Complete Medical Staffing Continuity of Operations Plan.	Report will be provided to DOE-SR on Staffing & Critical Services Continuity <ul style="list-style-type: none"> <li>▪ Critical Functions</li> <li>▪ Organizational Core Competencies</li> <li>▪ Minimum Staffing</li> <li>▪ Training and Qualifications</li> <li>▪ Continuity</li> </ul>
SRNS2011 MGT-03b.8	09/16/2011	\$50,000	Analyze Medical Services performance improvement resulting from disciplined	Analysis report will be provided to DOE-SR on qualitative impacts to Medical Services &

			operations.	Operations through revised conduct of operations <ul style="list-style-type: none"> <li>▪ Qualitative impact analysis</li> <li>▪ Cultural and institutional barriers impacting organizational transformation</li> <li>▪ Lessons learned</li> <li>▪ Path forward for continuous growth/improve ment</li> </ul>
SRNS2011 MGT-03b.9	09/30/2011	\$50,000	Complete Accreditation Association for Ambulatory Health Care self-assessment of SRS Medical Services.	Submit completed report and gap analysis to DOE-SR. Report will include a comprehensive plan and cost benefit analysis for achieving AAAHC certification, for discussion and identification of a path forward.

**Contract Output: SRNS2011MGT-04 – Integrated Groundwater Program**

The contractor is required to execute work in an environmentally safe manner. This Contract Output supports four SRS Strategic Objectives: (17) Ensure protection of human health and the environment is factored into mission development and execution; (18) Maintain compliance with environmental permits, clean-up agreements and decision documents; (19) Integrate site-wide regulatory permitting-strategies to ensure operational and future mission flexibility; and (20) Promote long-term stewardship of SRS natural, archeological and cultural resources. This Contract Output will result in SRNS coordinating with other site organizations and contractors to establish and manage an Integrated Groundwater Program for the Savannah River Site.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 4.**

**Description/Background/Justification:**

SRNS, in cooperation with other site contractors, will establish and maintain an integrated, site-wide groundwater program to support DOE decision-making and regulatory compliance. This

Program shall integrate groundwater monitoring information, applicable modeling and risk assessment results, as well as identify emerging issues/opportunities that could impact SRS groundwater. Such a Program will support current and future operations as well as post-closure monitoring of remediated sites. In order to ensure proper breadth of the program, a baselining project will be performed in FY2011.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-04.01	1/15/11	\$100,000	Issue Project Plan to baseline current site program.	SRNS will issue the Project Plan and deliver it to DOE-SR.
SRNS2011MGT-04.02	6/15/11	\$50,000	Issue Groundwater Technical Assessment.	SRNS will issue the Groundwater Technical Assessment and deliver it to DOE-SR.
SRNS2011MGT-04.03	9/30/11	\$50,000	Issue SRS Integrated Groundwater Program Plan.	SRNS will issue the SRS Integrated Program Plan to DOE-SR.

**Contract Output: SRNS2011MGT-05 – Quality Assurance**

The contractor is required to execute work in a safe and secure manner. This Contract Output supports three strategic objectives: (17) Ensure protection of human health and the environment is factored into mission development and execution; (36) Integrate safety and security into every element of mission accomplishment, and enhance the “safety first” culture to safeguard employees and assets; and (37) Establish safety programs and processes that continuously improve safety and security performance. This Contract Output will result in SRNS shifting from NQA-1-2000 to NQA-1-2008.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 5.**

**Description/Background/Justification:**

On November 6, 2008, Ines Triay, Principal Deputy Assistant Secretary for Environmental Management (EM), issued a Corporate Quality Policy Statement and EM Quality Assurance Program (QAP) which was endorsed by the EM QA Corporate Board. This QAP provides the basis to achieve quality across the EM complex for all mission-related work while providing a consistent approach to QA using the NQA-1-2004 *Quality Assurance requirements for Nuclear Facility Applications*, as the national consensus standard for implementing the EM QAP due to the high hazards and costs of DOE’s activities and facilities. The requirements contained within the document apply to EM (HQ), EM Field Offices/Project offices, and contractors as applicable to the work being performed by each entity. The letter required each contractor to develop a Quality Assurance Implementation Plan (QIP). Savannah River Nuclear Solutions (SRNS) submitted a QIP that used NQA-1-2008 instead of NQA-1-2004 as a consensus standard. This



QIP was approved by DOE-SR in December of 2009 which included the results of a gap and cost analysis. The gap analysis identified tasks to be completed to bridge the gap between NQA-1-2000 and NQA-1-2008.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-05.01	3/30/11	\$50,000	Update impacted procedures (Current analysis shows 5 new procedures are needed and 26 revisions are needed).	SRNS will issue the needed procedures to support the 2011 NQA-1 update.
SRNS2011MGT-05.02	5/30/11	\$50,000	Develop and deliver training to support the following areas: Procurement – Vendor Surveys and Engineering – Technical Evaluations.	SRNS will provide documentation to DOE-SR that required training for Procurement, Vendor Surveys and Engineering personnel was completed.
SRNS2011MGT-05.03	9/30/11	\$100,000	Implementation of NQA-1-2008 requirements is complete.	<ul style="list-style-type: none"> <li>• Declaration of NQA-1-2008 implementation completion.</li> <li>• S/RIDs revision submitted and approved.</li> <li>• Quality Assurance Management Plan, SRNS-RP-2008-00020, revision submitted and approved.</li> <li>• ALL required training completed and documentation provided to DOE-SR.</li> </ul>

**Contract Output: SRNS2011MGT-06 – COBRA Interfaces**

The contractor is required to maintain and manage to an accurate multi-year performance baseline, and provide a systematic project management system which provides cost estimating,

scheduling, and risk for establishment and maintenance of an appropriate technical baseline.

**Up to \$200,000 of the Comprehensive PBI will be paid for Contract Output 6.**

**Description/Background/Justification:**

With the SRNS financial system being replaced, and the Procurement and Contracts system scheduled to be replaced by the end of the first quarter, FY2011, effort is required to determine the COBRA interfaces with these new system replacements. Follow-up is also needed to ensure that identified functionalities contained within ICTS are dispositioned accordingly.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-06.01	12/31/10	\$50,000	Complete COBRA implementation.	Provide DOE-SR IPABS report out of COBRA.
SRNS2011MGT-06.02	12/31/10	\$50,000	Determine COBRA interfaces with the new replacement systems for Finance and Funds Management and establish functionalities as necessary for operation of the cost processor.	Provide DOE-SR requirements document reflecting interface process between the COBRA cost processor and Hyperion and the interfaces established.
SRNS2011MGT-06.03	3/31/11	\$100,000	Determine COBRA interfaces with the new replacement systems for Procurement and Contracts and establish functionalities as necessary for operation of the cost processor.	Provide DOE-SR requirements document reflecting interface process between the COBRA cost processor and PeopleSoft and the interfaces established.

**Contract Output: SRNS2011MGT-07 – Business Process Modernization Project**

The contractor will develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing missions of the site. DOE expects the Contractor to produce effective and efficient business and technical management structures, systems, and operations that maintain high levels of safety and quality in accomplishing the work required under this contract.

This Contract Output supports three SRS Strategic Objectives: (43) Implement solid financial and performance based management systems with metrics that help management to improve efficiency and sustainability, (45) Continuous improvement of Business Systems cost-effectiveness and performance through process, procedure, technology and communications enhancements, and (46) Support development of potential future missions and opportunities for SRS.

**Up to \$750,000 of the Comprehensive PBI will be paid for Contract Output 7.**

**Description/Background/Justification:**

To support SRNS' site business transformation initiatives along with the multi-contractor environment, including the management service agreements, enhanced financial transparency is needed to support both operations and DOE reporting. The current IT technology and architecture have significant issues, which have been identified in the annual OMB-A-11 risk assessment results the past four years. In addition, there are significant needs for system changes to support the business changes required for the project execution of the FY11-15 baseline management.

As identified in FY2010, the current business software and hardware tools are not cost effective, have continuing risk of failure, are inflexible, and are not aligned with the Office of Management and Budget (OMB) Federal Enterprise Architecture guidelines. These legacy applications developed over twenty years ago no longer support efficient, business processes compared to today's industry standards. Current systems require substantial resources to accommodate delivery of real time data in support of project schedule, financial budget and forecast decision making.

SRNS continues FY2011 with a phased approach that began in FY2010 with the identification of Oracle/PeopleSoft as the Commercial Off the Shelf (COTS) software that will enable the business process re-engineering and implementation of industry best practices. SRNS has analyzed business systems for replacement, including Financial Management, Procurement/Supply Chain, and Project Controls systems. DOE Records Management requirements will be integrated into new systems to mitigate risk from a functional and Vital Records perspective. During FY2010, processes were identified for elimination, as well as retirement. The achievement of business driven productivity improvements continue to be supported by new technologies planned and executed where a positive return on investment can be demonstrated. SRNS will proceed in alignment with the SRS Strategic Objectives in support of the business mission, goals, and objectives. SRNS will include business stakeholders, organizations and processes. SRNS will reengineer core business functions to enhance strategic, supportable, and integrated business-enabling solutions.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-07.01	10/31/10	\$125,000	Complete installation and the SRNS acceptance	Specific plans and documents to be provided are listed

			testing of the General Ledger Phase 1.	in the DOE G 413.3-14
SRNS2011MGT-07.02	4/30/11	\$500,000	Attain System Design Stage Exit business system upgrade for the Supply Chain Management Phase 2.	Specific plans and documents to be provided are listed in the DOE G 413.3-14
SRNS2011MGT-07.03	9/30/11	\$125,000	Complete installation and acceptance testing of the Supply Chain Management Phase 2.	Specific plans and documents to be provided are listed in the DOE G 413.3-14

**Contract Output: SRNS2011MGT-08 – Workforce Services**

SRNS Workforce Services manages employee compensation, benefits, performance, and development. Evaluations of current benefit plans will be done to ensure maximum cost effectiveness. A workforce planning initiative is necessary to ensure SRNS will be positioned to accomplish current and future missions.

**Up to \$150,000 of the Comprehensive PBI will be paid for Contract Output 8.**

**Description/Background/Justification:**

SRNS will continue to work toward a diverse and professional work environment that identifies future resource needs that align to achieve program mission projections. This Contract Output supports three SRS Strategic Objectives: (39) Foster a corporate perspective and a teamwork culture through communication of a common vision; (40) Ensure the SRS workforce is diverse and appropriately sized and aligned to achieve the Site vision; and (41) Enhance SRS leadership, administrative and technical skill base while ensuring a diverse and professional work environment.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-08.01	9/30/11	\$25,000	Expand Talent Management and Workforce of the Future developmental efforts, including leadership and labor resource pipelines,	SRNS will document accomplishments on the following to DOE:

			to ensure availability of a skilled, knowledgeable workforce required for successful mission accomplishment.	
SRNS2011MGT-08.01a	9/30/11	\$25,000	Increase Leadership Development through Talent Management developmental opportunities.	<ol style="list-style-type: none"> <li>1. Develop feeder forums for Leadership Development at the division/functional organization level.</li> <li>2. Expand Mentoring Circles.</li> <li>3. Develop and implement leadership talent pipelines.</li> </ol>
SRNS2011MGT-08.01b	9/30/11	\$25,000	Continue developing Future Workforce labor resource pipelines and determine which skill sets will be needed at what time.	<ol style="list-style-type: none"> <li>1. Implement the Workforce Development Simulation (WDS) Phase II to: <ul style="list-style-type: none"> <li>- Collect and analyze workforce transitions and training data.</li> <li>- Determine skill set sequencing and scheduling.</li> </ul> </li> <li>2. Complete</li> </ol>

				roll-out and refinements of the Labor Resource Management (LRM) tool needed to support the WDS. <b>3.</b> Integrate SRNS functional areas, local educational institutions and community organizations into the Workforce of the Future project to gain their support.
SRNS2011MGT-08.02	Begins 2Q 2011 and ends 3Q 2011 with the selection. Implementation will begin 1/01/2012	\$25,000	Take BCBS Business out to Bid	1. Bid current medical / dental / FSA / COBRA plans to determine best value (claims discounts / customer service / networks / admin fees) 2. Review retiree medical plan options - both Incumbent and Non-Incumbent options 3. Develop Health Savings Account alternative 4. Revise plan documents/processes to reflect standard market practices
SRNS2011MGT	Valuation	\$50,000	Implement revised	1. Improve

-08.03	implementation 2Q 2011 and pension calculation component 3Q 2011.		Actuary Processes.	Actuary valuation by implementing regular file feeds, allowing current information to be accessed through reporting 2. Transition pension calculation process from manual process to automated process housed on vendor website - accessible by deferred vested / terminated plan participants. This will eliminate in house pension estimator tool and allow for more accuracy.
--------	--	--	--------------------	---

**Contract Output: SRNS2011MGT-09 – Risk Management**

Institutionalize the Risk & Opportunity Management (R&OM) across SRNS entities. Apply DOE 413.3A Risk management principles to include all division functions under the current Contract.

**Up to \$450,000 of the Comprehensive PBI will be paid for Contract Output 9.**

**Description/Background/Justification:**

As part of a Management Excellence strategy, SRNS will implement a process that captures and manages risks associated with meeting Program mission projections and performance milestones.

- Establish a corporate, performance-based approach to manage site assets and resources that links planning, budgeting, implementation and evaluation to program mission projections and performance outcomes.
- Continuous improvement of Business Systems cost-effectiveness and performance through process, procedure, technology and communications enhancements.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT -09.01	9/30/11	\$150,000	Complete an assessment of current risk and opportunity	Documented assessment, including attributes,

			management processes for compliance to established procedures and based on DOE Standard Review Plan for RM, and /or Corrective Measure 3.	<p>observations, causal factors and recommendations.</p> <p>Assessment Report will include the following as a minimum:</p> <ul style="list-style-type: none"> <li>• Categories evaluated (Ref Corrective Measure 3): <ul style="list-style-type: none"> <li>▪ Risk planning</li> <li>▪ Risk identification</li> <li>▪ Risk analysis</li> <li>▪ Risk handling</li> <li>▪ Risk monitoring</li> <li>▪ Risk reporting</li> </ul> </li> <li>• Determination of alignment with measurement criteria</li> <li>• Listing of areas for improvement and corrective measures</li> <li>• Identification of management programs, documents and procedures used to integrate risk into project planning</li> <li>• Improvement Plan that includes</li> </ul>
--	--	--	---	--



				<p>metrics and monitoring process</p> <ul style="list-style-type: none"> <li>• Corrective actions entered into STARS or current assessment and action tracking system</li> </ul>
SRNS2011MGT-09.02	9/30/11	\$150,000	<p>Conduct an analysis of high value risks currently identified for a specific PBS with focus on improving/optimizing risk reduction by investigating multiple risk-reduction scenarios with considerations to configuration of site assets, change management and controls system, and human capital resource needs. The results of the analysis will lay the ground work for potential use on other PBS.</p>	<p>Documented analysis with multiple scenarios tied directly to the analysis results.</p> <p>Analysis of risks &amp; opportunities will include measurement or standard used to perform analysis, limited analysis of historic, current, and emerging risks &amp; opportunities based on project assumptions, and multiple risk-reduction multi-year scenarios based on configuration of site (Real Property Asset Management) assets, change management &amp; controls system, Contractor Assurance Program and human capital resource needs. Scenarios are ranked using a defined methodology and a</p>

				path forward recommended, including key decision milestones
SRNS2011MGT-09.03	9/30/11	\$150,000	Develop a risk end-state vision action plan, identifying key decision milestones based on each risk-reduction scenario identified in SRNS2011MGT-09.02.	Documented analysis with multiple scenarios tied directly to the analysis results.  Risk end-state vision action plan, identifying key decision milestones based on the recommended risk-reduction scenario identified in SRNS2011MGT-09.02.

**Contract Output: SRNS2011MGT -10 – Supplier Diversity**

This Contract Output addresses Supplier Diversity as required by Federal Acquisition Regulation (FAR) 19, Department of Energy Acquisition Regulation (DEAR) 919 and 13 Code of Federal Regulations (CFR) Chapter 1.

**Up to \$100,000 of the Comprehensive PBI will be paid for Contract Output 10.**

**Description/Background/Justification:**

It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts. This requirement is flowed down to SRNS in the prime contract.

Representatives in the Supplier Diversity Office manage, plan, direct and monitor the activities of SRNS's Small Business Program including managing the program as it relates to the procurement function and the prime contract with the Department of Energy.

SRNS submits and negotiates an annual supplement to the subcontracting plan that includes goals, expressed in terms of percentages of total planned subcontracting dollars that separately addresses subcontracting with small business concerns, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged

business, and with women-owned small business concerns.				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-10.01	9/30/11	\$100,000	Develop an action plan identifying activities that support efforts to provide maximum practicable opportunity for small and small disadvantaged businesses to participate in performing subcontracts let by SRNS.	SRNS will provide documentation to support efforts to achieve the majority of the goals defined in the FY 2011 Supplement to the subcontracting plan.

**Contract Output: SRNS2011MGT-11 – Comprehensive Site Planning**

Develop design level recommendations and specific objectives for FY2011 that will improve integration and streamline the processes supporting program mission planning and real property asset planning. These recommendations and objectives will demonstrate improved linkage and dependencies at strategic, operational and tactical levels in support of the successful execution of the EM cleanup mission and landlord functions at SRS. It is the desire of DOE-SR to ensure planning activities are integrated within SRNS. In addition the improved linkages include appropriate levels of interfacing with an NNSA-SR strategic and operational planning. This milestone supports the improvement of the integration of planning and is to be comprehensive, i.e., include objectives that encompass the entire planning process at all levels and for all functions.

**Up to \$1,000,000 of the Comprehensive PBI will be paid for Contract Output 11.**

**Description/Background/Justification:**

The overall goal is to develop and implement an integrated planning process for SRNS that efficiently and effectively links top level strategic missions and mission success goals with operational/functional planning required for goal achievement. This planning process should facilitate the effective flow of information regarding work breakdown, funding, schedules, resource allocation, interface dependencies, and other factors vital to performing the required work.

A joint DOE-SR / SRNS task team has been established to support this contract output.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-11.01	9/30/2011	\$700,000	Implement a comprehensive planning system	1. Completed self-assessment report of

			that links life-cycle program missions, life-cycle real property asset planning, landlord functions, budgeting, evaluation, and performance outcomes.	<p>planning documents at beginning of performance period to assess integration of planning documents.</p> <p>-The report will include identifying process improvements to be incorporated in the planning management system. Assessment findings will be tracked in STARS.</p> <p>2. Provide a planning management system description to include the following attributes:</p> <p>-Demonstrates linkage of EM planning and budget formulation</p> <p>-Integrated schedule of plan development and revisions</p> <p>-An integrated planning process flow</p> <p>-Process for configuration control for planning document changes. (e.g.</p>
--	--	--	---	--

				<p>when one plan changes that affects other plans, how are the changes implemented/updated in the other plans?)</p> <p>-Roles and responsibilities (e.g. --SME responsibility structure and team contacts (between organizations) for plan development and updates (e.g. review matrix). Verify participation and ownership from program and project SME in the plan development and updates (e.g. signature page verifying participation and ownership of information in the plan).</p> <p>-Process for centralizing data tracking EM lifecycle performance metrics and milestones. Attributes include: Collection, process flow and schedule, information control, definition</p>
--	--	--	--	---

				<p>control, and document retention compliance.</p> <p>3. DOE-Approved Comprehensive Ten Year Site Plan (TYSP) with attributes that <u>meet the intent of</u> SRNS2011 MGT-13.01 Acceptance Criterion 3 (<i>below</i>).</p> <p>4. Updated SRS Life Cycle Baseline with the integration of Strategic, Programmatic, System and Business Plans. -Integrated SRS Life Cycle Baseline, to include links to all SRS contract baselines. Acceptance will be based upon the same criteria under configuration control used to develop the contract performance baseline.</p> <p>5. Contractor-approved system plans for Nuclear Materials Stabilization (pre-decisional),</p>
--	--	--	--	---

				Waste Disposition-Solid Waste, and Area Completion, Infrastructure and ensure integration of these plans with the NNSA Pu Disposition Program Execution Plan. -Plans should include goals, planning assumptions, planning bases, operational process descriptions, dependencies on other systems, facility and infrastructure requirements, and annual key performance measures with both historical (actual values) and lifecycle projections.
<b>SRNS2011MGT -11.02 – Infrastructure Assessments</b>				
SRNS2011 MGT -11.02a	9/30/11	\$100,000	Develop a graded approach plan by 3/31/11 to cost effectively put the site on a path to populate the FIMS database with all applicable facilities within three years. By 9/30/11 FIMS will be populated based on the graded approach plan.	1. DOE-SR will review the graded approach plan with schedule and metrics.  2. DOE-SR will review evidence of implementation – documentation in FIMS records demonstrated by performance against metrics implementation schedule.
SRNS2011	9/30/11	\$100,000	Per the	1. DOE-SR will

MGT -11.02b			requirements of DOE Order 430.1B, complete condition assessments on 20% of real property assets identified in FIMS as of 10/1/2010 per the graded approach. Fee will be invoiced for every 5% completed.	review the site graded approach plan with schedule and metrics that outlines the completion of the condition assessments within five years.  2. DOE-SR will review the condition assessment reports for the structures inspected in FY11. The facilities assessed should be a representative cross section of facility types.
SRNS2011 MGT-11.02c	9/30/11	\$100,000	Develop and document an integrated process to identify completed deferred maintenance for major HVAC replacements, roof replacements, and IS direct infrastructure IPL, and update applicable CAIS records.	DOE-SR will review documentation to identify completed deferred maintenance for major HVAC replacements, roof replacements, and IS direct infrastructure IPL, and updated CAIS records.
<b>SRNS2011MGT-11.01 Acceptance Criterion 3:</b>				
Development of a Comprehensive Plan/Ten Year Site Plan that meets the intent of DOE Order 430.1B. That is, it will be a meaningful product that is the reflection of actual overarching planning that is integrated and comprehensive, not just a summary of disjointed planning				



documents resulting from stove piped planning efforts. It will be a tool for bringing planning efforts together and guiding lower level implementing plans as intended. As such, it would reflect the following:

The utilization of EM program life cycle plans, System plans, and other Site mission plans (NNSA), including tenant organizations, in determining the real property asset life cycle management requirements. Further, it will reflect the participation of the organizations responsible for those plans in translating the mission plans into the real property asset requirements needed to support the lifecycle of the missions and articulating them in a clear manner.

The real property asset requirements to support Site missions will be shown by geographic areas of the site. Planning for each area of the Site will be holistic, reflecting the real property asset requirements for all missions utilizing, or projected to utilize, the areas. This approach would reflect thoughtful consideration of the future and the integration of all aspects such as EM area closure, site specific requirements for clean up projects that will required transition to Long Term Stewardship, support for continuing missions, consideration of potential new missions, as well as recommendation for transitioning the site to more efficient configurations. The information would be developed through the participation of subject matter experts and presented in tables, maps and narrative in sufficient detail to serve as the basis for lower level planning. This would require multiple organizations working together to develop this information.

Crosscutting infrastructure planning will be a participant in the process, addressing the path forward for meeting the sum of the requirements from the area by area analysis and projected future site configuration. Such integrated planning will be the basis for determining critical infrastructure projects and priorities and will be reflected in the plan and will constitute the Infrastructure Master Plan.

The overarching planning described above will serve as the guide and basis for integrating related lower level real property asset life cycle management functions such as acquisition, condition assessments, maintenance, recapitalization, disposition, and long term stewardship and include participation from subject matter experts from these disciplines. Comprehensive planning would include participation from financial organizations and the requirements would in turn be reflected in a transparent manner in the Integrated Facilities & Infrastructure crosscuts budget in the Comprehensive Plan/TYSP.

The Comprehensive Plan/TYSP will be utilized in a unifying manner such that it will result in a consolidated and integrated plan that serves to replace the numerous disjointed, parallel, overlapping and duplicative plans. For example, examining the potential to integrate the PMP requirements as part of the overarching plan. It will be the result of an integrated effort of multiple organizations coordinating their resources and working together for efficiency rather than continuing to approach planning and implementation as isolated stove pipes, looking for additional resources to support the stove pipe approach.

**Contract Output: SRNS2011MGT-12 – Baseline Planning**

The contractor is required to maintain and manage to an accurate multi-year performance baseline, and to support the development and integration of a life cycle baseline to meet the DOE-SR requirements to HQ. The multi-year performance baseline will be updated utilizing a systematic project management approach which provides detailed cost estimating, resource-loaded scheduling and risk for maintaining an appropriate technical baseline.

**Up to \$150,000 of the allocated PBI fee will be paid for Contract Output 12 as follows:**

**Description/Background/Justification:**

The FY11-15 baseline was developed in FY2010 and will be updated / enhanced based on internal and external feedback. An additional year will be developed and included in the baseline using a project management approach. A multi-year baseline update process will be developed to ensure continuous improvement of this product.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 MGT-12.01	12/31/2010	\$125,000	Develop and deliver an integrated baseline management and control process.	Provide to DOE-SR the following items: <ul style="list-style-type: none"> <li>• Annual schedule of baseline update deliverables</li> <li>• Corporate plan for baseline and database management and control</li> <li>• Procedure for annual baseline updates to incorporate the 5-year rolling scope</li> <li>• Procedure for developing work packages in upcoming fiscal year, including requirements for work</li> </ul>

				package versus planning package content <ul style="list-style-type: none"> <li>• Procedure for development and incorporation of Management Reserve into operations activities</li> <li>•</li> </ul>
SRNS2011 MGT-12.02	8/15/2011	\$25,000	Develop lessons learned from the FY2011-2015 Baseline development by 12/31/2010. Incorporate these lessons learned and any necessary corrective actions into guidance documents and baseline update by 8/15/2011.	Lessons learned will be provided to DOE-SR. All guidance and the baseline update will incorporate all identified lessons learned and any subsequent corrective actions.

**Contract Output: SRNS2011MGT-13 – Interface Management**

The Contractor shall execute Interface Management with site tenants to deliver landlord services in support of mission completion.

**Up to \$150,000 of the allocated PBI fee will be paid for Contract Output 13 as follows:**

**Description/Background/Justification:**

Continue to demonstrate effective implementation of the site interface management process and integration of new and existing site tenants and contractors into the program through

- Development and maintenance of site interface process and procedures
- Communication of the interface process, procedures and issues to all site tenants and contractors
- Development of interface agreements with site tenants and contractors for exchange of services, interface boundaries, and responsibilities

Number	Date	Fee	Completion Criteria	Acceptance Criteria
--------	------	-----	---------------------	---------------------

SRNS2011 MGT-13.01	1/31/2011	\$100,000	<p>Improve cost tracking capability of site tenant work scopes as follows:</p> <ol style="list-style-type: none"> <li>1. Implement new Service Level Agreements (SLAs) computer program upgrades to accomplish improved cost tracking.</li> <li>2. Develop and issue a cost performance report for USFS.</li> </ol>	DOE-SR will review the new SLA system generated cost tracking and performance reports.
SRNS2011 MGT-13.02	9/30/2011	\$50,000	<p>Perform SRNS integration efforts by:</p> <ol style="list-style-type: none"> <li>1. Executing annual revision of interface agreements (SRR, Shaw-Areva, Parsons, Ameresco, WSI, URS, USFS, US Army, National Guard, SREL).</li> <li>2. Support DOE in implementation of identified Lessons Learned actions.</li> </ol>	DOE-SR will review revised interface agreements and identified lessons learned deliverables.
<b><u>Contract Output: SRNS2011MGT-14 – Continuous Improvement</u></b>				

The contractor will develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing missions of the site.

This Contract Output supports the SRS Strategic Objectives: (39) foster a corporate perspective and a teamwork culture through communication of a common vision

(43) Implement solid financial and performance based management systems with metrics that help management to improve efficiency and sustainability, and (46) Support development of potential future missions and opportunities for SRS.

**Up to \$162,746 of the Comprehensive PBI will be paid for Contract Output 14.**

**Description/Background/Justification:**

**Continuous Improvement System**

The Process Excellence team is responsible for leading activities that promote maturity of the SRNS Continuous Improvement System (CIS). The resulting process improvements enable SRNS to more effectively respond to customer, employee and corporate interests. In the ideal future state, SRNS personnel are equipped to participate in CI activities, improvements are implemented by local process teams, and non-value added activities are eliminated in each process. The objectives for Process Excellence in FY2011 focus on increasing stakeholder reliance on the results of CI implementation.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011MGT-14.01	9/30/11	\$162,746	Demonstrate the impact of CI deployment on core organizational functions including implementation of cost reduction proposal, validation of cost savings, communication of process improvements, and management of improvement initiatives.	<ol style="list-style-type: none"> <li>1. CI activities communicated in a manner that promotes growth of the CIS and alignment with the SRNS Mission Development Plan.</li> <li>2. CI metrics revised to sustain SRNS focus on leading indicators and critical behaviors.</li> <li>3. CI training updated to incorporate program elements identified for</li> </ol>

				<p>new CI Experts.</p> <p>4. Financial validation provided for CI activities that meet savings criteria defined by SRNS.</p> <p>5. CI database upgraded with a web interface to improve access to project data and visibility of CI project results.</p> <p>6. Integrated process for Cost Reduction Proposals established for SRNS and coordinated with DOE-SR AMIP personnel.</p>
--	--	--	--	---



## Performance Incentive Document

PBI Number:	SRNS2011IS	
Activity Name:	Infrastructure Services	
WBS Number:	Multiple direct and indirect	
Performance Period:	October 1, 2010 - September 30, 2011	
Allocated Fee:	\$2,000,000	
Revision Number:	3	
Senior level manager name:	Karen Guevara	
Senior level supervisor/division manager name:	As identified with each output below	
<b>Performance Outcome:</b>		
<p>The Contractor shall execute assigned Landlord responsibilities and provide a range of services to other organizations doing work on the Savannah River Site. These services include supporting the Biomass Project, ensuring service for utilities' customers, and supporting the DOE complex-wide strategic Sustainability Performance Plan.</p>		
Senior level supervisor/division manager name:	Ben Gould	
<b><u>Contract Output: SRNS2011IS-01 – Biomass Project Support</u></b>		
<p>Biomass Project Support. The Contractor shall meet all SRNS agreed upon scheduled milestones, activities and reviews related to construction and startup of the Biomass Cogeneration Facility and the K and L Area Biomass Heating Plants.</p> <p><b>Up to \$800,000 of the allocated PBI fee will be paid for Contract Output 1.</b></p>		
<b>Description/Background/Justification:</b>		
<p>The purpose of the new Biomass Cogeneration Facility and the K and L Area Biomass Heating Plants is to provide reliable steam while maximizing the use of a renewable energy source. The impacts associated with not successfully constructing and starting up these new facilities in a timely manner include: (1) the inability to provide reliable steam to facilities such as the Tank</p>		

Farms, DWPF, and K and L Areas, (2) not meeting target dates for deactivation of the 484-D powerhouse, and (3) incurring additional delays in achievement of renewable energy goals outlined in current federal legislation. Infrastructure Services will be utilized as a technical agency to provide operational, technical, and logistical input on matters associated with the multitude of utility services, interfaces, and impediments to help ensure successful execution of the project.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011IS-01.01	9/30/2011	\$50,000	Facilitate onsite permit development and approval process.	DOE-SR will review SRNS document log of completed permit documentation activities.
SRNS2011IS-01.02	9/30/2011	\$100,000	Provide infrastructure liaison support (SME, CTM, performing observations, e.g. project schedule, review of commissioning plan, procedure/training, maintenance etc.) to facilitate Ameresco's schedule, and identifying impediments and facilitating GFSI.	DOE-SR will review SRNS document log of reviewed impediments that have been identified and overcome, including documentation of specific mitigation activities.
SRNS2011IS-01.03	5/31/2011	\$100,000	Provide Steam Outage Coordination for Biomass Cogeneration Facility (BCF) steam tie-in per agreed upon schedule.	DOE-SR will review SRNS steam outage documentation.
SRNS2011IS-01.04	9/30/2011	\$100,000	Provide River Water tie-in & Electrical tie-in Coordination for Biomass Cogeneration Facility (BCF).	DOE-SR will review SRNS electrical and river water outage documentation.
SRNS2011IS-	9/30/2011	\$50,000	Perform document	DOE-SR will



01.05			reviews requested by DOE within agreed upon timeframe.	review SRNS document log of completed document reviews, including resulting feedback/recommendations/assistance.
SRNS2011IS-01.06	4/30/2011	\$100,000	Support Commissioning of the K & L Biomass Facilities to include consultation to the DOE Readiness Assessment Team.	<ol style="list-style-type: none"> <li>DOE will review the document log of supporting activities provided by SRNS for the commissioning.</li> <li>DOE-SR will review the document log of supporting activities provided by SRNS for the DOE Readiness Assessment.</li> </ol>
SRNS2011IS-01.07	6/30/2011	\$300,000	Develop 484-D powerhouse to Biomass Cogeneration Facility (BCF) Transition Strategy with the following: Coordination of the Steam and Electrical Supply Transition, River Water Pump operating contingency strategy, River Water Supply Line Re-commissioning strategy, SCE&G Contract Re-negotiation strategy, D Area Powerhouse	DOE-SR will review SRNS Transition Strategy for 484-D Powerhouse.

			Stand-by operational strategy, Development of a Traffic Plan which establishes traffic flow patterns/ options for Biomass Cogeneration Facility (BCF) Project.	
<b><u>Contract Output: SRNS2011IS-02 - D Area Reliability Enhancements</u></b>				
This scope will facilitate the continued, uninterrupted operation of the D-Area powerhouse by providing necessary or critical equipment upgrades, rebuilding / refurbishments, and/or replacements outside of routine or normal corrective maintenance necessary to meet the Facility’s mission of providing steam to the F/H/S Steam System until the Ameresco Biomass Facility is operational in FY2012.				
<b>Up to \$700,000 of the allocated PBI fee will be paid for Contract Output 2.</b>				
Senior level supervisor/division manager name:			Ben Gould	
<b>Description/Background/Justification:</b>				
<p>The D-Area 484-D Powerhouse serves SRS facilities by exporting both steam and electrical power. The powerhouse currently contains four coal-fired boilers, seven turbine generators, and support systems / equipment. Steam is exported to the following facilities: H Canyon, F&amp;H Tank Farms, Tritium, DWPF and F&amp;H Analytical Laboratory. Additionally, electrical power is generated at 484-D and exported to the Site 115KV grid for sitewide use.</p> <p>This powerhouse has been in operation since the early 1950s, and a need for the facility beyond 2005 was not anticipated as a result of a planned replacement powerhouse. Based on this plan, a patch / corrective maintenance strategy with little or no preventive maintenance was employed by SCE&amp;G during the ten years the powerhouse was under their jurisdiction (1995 to 2005). Due to the age of the equipment and this maintenance strategy, the reliability of the powerhouse has deteriorated to the point of failure. The replacement powerhouse has since been delayed until FY2012. Therefore, the D-Area 484-D powerhouse must continue to meet the site missions until this new powerhouse is constructed and operational. Upgrades and replacements began in FY2010 with the approval of a PBI milestone.</p>				
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Completion Criteria</b>	<b>Acceptance Criteria</b>
SRNS2011IS-02.01	9/30/2011	\$350,000	Provide materials and labor to inspect and perform corrective maintenance and	DOE-SR will conduct physical walkdown and final acceptance inspection

			repairs to four (4) Turbine generators at 484-D to ensure capability for power and steam generation.	of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.
SRNS2011IS-02.02	9/30/2011	\$150,000	Perform system analysis and risk assessment to determine strategy for critical repairs on 2 boiler systems (e.g. boiler tubes, bunker walls) to ensure steam generation to support Site missions. Perform critical repairs on 2 boiler systems.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.
SRNS2011IS-02.03	9/30/2011	\$100,000	Perform precipitator structural repairs to a minimum of two boilers to ensure steam generation to support Site missions and air emission compliance.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.
SRNS2011IS-02.04	9/30/2011	\$100,000	Refurbish selected sections of the ash removal system for 484-D powerhouse, based on Engineering evaluations, to ensure environmental compliance and continued steam generation.	DOE-SR will conduct physical walkdown and final acceptance inspection of completed infrastructure upgrades and/or completed work packages with examples of before and after pictures for validation documentation.

**Contract Output: SRNS2011IS-03 - Sustainability Initiative**

The Contractor shall meet all SRNS agreed upon scheduled milestones and activities to ensure continued focus and development of sustainability efforts.

**Up to \$200,000 of the allocated PBI fee will be paid for Contract Output 3.**

Senior level supervisor/division manager name:	Donell Jenkins
--	----------------

**Description/Background/Justification:**

In FY10, DOE approved a Complex-wide Strategic Sustainability Performance Plan. This plan addresses such topics as greenhouse gas emission reductions, High Performance Sustainable

Buildings, water use, and pollution prevention / waste elimination. DOE sites have been tasked to make progress toward goals established for 2015 and 2020.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011IS-03.01	1/31/2011	\$25,000	Develop an SRS Sustainability Plan to ensure SRS is working toward goals outlined in the Strategic Sustainability Performance Plan (SSPP) prepared by DOE-HQ.	DOE-SR will review the SRS Sustainability Plan.
SRNS2011IS-03.02	9/30/2011	\$175,000	Implement planned FY11 High Performance Sustainability Building Guiding Principles compliance activities in 15% of existing building square footage.	DOE-SR will review summary report of activities accomplished to meet the planned Guiding Principle compliance actions.

**Contract Output: SRNS2011IS-04 Facilities and Infrastructure**

The Contractor shall build, modernize, and/or maintain facilities and infrastructure to achieve mission goals and ensure a safe and secure workplace for all SRS personnel. In support of this, the Contractor will also execute a strategy to disposition legacy Oil filled Circuit Breakers (OCBs) and Transformers per the regulatory requirements of Toxic Substances Control Act (TSCA) Regulations 40 CFR 761.

**Up to \$300,000 of the allocated PBI fee will be paid for Contract Output 4.**

Senior level supervisor/division manager name:	Ben Gould
--	-----------

**Description/Background/Justification:**

The infrastructure mission is to efficiently configure and optimize SRS infrastructure to meet the 21<sup>st</sup> century stewardship programs. Although SRS is gaining new missions, the infrastructure is approaching 60 years old. In addition, over the past 10 years, funding for infrastructure repairs/replacements has declined considerably as budget pressures increased and funds were needed to support direct mission activities. New and existing missions can be performed safely and efficiently only with a reliable infrastructure in place. The Contractor will re-invest in Site Infrastructure through the implementation of repairs and upgrades as identified in the approved Infrastructure Mission Alignment Plans. The scope will include projects or purchases from the **SRNS Critical Infrastructure Improvement Projects IPL** which are currently identified in the SRS FY11-FY16 baseline and emergent work that is performed relative to the improvement of the site infrastructure.

Number	Date	Fee	Completion Criteria	Acceptance Criteria
--------	------	-----	---------------------	---------------------

SRNS2011IS-04.01	9/30/2011	\$75,000	Develop a scope of work, and complete the disposition of 35 legacy Oil filled Circuit Breakers (OCBs) and 12 Transformers.	DOE-SR will conduct physical walkdown to verify all Transformers and OCBs have been shipped offsite and/or review the applicable shipping documentation (either waste manifest or bill of lading) for validation of the completion of the project.
<del>SRNS2011IS-04.02</del> (deleted)				
<del>SRNS2011IS-04.03</del> (deleted)				
SRNS2011IS-04.04	9/30/2011	\$25,000	Make intermediate improvements to habitability issues associated with the SRSO/EOC and address obsolescence / performance issues within the “alternate” EOC facility and develop a scope of work which will identify the future funding needs.	DOE-SR will conduct physical walkdown, and will review Final Acceptance Inspection (FAI) for the completed project, and will review scope of work for the “alternate” EOC facility.
SRNS2011IS-04.05	9/30/2011	\$150,000	Replace the 785-A Cooling Tower.	DOE-SR will conduct a physical walkdown and will review Final Acceptance Inspection (FAI) for the completed project.
SRNS2011IS-04.06	9/30/2011	\$25,000	Replace 50 older HVAC units (at 8 to 10 SEER) with 410-A units that are more efficient with 13 to 14 SEER ratings.	DOE-SR will conduct physical walkdown and review Final Acceptance Inspection (FAI) of completed infrastructure upgrades and completed work packages.
SRNS2011IS-04.07	7/31/2011	\$25,000	Coordinate and conduct a sitewide steam outage and ensure necessary repair work is completed with minimal	DOE-SR will review the schedule performance, the assessment of the outage performance

			disruption in mission work.	(including level of disruption), and the completed work packages.
--	--	--	-----------------------------	---



## Performance Incentive Document

<b>PBI Number:</b>	SRNS2011NMO	
<b>Activity Name:</b>	Nuclear Material Operations	
<b>WBS Number:</b>	1.29.20.04.01, 1.29.20.05.01, 1.29.20.04.02	
<b>Performance Period:</b>	October 1, 2010 - September 30, 2011	
<b>Allocated Fee:</b>	\$8,600,000	
<b>Revision Number:</b>	4	
<b>Senior level manager:</b>	Pat McGuire	
<b>Senior level supervisor/division manager:</b>	Vickie Wheeler	
<b>Contract Performance Outcome:</b>		
<p>Receive, store, ship, and disposition nuclear materials in a safe, and secure manner. Operate and maintain the H Canyon Complex to support disposition of nuclear materials and used nuclear fuel (UNF) in coordination with the NNSA Nuclear Nonproliferation Program and other applicable DOE programs. De-inventory and transition excess nuclear facilities and ancillary structures for D&amp;D.</p>		
<b><u>Contract Output: SRNS2011NMO-01</u></b>		
<p>Receive, store, characterize, and disposition surplus uranium materials and UNF.</p>		
<b>Description/Background/Justification:</b>		
<p>Enriched Uranium Disposition (EUD) requires receiving, dissolving, processing and blending the high enriched uranium (HEU) metals, oxides and UNF down to low enriched uranium (LEU).</p> <p>Activities associated with the contract outputs below support receipt and processing of enriched uranium and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials (including used nuclear fuel), supporting nuclear nonproliferation, utilizing SRS facilities to process surplus</p>		

nuclear materials and UNF for reuse in commercial power reactors.

**GFSI:** BRR cask availability required for BRR cask equipment testing, training, dry-runs, and assessment (10/31/10). The LANL HEU “Fines” must all arrive by commercial shipment to H Canyon (not KAC) by 12/15/10. SA/ROD for UNF required by July 1, 2011 to meet FY 2011 UNF milestones. If SA/ROD is not approved by July 1, 2011, DOE authorizes SRNS to renegotiate the fee from milestones NMO-01.01 and NMO-01.05 after July 1, 2011 to other work scope.

**Assumptions:** None.

**Up to \$1,848,000 \$1,580,000 of the allocated PBI fee will be paid for Contract Output 1 as follows:**

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-01.01	9/30/11	\$93,000; \$3000 per bundle shipped; invoiced quarterly	Load and ship 31 bundles of UNF from L to H.	DOE-SR will review L-Area UNF to H-Area shipping logs/documentation.
SRNS2011 NMO-01.02	9/30/11	\$500,000; \$125,000 fee paid each quarter	Receive and unload FRR/DRR fuel per schedule.	DOE-SR will review Cask Data Sheets for casks received and unloaded against the Receipt and Unloading Schedule Agreement.
SRNS2011 NMO-01.03	5/31/11	\$150,000	Complete actions to receive and unload BRR Cask in L-Area (exclusive of crane readiness)	DOE-SR will confirm: SRNS submitted high quality SRNS-approved DSA; SRNS approved procedure (SOP- DHS-160-L) has been SRNS validated; CHAP/NCSE has been SRNS approved, and BRR cask rigging is located in L Area.
SRNS2011 NMO-01.04	9/30/11	Up to \$460,000; \$30,000 per trailer for the first 12; invoiced quarterly; \$50,000 per	1) Ship 12 LEU trailers in FY11. 2) Ship two additional full (9 containers each) LEU trailers (numbers 13 and 14).	DOE-SR will review MC&A form 741 (transfer documentation) for each LEU trailer.



		trailer for the two additional trailers.		
<del>SRNS2011 NMO-01.05</del>	9/30/11	Up to \$260,000; \$10,000 per bundle; invoiced quarterly	<del>Charge 26 bundles of UNF</del>	<del>DOE-SR will review UNF dissolver log sheets / documentation.</del>
<del>SRNS2011 NMO-01.06 (deleted)</del>				
SRNS2011 NMO-01.07	1/31/11	\$215,000; \$26,875 per drum	Dissolve 8 ES3100 drums of LANL fines in 6.1D. GFSI: Final shipment will be provided by 12/15/10.	DOE-SR will review dissolver log sheets / documentation.
SRNS2011 NMO-01.08	6/30/11	<del>\$50,000;</del> <b>\$75,000;</b> \$25,000 on 3/31/11 and \$25,000 on 6/30/11. <b>\$25,000 on 9/30/11.</b>	Maintain L Area proficiency by periodically shipping cask cars with dummy bundles from L to H. <del>This ensures compliance with Public Law 108-136.</del>	DOE-SR will review L Area logbooks to verify periodic cask car shipments.
SRNS2011 NMO-01.09	6/30/11	<del>\$120,000;</del> <b>\$180,000;</b> \$60,000 on 3/31/11 and \$60,000 on 6/30/11. <b>\$60,000 on 9/30/11.</b>	Maintain H Canyon operator proficiency on Dissolving Unit Ops. <del>This ensures compliance with Public Law 108-136.</del>	DOE-SR will review H Area logbooks or procedures to verify periodic charging of dummy bundles into the Mockup Dissolver.

**Contract Output: SRNS2011NMO-02**

Receive, store, characterize and disposition surplus plutonium materials.

**Description/Background/Justification:**

H Area facilities are scheduled to process surplus plutonium materials and transfer the plutonium solution to the Defense Waste Processing Facility for disposition. Plutonium oxide removed from 3013 containers are repackaged and temporarily stored in K-Area until it is shipped to H Area facilities for processing. H Area facilities will also process other surplus plutonium materials such as GFSI metals and EU/Pu metals.

Activities associated with the contract outputs below support receipt, storage, and processing of surplus plutonium and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting nuclear nonproliferation, and utilizing SRS facilities in collaboration with NNSA to store or disposition surplus plutonium.

**Assumptions:** None. **GFSI:** DOE will provide WIPP Termination of Safeguards (downgrade to Type D material without ball milling) by 5/15/11. DOE will revise existing NEPA Interim Action for direct disposal of DE-3013 by 5/15/11. DOE will provide 3 WIPP acceptable pipe overpack containers (POCs) for training by 5/30/11 and an additional 70 POCs by 6/30/11. Approval of WIPP Acceptable Knowledge (AK) characterization by 6/30/11 assuming SRNS provides AK by 5/31/11. DOE will approve Onsite Shipping Analysis for POCs by 6/30/11 if SRNS delivers a high quality document by 5/31/11. **Up to ~~\$2,538,000~~ \$2,763,000 of the allocated PBI fee will be paid for Contract Output 2 as follows:**

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-02.01	9/30/11	\$130,000; \$10,000 per can measured; invoiced quarterly	Prompt Gamma measurements of (13) 3013s in KIS	DOE-SR will review prompt gamma measurement data / documentation.
SRNS2011 NMO-02.02	9/30/11	\$240,000; \$20,000 per can; invoiced quarterly	12 Destructive Evaluation (DE) Surveillances.	DOE –SR will review operations log of DE completed and review of Surveillance Program Authority (SPA) Data Set 1 parameters for the DE samples.
SRNS2011 NMO-02.03	9/30/11	\$100,000; \$25,000; invoiced quarterly	K-Area SNM Receipts	DOE-SR will verify drums stored in K-Area.
SRNS2011 NMO-02.04	9/30/11	<del>\$300,000;</del> <b>\$525,000;</b> \$7,500 per	K-Area Uranium measurements of (40) (70) 3013s;	DOE-SR will review uranium measurement data / documentation.

		3013 measured; invoiced quarterly	results are not required to fall in acceptance range.	
SRNS2011 NMO-02.05	9/30/11	\$300,000; \$75,000; invoiced quarterly	Prepare and ship Pu items from KAC to support H-Canyon and HB-Line dissolution.	DOE-SR will review documentation of Pu and EU/Pu shipments from KAC to H.
SRNS2011 NMO-02.06	1/31/11	\$50,000	OSA submittal to DOE-SR for 9975 shipments from KAC to H.	Submit high quality SRNS approved OSA.
SRNS2011 NMO-02.07	12/31/10	Up to \$150,000; \$50,000 for each drum processed.	Complete 12 drums LAP Dissolution Campaign.	DOE-SR will review LAP dissolver log sheet / documentation.
SRNS2011 NMO-02.08	9/30/11	\$235,000; \$9,400 fee per kg dissolved; invoiced quarterly	Dissolve 25 kgs DE-3013 (total oxide).	DOE-SR will review DE3013 log sheet, FRM 221-HB-830 documentation.
SRNS2011 NMO-02.09	9/30/11	\$200,000	HB-Line 3009 DSA Submittal (to include repack of non-moxable 3013 oxides for either dissolution in HB-Line or blending for WIPP).	Submit high quality SRNS approved DSA.
SRNS2011 NMO-02.10	9/30/11	\$75,000	Revise K-Area DSA to allow storage of "special items" in culverts outside 105-K.	Submit high quality SRNS approved DSA.
SRNS2011 NMO-02.11	9/30/11	\$300,000	Consolidate Bulk Pu for H Canyon and HB-Line for Sludge Batch 8.	DOE-SR will review that bulk Pu is stored in three or less Canyon tanks by a review of Pu Concentration round sheet.

SRNS2011 NMO-02.12	3/31/11	\$75,000	Detailed Bulk Flush Plan for HB-Line from RD-13 / 14 to 11.1.	DOE-SR will review the SRNS approved Bulk (single volume) Flush Plan.
SRNS2011 NMO-02.13	9/30/11	\$300,000; 1) \$45,000; 2) \$45,000; and 3) \$210,000, payable at \$3000 for each Pipe Overpack Container (POC).	1) Complete WIPP demonstration CHAP and USQ 2) Develop and approve procedures for WIPP demonstration 3) Blend and package 70 POCs, not shipped to WIPP.	DOE-SR will review: 1) SRNS approved WIPP demonstration CHAP and USQ 2) all Operations procedures for WIPP demonstration have been SRNS validated 3) SRNS has loaded 70 POCs and transferred at least 35 POCs to E Area, but not shipped to WIPP.
SRNS2011 NMO-02.14	9/30/11	\$83,000	Technical evaluation whether a single F Canyon Exhaust Fan is sufficient after TRU processing.	DOE-SR will review technical evaluation that shows whether one Canyon Exhaust Fan is required after TRU processing.

**Contract Output: SRNS2011NMO-03**

Uranium and Plutonium throughput improvement and preparation initiatives.

**Description/Background/Justification:**

In order to disposition all the various Uranium and Plutonium items, preparations for each campaign must be completed including DSA, NCSE, and facility mods. In order to increase throughput and interim storage of plutonium awaiting a sludge batch, additional DSA, NCSE and facility mods are required. This Contract Output integrates both initiatives to minimize changes and maximize work performed.

The contract outputs below support receipt, storage, and processing of surplus nuclear materials or UNF and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting nuclear nonproliferation, utilizing SRS facilities in collaboration with NNSA to store or disposition surplus plutonium, or utilizing SRS facilities to process surplus nuclear materials and UNF for reuse in commercial power reactors.

**GFSI:** None identified.

**Up to \$2,481,000 of the allocated PBI fee will be paid for Contract Output 3 as follows:**

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-03.01	5/15/11	\$200,000	Modify waste processing route (8.7 to 8.1) for 1DW to be processed in HAW 9.1E and 9.2E to reduce 2nd U cycle time.	DOE-SR will review completed procedures and work packages.
SRNS2011 NMO-03.02	5/30/11	\$25,000	Complete HB-Line Phase II flush	DOE-SR will review completed procedures/documentation.
SRNS2011 NMO-03.03	1/31/11	\$100,000	Perform three VSD runs in HB-Line glovebox.	DOE-SR will review completed packages or visually verify by walkdown.
SRNS2011 NMO-03.04	3/31/11	\$70,000	Revise 221-H DSA. Examples include: reduced cell cover restrictions during waste neutralization, LR-56 increased MAR limits, HAW temperature controls to SC, increase post seismic air purge. (DSA revision submittal to DOE, not approval)	Submit high quality SRNS approved DSA.
SRNS2011 NMO-03.05	3/31/11	\$50,000	Develop Staffing Plan and impacts from DOE Letter of Direction, 2/8/11.	DOE-SR will review SRNS submitted high quality documents.

SRNS2011 NMO-03.06	7/31/11	\$200,000	Complete K-Area PAV Construction, with the exception of opening the KAMS wall and closing the North wall.	DOE-SR will review completed construction work packages and perform a walkdown verification.
SRNS2011 NMO-03.07	9/30/11	\$100,000	3009 DSA Evaporator SC steam valve installations.	DOE-SR will review completed work packages/ documentation or visually verify by walkdown.
SRNS2011 NMO-03.08	8/15/11	\$200,000	Complete design and model of bundle storage rack in 717-F.	DOE-SR will review bundle storage rack design and model in 717-F.
SRNS2011 NMO-03.09	9/30/11	\$150,000	Complete "Proof of Concept" study to determine use of the VSD to potentially convert non-MOXable to MOXable plutonium.	DOE-SR will review study.
SRNS2011 NMO-03.10	9/30/11	\$175,000	Facility Acceptance of PAV MAA	DOE-SR will verify PAV MAA is established.
SRNS2011 NMO-03.11	1/20/11	\$35,000	Develop "Case 3 Preliminary De-inventory and Flush Plan" to remove bulk SNM.	DOE-SR will review De-inventory and Flush Plan.
SRNS2011 NMO-03.12	6/15/11	\$416,000; \$1,000 per kg, invoiced quarterly. (416 kgs is the estimated quantity; the final amount of EU will	Complete processing of the EUS tank material through the solvent extraction cycles.	DOE-SR will review processing logs.

		be determined based on the EUS tank being pumped to heel, refilled, and pumped back to heel.)		
SRNS2011 NMO-03.13	12/31/10	\$35,000	Develop detailed scope and schedule to move Heavy Water from K Area to C Area.	DOE-SR will review scope and schedule.
SRNS2011 NMO-03.14	9/30/11	\$475,000	Up to \$475,000; reduce F Canyon S&M to: 1) \$10M or less (at a 0.74 burden rate) per year starting in FY12 for \$475,000; or 2) \$12M or less (at a 0.74 burden rate) per year starting in FY12 for \$350,000.	DOE-SR will review FY12 BOE for F Canyon PBS 11C.
SRNS2011 NMO-03.15	9/30/11	\$100,000	SRNS will submit L Area DSA to DOE, to include 420.1B.	SRNS will submit high quality SRNS-approved DSA.
SRNS2011 NMO-03.16	9/30/11	\$100,000	Complete actions to make VTS racks in the dry cave available for use.	DOE-SR will review the SRNS approved DCA, 302 manual revision, rack positions are labeled and the positions in LANMAS are enabled.
SRNS2011 NMO-03.17	9/30/11	\$50,000	Implement a plan to reduce the quantity of each SRNL DE sample to 28 grams or less.	DOE-SR will review the SRNS implementation for the reduction of DE sample quantity.

**Contract Output: SRNS2011NMO -04**

Infrastructure / Facility life extension

**Description/Background/Justification:**

Continuing operations increases the risk of an unplanned failure of a system, structure or component (SSC) that supports nuclear material operations. Many SSCs are old and are very expensive to replace and flat funding for infrastructure upgrades has limited the amount of spares that can be kept in inventory.

772-1F Fire Protection modifications replace the Fire Alarm Control Panels and all associated devices.

The contract outputs below support receipt, storage, and processing of surplus nuclear materials and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting nuclear nonproliferation, utilizing SRS facilities in collaboration with NNSA to store or disposition surplus plutonium, or utilizing SRS facilities to process surplus nuclear materials and UNF for reuse in commercial power reactors.

**GFSI:** NNSA funding is available for use by 10/1/10 to refurbish third cask and rail car for UNF shipments. DOE will approve DSA rev for L Basin Vacuum System within 30 days. Source of funding for the Purification roof repair (Contract Output 04.13) must be identified and made available by 4/15/11.

**Up to ~~\$1,733,000~~ \$1,776,000 of the allocated PBI fee will be paid for Contract Output 4 as follows:**

Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 NMO-04.01	6/15/11	\$150,000; 1) \$125,000 if completed by 7/31/11; 2) \$150,000 if completed by 6/15/11.	Complete L Area 85/30 ton crane upgrade.	DOE-SR will review completed work packages and verify return to service.
SRNS2011 NMO-04.02	9/30/11	\$200,000	Complete 772-1F Fire Protection Modifications.	DOE-SR will review completed work packages.
SRNS2011 NMO-04.03	1/31/11	\$75,000; \$25,000 per installed	Install three Z Band Manipulators in 772-F.	DOE-SR will review completed work packages or visually



		manipulator.		validate by walkdown.
SRNS2011 NMO-04.04	9/30/11	\$100,000	Complete design for the 285-H substation.	DOE-SR will review approved substation design.
SRNS2011 NMO-04.05	9/30/11	\$100,000	Complete design for the K Area 13.8KV switchgear.	DOE-SR review of approved K-Area switchgear design.
SRNS2011 NMO-04.06	9/30/11	\$100,000	Replace roof over 911 Fan Room in K-Area.	DOE will review completed work packages or visually validate by walkdown.
SRNS2011 NMO-04.07	5/31/11	\$100,000	Replace ARU Condenser Column.	DOE-SR will review completed work packages.
SRNS2011 NMO-04.08	1/15/11 or no later than the L-Area crane outage begins	\$125,000	Complete upgrade of a third 70 ton cask and rail car.	DOE-SR will review completed work packages.
SRNS2011 NMO-04.09	9/30/11	\$150,000	Install three cryostats in 772-1F.	DOE-SR will review completed work packages or visually review by walkdown.
SRNS2011 NMO-04.10	9/30/11	\$208,000; \$4,000 per connector; invoiced quarterly.	Fabricate and install 52 Hanford dummy connectors on open Cooling Water Out nozzles.	DOE-SR will review completed work packages or visually validate using Crane monitors.
SRNS2011 NMO-04.11	2/28/11	\$100,000	Fabricate, install and functionally test the L Basin Vacuum System to operable service and clean the Transfer Pit.	DOE-SR will review completed work packages or visually validate by walkdown.
SRNS2011 NMO-04.12	9/30/11	\$50,000	Vacuum HTS in L Area (excluding resin affected zone).	DOE-SR will review completed work packages or visually validate by walkdown.

SRNS2011 NMO-04.13	9/30/11	\$100,000	Complete Purification roof repair in KAC.	DOE-SR will review completed work packages or visually validate by walkdown.
SRNS2011 NMO-04.14	9/30/11	\$75,000; \$25,000 per installed manipulator.	Purchase 4 Z Band Manipulators and install 3 in 772-1F.	DOE-SR will review completed work packages or visually validate by walkdown.
SRNS2011 NMO-04.15	9/30/11	\$100,000; \$25,000 per SOM reduced	Consolidate and reduce headcount in PBS 11C by one SOM in F Area per shift after completion of cross qualification.	DOE-SR will review revised organization chart and qualification records.
SRNS2011 NMO-04.16	9/30/11	\$43,000	Complete 2 design packages to install a post indicator valve in the 772-1F courtyard, a fire department connection on the north wall of 772-1F and expand sprinkler coverage.	DOE-SR will review completed design packages.



## Performance Incentive Document

<b>PBI Number:</b>	SRNS2011SRNL			
<b>Activity Name:</b>	Savannah River National Laboratory (SRNL)			
<b>WBS Number:</b>	Multiple			
<b>Performance Period:</b>	October 1, 2010 - September 30, 2011			
<b>Allocated Fee:</b>	\$2,000,000			
<b>Revision Number:</b>	2			
<b>Senior level manager name:</b>			Karen Hooker	
<b>Senior level supervisor/division manager name:</b>			Ann Thomas	
<b>Performance Outcome:</b>				
SRNL's three-fold mission is to enable the success of SRS and the Office of Environmental Management (EM) operations and projects, to provide technical leadership for future site missions, and to utilize its technical expertise to provide vital national and regional support in achieving the broader goals of DOE and the federal government. The vision for SRNL is to be the nation's premier applied science laboratory in Environmental Management, National & Homeland Security, and Energy Security. A primary goal is to position SRNL into a financially sustaining, distinct business unit.				
<b><u>Contract Output: SRNS2011SRNL-01</u></b>				
<b>Enable EM Mission Accomplishment.</b>				
<b>Up to \$1,250,000 of the allocated PBI fee will be paid for Contract Output 1</b>				
<b>Description/Background/Justification:</b>				
Lead the EM Engineering and Technology program to reduce the risk associated with legacy defense nuclear and industrial cleanup. Develop and implement major new initiatives to provide science-based approaches to the EM mission.				
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Completion Criteria</b>	<b>Acceptance Criteria</b>
SRNS2011 SRNL-	Quarterly	<b>\$1,250,000</b>	The contractor shall provide objective	Review and evaluate work deliverables and

01.01			<p>evidence demonstrating satisfactory completion of quality products and provision of services (such as flow sheets, technology development and deployment) to reduce the technical risks of EM operations and projects at SRS and across DOE. This includes technical support to DOE-EM HQ, Nuclear Materials Stabilization Project, Liquid Waste Operations, Closure Project, and the EM DOE Complex. Quarterly reports of progress will be provided. Funding, scope and schedule will be provided by EM-HQ and EM Customers. As EM customers task SRNL with work scope throughout FY11, SRNL will document the status of deliverables and milestones for each project and track progress.</p>	<p>documentation quarterly to validate completion of milestones and deliverables. Solicit customer feedback to assess quality of SRNL work products and support.</p>
<p><b><u>Contract Output: SRNS2011SRNL-02</u></b></p> <p><b>Enhance SRNL Infrastructure and Facility Safety.</b></p> <p><b>Up to \$650,000 of the allocated PBI fee will be paid for Contract Output 2.</b></p>				
<p><b>Description/Background/Justification:</b> Secure additional sponsors, missions, and funding, including development of enduring funding sources, to support Laboratory infrastructure to meet laboratory needs for future mission support while sustaining safety performance excellence.</p>				
Number	Date	Fee	Completion Criteria	Acceptance Criteria

SRNS2011 SRNL - 02.01	9/30/2011	<p>a. \$35K</p> <p>b. \$35K</p> <p>c. \$35K</p> <p>d. \$35K</p> <p>e. \$30K</p> <p>f. \$30K</p> <p>g. \$15K</p> <p>h. \$50K</p>	<p>Implement the following approved IGPPs for FY11 (assumes \$4M IGPP funds available):</p> <p>a. Replace Air Compressors CMP-2 and CMP-3 and Air Dryers, 775-A (LF0903)</p> <p>b. Replace Plenum Room HVAC Unit for Rooms 131 &amp; 132, 736-A (LF1034)</p> <p>c. Replace HVAC Unit - Standards Lab - Room 124, 736-A (LR0512)</p> <p>d. Install B-Wing HAD Exhaust Filter Housing, 773-A (LF0618)</p> <p>e. Replace Fire Alarm Panel in 773-A, Room C-041 (Control Room) and 773-41A &amp; 42A(LF1212)</p> <p>f. Replace HVAC Unit for Environmental Sciences Lab, 736-A (LF0617)</p> <p>g. Y626, Replace HVAC Unit, 736-A, Environmental Sciences Lab: Set HVAC unit assembly in place on pad.</p> <p>h. Y625, Connect Chilled Water Supply to 735-11A: Set underground piping in place and complete hydrotest for underground piping.</p>	<p>(a-e) Mechanical Field complete through Final Acceptance Inspection (8Q, 51) ready for turnover for testing.</p> <p>(f) Complete design and issue purchase orders for major equipment in prep for outage and installation in FY2012.</p> <p>(g) Field walk down of unit set in place on pad.</p> <p>(h) Review and evaluation of hydrotest documentation for underground piping.</p>
SRNS2011 SRNL - 02.02	9/30/2011	<p>\$70,000</p> <p>b. \$15K</p>	<p>Complete the following major maintenance cost work items:</p> <p>a. Complete Replacement E-Wing Air Handling Unit, SRNL - EP-20984 HVAC Supply Unit on Upper E-Wing Roof, 773-A (LF0612, Work Order # 953401)</p> <p>b. Replace HVAC-FAN-209004 (Heat pump) located on D Wing Roof - Work Order # 894444.</p> <p>c. Complete design and work package preparation for Installation of New Lighting System in E-079, 773-A - Work Order 920956</p>	<p>(a &amp; b &amp; e) Mechanical Field complete through Final Acceptance Inspection (8Q, 51) ready for turnover for testing.</p> <p>(c &amp; d) Review and evaluation of design and work package documents.</p>

			d. Complete design and work package preparation for Increasing size of 125# Steam Regulator MST-PCV-6105. (This would increase the regulator size to 2" providing greater steam capacity). e. Replace 15 HVAC package units.	
SRNS2011 SRNL - 02.03	6/30/2011	\$15,000	Implement SRNL Multi-Media capability in 703-41A Conference center. (Includes guest conferencing and video conferencing).	Equipment is installed and ready for use.
SRNS2011 SRNL- 02.04	9/30/2011	\$95,000	Execute DNFSB 2004-2 Projects as follows: a. SRNL B/C OGE Standby Fan Autostart. Complete Design Input Document (Modification Traveler). Issue Autostart Design for review. b. SRNL B/C CHEX HEPA Bank Blanks. Develop Work Package for first HEPA Bank Blank installation. Complete first HEPA Bank Blank installation as model for remaining locations for finalizing schedule and costs. c. SRNL E Wing Ventilation (Project Y189). Complete Power Feed Modification Design. Complete Shop Work Packaging and Shop Fabrication of HEPA support structure. d. SRNL E Wing Supply and Exhaust Interlocks. Complete Design Input document (Modification Traveler). Issue Interlock Design for review.	a. Review and evaluation of design review package.  b. Review and evaluation of Work Package and installation.  c. Review and evaluation of design and fabrication.  d. Review and evaluation of design review package.
SRNS2011 SRNL- 02.05	9/30/2011	\$55,000	Execute Elevator Cylinder Replacement Project in 773-A. This assumes funding is approved by 11/1/2010.	Receive replacement cylinders and complete installation for two of the four elevators through Final

				Acceptance Inspection (8Q, 51) ready for turnover for testing.
SRNS2011 SRNL- 02.06	9/30/2011	\$150,000	SRNL DSA Upgrade Project – Complete Hazards Analysis (CHA), Control Selection and Accident Analysis calculation(s) sections of the DSA. Also, submit DSA update related to Defense in Depth/Important to Safety (DID/ITS) controls.	Review SRNS approved CHA and Control Selection and Accident Analysis calculation(s) documents/lists. Review DSA update submittal associated with DID/ITS controls.
<p><b><u>Contract Output: SRNS2011SRNL-03</u></b></p> <p><b>Establish SRNL as a preferred partner for industry, universities and small businesses.</b></p> <p><b>Up to \$100,000 of the allocated PBI fee will be paid for Contract Output 3.</b></p>				
<p><b>Description/Background/Justification:</b> Provide resources and tools for developing leading edge technologies in support of the industrial, economic, and educational strength of the United States.</p>				
Number	Date	Fee	Completion Criteria	Acceptance Criteria
SRNS2011 SRNL - 03.01	2/28/2011	\$25,000	While maintaining compliance with DOE Order 142.3a (Unclassified Foreign Visits and Assignments Program) and DOE Order 481.1C (Work for Others), revise SRNS procurement and Work for Others (WFO) procedures to facilitate work where foreign nationals may be involved.	Review and evaluation of revised procurement and WFO procedures supporting milestone completion.
SRNS2011 SRNL - 03.02	7/31/2011	\$25,000	Complete partnership agreements with at least 2 more Universities for the Savannah River University Alliance.	Review and evaluation of partnership agreements.
SRNS2011 SRNL - 03.03	9/30/2011	\$25,000	Continue in leadership roles in the Congressionally established DOE	Review and evaluation of all completed documents supporting milestone completion.

			Technology Transfer Working Group (TTWG). Select best practices for SRNL from the Speed of Business Study and initiate implementation.	
SRNS2011 SRNL - 03.04	9/30/2011	\$25,000	Complete an SRNL Skills Inventory as addressed in the SRNL Human Capital Plan. Populate SRNS's data base with R&D (only) current staffing and proposed needs for FY12 and outyears.	Review and evaluation of all completed documents supporting milestone completion.





## Performance Incentive Document

PBI Number:	SRNS2011TP	
Activity Name:	Tritium Programs	
WBS Number:	1.03	
Performance Period:	October 1, 2010 - September 30, 2011	
Allocated Fee:	Objective Amount: (45% of allocated fee) Nominal \$5,596,764	Subjective Amount: (55% of allocated fee) Nominal \$6,840,490
Revision Number:	Revision 1  Senior level manager name: Douglas Dearolph  Senior level supervisor/division manager name: Tim Fischer	
<b>Performance Outcome:</b>		
The Contractor shall manage the Tritium program as a defined severable work activity within the Management and Operating (M&O) contract structure so that it will be positioned to be responsive to any future direction with the National Nuclear Security Administration (NNSA) Nuclear Security Enterprise (NSE).		
<b>Contract Output:</b> SRNS2011TP		
The Tritium Performance Fee Agreement has eight contract outputs which are fully developed in the Tritium Performance Based Incentives (PBI). A summary of each contract output is provided below. The Performance Outcome and associated Contract Outputs and Completion Criteria are based on anticipated fully-funded NNSA-Headquarters (HQ) program level Work Authorizations. In the event there are any substantive differences identified in work scope or funding, this PBI will be modified in a timely manner to allow the allocated fee to be earned in FY 2011. The PBI includes both objective and subjective performance elements. The subjective elements will receive an adjectival rating using the enclosed Subjective Rating and Criteria Description table.		

Number	Value	Indicator
SRNS2011TP-01	\$3,109,314	Support the nuclear weapons stockpile by safely providing tritium and non-tritium loaded reservoirs to the Department of Defense and NNSA (i.e., Pantex Plant) in accordance with NNSA guidance and direction. Provides incentive to the contractor to meet all requirements associated with the Helium 3 mission. This output also provides the contractor incentive to facilitate a reduction in the number of classified parts to reduce inventory of legacy classified materials. Provide the contractor incentive to achieve NNSA Reservoir Surveillance Operations work scope that is required for continuing Stockpile certification, Life Extension Program, First Production Unit and related functions.
SRNS2011TP-02	\$373,118	Extraction of tritium from irradiated Tritium-Producing Burnable Absorber Rods (TPBARs).
SRNS2011TP-03	\$248,745	Conduct research and development and Science, Technology and Engineering (ST&E) sustainment activities that solve complex problems related to mission of SRSO and the NNSA. These activities are sponsored by the Readiness and Engineering Campaigns, and Plant-Directed Research & Development (PDRD) and support development activities for NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.
SRNS2011TP-04	\$621,863	Support the Tritium Programs mission by safe and efficient execution of projects.
SRNS2011TP-05	\$1,243,725	NNSA Multi-Site Incentives
SRNS2011TP-06	\$2,487,451	Operations: Maintain the Tritium Facilities in a safe, secure and responsive operating condition

		Facility and Site Management Maintenance Effectiveness Operations and Work Planning Quality Assurance Engineering Nuclear Safety and Fire Protection Radiation Protection National Lab Support to NNSA Training and Qualification
SRNS2011TP-07	\$1,865,588	ES&H and S&S: Maintain the Tritium Facilities in a safe, secure and responsive operating condition.  Emergency Management Health & Safety (excludes fire protection) Environmental Management Waste Management Safeguards and Security Cyber Security
SRNS2011TP-08	\$2,487,451	Business: Maintain the Tritium Facilities in a safe, secure and responsive operating condition  Fiscal Management Contractor Assurance System Program Management Project Management Information Technology/Process Control Modernization Governance

**Evaluation Criteria:**

SRNS2011TP	Objective and subjective evaluation criteria will be used to document review and acceptance of this performance fee agreement.
Objective Evaluation Criteria:	Will be evaluated as performance is completed and will be discussed and documented in the monthly SRSO and contractor performance meeting.
Subjective Adjectival Rating Criteria:	For those Completion Criteria that receive an adjectival grade and numerical score the following table will be used to define the different levels of performance and the corresponding grade/score that goes with the evaluation thereof.

Subjective Rating Criteria	Subjective Rating Evaluation Criteria Description	At Risk Fee Earned
Excellent	Contractor has <u>exceeded almost all</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	91 – 100%
Very Good	Contractor has <u>exceeded many</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	76 – 90%
Good	Contractor has <u>exceeded some of</u> the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	51 – 75%
Satisfactory	Contractor has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	1 – 50%
Unsatisfactory	Contractor has failed to meet overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	0%

**Contract Output 1.** Support the nuclear weapons stockpile by safely providing tritium and non-tritium loaded reservoirs to the Department of Defense and NNSA (i.e., Pantex Plant) in accordance with NNSA guidance and direction.

This work is the highest priority Stockpile Stewardship mission at the Savannah River Site. This Contract Output provides the contractor incentive to meet all Production Directive and shipping commitments on schedule. The work covered by this Contract Output is to accomplish the Directed Stockpile Work (DSW) mission to provide loaded reservoirs in support of the nuclear weapons stockpile, and to meet all monthly directive commitments for delivery of Limited Life Components (LLC) to the Department of Defense and Pantex Plant.

In addition to providing reservoirs to meet LLC directive commitments, a goal of this PBI is to drive the improvement of reservoir quality for each weapon system. The goal is to achieve a high Tritium Production Acceptance Group (TPAG) acceptance rate for each reservoir system.

This Contract Output provides contractor incentive to meet all requirements associated with the Helium-3 mission.

This Contract Output provides contractor incentive to facilitate a reduction in the number of classified parts to reduce inventory of legacy classified materials. The decrease of classified parts is accomplished by unloading reservoirs, and disposing of non-reclaimable reservoirs and other components.

This Contract Output also provides the contractor incentive to achieve NNSA Reservoir Surveillance Operations (RSO) work scope that is required for continuing Stockpile certification, Life Extension Program First Production Unit, and related functions. The Gas Transfer System (GTS) testing program is a key activity in the Nuclear Weapons Stockpile Surveillance Program. The NNSA and Design Agencies have placed a high priority on timely GTS testing and reporting. The on-time delivery of GTS test data provides key information on the performance and aging effects of GTS components, and support decisions for future weapon design.

The work scope consists of function testing, burst testing, nondestructive examinations, and metallographic examination of Stockpile Laboratory Tests (SLTs), Retrofit Evaluation System Tests (RESTs), and similar testing of units from the Life Storage Program (LSP). The work scope also includes testing of production samples. Other activities in support of the surveillance program include loading, unloading, reclamation, and storage of LSP reservoirs. Work scope is considered complete when 1) GTS performance data is documented in Rapid Analysis Promulgated To Obtain Results (RAPTOR) reports and 2)

destructive examination results are documented in Reservoir and Integrated Surveillance Information Network (RAISIN) reports for SLT and REST units, Metallurgical reports for LSP units, and annual production sample pinch weld reports for production samples. Specific work scope is documented and tracked to completion in the RSO schedule.

**Up to \$3,109,314 of the allocated Tritium Programs PBI fee may be earned by Contract Output 1. The available fee, portion of the maximum Contract Output 1 fee, and criteria for payment are as follows.**

Essential Fee

1. \$870,608 available fee for Completion Criterion 1. Monthly fee payments (1/12th of the available fee) will be earned, consistent with successful monthly performance of Completion Criterion 1.
2. \$621,863 available fee of the Contract Output may be earned at the end of the assessment period for the completion of Completion Criterion 2.
3. \$248,745 available fee of the Contract Output may be earned at the end of the assessment period for the completion of Completion Criterion 3.
4. \$497,490 available fee of this Contract Output may be earned for the completion of Completion Criterion 4
5. \$497,490 available fee for Completion Criterion 5. Fee payments will be made quarterly, consistent with completed performance of Completion Criterion 5 at the end of each quarter (December 31, 2010; March 31, 2011; June 30, 2011 and September 30, 2011).
6. \$373,118 available fee for Completion Criterion 6. Fee payments will be made quarterly consistent with completed performance of Completion Criterion 6 at the end of each quarter (December 31, 2010; March 31, 2011; June 30, 2011 and September 30, 2011).

**Completion Criteria**

1. Complete the monthly loading, packaging, and shipping of reservoirs per Savannah River Site Office (SRSO) Production Directive and the monthly shipping schedule.
2. The total reservoir product of all weapon systems will have a facility TPAG acceptance rate of 98.5% or greater for completed items. The weapon systems to be measured are B61, W76-0, W76-1, W78, W80, B83, W87, and W88. The calculation will be annualized such that the defect rate will be based on the total number of reservoirs submitted for inspection during the year. If the TPAG acceptance rate performance is 98.5% or greater, then 100% of the available fee will be earned. The fee earned for this Completion Criterion will be determined as follows:
  - TPAG acceptance rate greater than or equal to 98.5%, fee earned will be 100% of the available fee.
  - TPAG acceptance rate equal to 98.0% but less than 98.5%, fee earned will be 75% of the available fee.
  - TPAG acceptance rate equal to 97.0% but less than 98.0%, fee earned will be 50% of the available fee.
  - TPAG acceptance rate less than 97.0%, no fee will be earned for this Completion Criterion.
3. The Helium-3 program is executed to support the Memorandum of Understanding between the NNSA-SRSO and the Department of Energy (DOE) Isotope Program.
  - a. Process Helium-3 by-product so that it is available for sale through the DOE Isotope Program. This is to be accomplished without adverse impact to the central mission of the H-Area New Manufacturing (HANM) facility.

- b. Quantify the amount of Helium-3 that is currently not recovered from routine gas processing operations by February 1, 2011.
  - c. Define the operational activities or processes with the potential for improved recovery of Helium-3, and quantify the additional amount that could be recovered from each activity or process by April 1, 2011.
  - d. Develop a proposal that outlines opportunities to increase the amount of Helium-3 recovered from routine gas processing operations. Discuss the difficulty and expected cost of each opportunity by June 1, 2011.
4. Dispose of 2634 reservoirs as part of the Classified Parts Reduction program. Criterion is met when reservoirs are stored in waste containers (e.g., B-12/B-25/RD-100) for disposal.
5. Function Testing. Completion of 140 Function Test Equivalents with test data documented in RAPTOR reports.
6. Post-Function Testing. Completion of destructive examinations of 30 LSP units and documentation of results in Metallurgical reports.

## Assumptions

1. For Completion Criterion 1.
  - a. The basis for evaluation will be loading / shipping of Production Directive requirements as specified to the contractor by NNSA-SRSO in a 3 month "look ahead" Production Directive schedule. A new Production Directive will be issued by NNSA-SRSO each month. If SRNS considers that the specified schedule changes will increase costs or delay any delivery, SRNS shall promptly notify the NNSA-SRSO Contracting Officer, orally, followed by confirmation and explanation of the notification in writing within 5 working days. Following submission of the written notice of impacts, SRNS shall await further direction. Shipping is performed in accordance with a monthly shipping schedule. If packaging is completed but a shipment is missed for some reason beyond SRNS control, the Completion Criteria shall be considered complete.
  - b. Performance is evaluated monthly. Any missed shipment as a result of SRNS performance will result in nonpayment for that month's portion of this Contract Output.
  - c. Failure to maintain acceptable quality performance, as indicated by the following established metrics will subject SRNS to the following described fee reductions.
    1. Cost of Non-Conformance (CONC) evaluates the Tritium Facilities cost of nonconformance as compared to the Tritium Facilities total product cost. A fee deduction may be imposed if cost exceeds 1.75% in any month. At the end of the PBI period if the annual CONC is less than or equal to 1%, SRSO may grant payment of any previously unearned CONC fee.
    2. The maximum total fee deduction associated with any month's reservoir shipment (Completion Criteria 1) cannot exceed the monthly maximum fee payment.
2. For Completion Criteria 2, TPAG formula is based on the following;
  - a. The formula for arriving at a Fiscal Year To Date (FYTD) percentage for First- Time Use Evaluation (FUE) is as follows: Combined percentage ((Monthly percentage of finished units accepted + Monthly percentage of reclamation units accepted) /2)

- provides the average monthly percentage. To annualize the monthly averages are added together YTD divided by the number of months YTD.
3. For Completion Criterion 5.
    - a. This PBI will use the Function Test Equivalents which have been developed and jointly agreed upon by SRSO and SRNS. Test equivalents may be modified to respond to changes in testing requirements or methodology by SRSO or the Design Agencies.
    - b. Completed function tests that have not had their respective RAPTOR reports issued before the next fiscal year begins for reasons not attributable to SRNS performance shall not be cause for fee reduction.
    - c. Completion Criteria delays resulting from a function test system or environmental conditioning system malfunction not attributable to SRNS performance will allow the adjustment of the Completion Criteria and reallocation of the fee. SRSO has accepted risk for single-point failure in lieu of additional costs to provide redundant and backup capability.

#### **Government Furnished Services / Items**

1. War Reserve components required from other sites to support the Production Directive must be received at SR, free of defects, with sufficient plant required lead time in advance of the scheduled ship date. Processing and shipping of components not meeting these requirements, and / or due to changes to the Production Directive less than 90 days in advance of the ship date, will be accomplished in a "best effort" manner, and SRNS will not be penalized for failure to meet the scheduled date.
2. The number of reservoirs to prepare for disposal is based upon current direction as to which reservoirs were authorized for disposal. In the event that SRNS is directed to delay disposal of additional reservoir types, the number of reservoirs established in Completion Criterion 4 will be reduced consistent with delayed quantities.
3. Supporting agencies must provide timely delivery of components required for testing.
4. There will not be a delay in testing that is directed from the Design Agencies due to systematic anomaly not associated with SRNS negligence.



**Contract Output 2.** Extract tritium from irradiated Tritium-Producing Burnable Absorber Rods.

This Contract Output provides the contractor incentive to complete selected tritium production-related milestones that are significant to support the Tritium Readiness Program and operation of the Tritium Extraction Facility (TEF) to receive and extract TPBARs. The TEF will be operated in accordance with the TEF Annual Operating Plan and the Responsive Operations Plan.

Completion of the activities cited in this Contract Output will replenish the Nuclear Security Enterprise inventory of tritium. Meeting these work requirements is dependent upon the proper functioning and availability of a one-of-a-kind facility, many complex pieces of equipment, and the availability of a knowledgeable staff for operation and maintenance.

**Up to \$373,118 of the allocated Tritium Programs PBI fee may be earned by Contract Output 2 as follows.**

Essential Fee

1. \$373,118 of available fee for Contract Output 2 may be earned at the completion of Completion Criterion 1.

**Completion Criteria**

1. Extract Cycle 9B TPBARs by July 31, 2011. Tritium extraction activity is complete when gas has been extracted from the Cycle 9B TPBARs and is accounted for in ARMS.

**Assumptions**

None.

**Government Furnished Services / Items**

None.

**Contract Output 3.** Conduct Research and Development and Science, Technology and Engineering (ST&E) sustainment activities that solve complex problems related to mission of SRSO and the NNSA.

These activities are sponsored by the Readiness and Engineering Campaigns, and Plant-Directed Research & Development (PDRD) and support development activities for NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.

Research and development activities are conducted to solve complex problems related to the mission of SRSO and the NNSA.

A focused research and development program advances the design and manufacture of Gas Transfer System components and manufacturing methods.

This Contract Output provides the contractor incentive to complete research and development activities that support NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.

**Up to \$248,745 of the allocated Tritium Programs PBI fee may be earned by Contract Output 3 as follows.**

**Essential Fee**

1. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 1.
2. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 2.
3. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 3.
4. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 4.
5. \$49,749 available fee for this Contract Output may be earned for the completion of Criterion 5.

**Completion Criteria**

1. Complete an annual Enhanced Surveillance stockpile aging assessment and provide a report to support the annual assessment process and the Technical Basis for Stockpile Planning (TBSTP). Issue annual report to NNSA-HQ by December 31, 2010.
2. Support of the Enhanced Surveillance stockpile aging annual assessment. Develop design and cost estimate for enhanced fracture toughness test high-pressure hydrogen apparatus and issue summary report by September 30, 2011.
3. Install next suite of Gas Transfer Systems diagnostics for surveillance by developing ultrasonic inspection method for W76-0 reservoir and issue report on laboratory demonstration of methodology by September 30, 2011.

4. Complete testing of Zinc-65 filter configurations per Test Plan and issue report by June 30, 2011.
5. Complete TMED-4 baseline materials property testing and issue report by September 30, 2011.

**Assumptions**

None

**Government Furnished Services / Items**

None.

**Contract Output 4.** Support the Tritium Programs missions by safe and efficient execution of projects.

**Up to \$621,863 of the allocated Tritium Programs PBI fee may be earned by Contract Output 4 as follows.**

Essential Fee

1. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 1.
2. \$124,373 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2a.
3. \$124,373 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2b.
4. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2c.
5. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2d.
6. \$124,373 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2e.
7. 37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2f.
8. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2g.
9. \$37,312 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2h.
10. \$24,875 available fee of the Contract Output may be earned for the Completion of Completion Criterion 2i.

**Completion Criteria**

1. He-3 Projects

- a. The Helium-3 program is executed to support the Memorandum of Understanding between the NNSA-SRSO and the DOE Isotope Program.

For Project Y504 He-3 Separation and Bottling Process, mechanical complete (excluding the DI tie in) will be by ~~July 30~~ **September 15, 2011.**

2. Facility Projects

- a. For the Project Y607, Hydro burst Relocation project, a satisfactory completed design will be submitted to SRSO and procure the brazer, drill press, and data acquisition system by September 15, 2011.
- b. For Project Y606, Process Support Building Utilities mechanical complete will be accomplished by March 30, 2011.

- c. For Project Y567, PS/ZR Glovebox Piping Modifications, mechanical complete will be accomplished by August 31, 2011.
- d. For Project Y600, HOAM Remote Alarm Monitoring, installation, mechanical complete will be by June 30, 2011.
- e. For Project Y587, TEF Tie-in DCS to HANM, mechanical complete will be by ~~May 31,~~  
**August 31, 2011.**
- f. For Project Y556, Wireless Sensor, installation, and prototype testing in 723-A will be completed by December 10, 2010.
- g. For Project Y523, 720-H Chiller Replacement, mechanical complete will be by January 30, 2011.
- h. For Project Y554, Unloading Line B Modification, a satisfactory completed design will be submitted to SRSO, ~~initial equipment and supplies purchased, and construction work packages prepared and submitted by September 15, 2011 that will allow start of construction in October, 2011.~~
- i. For Project Y568, Control Room Cooling, mechanical complete will be by February 28, 2011.

### **Assumptions**

Assumptions are included in the individual Completion Criteria.

### **Government Furnished Services / Items**

None

**Contract Output 5.** Participate in the NNSA Multi-Site Incentives and NNSA Nuclear Security Enterprise Initiatives.

Participate in the NNSA Multi-Site Incentives (MSIs) by working with Nuclear Security Enterprise partners to achieve Enterprise-wide goals. Although SRS Tritium Programs' level of participation will vary across the individual Multi-Site Incentives, the distribution of available fee according to Assumption 1 encourages partnership with other Nuclear Security Enterprise (NSE) sites to achieve NNSA's objectives. This is the purpose of Multi-Site Incentives.

**Up to \$1,243,725 of the allocated Tritium Programs PBI fee may be earned by Contract Output 5 as follows.**

Essential Fee

1. 10% available fee of the allocated Tritium Program PBI fee may be earned at the completion of Completion Criterion 1. The fee is distributed per Assumptions 1 and 2.

**Completion Criteria**

1. Participate in the FY 2011 MSIs cited in the NNSA Milestone Reporting Tool (MRT) by working with Nuclear Security Enterprise (NSE) partners to achieve NSE-wide goals. Successful completion for each individual milestone within the overall MSI is assigned by NNSA Headquarters. Any unspecified % allocation to the Site Office Manager discretion will be provided as Technical Direction to the Contractor subsequent to this PBI approval.

**Multi-Site Target Assumptions**

1. Letter, NA-10 to Distribution, FY2011 Multi-Site Targets and Success Criteria.
2. Inclusion of specific scope and fee distribution into this PBI will be accomplished through a letter issued by the National Nuclear Security Administration Savannah River Site Office (NNSA-SRSO) Manager to Savannah River Nuclear Solutions, LLC (SRNS).

**Government Furnished Services / Items**

1. NNSA Headquarters defines the FY 2011 Multi-Site Incentives with associated completion criteria and fee distribution method.

**Contract Output 6.** Maintain the Tritium Facilities in a safe, secure and responsive operating condition. (Operations)

This Contract Output emphasizes Operations programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criteria associated with Operations in the following areas:

- Facility and Site Management
- Maintenance Effectiveness
- Operations and Work Planning
- Quality Assurance
- Engineering
- Nuclear Safety and Fire Protection
- Radiation Protection
- National Lab NNSA Support
- Training and Qualification

**Up to \$2,487,451 of the allocated Tritium Programs PBI fee may be earned by Contract Output 6 as follows.**

Essential Fee

1. 20% available fee of the allocated Tritium Program PBI fee may be earned at the end of the assessment period for Completion Criteria associated with Operations. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Completion Criteria**

**Operations**

A. Facility and Site Management. SRNS will comprehensively manage the Tritium Facilities and will continuously assess and report on all aspects of the health and condition of Tritium Operations facilities to ensure that issues and problems are raised to the appropriate level for resolution through submittal of appropriate metrics.

Completion criteria include:

1. The ten year site plan for the Tritium Facilities, as required by NNSA and RPAM, will be updated annually to reflect the facility improvements, replacements-in-kind, and general facility maintenance required to support the active programs and missions. This document will comply with the format, content, and schedule provided by NNSA/HQ.

2. Health and condition of the major production facilities, as evidenced by facility assessments and the monthly facility availability metric, will be accurately reported each month and will demonstrate that the facilities are available to meet the mission deliverables.
3. Real property assets will be maintained in a cost-effective manner that includes management of Deferred Maintenance (reported yearly), facility improvements, and Replacement-In-Kind (RIK) projects to ensure facilities and equipment are available to meet mission deliverables. The Facility Information Management System (FIMS) reporting requirements are timely, accurate, and include the Facility Condition Index (FCI).
4. Concurrent with the budget cycle and ten year site plan for the Tritium Facilities, provide NNSA/SRSO an analysis of the Tritium Facilities deferred maintenance, replacement plant value and FCI. Include funding needs to stabilize and improve the FCI along with maintenance and project recommendations.

B. Maintenance Effectiveness. Ensure implementation of a cost-effective, comprehensive, and efficient Maintenance Program that accomplishes the work required to prevent degradation of the condition of the facilities and equipment to ensure that the facilities and equipment are available to support the mission. Metrics (such as locked-in completion, open work activities, corrective maintenance backlog, etc.) shall provide an accurate representation of performance, and will identify areas for improvement.

C. Operations and Work Planning. SRNS Tritium Programs' work will be effectively executed in accordance with Conduct of Operations practices and requirements as defined in the S/RIDs and work will be effectively planned and coordinated.

Completion criteria include:

1. Effective Operations and Work Planning implementation, as indicated with Conduct of Operations issues metrics, the valving performance metric and the lockout/tagout metric will be accurately reported each month and will demonstrate acceptable trends.
2. Implementation of continuous improvement initiatives of Operations and Work Planning, as indicated by the Self-Reported Errors, Assessments, and Reviews for Continuous Improvement metric, will be accurately reported each month and will demonstrate that self assessments and facility personnel are identifying errors and other areas for improvement. The metric will also demonstrate that fact finding and post job reviews are being conducted as appropriate and in a timely manner. In addition, corrective actions identified in the reviews are effective and result in improving trends in operations and work planning activities.

D. Quality Assurance. The Tritium Quality Assurance Program will be managed and implemented in accordance with the requirements of 10 CFR 830, DOE Order 414.IC, NNSA directives (e.g., QC-1, Primary Standards Laboratory memorandum, Development and Production Manual) as defined in S/RIDS and the SRS 1Q Manual.

Completion criteria include:



**Business:**

1. The aggregate of survey and assessment (SRSO, SRNS and external) results provide confidence that quality is assured through an effectively implemented QA program.
2. Provide quality and process improvements, report and trend improvements including corrective action/prevention of recurrence.

**Product:**

3. Effectiveness of product/production is evidenced by quality trending of defects and non-conformance metrics from TCNCR, UR, and IMR reports, and the associated Cost of Nonconformance.
4. Effectively perform delegated stamping authority and ship product as scheduled that meets NNSA quality acceptance and shipping requirement

E. Engineering. The Engineering Program will be managed and implemented in accordance with the requirements of DOE O 420.1B Facility Safety (as defined in S/RIDS) and the SRNS Engineering Manual (E7) Procedures.

Completion criteria include:

1. Perform and maintain compliant engineering product deliverables that support operations and projects.
  2. Engineering function provides Safety System configuration management and ensures that Safety Systems will perform as described in the safety basis. The engineering function will also support the Defense Programs mission and support design agency requirements. These functions will generally be met by the following expectations:
    - i. Existing system Technical Baseline drawings are current and reflect the field conditions.
    - ii. System Design Descriptions (SDDs), as indicated by the monthly engineering metric, will be updated to reflect the current facility configuration in accordance with the SDD update schedule.
    - iii. The assigned system engineer demonstrates sufficient depth of knowledge of their system to support the operations, maintenance, and safety basis management.
    - iv. Execute field trials and pilots of System Life Planning, System Engineer Notebooks, and System Walkdowns. Monitor and report progress for engineering pilot initiatives through metrics, engineering notebooks, and new electronic system walkdowns. Provide planned actions to abandon modify or fully implement each initiative.
  3. Demonstrate Technical Leadership both within SRNS and in the Nuclear Security Enterprise through appropriate participation in DOE-HQ engineering related improvement initiatives, and ongoing staff initiatives.
- F. Nuclear Safety & Fire Protection. The Tritium Safety Basis and Fire Protection (FP) Programs will be managed in accordance with applicable regulations, DOE Directives (as defined in S/RIDS), and site requirements

Completion criteria include:

1. SRNS and SRSO review results confirm the Safety Basis Program achieves and maintains full compliance with regulatory requirements (10CFR830, Subpart B), DOE/NNSA requirements, and S/RID applicable safety basis requirements.
2. Perform and maintain compliant safety basis engineering product deliverables that support operations and projects. These products include DSAs, TSRs, hazard evaluations, USQD documents, and supporting analyses.
3. Demonstrate a mature company independent review process for safety basis documents requiring submittal to NNSA SRSO for approval (e.g., DSA and TSR including all annual updates and revisions).
4. Continue the TORC and the process and expectations for assessments. The TORC shall provide routine oversight of the facility safety basis program in accordance with the approved TORC Charter, with review and assessment of emerging facility safety issues as well as major occurrences associated with facility safety performance.
5. Develop and submit the following items per the target completion dates:
  - a. Develop and submit the FY11 Tritium Facilities Annual Safety Basis Update as defined by the Tritium Programs Milestone Schedule.
  - b. Develop and submit the FY11 TEF Annual Safety Basis Update as defined by the Tritium Programs Milestone Schedule.
  - c. Finalize and submit the TEF DSA upgrade as defined by the Tritium Programs Milestone Schedule.
6. Proper implementation and maintenance of the Fire Protection Program will be indicated through metrics which reflect the minimization of system impairments, false alarms, and track and trend system and component failures.

G. Radiation Protection. SRS Tritium Programs' Radiation Protection Program will be managed and implemented in accordance with the requirements of 10 CFR 835, applicable S/RIDs, and the SRNS Radiological Protection Program.

Completion criteria include:

1. The aggregate evaluation of assessment results and metrics, including facility contamination events, personnel contaminations and radiation exposure, habitability survey performance, and breached glove events, shows the radiological protection program is implemented in accordance with requirements.
2. No significant deficiencies occur which negatively impact the performance of Tritium operations or accomplishment of missions.

H. SRNL Support to NNSA

Completion Criteria include:

1. PDRD – Maximize Relevance, Quality, and Performance. List of measures (or demonstrate) PDRD impact, quality and relevance by periodic reports.

I. Training and Qualification. The Tritium Training and Qualification Program will be managed and implemented in accordance with the requirements of DOE Order 462.2, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, as defined in the S/RIDS, and plant policies and procedures.

Completion criteria include:

1. No significant programmatic training deficiencies will occur which affect the performance of Tritium Program activities or accomplishment of mission.
2. Operations Technical Qualification Expiration for all Operations Watchstander employees is tracked, reported, and maintained to demonstrate that fully qualified facility personnel are available to support accomplishment of the mission.

**Contract Output 7.** Maintain the Tritium Facilities in a safe, secure and responsive operating condition. (ES&H/S&S)

This Contract Output emphasizes Safety and Health and Safeguards and Security programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criteria associated with Safety and Health and Safeguards and Security in the following areas:

- Emergency Management
- Health and Safety
- Environmental Management
- Waste Management
- Safeguards and Security
- Cyber Security

**Up to \$1,865,588 of the allocated Tritium Programs PBI fee may be earned by Contract Output 7 as follows.**

Essential Fee

1. 15% available fee of the allocated Tritium Program PBI fee may be earned at the end of the assessment period for Completion Criteria associated with Safety and Health and Safeguards and Security. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Completion Criteria**

**Safety & Health / Safeguards & Security**

A. Emergency Management. Ensure implementation of a cost-effective, comprehensive, and efficient Emergency Management Program that ensures response to and mitigation of abnormal events by a knowledgeable and fully trained workforce with minimum impact to mission accomplishment. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

B. Health & Safety. Ensure implementation of a cost-effective, comprehensive, and efficient Health & Safety Program that ensures response to and mitigation of abnormal events by a knowledgeable and fully trained workforce with minimum impact to mission accomplishment. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

C. Environmental Management. Ensure implementation of a cost-effective, comprehensive, and efficient Environmental Management Program that ensures no significant deficiencies will occur that affect the performance of the SRNS Tritium operations accomplishment of missions. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

D. Waste Management. Ensure implementation of a cost-effective, comprehensive, and efficient Waste Management Program that ensures minimum waste generation, minimum waste accumulation in the facilities, and compliance with the waste acceptance criteria for disposal. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

E. Safeguards and Security.

Operate an effective and efficient Safeguards and Security Program that meets DOE, NNSA, and Site requirements/directives and expectations as verified by Contractor self- assessment, SRSO oversight, and external inspections. Maintain effective performance while completing milestones on schedule and within budget

Completion Criteria include:

1. Support the NNSA Enterprise through DNS Management Excellence.
  - a. Provide transparency into the security budget formulation and execution activities. Site FS-20 budgets must align with NNSA Field CFO issued costing principles.
  - b. Incorporate traceability across all security planning documentation, (i.e., Tritium Programs Work Authorization and Execution Plan (WAEP), Budget Requests, Site Safeguards and Security Plans, Performance Evaluation Plans, including Performance Based Incentives, etc.) Site Office approved FY11 WAEP must be provided to DNS by October 1st for the following Fiscal Year
  - c. Provide 100% alignment of resources, i.e., Full Time Equivalent (FTE) and subcontractors to WAEP.
2. Security plans, policies and procedures are to be updated to reflect NNSA security policy by FY 2011 or as stated in the NNSA security policy.
  - a. Implement security reform to improve mission effectiveness and drive cost efficiency.
  - b. Implement program improvement tied to NNSA security standards in accordance with SRNS Contract Modification process and mutually agreed upon implementation schedule.
3. Achieve efficiencies based on the current state of the site security footprint. (Security footprint includes documents, buildings, clearances, VTRs, etc.)
  - a. Drive cost efficiencies through reducing the Security Footprint.
  - b. S&S should work with site operations to evaluate and implement a plan to achieve a reduction in the site security footprint to include reducing unnecessary facilities and surplus materials (classified parts, documents, VTCs, etc.) to ensure a “cradle to grave” handling of classified
    - reduce classified document holding 5% (Stretch 10%)
    - reduce classified part inventory as described in contract Output No.1.

4. Develop site specific condition assessments and life cycle cost management plans for all FS-20 funded security systems and components. Produce a plan with components that address the following concepts:
    - a. Realize operational efficiencies through modernization or operational/process improvements.
    - b. Evaluate, develop, and implement a systems modernization plan to include economical life cycle management for physical security systems as approved by the Site Office considering the Enterprise-wide perspective.
  5. Achieve overall satisfactory or effective performance on Site Office and external surveys or assessments. There should be no repeat findings or deficiencies to include DNS and HSS OIO identified issues.
    - a. Maintain and sustain an effective S&S programs in all function areas (PM&S, Information Protection, MC&A, Physical Security and SAP).
    - b. Conduct S&S self-assessment in all S&S Tritium functional areas and provide periodic performance conclusions to the Site Office.
    - c. All corrective actions are completed on-time, within agreed budget, and effectively address the performance issues.
  6. Use current Site Lessons Learned program to ensure S&S information is shared throughout the Tritium Facility.
  7. Ensure S&S security staff are trained in accordance with the site S&S Training Plan.
- F. Cyber Security. Operate effective and efficient Cyber Security activities that meet DOE, NNSA, and Savannah River Nuclear Solutions (SRNS) requirements/directives and expectations as verified via contractor self-assessments, SRSO oversight, and external inspections.

Completion Criteria include:

1. Develop and implement an effective risk management framework utilizing NIST guidelines by 12-01-2010. Risk management framework must define cyber governance processes and organizations.
2. Implement an effective management operating system that incorporates a comprehensive self-assessment program that provides assurance to Federal Site Manager that the site is managing the risk envelope appropriately, security weaknesses are identified in a timely manner and corrective action plans are developed, tracked and maintained, corrective action plans are closed per schedule, significant Tritium risks are adequately evaluated and that sensitive information and information systems are properly protected.
3. Provide quarterly status report to NNSA OCIO CSPM on the state of cyber security program to include cyber security requirements implementation.
4. Actively participate in the NNSA Headquarter zero-based review of cyber security.
5. Actively participate in the feasibility study, development of plans and selection of an automated FISMA reporting and data collection capability; risk management registry; asset management, configuration and patch management capability; continuous monitoring capability; and tool sets for network mapping for NNSA environments.
6. Participate in Cyber Tracer (TracerFire) Activities.

**Contract Output 8.** Maintain the Tritium Facilities in a safe, secure, and responsive operating condition. (Business Management)

This Contract Output emphasizes Business programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criterion associated with Business in the following areas:

Fiscal Management  
Contractor Assurance System  
Program Management  
Project Management  
Information Technology/Process Control  
Modernization  
eSourcing  
Governance

**Up to \$2,487,451 of the allocated Tritium Programs PBI fee may be earned by Contract Output 8 as follows.**

Essential Fee

1. 20% available fee for the Tritium Programs performance may be earned at the end of the assessment period associated with Business Management. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Business Management**

- A. Fiscal Management. Budget and financial deliverables per the Planning, Programming, Budget, and Evaluation (PPBE) process will be provided in accordance with established due dates.

Completion criteria include:

SRNS Tritium will maintain effective and timely information response processes. Information requests, budget exercises, work insertion requests, etc., will be fully supported and evaluated on criteria such as quality and timeliness, proactive resolution of emergent issues and concerns, communications, etc.

SRNS will maintain an effective and efficient funds controls system.

- i. No legal or administrative violations occur with regards to the management of appropriations for which controls have been established by DOE/HQ, or for which funds of other federal agencies or governmental entities have been entrusted to DOE for performance of supporting scopes of work. (Tritium only)

- ii. Uncosted balances are maintained consistent with sound financial management. Due consideration will be given to multi year expense projects, multi-year program and productivity strategies and timing of funding and scope direction.
- iii. Reprogramming actions and supplemental financial plans will be timely, accurate, comprehensible, and minimized via advance planning and forecasting processes. Any identified need for a reprogramming action will be identified early in the fiscal year, have SRSO program approval, and clearly identify all funding sources. Due consideration will be given for late year reprogramming request driven from customer requested schedule changes and mutually agreed upon program and business opportunities.
- iv. Indirect costs and rates will be tracked and managed to identify and mitigate potential perturbations to planned direct work.
- v. Outline a strategy and procedures to maximize the utilization of the unique scientific expertise of the laboratories while providing a rational financial basis for acceptance of such work.

SRNS will have a controlled integrated baseline for all Tritium programs, projects and functions by the end of FY 2011. The baseline will appropriately:

- i. Include the NNSA Uniform Program Cost Reporting Structure format elements
- ii. Be compatible with and in a Work Breakdown Structure (WBS) format ready for incorporation into the NNSA Cost Management Initiative database
- iii. Have tools in place to (1) manage mission changes in scope, cost and schedule, (2) compare Actual Cost to Budgeted Cost (3) accurately forecast estimated cost to complete and estimated total costs at completion, and (4) document deviations from the performance measurement baseline and notify the Contracting Officer of such changes on a timely basis
- iv. Prohibit retroactive changes to records pertaining to work performed that will change previously reported costs, except for correction of errors and routine accounting adjustments
- v. Prohibit retroactive changes for funding fluctuations or revisions in EAC

Completion criteria include:

- 1. Offline quarterly and year-end reporting will be provided per reporting requirements.
- 2. Impact analyses and ad hoc exercises will be responded to in a timely manner and be coordinated with SRNS.
- 3. Budget formulation requirements will be provided per requirements and coordinated with all appropriate organizations.
- 4. Financial reporting will demonstrate effective and transparent accounting practices.
- 5. The integrated baseline will be in place and ready for validation by the NNSA CFO by September 30, 2011. (Implementation is predicated on receiving requirements in appropriate timeframe.).

B. Contractor Assurance System. SRNS will have a Tritium-wide, comprehensive, and integrated Contractor Assurance System (CAS). As efforts move forward to implement "Governance" within



the Tritium Facilities, SRSO acknowledges that the CAS will be evolving to fit the new governance model.

Completion criteria include:

1. Demonstrate an effective, comprehensive, integrated CAS Program. Elements include the following.
  - i. Integrated assessment schedule (includes internal audit, independent assessments, and management activities)
  - ii. Integrated assessment results (includes all formal assessment activities)
  - iii. Integrated risk management priorities
2. Demonstrate that an issues management system is implemented, and results are regularly reviewed by senior management. (This includes capturing program and performance deficiencies, regardless of their source, in a system or systems that provides for analysis, resolution, and tracking.)
3. Support the Line Oversight Contractor Assurance System (LOCAS) initiative.
  - i. Identify LOCAS control metrics to support the following six Performance Categories. (1) Environment, Safety, and Health (ES&H), (2) Nuclear Safety, (3) Cyber Security, (4) Safeguards and Security, (5) Emergency Management, and (6) Business Management.
  - ii. Review metrics with the SRSO LOCAS Manager quarterly basis to demonstrate the effectiveness of LOCAS control metrics in measuring contract/contractor performance. The metrics may be reviewed more frequently if warranted.
  - iii. Refine metrics as LOCAS performance matures.

C. Program Management. SRNS will manage programs consistent with the NNSA Program Management Policy (BOP-006.001) and the Defense Programs Program Management Manual. A Program is a group of ongoing activities and related projects conducted with a defined set of resources (financial, human, etc.) managed in a coordinated way to achieve mission objectives and obtain benefits not available from managing them individually.

Program Management within Tritium Programs applies primarily to RTBF, DSW, Engineering and Readiness Campaigns, FIRP, S&S, etc.

Program Management philosophy views programs as falling across a spectrum ranging from operational or level-of-effort programs, such as surveillance of the nuclear weapons stockpile at one end, to major capital acquisition projects at the other end. The diversity of programs within the NNSA demands the “tailored” application of the program management principles to accommodate the requirements of each program.

Completion criteria include:

Plan, execute, and manage to established scope, cost, schedule, and risk baselines for all program elements including:

1. Each individual program will be planned, executed, managed, and will maintain acceptable cost and schedule performance as established by Work Authorization Directives, Prioritized Project Lists, PCD Requirements, Baseline Dismantlement Schedule, program implementation plans, program execution plan, and all other program requirements.

2. Aggregate evaluation of review results indicates programs are routinely implemented in accordance with requirements. No significant deficiencies will occur which affect the performance of the SRNS Tritium operations or accomplishment of missions.
3. SRNS' scope associated with NNSA Milestone Reporting Tool (MRT) Level 1 and 2 milestones will be completed on schedule. This excludes milestones associated with the Multi-Site PBI that are addressed in Contract Output 5.
4. Information requests, budget exercises, work insertion requests, etc., will be supported. Develop and submit business cases as requested.
5. Submit Performance reports as required by individual Programs' Execution Plans.
6. Quarterly program status reviews are conducted that contain overall indices of performance, analysis of baseline variances, trends, funds and reserve management, and risk management. A review of HQ deliverables and issues will also be discussed.

#### D. Project Management.

Completion criteria include:

1. Aggregate evaluation of review results indicates projects are routinely implemented in accordance with requirements. No significant deficiencies will occur which affect the performance of the SRNS Tritium operations or accomplishment of missions.
2. Safety will be emphasized for all aspects of the project from design through startup. Ensure effective integration of safety and security into the design and construction of all nuclear line item projects in accordance with DOE-STD-1189. Projects safety indices demonstrate prime and subcontractor performance meet or exceed national safety performance standards and the Departmental/Site Office safety goals as prescribed. Projects will routinely discuss safety in meetings for project personnel and will emphasize lessons learned at SRS construction sites and projects at other DOE sites. During construction phase each project manager or designee will proactively participate and conduct safety walk downs and document on Management Field Observation forms in STAR.
3. Manage projects within established scope, cost, and schedule baselines per SRSO approved Integrated Priority List. Cost and schedule performance are measured through Cost Performance Index (CPI) and Schedule Performance Index (SPI) for large projects and cost and schedule baselines for small projects. CPI and SPI are at or above 0.90
4. Project activities and resources are effectively planned and integrated to ensure the performance baseline is maintained. This includes the use of integrated, resource loaded schedules in the day –to-day management of projects.
5. Monthly project status reports are timely and submitted for each line item project, GPP/GPE/MIEs, and for selected operating expense funded projects. Reports contain indices of overall project performance. Reports include analysis of baseline variances, trends, funds, and contingency management, risk management. Reports contain baseline change control register.
6. Provide an end state assessment for buildings 234-H (office area), 236-H, 237-H, and 238-H by April 30, 2011.

E. Information Technology/Process Control. Ensure implementation of a cost-effective, comprehensive, and efficient Information Technology/Process Control Management Program

that ensures no significant deficiencies will occur that affect the performance of the SRNS Tritium operations accomplishment of missions. Metrics shall provide an accurate representation of performance, and will identify areas for improvement. The system availability of the Tritium classified network and the Enterprise Secure Network (ESN), as evidenced by the System Availability metric, will demonstrate that the classified networks are available to support NNSA missions.

#### F. Modernization

Completion criteria include:

##### 1. Enterprise Initiatives

###### a. Record of Decision

- i. Facilitate communication and implement actions needed by the Nuclear Security Enterprise to support the Record of Decision.(Tritium R&D)

###### b. Transformation Activities

- i. Support key modernization and strategic planning initiatives.

###### c. Stockpile Services Modernization Plan (SSMP)

- i. Work with NNSA-SRSO, NNSA-HQ, and the NSE to support the key Congressional inputs required in SSMP document updates and it's strategies within funding limits.

##### 2. Facility Modernization

- a. Demonstrate support for implementation of the Tritium Programs transformation strategies and goal per NNSA direction within funding limits.

- b. Support key facility modernization and strategic planning initiatives, such as the Tritium Programs Strategic Plan, Human Capital Management Plan, and Business Transformation Plan within funding limits.

#### G. eSourcing:

Completion criteria include:

Evaluate the eSourcing tools available at the NNSA Supply Chain Management Center, develop an implementation plan. The plan should address the schedule for (1) incorporating SCMC tools into the SRNS purchasing practices and resources to (2) support SCMC commodity teams as applicable. The evaluation should at a minimum address the available tools and applicability to SRNS purchases, compatibility with the proposed ERP system, an implementation schedule, estimated costs, and potential savings.

#### H. Governance:

Completion criteria include:

SRNS will support the NNSA Governance Reform initiative being implemented across the complex, such as the Enterprise Reengineering Team and the NNSA Directives Review as needed if not addressed by the current facility governance initiative. The current expectation is that the majority of the activities necessary to implement governance within the Tritium facilities will be completed in FY11, but SRSO acknowledges that some activities may extend into FY12.

**Approvals:**

**SRNS Tritium Programs**

**Dennis J. Donati**


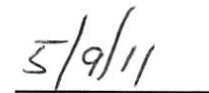
**Date**

  
\_\_\_\_\_  
\_\_\_\_\_

**NNSA SRSO**

**Douglas J. Dearolph**

**Date**

  
\_\_\_\_\_  
\_\_\_\_\_



## Performance Incentive Document

PBI: SRNS2011NNP

Activity Nuclear Non-proliferation Program

WBS: 01.25.60

Performance Period: October 1, 2010 – September 30, 2011

Allocated Fee: \$11,650,000

Revision Number: 3

---

### **Performance Outcome:**

Provide cost-effective management and technical support to the Nuclear Nonproliferation Programs so that the program is executed within the Performance Management Baselines and in accordance with DOE Order 413.3A and other applicable DOE directives, regulations, and requirements.

Contract Output	Value	Indicator
SRNS2011NNP-01	\$2,900,000	Safely execute the construction of the Waste Solidification Building (WSB) in accordance with the approved Performance Management Baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).
SRNS2011NNP-02	\$ 750,000	Conduct Title III Design Engineering and Design Authority activities and planning in accordance with the baseline schedule in order to support construction, acceptance testing, and facility operation.
SRNS2011NNP-03	\$ 850,000	Execute Startup and Operations activities and planning in accordance with the baseline schedule in order to support system and facility readiness testing:
SRNS2011NNP-04	\$2,400,000	Safely execute the Waste Solidification Building project activities in a cost effective manner and on the schedule necessary to meet the MFFF need date and in accordance with

		the requirements of ASME NQA-1-2000 (or successor as invoked) and DOE Order 413.3A (or successor).
SRNS2011NNP-05	\$ 600,000	Safely execute SRNS assigned work on the MOX Fuel Fabrication Facility (MFFF) project in accordance with approved cost and schedule baselines for the PDP electrical substation or contained in authorized Work Task Agreements.
SRNS2011NNP-06	<del>\$ 250,000</del> \$1,050,000	Execute SRNS assigned work related to NNP Pu Disposition Infrastructure and associated work activities by providing cost-effective support for those activities common to the nonproliferation program and projects.
SRNS2011NNP-07	\$650,000	Support NNSA-SR and NNSA-HQ reviews of the accelerated PDC CD-1 package resulting in NNSA-HQ CD-1 approval. "Pink" document preparations and submissions are ongoing and provide enhanced information to support CD-1. VA documents for CD-1.
<del>SRNS2011NNP-08</del> (deleted)	\$700,000	<del>Provides Material Storage (MS) design support as design authority (DA), technology development, and operability expert; coordinates and implements safety/security planning and documents; develops long-lead procurement planning and procurement activities; prepares and implements Congressional cost / schedule / baseline preparation for MS CD-2/3A; project integration role; and CD document preparation / packaging / support.</del>
SRNS2011NNP-09	<del>\$100,000</del> \$75,000	Earned Value Management System (EVMS) is applied to the PDC Project per DOE O 413.3A.
<del>SRNS2011NNP-10</del> (deleted)	\$800,000	<del>Stabilization and Packaging (S&amp;P) Conceptual Design (CD) CD-3A Demolition and Removal (D&amp;R) package.</del>
<del>SRNS2011NNP-11</del> (deleted)		
SRNS2011NNP-12	<del>\$1,650,000</del> \$2,375,000	Subjective Milestones.
NNP Multi-year		Safely execute the construction of the Waste Solidification Building in accordance with the approved project baseline, on a schedule which supports the need date of the Mixed

		Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).
--	--	--

---

**\$6,900,000 of the Nuclear Nonproliferation PBI will be paid for the construction of the WSB.**

**WBS: 01.25.60.01.02**

**Contract Output 1:** Safely execute the construction of the Waste Solidification Building (WSB) in accordance with the approved Performance Management Baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

**42% (\$2,900,000) of the allocated fee for the construction of the WSB will be earned as follows:**

**1A.** Complete the placement of the concrete for the roof deck of the main structure of the Waste Solidification Building by 2/28/2011 (\$500,000)

**Completion Criteria:**

- Correctly install all reinforcing steel, hangers, anchors, and other embeds.
- Remove all concrete forms and temporary supports for the roof
- Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

**Assumptions:**

- Funding is available to support the Balance of Plant (BOP) contract execution.
- Hatches and/or access openings are allowed for equipment installation and ease of construction.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor propose a schedule modification that does not impact the construction critical path, the fee associated with this contract measure will be paid upon completion of roof construction.

**Government Furnished Services / Items:**

None identified

**1B.** Complete wall placements for the main structure of the Waste Solidification Building in accordance with the BOP subcontractor's placement schedule by November 30, 2010. (\$100,000)

**Completion Criteria:**



- Correctly install all reinforcing steel mats, embedded piping, and plate embeds.
- Remove all concrete forms where required.
- Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- Block-outs are allowed for equipment installation and ease of construction.
- The scope does not include any concrete pours associated with adjacent structures or facilities, i.e., diesel generator pad, chemical unloading, etc.
- The completion date is based on the construction subcontractor's schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path; e.g., leaving a construction opening not previously planned, this contract measure will be considered complete. Payment, however, would be withheld until the wall placements are complete (less any necessary construction openings).

**Government Furnished Services / Items:**

None identified

**1C.** Place the High Activity Waste (HAW) Tanks and Evaporator in accordance with the BOP subcontractor's placement schedule as delineated below (\$1,300,000)

**Completion Criteria:**

1. Correctly locate all tanks, components, and related ancillary equipment required prior to placement of roof trusses over the respective High Activity Process Rooms.  
Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

This Contract Output is in effect for the following tanks/components:

HAW Receipt tanks (2):	(\$400,000)	Date: 10/25/2010
HAW Evaporator/Condenser:	(\$200,000)	Date: 10/25/2010
HAW Head Tank:	(\$200,000)	Date: 10/25/2010
HAW Acid Overflow Tank:	(\$200,000)	Date: 11/01/2010
HAW Bottoms Collection Tank:	(\$100,000)	Date: 11/01/2010
HAW Condensate Hold Tank:	(\$200,000)	Date: 11/10/2010

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule.  
Should the subcontractor later propose a schedule modification that does not impact the

construction critical path; e.g., leaving a construction opening not previously planned to facilitate later placement, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

- Setting of the equipment is exclusive of installation of ancillary equipment (dip tubes, agitators, etc.) that:
  - can be installed with the tanks, intermediate deck and roof trusses in place, and
  - does not result in additional cost impacts to the project. Fee will be reduced to cover additional cost impacts resulting from alternative installation strategies.
- Installation of the fluidic transfer pressure vessel within the HAW tanks is included in this contract measure; however, SRNS may elect to install the pump eductors at a later date to support the BOP installation schedule.
- Field piping connections are not included in this contract measure.

#### **Government Furnished Services / Items:**

None identified

**1D.** Place the Low Activity Waste (LAW) Tanks and Evaporator in accordance with the BOP subcontractor's placement schedule as delineated below (\$600,000)

#### **Completion Criteria:**

1. Correctly locate all tanks, components, and related ancillary equipment in the Low Activity Process Area.

Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

This Contract Output is in effect for the following tanks/components:

MFFF LAW Receipt tanks (2):	(\$200,000)	Date: 01/26/2011
PDC LAW Receipt tank:	(\$100,000)	Date: 01/26/2011
LAW Evaporator/Condenser:	(\$100,000)	Date: 01/26/2011
LAW Head Tank:	(\$100,000)	Date: 01/26/2011
LAW Effluent Hold Tank	(\$100,000)	Date: 01/26/2011

#### **Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

- Setting of the equipment is exclusive of installation of ancillary equipment (dip tubes, agitators, etc.) that:
  - can be installed with the tanks, intermediate deck and roof trusses in place, and
  - does not result in additional cost impacts to the project. Fee will be reduced to cover additional cost impacts resulting from alternative installation strategies.
- Field piping connections are not included in this contract measure.

**Government Furnished Services / Items:**

None identified

**1E.** Place the HAW and LAW Cementation Units in accordance with the BOP subcontractor's placement schedule as delineated below: (\$200,000)

**Completion Criteria:**

Correctly locate four Cementation gloveboxes in the respective cementation rooms. Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

The HAW gloveboxes installed: (\$100,000) Date: 02/28/2011

The LAW gloveboxes installed: (\$100,000) Date: 02/28/2011

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.
- Setting of the equipment is exclusive of installation of any ancillary equipment (HVAC ductwork, electrical connections, drum handling equipment.) and does not include field piping connections.

**Government Furnished Services / Items:**

None identified

**1F.** Place the WSB Main High Efficiency Particulate Air (HEPA) Filter housing by 12/31/2010 (\$50,000)

**Completion Criteria:**

Correctly locate the main HEPA filter housing. Complete all records documenting the completion of the subject activities in accordance with the applicable requirements.

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

**Government Furnished Services / Items:**

None identified

**1G.** Energize the 13.8 kVA/480V electrical substation and complete testing by May 31, 2011: (\$150,000)

**Completion Criteria:**

Complete the Startup Test procedure for energization and initial checkout of the 13.8kVA/480v electrical substations A, B, & C. This includes verification that the 13.8kVA/480v electrical substations A, B, & C meet that portion of the Acceptance Criteria defined in the Functional Acceptance Criteria for initial energization and is determined to be ready to support downstream loads.

**Assumptions:**

- Funding is available to support the Balance of Plant contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

**Government Furnished Services / Items:**

None identified

**Contract Output 2:** Conduct Title III Design Engineering and Design Authority activities and planning in accordance with the baseline schedule in order to support construction, acceptance testing, and facility operation.

**11% (\$750,000) of the allocated fee for the construction of the WSB will be earned as follows:**

**2A.** 57% (\$400,000) of the allocated fee for this contract output may be earned for completion of the criteria below. NNSA will provide a periodic evaluation of SRNS' performance with respect to this completion criterion as part of the normal contractor evaluation process. Award fee payments will be made quarterly (\$100,000 at the end of each quarter) based on the acceptability of performance for the quarter as determined by NNSA. If NNSA determines that SRNS' performance for a quarter is not satisfactory, NNSA will determine the amount of quarterly award fee to be deducted.

**Completion Criteria:**

- Engineering support and responses for the BOP subcontractor are provided in a timely manner and ensure the project is constructed to appropriate codes and standards.
- Coordination is achieved between SRNS and the BOP subcontractor in establishing engineering priorities and ensuring timely resolution to support the subcontractor's procurement and construction schedule.
- Requests for deviations and changes are evaluated within the time allotted within the contract, at a minimum. However, communication, coordination, and expediting of requests will be necessary to maintain, improve, or mitigate schedule impacts. Communication between SRNS and the subcontractor will be assessed to ensure that submittals are resolved with minimal iterations for clarifications or corrections.

**Assumptions:**

None

**Government Furnished Services / Items:**

None identified

**2B.** All Functional Acceptance Criteria (FAC) documents are approved by March 31, 2011. (\$100,000)

**Completion Criteria:**

FACs are issued as Rev. 1 or later, with no unresolved comments.  
The following FACs are included under this contract measure:

- HAW
- LAW

- HVAC
- Electrical
- Analytical Laboratory
- Process Sewer
- Sanitary Sewer
- Plant Air
- PCS
- Fire Protection
- Cold Chemical
- Material Handling
- Safety and Health Monitoring
- Compressed Gas
- Plant Water
- Communication
- Process Sewer
- Steam
- Sanitary Sewer
- Building Structure

Individual FAC's are issued on a schedule which supports the needs of the Startup/Testing program and the development of lower-tier startup documents in support of the overall project schedule.

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction crucial path, this contract measure will be considered complete. Payment, however, would be withheld until the FACs are issued and verification of no impact validated.
- Holds and TBDs will be included in the FACs where information is not yet available to complete the FAC. This includes inputs from the BOP construction subcontractor and the GFE vendors that have not been submitted to and approved by SRNS.
- Emergent information (as identified) will be included in future revisions of the FACs as required.

**Government Furnished Services / Items:**

None identified

**2C.** The WSB Documented Safety Analysis Input Deck is approved and issued by June 30, 2011. (\$200,000)

**Completion Criteria:**

The WSB Inputs and Assumptions in support of the DSA, a.k.a. the Input Deck, will be documented in a level 1 calculation that is issued as Rev. 0 or later, with no unresolved comments by June 30, 2011.

The Input Deck is issued on a schedule which supports the needs of the DSA development process in support of the overall project schedule.

The approval and issuance of the Input Deck calculation will be based upon review of all WSB accident scenarios documented in the WSB Consolidated Hazards Analysis by the Safety Design Integration Team.

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction crucial path, this contract measure will be considered complete. Payment, however, would be withheld until the Input Deck is issued and verification of no impact validated.
- Emergent information (as identified) will be included in future revisions of the Input Deck as required.
- External events, such as revision to the DOE Orders which describe safe harbor methodology for DSA preparation or other Orders that have similar impact on the Input Deck/DSA scope, will not be considered without NNSA direction and commensurate revision to this PBI scope/schedule.

**Government Furnished Services / Items:**

None identified

**2D.** The WSB Waste Compliance Plan (WCP) for the solidified HAW waste stream will be written and approved by SRNS by June 30, 2011. (\$50,000)

**Completion Criteria:**

- The WSB WCP will be written, approved and issued to document control as a planning document, with no unresolved comments.
- Waste Management Area Project (WMAP) personnel will review the WCP and provide documentation that the WCP as written will meet the 1S Manual WAC and that the solidified HAW waste stream will be capable of meeting the WIPP Waste Acceptance Criteria.
- All successor activities necessary for the final approval for the certification process and for the certification of the waste form will be identified and scheduled.

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution and WMAP staffing to perform the review.
- Emergent information (as identified) will be included in future revisions of the Waste Compliance Plan as required.
- External events, such as revision to the DOE Orders which describe revisions to TRU waste management requirements or permit revisions altering the WIPP WAC, will not be considered without NNSA direction and commensurate revision to this PBI scope/schedule.
- WMAP are procedurally required to approve the WCP after their review of facility implementing procedures, personnel training and qualification, analytical methodologies used for waste characterization, etc. These activities are part of the WSB Project Schedule and will be completed when the operating staff is available. This will preclude WMAP from actually approving the WSB WCP for the HAW waste stream in FY11; however, the documentation provided by WMAP will clearly document that the WSB WCP meets both 1S Manual WAC and the WIPP WAC. WMAP documentation that the WSB HAW WCP will meet the 1S WAC may include identification of changes required and being pursued by WMAP personnel to modify the 1S manual requirements to accommodate the WSB waste stream. The document would include the technical justification for the change and demonstration that the revised WAC will meet the WIPP WAC. The documentation may identify actions required by WSB to meet the 1S manual requirements as revised.

---

**Contract Output 3:** Execute Startup and Operations activities and planning in accordance with the baseline schedule in order to support system and facility readiness testing:

12% (\$850,000) of the allocated fee for the construction of the WSB will be earned as follows:

**3A.** All Maintenance Loop Calibration Procedures (approximately 75 individual procedures covering approximately 300 instruments) will be in high quality draft form by June 30, 2011. (\$100,000)



### **Completion Criteria:**

Completion of the WSB Maintenance Loop Calibration Procedures will be documented by a letter from the Procedure Lead to WSB Operations Manager showing the completion status of all calibration procedures for the equipment that is part of the design baseline as of June 30, 2011. NNSA will review procedures as necessary to validate the reported status.

### **Assumptions:**

- Draft procedures will include all instrumentation identified in Smartplant on June 30, 2011.
- Procedures will be written, reviewed, and in letter revision ready for first time validation during startup and testing operations.
- Any instruments not in the baseline design as of June 30, 2011 will be written, reviewed, and in letter revision ready for first time validation to support startup and testing of the affected systems

### **Government Furnished Services / Items:**

None identified

**3B.** The first 11 MST's will be assigned to the WSB project by June 30, 2011. (\$100,000)

### **Completion Criteria:**

The Operations Manager will document the assignment of the MSTs to the WSB project via a letter to the WSB Project Owner listing each MST by name, showing their assigned dates and listing their Financial Organizational codes as listed in the Human Capital system documenting their assignment to the WSB.

### **Assumptions:**

- Funding is available to support hiring the additional 11 multi-skilled technicians and to sustain this level of support for the remainder of the project. If funding is not available to support the June 30, 2011 date (i.e., Continuing Resolution or equivalent), then the fee will be earned when the funding supports the additional FTEs. If funding is not provided, then the fee will be earned based on the identification of the FTEs to be assigned to the WSB through the SRNS Human Capital program.
- If an MST leaves the company after they have been assigned to the WSB because of retirement, death, disability, termination or a seniority related transfer, a request for a replacement will be initiated through the Human Capital system. Having personnel leave under these circumstances will not affect the award fee.

### **Government Furnished Services / Items:**

None identified

**3C.** Energize Motor Control Centers 1 – 9 and complete checkout procedures by July 31, 2011. (\$250,000)

**Completion Criteria:**

Complete the Startup Test procedure for energization and initial checkout of the 480v MCCs 1-9. This includes verification that the MCCs meet that portion of the Acceptance Criteria defined in the Functional Acceptance Criteria for initial energization and are determined to be ready to support downstream loads.

**Assumptions:**

- The startup test boundaries for the individual MCCs are defined such that the individual feeder breakers for the MCCs are not part of the startup test boundary.
- The energization for the MCCs will be via normal power; energization via the standby diesel generator will be included in a subsequent Startup Test.

**Government Furnished Services / Items:**

None identified

**3D.** Complete activities necessary to ready Control Systems for software checkout by September 30, 2011. (\$200,000)

**Completion Criteria:**

Complete Factory Acceptance Testing (FAT) and Receipt Inspection of the Basic Process Control System (BPCS) hardware by 12/31/2010. The FAT report will be SRNS approved and in Document Control. (\$50,000)

Complete Factory Acceptance Test of the Balance of Plant Control System (BPCS) software by 06/30/2011. The FAT report will be SRNS approved and in Document Control.(\$50,000)

Complete Process Control System energization by September 30, 201. The energization of the system will be documented through completion of a Startup Test energization procedure, to be performed subsequent to the PCS01 system turnover by the BOP Contractor. Note that the scope of the procedure will include PCS01, but does not include PCS02 or PCS03, etc. as these are turned over at a later time (\$100,000)

**Assumptions:**

- In the event of unusual and unanticipated developments which necessitate the diversion of resources to address high priority emergent issues, the completion date for this measure may be deferred with NNSA concurrence.
- Funding is available to support the WSB contract execution and BPCS procurement activities.
- The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction crucial path, this contract measure will be considered complete. Payment, however, would be withheld until the criteria identified are completed and verification of no impact validated.
- Emergent information (as identified) will be included in future revisions of the BPCS as required.
- Open items, punch list items and action items will be documented in the FATs reports for future action. The identification of these items does not indicate that the FAT is not complete, but documents the actions required to be performed following FAT completion.

**Government Furnished Services / Items:**

None identified.

**3E.** Pressurize the Service water header and complete checkout procedures by September 30, 2011. (\$200,000)

**Completion Criteria:**

Complete the Startup Test procedure for energization and initial checkout of the Service Water header. This includes verification that the Service Water header meets that portion of the Acceptance Criteria defined in the Functional Acceptance Criteria for initial pressurization and is determined to be ready to support downstream users.

**Assumptions:**

- The startup test boundary for the Service Water header is defined such that verification is made that service water is available to all legs of the system as shown on the system turnover boundaries.
- The PCS may not be available at the time of turnover and pressurization of the service water system, so checkout of any automatic control valves within the system will be covered under a subsequent Startup Test procedure.

**Government Furnished Services / Items:**

None identified

---

**Contract Output 4:** Safely execute the Waste Solidification Building project activities in a cost effective manner and on the schedule necessary to meet the MFFF need date and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked) and DOE Order 413.3A (or successor).

**35% (\$2,400,000) of the allocated fee for the construction of the WSB will be earned as follows:**

58% (\$1,400,000) of the allocated fee for this contract output may be earned for completion of criteria 1. The cumulative Project Cost Performance Index (CPI) will be reviewed by NNSA monthly. Award fee payments will be made quarterly based on cumulative Project Cost Performance Index at the end of each quarter.

42% (\$1,000,000) of the allocated fee for this contract output may be earned for completion of criteria 2. The cumulative overall Project Schedule Performance Index will be reviewed by NNSA monthly. However, award fee payments will be made quarterly based on cumulative Schedule Performance Index for Total Estimated Cost (TEC) construction activities at the end of each quarter (WBS element 01.25.60.01.02.01.03).

**Completion Criteria:**

- The WSB Project is executed with a Cost Performance Index (cumulative) of 0.98 or greater (\$250,000 at the end of each quarter). If the cumulative CPI is 0.95 - 0.98, the PBI will be reduced to \$125,000 for that quarter. If the cumulative CPI is 1.02 or greater, the PBI for the quarter will be increased to \$350,000.
- The WSB Project is executed with a Construction Schedule Performance Index (cumulative) of 0.95 or greater (\$250,000 at the end of each quarter). If the cumulative Construction SPI is less than 0.95, but is 1.0 or greater for the individual quarter, the criteria will be considered to have been met.

**Assumptions:**

- Construction activities associated with other NNSA contractors will not unduly affect the work on the Waste Solidification Building. SRNS has the responsibility for adequately coordinating and integrating the WSB scope of work with other entities on-site.
- Funding is available to complete the task.
- It is recognized that CPI's and SPI's may fluctuate for a variety of reasons, some of which do not accurately reflect project performance. In the event that the cumulative CPI and/or construction SPI falls below the threshold value at the end of a quarter, the quarterly payments for the affected CPI and/or SPI will be withheld. However, the performance fee for a previous quarter under this measure may be earned at the end of a subsequent quarter if the cumulative CPI and/or construction SPI increases above the required threshold. At the conclusion of FY2011, however, any performance fee for the

4<sup>th</sup> or previous quarters not yet earned will not be paid. Available fee under this measure is not eligible to be earned in FY2012.

**Government Furnished Services / Items:**

None identified.

---

**Contract Output 5:** Safely execute SRNS assigned work on the MOX Fuel Fabrication Facility (MFFF) project in accordance with approved cost and schedule baselines for the PDP electrical substation or contained in authorized Work Task Agreements.

\$600,000 of the Nuclear Nonproliferation PBI will be paid on a quarterly basis for providing timely support to the MFFF project and MIFT program in accordance with the integrated project schedule.

**Completion Criteria:**

Oversee the closeout of the PDP electrical substation contract with South Carolina Electric and Gas to ensure all subcontract requirements are met  
Support energizing the substation and tie-in to the MFFF temporary power  
Complete the physical modifications to the MOX supplied analytical lab equipment in accordance with the approved nuclearization design  
Execute assigned support tasks in accordance with approved Work Task Agreements with Shaw AREVA MOX Services in a timely and efficient manner  
Construction support (badging, training, utilities, waste hauling/disposal)  
Instrument calibration  
Execute assigned tasks as requested by NNSA in support of the MFFF project and MIFT program in a timely and efficient manner  
Program management  
Feed materials characterization  
Alternate Feed Stock (AFS) studies  
MOX start-up strategy, proposal and operations planning reviews

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified

---

**Contract Output 6:** Execute SRNS assigned work related to NNP Pu Disposition Infrastructure and associated work activities by providing cost-effective support for those activities common to the nonproliferation program and projects.

~~\$250,000~~ **\$1,050,000** of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the Nuclear Nonproliferation Program (NNP) Pu Disposition Infrastructure and associated work activities. Each completion criteria is valued as noted below.

WBS: 01.25.60.05

**Completion Criteria:**

Prepare and maintain the MOX Feed Gap Analysis Study

Prepare study to the target PDC funding (project operational in 2024) by October 30, 2010.  
(\$12,500)

~~Maintain and update the study throughout the fiscal year (\$12,500)~~

~~Complete the Pu Disposition Program Programmatic Risk Assessment by February 28, 2011.  
(\$25,000)~~

Prepare a Needs Assessment for a multi-purpose building line item project by March 31, 2011 to support the FY2013 budget process. (\$25,000)

Prepare the Plutonium Disposition Program Execution Plan - Prepare a review quality draft of an updated Plutonium Disposition Program Execution Plan within 60 days of receiving written guidance from NNSA on content and major programmatic assumptions. For planning purposes, assume delivery of product in the 4th quarter of FY 2011. The plan must be consistent with and integrated with other site strategic and system plans. (\$25,000)

Provide support for Pu Disposition Program integration activities:

The Plutonium Disposition Integrated Program schedule is updated, analyzed, and issued not less than quarterly. (\$12,500)

Support two semi-annual project and program reviews consistent with the content and format requested by NNSA-HQ. (\$7,500)

Maintain all required interface control documents for the Pu Disposition Program including development of revisions or new ICD's as requested by NNSA. (\$12,500)

The concurrence version of the revised AFS ICD incorporating AFS-2 material should be submitted by 4/29/11.

The concurrence version of the Pantex – SRS Pit Shipment ICD should be submitted by 4/29/11.

Support the development of the Surplus Pu Disposition Supplemental Environmental Impact Statement including:

Provide timely, quality responses to data calls for technical input for SRS facilities and capabilities including K-Area, H-Canyon, DWPF, PDC, WSB, and the Pu Disposition Program (\$15,000)

Provide technical and programmatic support to NNSA in the development of responses to comments, analysis, revisions, and additional data required for the SEIS (\$15,000)

Demonstrate leadership and management of the NNSA Pu Disposition Program through development of an organizational entity that provides timely, quality, contractor neutral information, recommendations, reports, and studies. Business systems and management structure are adequate to provide clear ownership of the Pu Disposition Program within SRNS, to provide a direct counterpart to NNSA NNP organizations at SRS, and demonstrates SRNS's

commitment to providing the resources necessary to support the projects and programs that make up the Pu Disposition Program. ~~(\$87,500)~~ (\$100,000)

Develop a Test Plan with Los Alamos National Laboratory to demonstrate 3013 container equivalency is achieved at a lower oxidation temperature and that no metal exists in oxides after oxidization at lower temperatures, consistent with the MOX feed specification. (\$25,000)

Feedback on performance for this objective will be provided in writing on a quarterly basis and will be provided verbally during monthly meetings between counterparts.

#### **Assumptions:**

Funding will be adequate to support the scope.

#### **Government Furnished Services / Items:**

None identified

**Contract Output 6-SUB:** Conduct program and project management activities supporting NNSA's nuclear nonproliferation program in a safe, secure, and responsive manner. (Business Management).

#### Fee Available

Up to \$800,000 of fee may be earned at the end of the assessment period for the nuclear nonproliferation program performance associated with Business Management. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

- A. Financial Management. Budget and financial deliverables per the Planning, Programming, Budget, and Evaluation (PPBE) process will be provided in accordance with established due dates.

#### **Completion criteria include:**

1. The SRNS Nuclear Nonproliferation Program (NNP) will maintain an effective and timely information response process. All information requests, budget exercises, work insertion requests, etc., will be fully supported at both the NNP and SRNS corporate level. The fiscal management efforts and work products will be evaluated on such factors as responsiveness, quality, timeliness, proactive resolution of emergent issues and concerns, and communication with NA-26/SRS and SRNS.
2. SRNS NNP will keep NNSA apprised of any and all accounting changes that affect NNSA costs. This includes, but is not limited to, changes to indirect rates, cost collection methodologies for pension and Work Force Restructuring costs, etc. SRNS NNP must ensure that NNSA's interests are considered and SRNS corporate provides NNSA (NA-26-

SR and/or SRSO) sufficient opportunity to participate in discussions prior to at decision being made.

3. SRNS will maintain an effective and efficient funds controls system. Uncosted balances are maintained consistent with sound financial management. Due consideration will be given to multi year expense projects, multi-year program and productivity strategies and timing of funding and scope direction. Indirect costs and rates will be tracked and managed to identify and mitigate potential perturbations to planned direct work.

B. Program & Project Management. SRNS will manage their portions of the nuclear nonproliferation program consistent with the NNSA Program Management Policy (BOP-006.001) and in an integrated, professional manner. The NNP includes both major line item projects and day to day program management functions. NNSA relies upon SRNS to provide technical information, advice, and program management functions that must be strategic in nature and focused with the best interests of NNSA and the program at the forefront.

**Completion criteria include:**

Plan, execute, and manage to established scope, cost, schedule, and risk baselines for all program elements including:

1. Each individual program will be planned, executed, managed, and will maintain acceptable cost and schedule performance as established by Work Authorization Directives, Prioritized Project Lists, PCD Requirements, Baseline Dismantlement Schedule, program implementation plans, program execution plan, and all other program requirements.
2. Aggregate evaluation of review results indicates programs are routinely implemented in accordance with requirements.
3. Information requests, budget exercises, work insertion requests, etc., will be supported. Develop and submit business cases as requested.
4. Safety will be emphasized for all aspects of the NN program ensuring effective integration of safety and security into the design and construction of all nuclear line item projects in accordance with DOE-STD-1189. Project and program meetings will routinely discuss safety for project personnel and will emphasize lessons learned at SRS construction sites and projects at other DOE sites. Management presence in the field is significant and observable.
5. Manage projects within established scope, cost, and schedule baselines.
6. Project activities and resources are effectively planned and integrated to ensure deliverables are timely, meet requirements, and are of good quality.

---

~~\$3,900,000~~ **\$3,100,000** of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the PDC project activities, per Alternative # 8 level one schedule, dated 6/29/10 and BCP 10-0009.



### **WBS 01.25.60.01.03**

**Contract Output 7:** Support NNSA-SR and NNSA-HQ reviews of the accelerated PDC CD-1 package resulting in NNSA-HQ CD-1 approval. “Pink” document preparations and submissions are ongoing and provide enhanced information to support CD-1. Coordinate preparation, submission, and approval process for the PDC Vulnerability Assessment documents (VA).

**17% 21% (\$650,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**7A.** Coordinate preparation, submission, and approval process for full PDC Vulnerability Assessment document(s) to support ESAAB decision (by 10 Dec 2010 BCP 10-0009). (\$100,000)

#### **Completion Criteria:**

1. VA supports design, cost and schedule requirements.
2. VA document(s) are fully coordinated and approved by all required stakeholders.
3. Review periods are published and appropriate for all required stakeholders.

#### **Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC.
3. NNSA-HQ CD-1 approval by December 15, 2010.

#### **Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**7B.** Provide Project Integrator and Design Authority support for NNSA-SR and NNSA-HQ reviews resulting in an accelerated CD-1 package ready for ESAAB approval by 12/15/10. (\$550,000)

#### **Completion Criteria:**

1. Per the PDC Integrated Project Team (IPT) accelerated CD-1 schedule, prepare CD-1 NNSA review packages and disposition CD-1 comments in a timely and accurate manner.
2. CD-1 package process is fully supported by SRNS and package is ready for ESAAB and other NNSA reviews in sufficient time to meet a December 15, 2010 scheduled approval.
3. 1<sup>st</sup> QTR FY11 “Pink” documents that support CD-1 approval are of high quality with minimal revisions, and are available per BCP10-0009) scheduled dates.

#### **Assumptions:**

1. Funding will be available to support this scope.

2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

---

**Contract Output 8**— Provides Material Storage (MS) design support as design authority (DA), technology development, and operability expert; coordinates and implements safety/security planning and documents; develops long lead procurement planning and procurement activities; prepares and implements Congressional cost / schedule / baseline preparation for MS CD 2/3A; plan and execute construction / execution readiness activities; project integration role; and CD document preparation / packaging / support.

**18% (\$700,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

**8A.** Develops, updates, and/or prepares safety documentation for CD 2/3A (30 Sep 2011) for Material Storage subproject in accordance with DOE STD 1189 and DOE O 413.3A. (\$75,000)

**Completion Criteria:**

1. All required safety documents are approved and available for MS CD 2/3A package and procurement packages.
2. Design reviews focus on safety systems.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**8B.** Develops, updates, and/or prepares security documentation for MS CD 2/3A in accordance with DOE O 413.3A (30 Sep 2011). (\$75,000)

**Completion Criteria:**

1. Update to Preliminary Security Vulnerability Assessment Report is fully tailored to meet MS requirements in preparation for its D&R construction activities for CD 2/3A package and procurement packages.
2. Design reviews focus on security systems.

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~
- ~~2. SRNS is the project integrator for PDC Project.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~**8D.** Prepare for and baseline the CD-2/3A MS subproject schedule as part of the overall PDC schedule. Schedule, cost, and performance measurement baseline are established and used for variance analysis and indices measures. Functional reviews are completed by the contractor personnel to ensure the schedule elements reflect level of detail to manage project activities effectively (30 June 2011). (\$200,000)~~

**Completion Criteria:**

- ~~1. Prepare and baseline CD-2/3A MS subproject schedule, estimate, and performance measurement baseline that are complete and functionally reviewed.~~
- ~~2. Resource loaded schedule is proactively used to manage cost and schedule performance indices within planned and approved thresholds.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~
- ~~2. SRNS is the project integrator for PDC Project.~~

**Government Furnished Services/Items:**

- ~~1. Funding profiles for planning.~~

~~**8E.** Contractor prepares long lead and other procurement packages for MS in accordance with the approved baseline schedule to support D&R (and construction) (30 July 2011). (\$100,000)~~

**Completion Criteria:**

- ~~1. Prepare long lead and other MS procurement packages that will support early FY12 requirements per the IPS.~~
- ~~2. Procurement packages are complete and useable packages with required NNSA reviews/approvals planned for and obtained based upon established thresholds. NNSA review and approval periods are established in the IPS.~~
- ~~3. Procurement plans are updated as needed to recognize and accommodate scope, cost, schedule, and procurement methodology revisions.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~
- ~~2. NNSA HQ CD-1 approval by December 15, 2010.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~8F. Provides design and technology development support for MS subproject for CD-2/3A. Execution of Design Authority (DA) and project integrator roles ensures a 50% design at CD-2/3A that conforms to procurement strategy (30 May 2011). (\$125,000)~~

**Completion Criteria:**

- ~~1. Design has been reviewed for quality in the areas of technology, constructability, operability and meeting project scope/mission needs, including safety and security requirements.~~
- ~~2. Design documents have been coordinated with design agent, NNSA, and other stakeholders to meet procurement packaging needs, and approved schedule for completion.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~
- ~~2. NNSA HQ CD-1 approval by December 15, 2010.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~8G. Contractor provides Project Integrator support for NNSA-SR and NNSA-HQ reviews resulting in a MS CD-2/3A D&R package ready for ESAAB by September 30, 2011. (\$125,000)~~

**Completion Criteria:**

- ~~1. Project integration is functioning and teams are progressing efficiently and effectively toward project execution goals.~~
- ~~2. CD package has fully coordinated disposition comments by document and Project Integrator supports NNSA reviews in a timely and quality manner. Documents meet DOE O 413.3A and project schedule dates.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~
- 

**Contract Output 9:** Earned Value Management System (EVMS) is applied to the PDC Project per DOE O 413.3A.

~~2.5% (\$100,000)~~ **2.4% (\$75,000)** of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:

**Completion Criteria:**

- ~~1. EVMS system meets certification requirements as stipulated in DOE O 413.3A and therein cited standards and threshold(s). Required compliance reviews are fully coordinated with review periods to meet order intent. (\$25,000)~~
2. Issue Project Controls Plan by December 20, 2010. (\$25,000)
3. Issue EVMS Implementation Plan by January 26, 2011. (\$25,000)
4. Issue TPC Estimate Execution Strategy & Plan October 14, 2010. (\$25,000)

**Assumptions:**

1. Funding will be available to support this scope.
2. Documents are thorough and complete and require minimal rework.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.
- 

**Contract Output 10** ~~Stabilization and Packaging (S&P) Conceptual Design (CD) CD-3A Demolition and Removal (D&R) package by September 30, 2011.~~

~~20.5% (\$800,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:~~

~~10A. Develop and implement Safety CD-3A documentation for S&P in accordance with DOE-STD 1189 and DOE O 413.3A (\$75,000)~~

**Completion Criteria:**

- ~~1. Safety documents support CD-3A approval by NNSA by 30 Sep 2011.~~

**Assumptions:**

~~1. Funding will be available to support this scope.~~

**Government Furnished Services/Items:**

~~1. NNSA will complete reviews within 10 working days or as agreed.~~

**10B.** Develop and implement Security CD-3A documentation for S&P (30-Sep-2011) (\$75,000)

**Completion Criteria:**

- ~~1. Security documents support CD-3A approval by 30-Sep-11.~~
- ~~2. Update to Preliminary Security Vulnerability Assessment Report is fully tailored to meet S&P requirements in preparation for its D&R construction activities for CD-3A package and procurement packages.~~
- ~~3. Design reviews focus on security systems.~~

**Assumptions:**

~~1. Funding will be available to support this scope.~~

**Government Furnished Services/Items:**

~~1. NNSA will complete reviews within 10 working days or as agreed.~~

**10C.** Contractor develops and implements activities for Construction or Execution Readiness activities for S&P CD-3A (30-June-2011). (\$100,000)

**Completion Criteria:**

- ~~1. Supports activities associated with a CD-3A External Independent Review for Construction or Execution Readiness per DOE O-413.3A.~~
- ~~2. Report(s) content is thorough, complete, and provides documentation that provides a sound basis for the subproject's approval for construction.~~
- ~~3. Report(s) are provided in time for review and comment period that supports the decision approval dates.~~

**Assumptions:**

~~1. None.~~

**Government Furnished Services/Items:**

~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~10D. Prepare for CD-3A S&P subproject schedule as part of the overall PDC schedule. Schedule, cost, and performance baseline are established and used for variance analysis and indices measures. Functional reviews are completed by the contractor personnel to ensure the schedule elements reflect level of detail to manage project activities effectively. (30 June 2011) (\$200,000)~~

**Completion Criteria:**

- ~~1. Prepare CD-3A S&P subproject schedule, estimate, and performance baseline that are complete and functionally reviewed.~~
- ~~2. Resource loaded schedule is proactively used to manage cost and schedule performance indices within planned and approved thresholds.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~
- ~~2. SRNS is the project integrator for PDC Project.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~10E. Prepare long lead and other procurement packages for S&P in accordance with the approved baseline schedule to support D&R (and construction) (30 July 2011) (\$100,000)~~

**Completion Criteria:**

- ~~1. Prepare long lead and other S&P procurement packages that will support FY12 requirements per the IPS.~~
- ~~2. Procurement packages are complete and useable packages with required NNSA approvals. NNSA review and approval periods are accommodated in the IPS.~~
- ~~3. Procurement plans are updated as needed to recognize and accommodate scope, cost, schedule, and procurement methodology revisions.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~10F. Provides design and technology development support for S&P subproject for CD-3A. Execution of Design Authority (DA) and project integrator roles ensures a design at CD-3A that conforms to S&P procurement strategy. (30 May 2011) (\$125,000)~~

**Completion Criteria:**

- ~~1. Design has been reviewed for quality in the areas of technology, constructability, operability and meeting project scope/mission needs, including safety and security requirements.~~
- ~~2. Design documents have been coordinated with design agent, NNSA, and other stakeholders to meet procurement packaging needs, and approved schedule for completion.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

~~10G. Contractor provides Project Integrator support for NNSA-SR and NNSA-HQ reviews resulting in an S&P CD-3A D&R package ready for ESAAB by September 30, 2011. (\$125,000)~~

**Completion Criteria:**

- ~~1. Project integration is functioning and teams are progressing efficiently and effectively toward project execution goals.~~
- ~~2. CD package has fully coordinated disposition comments by document and Project Integrator supports NNSA reviews in a timely and quality manner. Documents meet DOE O 413.3A and project schedule dates.~~

**Assumptions:**

- ~~1. Funding will be available to support this scope.~~

**Government Furnished Services/Items:**

- ~~1. NNSA will complete reviews within 10 working days or as agreed.~~

---

**Contract Output 11 – (deleted)**

---



**Contract Output 12:** Execute PDC activities in compliance with the current version of DOE Order 413.3A along with all contractual requirements in a quality, responsive, and cost effective manner in accordance with the PDC IPT schedule.

**42% ~~(\$1,650,000)~~ 76.6% (\$2,375,000) of the allocated fee for the execution of assigned work related to the PDC project will be earned as follows:**

NNSA will provide a periodic evaluation of SRNS' performance with respect to these completion criteria as part of the normal contractor feedback process.

#### **12A. Integrated Safety and Security**

NNSA expects SRNS have a mature PDC project integrated safety and security management systems in accordance with DOE Policies 450.4 and 470.1 and have a standard methodology/business model for integrating safety and security within all project systems, processes, and procedures such that there exists a high likelihood of no safety or security events.

It is understood that Excellence goes well beyond maturity. It is understood that SRNS has established some level of maturity already to achieve excellence in integrated safety and security management with respect to completion of smaller projects and operating the SRS in the past. However, because PDC is a unique large major system acquisition and very complex it may take SRNS a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary integrated safety and security management techniques, systems, processes, and procedures to support PDC and the S&P and MS sub-projects. As SRNS continues to mature during project execution, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

#### **Completion Criteria:**

1. No safety incidents, issues, or concerns during the performance period.
2. No safeguards and security incidents, issues, or concerns during the performance period.
3. Any incidents, issues, or concerns will be properly communicated and be addressed in a timely manner and evaluated to avoid reoccurrence.
4. Identify corrective actions when incidents occur and monitor effectiveness.
5. Institute a proactive program to avoid safety and security issues and these report activities.
6. Effectively participate in the Safety Design Integration Team and the Security Design Integration Team to optimize PDC design, construction, and operations activities.
7. Respond to IPT members, customer, and stakeholders in an integrated, timely, constructive, and quality manner.

8. Provides support of tasks for evaluations of:
  - a. K Area 2 MT Low Scope Option
  - b. K Area 3.5 MT more cost effective project
  - c. 3.5 MT K Area Feasibility Study
  - d. Integrated Priority List

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12B. Contractor Assurance**

NNSA expects SRNS have a mature Contractor Assurance system that integrates SRNS Management and Governance, Project Execution Management and NNSA Project Oversight Management System into a single comprehensive Project performance management system. It is expected that Contractor Assurance system establish a standard methodology with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

To be effective, the PDC CAS must integrate project contractor(s) management (SRNS, URS, LANL) governance, and NNSA PDC oversight management systems into a single comprehensive PDC project performance management system:

- 1) The PDC CAS enables PDC contractor management to provide reasonable assurance that project scope, schedule, and cost objectives will be met and contract requirements fulfilled; that site workers, the public, and the environment are protected; and that project execution and business systems are effectively run and continuously improved.
- 2) The PDC CAS enables the project contractor's governance system to define acceptable performance outcomes, to provide oversight of project and contract performance, and to hold contractor management accountable for these outcomes so that the contractor may provide assurance to NNSA.
- 3) Finally, a robust and effectively functioning PDC CAS builds trust between NNSA and its contractors, helps to ensure alignment between the NNSA and executing contractors in accomplishing and addressing Project needs, and allows NNSA to optimize its oversight function to leverage the processes and outcomes of its contractor(s).

It is understood that Excellence goes well beyond maturity. It is understood that SRNS must have maturity to achieve excellence and excellence with the Contractor Assurance System and it may take SRNS and the contractor project team a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary Contractor Assurance system tools, techniques, processes, and procedures. As

SRNS begins to mature within the Contractor Assurance system, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

**Completion Criteria:**

1. Perform planned assessments per the approved PDC Contractor Assurance Plan.
2. Submit an approved FY12 Contractor Assurance Plan during the 4<sup>th</sup> quarter of FY11.
3. Submit a Quality Implementation Plan for PDC compliant with ANME NQA-1 version 2008 and 2009 addendum.
4. Monitor and document PDC Project Contractor Assurance through scheduled QA oversight surveillance.
5. Document analyses, resolution, and tracking/retrieval of issues to enhance project performance.
6. Issue Operating Experience to the PDC IPT.
7. Effectively manage the PDC Lessons Learned Program
8. Respond to IPT members, customer, and stakeholders in an integrated, timely, constructive, and quality manner.
9. Provides support of tasks for evaluations of:
  - a. K Area 2 MT Low Scope Option
  - b. K Area 3.5 MT more cost effective project
  - c. 3.5 MT K Area Feasibility Study
  - d. Integrated Priority List

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12C. Conduct of Project Management**

NNSA expects SRNS have a mature DOE O 413.3A project management system and executes project management with a standard methodology/business model with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

It is expected that SRNS develop a project management culture throughout the entire lifecycle of the PDC project that consistently executes project management tools, techniques, processes, and procedures. Excellence will be achieved when SRNS matures the PDC project environment such that there exists a continuous stream of successfully managed activities, fragment of activities and/or subprojects and where success is measured by what is in the best interests of both the project and project organizations.

It is understood that Excellence goes well beyond maturity. It is understood that SRNS must have maturity to achieve excellence and excellence in project management may take SRNS a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary project management tools, techniques, processes, and procedures. As SRNS begins to mature within project management, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is a continuous stream of successful set of activities/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

#### **Completion Criteria:**

1. The trend program and CCB function in a disciplined and timely manner.
2. Earned Value Management System is utilized to monitor and report performance and provides required project performance metrics that meet project thresholds.
3. The Risk Management program captures/document risks and identifies opportunities. Identified risks will be managed and monitored for on-going mitigating actions.
4. Accurate monthly reports are provided to NNSA demonstrating prudent project management and ownership.
5. Contract and business management is efficient and documents require little or no revisions. Cost reports accurately demonstrate effective project management, integrator roles and responsibilities, and project status.
6. Project integration role is inculcated within all teams and work proceeds seamlessly toward project goals and milestones.
7. Site coordination efforts provides PDC project with required information, agreements and approvals to meet IPS.
8. A resource loaded Integrated Project Schedule is in place within the first quarter to which the team monitors project performance on at least a weekly basis. Schedule covers the FY12 and 13 activities with sufficient detail to support budget year and out year Federal budget processes.
9. Effectively manage the PDC Value Management program to optimize project performance and document activities and results.
10. Fully support the Federal Budget Process with high quality, timely planning tools and deliverables

11. Respond to IPT members, customer, and stakeholders in an integrated, timely, constructive, and quality manner.
12. Provides support of tasks for evaluations of:
  - a. K Area 2 MT Low Scope Option
  - b. K Area 3.5 MT more cost effective project
  - c. 3.5 MT K Area Feasibility Study
  - d. Integrated Priority List

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12D. Conduct of Engineering**

NNSA expects SRNS have a mature DOE O 413.3A Engineering oversight & Design Authority and execute engineering and oversight with a standard methodology with accompanying systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

NNSA expects SRNS to be an independent Engineering Authority that is responsible for technical requirements and identification of all waivers/exceptions/exemptions to them, and will build a disciplined, systematic approach to identifying, analyzing, and controlling requirements and hazards throughout the life cycle of the PDC Project execution. It is expected the independent Engineering Authority does the following as a minimum:

- a) Develop and maintain FDD & SDD for the PDC project
- b) Be the sole waiver/exceptions/exemptions authority for technical standards bringing those to the NNSA Authority Having Jurisdiction for approvals
- c) Conduct trend and risk analysis at the component, sub-system, system, and sub-project levels
- d) Conduct, support, and oversee integrated hazard analysis
- e) Independently verify project and operational technical readiness

It is understood that Excellence goes well beyond maturity. It is understood that SRNS has established a level of maturity already to achieve excellence and excellence in engineering management may not take SRNS as long to achieve as the other functional areas.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary engineering tools, techniques, processes, and procedures. As SRNS continues to mature within engineering, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous

stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

**Completion Criteria:**

1. Actively participate and provide integrated, timely, constructive, and quality support to the Technical Oversight Group (TOG) and the Integrated Project Team (IPT). Technology maturity issues that have the potential to impact PDC Project scope, cost, or schedule are reported timely to NNSA.
2. SRNS activities and support should enhance, not adversely impact, other IPT activities.
3. Design Authority (DA) role provides solid engineering documents and input to design agent, NNSA, and other stakeholders.
4. GB test bed final design, fabrication, and testing are successful in demonstrating 'real life' GB conditions. Test bed demonstrations confirm design assumptions and/or provide information for input to modify designs through appropriate configuration management.
5. K-Area Complex (KAC) site conditions for as-built structures and infrastructure; seismic analysis information; geotechnical sampling plans, field sampling and analyses meet PDC technical input requirements for design and CD-2/3A documents.
6. Support for studies, technical reviews, technology development review and assessment are supported to provide project scope affirmation and/or changes.
7. Manage Engineering activities to optimize project performance.
8. Fully support project trend program by identifying potential opportunities, cost, or schedule issues as early as possible.
9. Provides support of tasks for evaluations of:
  - a. K Area 2 MT Low Scope Option
  - b. K Area 3.5 MT more cost effective project
  - c. 3.5 MT K Area Feasibility Study
  - d. Integrated Priority List

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**12E. Conduct of Construction**

NNSA expects SRNS have a mature DOE O 413.3A Construction Management and Construction execution organization that has a standard methodology with accompanying

systems, processes, and procedures such that there exists a high likelihood of repeated successes (80/20).

**Construction Management:**

NNSA expects SRNS as the construction manager provide NNSA with specialized knowledge, experience, and resources to navigate through the complexities of the PDC project execution and satisfying the DOE O 413.3A requirements. It is expected that SRNS tailor the construction management services to satisfy the needs of the PDC project. It is expected that SRNS construction management services support the pre-planning, design, construction, post construction award-engineering services, and project management expertise that can assure the best possible project outcome no matter what type of project delivery method used. It is expected that the SRNS CM services with expertise knowledge in organizing, scheduling, mobilizing, and directing equipment, material, and personnel in performance of a construction contracts. SRNS CM should add value by providing the resources and expertise needed to manage quality, cost, schedule, scope, and risks associated with design and construction to help NNSA achieve its project and programmatic objective.

**Construction Execution:**

NNSA expects SRNS as the prime construction execution contractor be responsible for the best value means and methods to be used in the construction execution of the project in accordance with the approved construction execution plans and detailed work packages. SRNS should be responsible for the supplying of all material, labor, equipment, (engineering vehicles and tools) and services necessary for the construction of the project on schedule and in safe, secure, and quality manner. SRNS may contract portions of the PDC project and NNSA expectations would then be covered under the CM responsibilities.

It is understood that Excellence goes well beyond maturity. It is understood that SRNS has established some level of maturity already to achieve excellence in construction management and execution with respect to completion of smaller projects in the past. However, because of the size and complexity of PDC it may take SRNS a few years to achieve.

It is expected by the end of FY11 that SRNS will have in place and be implementing the necessary construction management and execution tools, techniques, processes, and procedures to support PDC and the S&P and MS sub-projects. As SRNS continues to mature within Construction management and execution, it is expected that more successes than failures will occur. When SRNS is performing in an excellence mode it is expected that there is continuous stream of successful set of activities/fragnets/sub-projects. It is understood that even after establishing a culture and execution of excellence, there will still be some failures.

**Completion Criteria:**

1. Construction Strategy and Execution Plan are approved by 21 Oct 2010

2. Utility/site infrastructure planning and input provides for sound engineering, timely criteria coordination/planning with site stakeholders to support early FY12 construction-phase activities.
  - a. By 31 Jan 2011, provides a PDC K-Area Master Plan;
    - i. Locating all support facilities buildings and/or new or temporary structures,
    - ii. Locating traffic flow routes
  - b. By 31 Jan 2011, provides proposed functions for the temporary PDC structure.
    - i. Including dimensions/square footage (SF) requirements
    - ii. Identify current and future utility locations
3. Integrates the NNSA PDC federal staff / K-Area operations, and other required stakeholders in the construction planning development process.
4. Contractor actively participates in project design development by performing constructability / operability / maintainability reviews and providing constructability input to the design process.
5. Provides pre-construction site planning and permitting strategy coordination to support timely D&R and FY12 D&R and construction activities.
6. Collaborates on construction plans and strategy with the NNSA Construction Lead.
7. Prepare a PDC Construction Planning and Executing Strategy for KAC support facilities (structures [temporary vs. permanent] and utilities) that is prioritized, and available for execution should construction funding become available in near-term fiscal years.
8. Contractor shall demonstrate a fully functional and efficient QA/QC organization is in place to support all vendors, suppliers, subcontractors, internal self-assessment reviews, etc.
9. Manage Construction activities to optimize project performance.
10. Fully support project trend program by identifying potential opportunities, cost, or schedule issues as early as possible.
11. Provides support of tasks for evaluations of:
  - a. K Area 2 MT Low Scope Option
  - b. K Area 3.5 MT more cost effective project
  - c. 3.5 MT K Area Feasibility Study
  - d. Integrated Priority List

**Assumptions:**

1. Funding will be available to support this scope.

**Government Furnished Services / Items:**

1. NNSA will complete reviews within 10 working days or as agreed.



## **12F. PDC Alternatives Analysis**

Integrate, and lead as appropriate, the evaluation of the fifteen (15) K-Area low cost opportunities and final report for opportunities and perform a qualitative evaluation of the PDC Alternatives Analysis. (\$350,000)

### **Completion Criteria:**

1. On or before April 29, 2011, transmit to NNSA a qualitative evaluation of the PDC Alternatives Analysis (reference document Y-AES-G-00012) to determine and document whether any alternatives previously screened out would now be potential alternatives as a result of the change in program requirements. For those that are identified as potential alternatives, document the pros and cons as compared to the K-Area alternative.
  - a. Criteria used for the program requirements are included in the qualitative evaluations document.
  - b. Pros and cons for potential alternatives are well supported in the document and demonstrate depth and breadth of knowledge for program and technical requirements. (\$50,000)
2. By May 31, 2011, transmit to NNSA fifteen (15) opportunity evaluation reports incorporating NNSA comments; an overarching / recommendation opportunity evaluation report via the Cost Reduction report consisting of a verification/check of the PDC K- Area low cost value. (\$200,000); if final report(s) incorporating NNSA comments are completed by April 29, 2011, then completion criteria #2 is valued at (\$300,000).
  - a. The opportunity evaluations have been integrated to mitigate conflicting technical or feasibility issues.
  - b. The individual opportunity reports make clear recommendations regarding technical feasibility, capital cost, and/or life cycle costs from which best decisions can be made by DOE.
  - c. The overarching summary report for opportunity evaluation reports is fully capable of assisting in defining the requirement for a low-scope PDC project.
  - d. The Cost Reduction report clearly defines the baseline cost estimate being used and the opportunity cost reduction elements and potential risks.

### **Assumptions:**

1. Funding is available to support this scope.
2. NNSA programmatic direction is received through a Program Requirements Document update or Contracting Officer direction.

3. Per the IPT Opportunity Evaluation schedule, NNSA will complete reviews for completion criteria #2 within 5 working days.

## Nuclear Nonproliferation Multi-year PBI

Time Period: October 1, 2009 – September 30, 2013

Allocated Fee: \$TBD (see *Available Fee* below)

Rev. 1

**Performance Outcome:** Provide cost-effective management and technical support to the Nuclear Nonproliferation Programs so that the WSB project is completed within the cost and schedule baselines and in accordance with DOE Order 413.3A (or successor) and other applicable DOE directives, regulations, and requirements.

---

**Contract Output 1:** Safely execute the construction of the Waste Solidification Building in accordance with the approved project baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

Available Fee: The fee available for this contract output is structured as an incentive for the sharing of cost under-runs. The fee to be earned will be provided by WSB line-item funds and is in addition to the potential fees earned through the annual award fee pool as delineated in the M&O contract. The fee earned will be 50% of the funds remaining after project closeout. NNSA OPC costs are not included in this determination; therefore, the final actualized TPC will be subtracted from a ceiling of \$341,555,000 for the purpose of calculating fee.

Contract Measure: Up to 100% of the allocated incentive fee may be earned by Contract Output as follows:

Complete the WSB project, through project and contract closeout, at a Total Project Cost of less than \$341,555,000.

The approval of Critical Decision 4 must be on a schedule to support the need date of the Mixed Oxide Fuel Fabrication Facility and does not result in cost impacts to that project due to WSB schedule delays.

### Completion Criteria:

Critical Decision 4 is approved by NNSA.

All costs have completed the accrual process.

All contracts and subcontracts have been closed out and any required DOE reviews completed.

All claims for equitable adjustments and contract disputes have been resolved to a point that no further financial liability would be provided from project funds (see *Conditions* below).

All records documenting the completion of the subject activities in accordance with the applicable requirements are complete.

The completion date is currently forecast for 3rd quarter FY13 (see *Conditions* below).

**Cost Overruns:** In the event that project costs exceed the approved WSB project baseline (currently \$341,555,000), SRNS will be responsible for a portion of the actualized overrun. The overrun will be shared with the government at a ratio of 80% (NNSA) – 20% (SRNS). The maximum amount that SRNS will be liable for is capped at \$6,000,000.

**Assumptions:**

- Funding is available to support the project execution.
- In the event that NNSA directed scope changes result in an increase to the project baseline; i.e., additional funds provided for the line-item, the total available fee will be calculated based on the revised cost ceiling. This provision does not apply to a project baseline increased due to project performance.
- It is anticipated that changes will be experienced. Potential changes have been allocated for in project contingency analyses. These changes will be funded through available management reserve/contingency. SRNS should not assume that additional funds will be added to the line item and should expect that all changes will be provided for by current project funds (see *Scope Changes* below).
- Critical Decision 4 will be approved by NNSA in a timely manner to support the WSB schedule. SRNS is not responsible for delays in CD-4 approval, provided:
  - The request for approval is submitted in accordance with the WSB schedule and provides the necessary time for the NNSA review process.
  - The reason for delay is not attributable to SRNS performance or execution.

**Conditions:**

Fee under this incentive will be paid in its entirety upon project completion as delineated above. Completion is based on the Early Finish date, with the overriding goal of not impacting the MFFF schedule. There will be no penalty to SRNS should the MFFF need-date be delayed. In that event, the WSB project may have additional opportunities to save costs by adjusting schedule; e.g., less overtime required. Exceeding the Late Finish date does not necessarily eliminate the ability to earn fee under this incentive provided that Critical Decision 4 is approved prior to the MFFF need-date.

Should the MFFF need-date be earlier, but within the baseline WSB schedule contingency window, the WSB project will expend the funds necessary to meet the need-date. See *Contract Measure 2* above.

Upon payment to SRNS under this incentive, any additional late claims from a subcontractor related to the WSB scope will be paid by SRNS unless specifically accepted by NNSA.

**Scope Changes:** The TPC includes contingency funds to address anticipated events. However, it is expected that the project will be expected to absorb any new scope (including directed scope) using contingency funds. Examples of such scope changes that could impact project cost and/or schedule include, but are not limited to, new or revised DOE Orders/Standards, DNFSB Recommendations, or new laws issued by Congress. Because the only funds available for this incentive are within the project baseline, the contingency currently available will be used to

support project needs and will reduce the fee available as those funds are expended. It is not the intent of NNSA to penalize SRNS potential fee that it could have earned if additional funding had been provided, however fee is available only *as long as a surplus is maintained*. NNSA will make an equitable determination of “new and significant” scope items at the completion of the project for the purposes of identifying those funds available to be earned under this PBI. In this eventuality, costs for these scope increases will be provided first from the NNSA half of any under run to the extent available. If new and significant changes result in cost impacts greater than half of the surplus that would have been available, then NNSA would receive \$0 and the contractor’s fee would be reduced to cover the difference. The potential exists that should project costs rise to the current TPC ceiling, little if any funds may remain available for this incentive. Any adjustment is intended to cover new and significant additions to scope that are driven by external conditions and not addressed by existing risk analyses and will be made at the discretion of NNSA. Finally, if in NNSA’s determination, the WSB project would have been completed within the approved baseline except for such new and significant scope, and the scope resulted in exceeding the TPC, SRNS will not be liable for the cost overrun.

In the event that additional funding is obtained to address new scope, the WSB Performance Measurement Baseline will be revised. Any additional contingency commensurate with the new scope will not necessarily be considered as additional available fee. This PBI will be evaluated at that time to determine if an adjustment to the incentive is warranted.

#### **Government Furnished Services / Items:**

Approval of Critical Decision 4.

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
189		See Block 16C		11EM003262	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No change in the accounting and appropriation data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause I.28 - DEAR 952.215-70 Key Personnel (Dec 2000)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

Tax ID Number: 26-0240191

A. The purpose of this modification is to revise Section J, Appendix D, Key Personnel.

B. Part III, Section J, Appendix D Key Personnel is deleted in its entirety and replaced by Appendix D attached hereto.

C. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		Signature on File	07/19/2011
		(Signature of Contracting Officer)	

**PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS**

**SECTION J - LIST OF ATTACHMENTS**

**APPENDIX D**

**KEY PERSONNEL**

Pursuant to the clause entitled “Key Personnel,” the following positions are considered to be essential to work being performed.

<u>Name</u>	<u>Title</u>
Flowers, Garry-----	President and Chief Executive Officer
Dohse, Fred----- Officer	Executive Vice President and Chief Operating Officer
Michalske, Terry A.-----	Director, Savannah River National Laboratory
Hunt, Paul -----	Vice President, Nuclear Materials Operations
Donati, Dennis-----	Vice President, NNSA Programs
Eyler, David E -----	Vice President Engineering
Curtis, Jennifer -----	Vice President and Chief Legal Officer
Hanna, James -----	Vice President, Workforce Services
Doswell, Alice C. -----	Vice President, ESH&Q
Bilson, Helen E. -----	Vice President, Business Services

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
190		See Block 16C		11EM003234			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$54,348,055.01	
See SRNS FY2011 FINPLAN #17							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 17. Funds in the amount of \$54,348,055.01 are hereby obligated to CLIN 00001, thereby increasing it from \$2,900,536,913.05 to \$2,954,884,968.06 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,300,563,439.22 to \$4,354,911.23.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/20/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1      2		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
191		See Block 16C		11EM003234			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$3,049,100.00			
See SRNS FY2011 FINPLAN #17							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. Administrative correction: In paragraph B. of modification 190 the to and from amount should read "from \$4,300,563,439.22 to \$4,354,911,494.23."							
B. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 17. Funds in the amount of \$3,049,100.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,954,884,968.06 to \$2,957,934,068.06.							
C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,354,911,494.23 to							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>\$4,357,960,594.23.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
192		See Block 16C		11EM003234			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,225,800.00	
See SRNS FY2011 FINPLAN #17							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2011 FINPLAN 17. Funds in the amount of \$1,225,800.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,957,934,068.06 to \$2,960,983,168.06.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,357,960,594.23 to \$4,359,186,394.23.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/22/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
193		See Block 16C		11EM003347			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause H.28 - Performance Based Incentives						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the updates to the Fiscal Year 2011 Performance Evaluation and Measurement Plan (PEMP) as Revision five which is attached hereto. There are minor updates with no changes in overall fee.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/27/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
194		See Block 16C		11EM003401			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$8,059,005.00	
See SRNS FY11 FINPLAN #18							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. Administrative correction: In paragraph 14 A. of modification 192 the to and from amount should read "from \$2,957,934,068.06 to \$2,959,159,868.06."							
B. The purpose of this modification is to obligate funding to CLIN 00001 (Contract Base Work Scope) ) in accordance with SRNS FY2011 FINPLAN 18. Funds in the amount of \$8,059,005.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,959,159,868.06 to \$2,967,218,873.06.							
C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,357,960,594.23 to \$4,367,245,399.23.  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
195		See Block 16C		11EM003610			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY2011 FINPLAN #19				Net Increase: \$25,702,855.72			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 19. Funds in the amount of \$25,702,855.72 are hereby obligated to CLIN 00001, thereby increasing it from \$2,967,218,873.06 to \$2,992,921,728.78.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,367,245,399.23 to \$4,392,948,254.95.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/18/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
196		See Block 16C		11EM003610			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
10B. DATED (SEE ITEM 13)				01/10/2008			
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #19				Net Increase:		\$1,941,747.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. Administrative Correction: Modification 196 corrects all total obligations to contract DE-AC09-08SR22470.							
B. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 19. Funds in the amount of \$1,941,747.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,992,921,728.78 to \$2,994,863,475.78.							
C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		08/19/2011	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,392,948,254.95 to \$4,394,890,001.95.  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
197		See Block 16C		11EM003610			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,525,497.44	
See SRNS FINPLAN #19							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 19. Funds in the amount of \$1,525,497.44 are hereby obligated to CLIN 00001, thereby increasing it from \$2,994,863,475.78 to \$2,996,388,973.22.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,394,890,001.95 to \$4,396,415,499.39.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/19/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
198		See Block 16C		11EM003610			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$184,236.37	
See SRNS FINPLAN #19							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 19. Funds in the amount of \$184,236.37 are hereby obligated to CLIN 00001, thereby increasing it from \$2,996,388,973.22 to \$2,996,573,209.59.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,396,415,499.39 to \$4,396,599,735.76.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/19/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
199		See Block 16C		11EM003610			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13)			
				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$315,534.00	
See SRNS FINPLAN #19							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 19. Funds in the amount of \$315,534.00 are hereby obligated to CLIN 00001, thereby increasing it from \$2,996,573,209.59 to \$2,996,888,743.59.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,396,599,735.76 to \$4,396,915,269.76.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/19/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
200		See Block 16C		11EM003696			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the corrected American Recovery and Reinvestment Act (ARRA) Work Authorizations, which are attached hereto.							
B. This modification corrects administrative errors pertaining to: (1) the close-out date for Projects A, B, C and D; and (2) incidental activities under Projects A and D that were inadvertently omitted from the previous Statements of Work, but were part of the expected performance as of September 30, 2010.							
C. Costs associated with ARRA close-out activities shall be charged to the ARRA funds obligated under the contract.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/06/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	D. All other terms and conditions remain unchanged.				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1   1	
2. AMENDMENT/MODIFICATION NO. 201		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 11EM003956		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
X		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Section H, Clause H-28 Performance-Based Incentives					
		D. OTHER (Specify type of modification and authority)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to delete the American Recovery and Reinvestment Act (ARRA) Performance Evaluation and Measurement Plan (PEMP) Revision 2, incorporated by Modification No. 173, and to add the attached ARRA PEMP Revision 3 for the performance period of August 1, 2010 through December 31, 2012.							
B. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		09/13/2011	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
202		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$5,940,815.67			
See SRNS FY2011 FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (EM Base Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of \$5,940,815.67 are hereby obligated to CLIN 00001, thereby increasing it from \$2,996,888,743.59 to \$3,002,829,559.26.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,396,915,269.76 to \$4,402,856,085.43.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
203		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,174,999.82	
See SRNS FY2011 FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of \$1,174,999.82 are hereby obligated to CLIN 00001, thereby increasing it from \$3,002,829,559.26 to \$3,004,004,559.08.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,402,856,085.43 to \$4,404,031,085.25.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
204		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,375,000.00	
See SRNS FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of \$1,375,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,004,004,559.08 to \$3,005,379,559.08.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,404,031,085.25 to \$4,405,406,085.25 .							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
205		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$41,262.00	
See SRNS FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (National Aeronautics Space Administration Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of \$41,262.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,005,379,559.08 to \$3,005,420,821.08.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,405,406,085.25 to \$4,405,447,347.25.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/21/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1 1		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
206		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$26,494.74	
See SRNS FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of \$26,494.74 are hereby obligated to CLIN 00001, thereby increasing it from \$3,005,420,821.08 to \$3,005,447,315.82 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,405,447,347.25 to \$4,405,473,841.99.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/22/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
207		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$975,000.00	
See SRNS FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Justice Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of \$975,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,005,447,315.82 to \$3,006,422,315.82.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,405,473,841.99 to \$4,406,448,841.99.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/22/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
208		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease: - \$34,795.27			
See SRNS FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Commerce Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of -\$34,795.27 are hereby obligated to CLIN 00001, thereby decreasing it from \$3,006,422,315.82 to \$3,006,387,520.55.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,406,448,841.99 to \$4,406,414,046.72.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/23/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1 1		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
209		See Block 16C		11EM004064			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13)			
				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease: - \$748.98			
See SRNS FINPLAN #20							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 20. Funds in the amount of -\$748.98 are hereby obligated to CLIN 00001, thereby decreasing it from \$3,006,387,520.55 to \$3,006,386,771.57.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,406,414,046.72 to \$4,406,413,297.74.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/23/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
210		See Block 16C		11EM004216			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$766,876.10	
See SRNS FINPLAN							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Base Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in the amount of \$766,876.10 are hereby obligated to CLIN 00001, thereby increasing it from \$3,006,386,771.57 to \$3,007,153,647.67.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,406,413,297.74 to \$4,407,180,173.84.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
211		See Block 16C		11EM004216			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$63,099.61	
See SRNS FINPLAN							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in the amount of \$766,876.10 are hereby obligated to CLIN 00001, thereby increasing it from \$3,007,153,647.67 to \$3,007,216,747.28.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,407,180,173.84 to \$,407,243,273.45.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
212		See Block 16C		11EM004216			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$400,000.00	
See SRNS FINPLAN #21							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. Administrative correction to Modification 211: Paragraph A is corrected to read: The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in the amount of \$63,099.61 are hereby obligated to CLIN 00001, thereby increasing it from \$3,007,153,647.67 to \$3,007,216,747.28 and Paragraph B is corrected to read: As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,407,180,173.84 to \$4,407,243,273.45.							
B. In addition, the purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>the amount of \$400,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,007,216,747.28 to \$3,007,616,747.28</p> <p>C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,4,407,243,273.45 to \$4,407,643,273.45.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
213		See Block 16C		11EM004216			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$116,505.00	
See SRNS FINPLAN #21							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Nuclear Regulatory Commission Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in the amount of \$116,505.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,007,216,747.28 to \$3,007,733,252.28.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,407,643,273.45 to \$4,407,759,778.45.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
214		See Block 16C		11EM004216			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #21				Net Increase:		\$72,816.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in the amount of \$72,816.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,007,733,252.28 to \$3,007,806,068.28.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,407,759,778.45 to \$4,407,832,594.45.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1		
2. AMENDMENT/MODIFICATION NO. 215		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 11EM004216		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #21				Net Decrease:		-\$13,322.51	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2011 FINPLAN 21. Funds in the amount of -\$13,322.51 are hereby obligated to CLIN 00001, thereby decreasing it from \$3,007,806,068.28 to \$3,007,792,745.77.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,407,832,594.45 to \$4,407,819,271.94.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		09/29/2011	
				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
216		See Block 16C		11EM004272			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048				FACILITY CODE		10B. DATED (SEE ITEM 13)	
						01/10/2008	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended,    <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H.28 - Performance Based Incentives						
E. IMPORTANT:    Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the Fiscal Year 2012 Performance Evaluation and Measurement Plan (PEMP) which is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
217		See Block 16C		12EM000087			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #1				Net Increase: \$89,531,184.42			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Base Funds) in accordance with SRNS FY2012 FINPLAN 1. Funds in the amount of \$89,531,184.42 are hereby obligated to CLIN 00001, thereby increasing it from \$3,007,792,745.77 to \$3,097,323,930.19.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,407,819,271.94 to \$4,497,350,456.36.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		10/20/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
DE-AC09-08SR22470/217	2	2

PAGE	OF
------	----

2

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
218		See Block 16C		12EM000164			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN # 2				Net Increase: \$3,850,000.00			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Base Funds) in accordance with SRNS FY2012 FINPLAN 2. Funds in the amount of \$3,850,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,097,323,930.19 \$ to \$3,101,173,930.19.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,497,350,456.36 to \$4,501,200,456.36.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		10/26/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
219		See Block 16C		12EM000414			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$58,374,416.74	
SRNS FY12 FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Base Funds) in accordance with SRNS FY2012 FINPLAN 3. Funds in the amount of \$58,374,416.74 are hereby obligated to CLIN 00001, thereby increasing it from \$3,101,173,930.19 \$ to \$3,159,548,346.93.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,501,200,456.36. to \$4,559,574,873.10.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		11/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
220		See Block 16C		12EM000414			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13)			
				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) SRNS FY2012 FINPLAN 3				Net Increase:		\$38,834.95	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Commerce Funds) in accordance with SRNS FY2012 FINPLAN 3. Funds in the amount of \$38,834.95 are hereby obligated to CLIN 00001, thereby increasing it from \$3,159,548,346.93 to \$3,159,587,181.88.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-4 entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,559,574,873.10 to \$4,559,613,708.05.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		11/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1				
2. AMENDMENT/MODIFICATION NO. 221		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM000414		5. PROJECT NO. (If applicable)			
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.		
							9B. DATED (SEE ITEM 11)		
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470		
							10B. DATED (SEE ITEM 13) 01/10/2008		
CODE 798861048		FACILITY CODE							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>									
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.									
12. ACCOUNTING AND APPROPRIATION DATA (If required) SRNS FY 2012 FINPLAN 3				Net Increase:		\$36,626.00			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>									
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.								
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).								
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:								
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)								
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)									
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 3. Funds in the amount of \$36,626.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,159,587,181.88 to \$3,159,623,807.88.									
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,559,613,708.05 to \$4,559,650,334.05.									
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination									
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)					
				James Lovett					
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED			
(Signature of person authorized to sign)				Signature on File		11/30/2011			
				(Signature of Contracting Officer)					

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
222		See Block 16C		12EM000414			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$1,997,861.80			
SRNS FY 2012 FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2012 FINPLAN 3. Funds in the amount of \$1,997,861.80 are hereby obligated to CLIN 00001, thereby increasing it from \$3,159,623,807.88 to \$3,161,621,669.68.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,559,650,334.05 to \$4,561,648,195.85.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		11/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/222

PAGE	OF
2	2

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
223		See Block 16C		12EM000414			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$656,690.00	
SRNS FY 2012 FINPLAN 3							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (NASA Funds) in accordance with SRNS FY2012 FINPLAN 3. Funds in the amount of \$656,690.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,161,621,669.68 to \$3,162,278,359.68.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,561,648,195.85 to \$4,562,304,885.85.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		11/30/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
224		See Block 16C		12EM000709			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$7,846,472.52	
SEE SRNS FY 2012 FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Base Funds) in accordance with SRNS FY2012 FINPLAN 5. Funds in the amount of \$7,846,472.52 are hereby obligated to CLIN 00001, thereby increasing it from \$3,162,278,359.68 to \$3,170,124,832.20.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from 4,562,304,885.85 to \$. \$4,570,151,358.37							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/27/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
225		See Block 16C		12EM000709			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$53,398.00	
SEE SRNS FY 2012 FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Base Funds) in accordance with SRNS FY2012 FINPLAN 5. Funds in the amount of \$53,398.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,170,124,832.20 to \$3,170,178,230.20.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,570,151,358.37 to \$4,570,204,756.37							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/27/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
226		See Block 16C		12EM000709			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$420,000.00	
SEE SRNS 2012 FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 5. Funds in the amount of \$420,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,170,178,230.20 to \$3,170,598,230.20.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,570,204,756.37 to \$4,570,324,756.37							
C. Administrative correction to Modification 225: In paragraph A. (Environmental Management Base Funds ) is changed to read (State Funds).							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/27/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
227		See Block 16C		12EM000709			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$1,050,000.00			
SEE SRNS FY2012 FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2012 FINPLAN 5. Funds in the amount of \$1,050,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,170,598,230.20 to \$3,171,648,230.20.							
B. Administrative correction to Modification 226: In paragraph B.is corrected to read the total amount of funds obligated to the contract from \$4,570,324,756.37 to 4,570,624,756.3							
C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,570,624,756.37 to							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/27/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	4,571,674,756.37  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
228		See Block 16C		12EM000709			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:		-\$250,000.00	
SEE SRNS FY 2012 FINPLAN 5							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to deobligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2012 FINPLAN 5. Funds in the amount of \$-250,000.00 are hereby deobligated to CLIN 00001, thereby decreasing it from \$3,171,648,230.20 to \$3,171,398,230.20.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,571,674,756.37 to 4,571,424,756.37.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/27/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
229		See Block 16C		12EM000723			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No changes in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause H-28 - Performance Based Incentives, and Clause I.28 - DEAR 952.215-70 Key Personnel (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised Fiscal Year 2012 Performance Evaluation and Measurement Plan (PEMP). This is revision one to the approved PEMP which is attached hereto.							
B. In addition, this modification is to revise Section J. Appendix D, Key Personnel. Part III, Section J, Appendix Key Personnel is deleted in it entirety and replaced by Appendix D attached hereto.							
C The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/28/2011	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



**U.S. Department of Energy  
Savannah River Site**

**PERFORMANCE EVALUATION  
MEASUREMENT PLAN, Rev. 1  
Savannah River Nuclear Solutions, LLC  
CONTRACT NO. DE-AC09-08SR22470  
Modification No. 229**

**Evaluation Period:  
October 1, 2011 through September 30, 2012**

Rev. 1 effective: December 28, 2011

## Approval Page

**Concurrence:**

**Date:**

\_\_\_\_\_  
Signature on File

\_\_\_\_\_  
12/28/2011

Lucy Knowles  
Chief Counsel, Office of Chief Counsel

\_\_\_\_\_  
Signature on File

\_\_\_\_\_  
12/28/2011

Craig Armstrong  
Director, Office of Acquisition Management

\_\_\_\_\_  
Signature on File

\_\_\_\_\_  
12/28/2011

Doug Hintze  
Assistant Manager for Mission Support

**Approval:**

\_\_\_\_\_  
Signature on File

\_\_\_\_\_  
12/28/2011

James Lovett  
Contracting Officer (CO)  
DOE – Savannah River Site

## Revision Summary Page

Rev. #	Rev. Date	Affected Sections / Pages	Description of Revision
0	10/01/11	All	Initial Issue for this evaluation period.
1	12/xx/11	Page 35, Landlord Services PBI, Contract Output 1 Acceptance Criteria number 1 modified and number 3 deleted	Modified: 1.a. including a planning document for land use analysis and strategies by site areas <del>3. Revised Nuclear Materials Operations Systems Plan by April 30, 2012 to reflect latest nuclear material storage, disposition and stabilization assumptions, risks, and facility capabilities.</del>
1	12/xx/11	Page 20, milestone SRNS2012NMO-1.05 changed date and Completion Criteria	Date: <del>12/30/11</del> 3/31/12 Completion Criteria: Prepare and issue H Canyon Resumption Plan <del>documenting activities required to resume operations.</del> per the revised scope of the DOE letters of direction (11/10/11 and 11/22/11).
1	12/xx/11	Page 22, milestone SRNS2012NMO-2.05 changed date	Date: <del>1/31/12</del> 6/30/12
1	12/xx/11	Page 24, milestone SRNS2012NMO-4.01 add second date and change Completion Criteria and Acceptance Criteria	Date: 3/31/12 6/22/12 Fee: <del>\$500,000</del> a. \$350,000 b. \$150,000 Completion Criteria: a. Complete Vault Acceptance for the 9975 shipping containers and turnover to operations by 3/31/12 (\$350,000) b. Complete PAV CD-4 milestone by 6/22/12 (\$150,000) Acceptance Criteria: 1. DOE-SR will verify / witness the contractor Readiness Assessment. All Type "A" findings will be closed, the Authorization Agreement approved, and the vault turned over to operations for storage of the 9975 shipping containers. 2. DOE-SR will verify an acceptable complete CD-4 package has been submitted in accordance with 413.3 for project close-out verification. <del>and that the PAV area has been turned over for operations will all startup findings closed.</del>
1	12/xx/11	Page 25, milestone SRNS2012NMO-4.02 change date and Completion Criteria	Date: <del>12/30/11</del> 9/30/12 Completion Criteria: <del>Repair</del> Replace 235-F roof, south side, phase 1.

## **Table of Contents**

1. Purpose.....	5
2. PEMP Integrated Project Team (IPT).....	5
3. The PEMP Process.....	5
3.1 Incorporating DOE, EM and Site Mission .....	6
3.2 Performance Planning .....	6
3.3 Risk Management.....	6
3.4 Performance Incentive Document.....	7
3.5 Other Incentives .....	7
4. Change Control .....	8
5. Federal Oversight of Contractor Performance.....	9
6. Performance Evaluation.....	10
7. Payment of Fee .....	10
8. Government Furnished Services/Items (GFS/I).....	11
9. Reporting Requirements .....	11
Attachment A, Integrated Project Team (IPT) Charter.....	12
Attachment B, Fee Allocation Model .....	16
Attachment C, EM Performance Incentive Documents for fiscal year 2012 .....	18
Attachment D, NNSA Performance Incentive Documents for fiscal year 2012 .....	63

## **1. Purpose**

This document serves as the Performance Evaluation Measurement Plan (PEMP) for fiscal year 2012 as identified in Section H-28, *Performance Based Incentives*, of Contract No. DE-AC09-08SR22470 between the U.S. Department of Energy (DOE) Environmental Management (EM) Savannah River (SR) and Savannah River Nuclear Solutions (SRNS) LLC, approved January 10, 2008.

Individual incentives are developed annually by DOE and SRNS to provide lessons learned from the previous evaluation period; illustrate performance improvements for the fiscal year, and identify performance incentives and measures for all work performed by the contractor during the evaluation period. Fee-bearing scope and incentives in support of the American Recovery and Reinvestment Act (ARRA) are addressed in a separate PEMP.

The SRNS contract is a cost plus award fee (CPAF) performance-based management and operating (M&O) contract, regulated under Department of Energy Acquisition Regulation (DEAR), Subchapter I, *Agency Supplementary Regulations*, Part 970, *DOE Management and Operating contracts*.

This document addresses development of Performance Incentive Documents between DOE-SR and SRNS. This includes administration of performance measures, including Performance-Based Incentives (PBI), and award fee defined in the contract, Section B, *Supplies or Services and Prices/Costs*. Incentives are approved only when funding is authorized for fee-bearing work.

National Nuclear Security Administration (NNSA) and EM incentives established under the contract are contained in the PEMP as attachments. Specific requirements regarding payment of an incentive, or an award fee, may also be included in the incentive document. The PEMP, incentive documents and revisions become part of the contract through contract modification.

NNSA works with DOE-SR to develop incentives for the site. Development, review and approval of incentives are managed through the Program and are approved by the NNSA Program Administrator. The approved NNSA incentives are included as Attachment D of the PEMP.

## **2. PEMP Integrated Project Team (IPT)**

An Integrated Project Team (IPT) has been established in accordance with DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. The team's charter defines specific roles and responsibilities of the IPT. IPT roles and responsibilities are further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement Plan*. Reference Attachment A, *Integrated Project Team (IPT) Charter*.

## **3. The PEMP Process**

The PEMP process for SRNS is based on fiscal year performance as identified in the contract. The PEMP process is further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement Plan*.

### **3.1 Incorporating DOE, EM and Site Mission**

The Savannah River Site publishes a Strategic Plan each year in support of DOE-EM and NNSA missions. The Strategic Plan articulates the site vision and missions to successfully execute current missions while welcoming and preparing for new opportunities.

During the past several years federal and contractor staff have worked together to define performance measures for those strategies in order to develop performance statements, metrics and milestones. As a result of this effort, EM, NNSA and site missions are tied to the contract statement of work.

Functional areas of the contract statement of work identify mission-critical outcomes. Outputs and measures define how work is performed in order to meet the outcomes. This framework is used to develop criteria in the Performance Incentive Document.

### **3.2 Performance Planning**

The PEMP is developed with federal and contractor staff input. Both federal and contractor parties strive to reach mutual agreement on expected business, operational and technical performance and work together to develop incentives and award fee descriptions and associated measures tied to key end products, DOE strategic goals and objectives. Incentives and fee demonstrate direct flow down of DOE strategic goals and priorities.

EM and NNSA headquarters contracting authorities review and approve the PEMP and any change to an incentive's total amount of available fee. The Contracting Officer (CO) reserves the unilateral right to make final decisions on all performance objectives and incentives (including the associated measures and targets) used to evaluate contractor performance, including any modifications.

The PEMP is revised and approved prior to the beginning of each evaluation period. Only the CO can change the PEMP. No changes will occur to the PEMP in the last 60 days of the evaluation period, unless with bilateral agreement between the CO and the contractor.

### **3.3 Risk Management**

DOE site management uses an integrated risk management process for the EM Life Cycle baseline. This process provides programmatic risk analyses of the EM Scope of Work, establishes a process for identification and management of risks within, and integrates risk data from prime contractors, including SRNS.

The SRS integrated approach to risk management ensures project teams and management are involved in the risk management process: risk identification, grading, handling, impact determination, and integration. The process concludes with preparation of the Risk Management Plan (RMP) and contingency estimates contained in the SRS Risk Summary and Integrated Contingency Analysis. Each project RMP provides a summary description of the integrated approach employed in the development of a project risk plan.

An assessment process is used to identify risks and opportunities associated with each project. The risks and opportunities are analyzed and strategies developed to ensure risks are managed to acceptable levels and opportunities are identified to improve the probability of successful completion of the project work scope. A detailed description of the methodology employed for the risk and opportunity assessment conducted by each of the Integrated Project Risk Teams appears in *Systems Engineering Methodology Guidance Manual*.

### **3.4 Performance Incentive Document**

A Fee Allocation Model is developed by the IPT and is illustrated in Attachment B. It is used to demonstrate distribution of contract fee based on weighting of funding, priority and complexity.

The Performance Incentive Document is used to manage detailed site level incentive outcomes and acceptance documentation. The Performance Incentive Document is similar to a work authorization document based on approved and funded scope.

A Performance Incentive Document includes: A Performance Outcome statement, Contract Output performance statements, metrics, Completion Criteria, and Acceptance (documentation) Criteria. The Performance Incentive Document is further defined in Savannah River Implementing Procedure (SRIP) 412.1, *Performance Evaluation and Measurement Plan*.

### **3.5 Other Incentives**

Incentives negotiated as a result of the cost reduction process per SRNS-RP-2009-01188, *SRNS Continuous Improvement System Implementation* will be managed per SRNS Contract clause I.42, DEAR 970.5215-4, Cost Reduction, in conjunction with the SRNS Continuous Improvement Process.

The CO may mutually negotiate with the contractor additional available fee for additional work not covered by the available budget. The funds for such work and the associated available fee are funded through the contractor's efficiencies in accomplishing the otherwise funded work. The additional work must be performed in a safe manner meeting all necessary requirements; and the performance of the additional work cannot affect the safe, proper performance of the otherwise funded work. Any additional work will be authorized in accordance with provision in the contract entitled, *Work Authorization*



*System* and is considered above base scope. This additional work falls under the management of DOE O 412.1A, *Work Authorization System*.

Incentives created as a result of implementing the above contract clause and/or directive will be managed per separate contract requirements, and authorized through contract modification.

#### 4. Change Control

Performance incentives and fee allocation will not be changed unless there is a significant impact by a change to the scope of the contract, baseline or funding as directed by the government or government delay affecting the contractor's ability to achieve the stated performance incentives and measures in the PEMP. Any changes are subject to DEAR 970.5243-1, Changes as provided in the contract and must be approved by the Contracting Officer and FDO.

1. All proposed changes to Performance Incentive Documents will be discussed at scheduled Performance Fee Board/IPT meetings.
2. Following Fee Board/IPT discussion, the contractor will submit formal correspondence to the CO requesting the proposed change to the Performance Incentive Document. The correspondence should include:
  - a. Any proposed change to the original incentive document
  - b. Proposed new incentives tied to the current Contract Performance Baseline (CPB)
  - c. Proposed fee allocation adjustment between current incentives and/or new incentives
  - d. Elimination of current incentives
3. Upon receiving correspondence from the contractor, the CO will consult the appropriate Assistant Manager/Office Director (AM/OD) and Subject Matter Expert to determine:
  - a. If the proposed change impacts the CPB
  - b. If the proposed change identifies new and/or unfunded scope
  - c. If the proposed change impacts multiple site organizations
4. If the proposed change **does not meet** any one of the above determinations, the CO will issue correspondence to the contractor approving such change to the Performance Incentive Document that incorporates advice of the AM/OD and/or Subject Matter Expert.
5. If the proposed change **meets** any one of the above determinations, the CO will request the contractor develop and submit a Baseline Change Proposal (BCP) for review by the federal (site) configuration control board.
  - a. Following the recommendation of the federal configuration control board, the CO will issue correspondence to the contractor approving such change to the Performance Incentive Document that incorporates the advice of the board.
6. The CO will issue a modification to the contract for any change to the currently approved PEMP.
7. The CO may deny any proposed changes to the Performance Incentive Document.

Action directed by CO correspondence is considered to be within scope of work of the existing contract. If the contractor considers that carrying out direction may increase contract costs or delay any delivery, the contractor shall promptly notify the CO orally, confirming and explaining the notification in writing as soon as possible, but within no more than five (5) working days. Following oral notification and submission of the written notice of impacts, the Contractor shall await further direction from the CO prior to implementing the action.

## **5. Federal Oversight of Contractor Performance**

Central to administration of the contract is assessment of contractor performance. All federal staff members performing assessments are expected to understand terms and conditions of the contract. In order to verify performance, a systematic process of assessment, analysis, documentation and feedback will be required. A range of assessment techniques from data/metric reviews and analysis, to review of self-assessments by the contractor, to formal multidisciplinary assessments will be employed. The assessments will be tailored based on the level of definition of the work requirements and complexity of the function.

Procedures for assessing contract performance are described in the SR Manual (SRM) 226.1.1D, *Integrated Performance Assurance Manual*. The intent of the oversight processes described in the manual is to assure contractor compliance with contract requirements, provide for timely identification and correction of deficient conditions, verify effectiveness of completed corrective actions, and pursue excellence through continued improvement. Additionally, the manual is intended to assist DOE in implementing the site contractor oversight system (a management framework of related processes to determine whether federal and contractor assurance programs are performing effectively and/or complying with DOE requirements).

The contractor oversight system is founded on an integrated safety management system (ISMS), emulating DOE P 450.4A, *Safety Management System Policy*. SRM 226.1.1D describes processes comprising the contractor oversight system, which enables DOE to: (1) clearly communicate requirements and expectations to contractors; (2) assess the quality, effectiveness, and efficiency of contractor assurance systems and resulting work products in complying with contract requirements; (3) effect continuous improvement in contractors' operations; and (4) enhance the effectiveness of DOE-SR oversight of contractor performance.

The contractor oversight system provides DOE site management information needed to make informed decisions regarding both contractor and DOE performance and to determine whether program corrections are necessary. Communicating requirements and expectations to the contractor is an essential component in the contractor oversight system. Requirements and expectations are communicated through the Statement of Work, special clauses, contract modifications, and through technical direction by the CO or representative.

SRM 226.1.1D provides detailed requirements for standardized scheduling, planning, conducting, reporting, and follow-up and closure activities for Type 1, 2, and 3 Assessments. Assessments are designed to provide managers with meaningful, accurate, and current

information on the status of program compliance, productivity, and quality. Use of standardized assessment methods is a key feature of DOE site performance assurance.

## **6. Performance Evaluation**

Upon completion of performance criteria described in the Performance Incentive Document, the contractor will document completion in the Fee Invoicing System (FIS) and forward the documentation to the relevant DOE organization technical representative, who in turn will perform a verification of documentation to confirm output criterion has been met. This may also require an in-field validation.

Upon verification, recommendation is forwarded through management to the Performance Fee Board. The Board verifies documentation provided demonstrates satisfactory completion according to performance incentive requirements through presentation by the AM/OD, and peer-level discussion. Fee recommendation to the Fee Determining Official (FDO) will be made according to the Performance Incentive Document.

The contractor may perform self-assessment of their performance. The Board will review any assessment provided by the contractor. If the Board does not concur with the contractor's self-evaluation and recommendation, all such disagreements shall be expressed in a performance evaluation letter to the contractor. The contractor shall submit written comments and any supporting documentation to the Board within five (5) working days of receiving the evaluation letter. Within ten (10) working days of receiving any contractor comments or reclama, the Board shall provide the FDO a recommendation, including amount, rationale, and justification.

Disputes that occur during verification, and resolution is not forth coming between the contractor and the appropriate AM/OD, will be resolved by the Performance Fee Board during regularly scheduled meetings.

## **7. Payment of Fee**

The contractor requests fee payment by submitting an invoice. Following verification by the relevant AM/OD recommendation is forwarded to the Performance Fee Board and FDO. The FDO determines fee payment, following Performance Fee Board review and recommendation. Determination of fee earned is the unilateral decision of the FDO.

The contractor will be advised in writing of the amount and basis of the performance incentive fee determination. Performance incentive fee not earned during the performance period will not be allocated to future performance periods. However, fee may be allocated to new performance-based incentives as developed by the IPT, as long as the completion of the newly developed incentive does not extend beyond the evaluation period.

Fee is considered provisional throughout the performance period. The FDO determines the total fee awarded to the contractor. Fee may be reduced per contract Section B.5 *DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts (JAN 2004) ALTERNATE II | JAN 2004) | DEVIATION*.

Contract clause **H-33, PROVISIONAL PAYMENT OF INCENTIVE FEE**, allows provisional payment of fee for partial completion of subjectively evaluated [subjective] incentives. The contractor may request up to 50% of the total fee available for each subjective incentive. If requests are monthly, the contractor must use a 1/12 divisor; if requests are quarterly, then 1/4 divisor; if semi-annual, then 1/2 divisor. Provisional fee is not considered earned fee, and is contingent upon a final fee determination by the FDO.

Total available fee amount earned payments are made by direct payment or withdrawn from funds advanced or available under the contract, as determined by the CO. The CO may offset against any such fee payment the amounts owed to the government by the contractor, including any amounts owed for disallowed costs under the contract. No base fee amount, or total available fee amount, payment may be withdrawn against the cleared payments financing arrangement without the prior written approval of the CO.

The contractor has developed an automated Fee Invoicing System (FIS) that uses measurement data from each Performance Incentive Document. The contractor works with DOE to identify appropriate DOE approvers. The system assigns responsibility to each output so that the routing process ensures appropriate review by federal and contractor staff. Time limits are assigned to each step to ensure smooth processing and timely approvals. The system notifies responsible approvers when the review / approval allotted time has been exceeded.

## **8. Government Furnished Services/Items (GFS/I)**

GFS/I are factored into the final fee determination for this incentive contract. GFS/I are identified in the Basis of Estimates (BOE) found in WBS dictionaries for specific tasks. The purpose of the GFS/I are to identify inherent government responsibilities that may pose some level of risk to the contractor in completing award fee or performance based incentives. GFS/I are the burden of the government, mutually accepted as part of the performance agreement. If the government fails to achieve GFS/I equitable adjustment may be made specific to the incentive. These adjustments, however, cannot exceed the maximum available fee for the specific incentive.

## **9. Reporting Requirements**

The contract requires each report must be accompanied by a letter or other document which:

- Identifies the contract number under which the item is being delivered; and
- Identifies the contract requirement or other instruction which requires the delivered item(s).

The contractor is responsible for maintaining all records and controlled documents related to the PEMP per DOE O 200.1A, *Information Management Program*, and DOE Order 243.1, *Records Management Program*.

## **Attachment A, Integrated Project Team (IPT) Charter**

### **INTEGRATED PROJECT TEAM (IPT) CHARTER**

**IPT NAME:** PEMP Integrated Project Team (IPT)

**LEVEL OF IPT:** Savannah River Operations Office, Deputy Manager

#### **IPT MISSION/OBJECTIVES**

The purpose of the IPT is to provide site senior federal management a process for evaluating and measuring performance tied to strategic goals. This charter defines roles, responsibilities, authorities and accountabilities for this process. The mission of the IPT is to enable performance and help avoid potential barriers to success.

The Deputy Manager is the DOE-SR Executive Sponsor of the IPT, and Fee Board Lead. The IPT is composed of federal and contractor employees. Federal members include the Contracting Officer (CO), Performance Incentive Managers, Technical Leads, NNSA SRSO Manager and NNSA NA-262. Contractor members include Management and Operations (M&O) Vice President for Business Services, SRNS Director of Contracts, and Technical Leads. The IPT is augmented as necessary with Subject Matter Experts and matrix support personnel (both federal and contractor) who possess specific competencies, skills and expertise required for successful execution of projects.

The CO is a member of the IPT, and has authority to make final decisions on all performance objectives and incentives (including associated measures and targets) used to evaluate Contractor performance, in accordance with the Contract, Section H-28 (b).

The DOE-SR Site Manager is an ex officio member of the IPT. The Site Manager is the Fee Determination Official [FDO].

#### **SCOPE OF IPT RESPONSIBILITIES**

##### ***IPT Executive Sponsor/ Fee Board Lead***

The IPT Executive Sponsor also serves as the senior federal member of the Fee Board. The IPT Executive Sponsor is the federal official responsible for project success. In accordance with DOE O 413.3B, the IPT Executive Sponsor is responsible for the following:

- Charter and lead the IPT
- Schedule and hold IPT meetings
- Request support from DOE functional resources as required to resolve issues
- Lead Fee Board assessment and discussion of contractor performance
- Identify and resolve critical issues

##### ***IPT Members***

IPT members are responsible for supporting the Executive Sponsor with technical and project management responsibilities during project execution. Members conduct and/or coordinate activities for their respective organizational element or functional area of responsibility. IPT members are responsible for the following:

- Ensure interfaces are identified, defined, and documented
- Review and assess performance and project status against parameters, baselines, milestones, and deliverables
- Support the IPT Executive Sponsor
- Review and comment on deliverables

The names of IPT members listed below are current as of the issue date of this charter. Names or functional responsibilities may change at the discretion of the IPT Executive Sponsor without having to modify or update this charter. The Table identifies IPT members, Fee Board members, and Technical Leads.

### ***Fee Board Organization***

The Fee Board is a subset of the IPT. The Fee Board is comprised of federal IPT members. Fee Board members discuss proposed revision to the PEMP and incentive documentation; review supporting documentation for fee payment determination; and make recommendations to the Fee Determination Official (FDO) via the Fee Board Lead.

The Fee Board is responsible for assuring quality assessments have been completed for fee-bearing work, and that the assessment has been formally documented per site directives before recommending payment of fee to the FDO.

### ***Fee Board Rules of Conduct***

#### Call to Order:

The IPT Executive Sponsor, acting as Fee Board Lead, will call the Fee Board portion of the meeting to order following dismissal of all non-federal IPT members.

#### Fee Board presentation:

The Fee Board Lead will open the floor for federal staff to discuss IPT presentations regarding matters such as proposed revisions to incentive documents, supporting documentation for fee payments, or general discussion of performance. The Performance Incentive Manager leads the presentation related to his/her incentive. Other Fee Board members may discuss the presentation and make recommendations to the Performance Incentive Manager.

#### Fee Board determinations:

Following Fee Board presentations, or if there are none, the Fee Board Lead will lead an informal review and discussion of completed fee-bearing work that is being considered for invoicing, including supporting documentation for fee payment determination. Performance

Incentive Managers, or their designee, are responsible for discussing completion documentation and evaluation of performance of the fee-bearing work.

Following discussion, Fee Board members make a motion to:

- Accept the recommendation of the Performance Incentive Manager for the incentive as described in the invoice;
- Accept the recommendation of the Performance Incentive Manager, but request additional documentation be added to document satisfactory completion of the incentive as described in the invoice;
- Require additional documentation in order to recommend a determination.
- Require federal manager attend next scheduled Fee Board to discuss adequate documentation in order to recommend a determination.

Fee Board members may support, or second, the motion and provide discussion. No quorum is required for the Fee Board meeting. The Fee Board Lead, seeing no objections, shall accept the motion with Manager NNSA SRSO, or designee, concurrence.

<b>NAME</b>	<b>FUNCTION</b>	<b>ORGANIZATION</b>
MOODY, Dave	IPT Member [ex officio] DOE Fee Determination Official [FDO]	DOE-SR Site Manager
SMITH, T. Zack	IPT Executive Sponsor/Fee Board Lead	DOE-SR Assistant Manager
HINTZE, Doug	IPT/Fee Board Member/Performance Incentive Manager	Assistant Manager for Mission Support (AMMS)
MCGUIRE, Pat	IPT/ Performance Incentive Manager	Assistant Manager for Nuclear Material Stabilization Project (AMNMSP)
SPEARS, Terry	IPT /Performance Incentive Manager	Assistant Manager for Waste Disposition Project (AMWDP)
GUEVARA, Karen	IPT/ Performance Incentive Manager	Assistant Manager for Infrastructure & Environmental Stewardship (AMI&ES)
HOOKE, Karen	IPT/ Performance Incentive Manager	Director, Office of Laboratory Oversight (OLO)
DEAROLPH, Douglas	IPT/Fee Board Member/Performance Incentive Manager	Manager NNSA SRSO

CLARK, William	IPT/ Performance Incentive Manager	Manager NNSA NA-262
LOVETT, James	IPT Member [ex officio] Fee Board Member	Contracting Officer M&O Contract
BILSON, Beth	IPT Member	Vice President SRNS Business Services
TEMPLE, John	IPT Member	Director SRNS Contract
CHRISTIAN, John	DOE IPT Technical Lead	Program Analyst for Mission Planning Division
PENNINGTON, Michele	SRNS IPT Technical Lead	SRNS M&O Business Services



## Attachment B, Fee Allocation Model

### Funding Assumptions for Fee Allocation

Funding for fiscal year 2012 represents targets SRNS will use in the FY12-16 Baseline Update, with DOE-SR concurrence. These funding targets reflect a “reasonable” program that is regulatory compliant. Any changes to these funding targets will require analyses to determine impacts at the Contract Output level.

### Fee Allocation (based on current funding assumptions)

The SRS allocation model for the M&O performance incentive fee is based on a ratio of four factors:

<b>Direct Funding</b>	<b>Indirect Funding</b>
Directly funded/objectively measured	Indirectly funded/objectively measured
Directly funded/subjectively measured	Indirectly funded/subjectively measured

Funding comes from EM Project Baseline Summaries (PBS) and NNSA funds. Funds are divided into two categories: contract scope cost is directly funded (direct). Scope cost for support activities funded indirectly by placing a tax on individual funds. See table below for FY12 estimated funding:

<b>Est. Funding</b>	<b>Funding Source:</b>
\$222,453,000	PBS 11C
\$39,639,000	PBS 12
\$50,585,000	PBS 13
\$49,766,000	PBS 30
<b>\$362,443,000</b>	<b>Total EM Funding</b>
\$122,584,000	Nuclear Nonproliferation Funding
\$190,733,000	Defense Programs Funding
\$25,562,000	PBS 20 (EM Safeguards & Security)
\$11,660,000	NNSA Safeguards & Security
<b>\$712,982,000</b>	<b>Total Projected Funding</b> without Minors and WFO [NOTE: This does not include \$68.3M for ESS support to SRR (PBS 14C)]

The M&O contract identifies \$48,950,000 available fee for fiscal year 2012 (October 2011 – September 2012). When the fee is subtracted from the Total Projected Funding, the fee base in fiscal year 2012 becomes \$664,032,000.

In addition to estimated program funding DOE-SRS EM has developed two incentive schemes with multiple scenarios in order to determine the most effective method of performance

evaluation. The first Incentive Scheme employs both subjective and objective measurements within each incentive. Subjective measures constitute a range from 5 to 15 percent of the total for each incentive. The second Incentive Scheme separates subjective measurements from objective measurements. Subjective measurements are then documented in a single incentive for the M&O contract. In both Schemes, subjective measures are defined by the four major measurement categories of the Contractor Performance Assessment Reporting System (CPARS). For fiscal year 2012, DOE-SR EM has decided to subjectively evaluate Contractor performance in a single incentive.

For fiscal year 2012, EM provides 57 percent of the Total Projected Funding, while NNSA provides 43 percent. This percentage is used to allocate the contract fee between EM and NNSA. For fiscal year 2012, EM will manage \$28M of fee applied to incentive work, and NNSA will manage \$21M of fee applied to incentive work.

Performance Incentive Documents in Attachment C (EM) and Attachment D (NNSA) were developed based on the current President's budget for fiscal year 2012. Work described is based on the current contract. Actual performance of contract outputs may be revised based on an approved fiscal year budget, continuing resolution, program execution guidance, and/or available funding. All work is performed within existing financial agreements and authorization.

The following is the DOE-SR EM incentive scheme determined to be the most effective for the fiscal year 2012 performance period:

<b>Program</b>	<b>Objective</b>	<b>Subjective</b>
Nuclear Materials Stabilization	\$9,400,000	
Solid Waste	\$2,100,000	
Area Completion Project	\$3,500,000	
EM Landlord Services	\$4,000,000	
Savannah River National Lab	\$4,000,000	
Management & Operations		\$5,039,000
<b>Total</b>	<b>\$23,000,000</b>	<b>\$5,039,000</b>

**Attachment C, EM Performance Incentive Documents for fiscal year 2012**

(See attached)



## Performance Incentive Document

<b>PBI Number:</b>	SRNS2012NMO	
<b>Activity Name:</b>	Nuclear Material Operations	
<b>WBS Number:</b>	1.29.20.04.01, 1.29.20.05.01, 1.29.20.04.02	
<b>Performance Period:</b>	October 1, 2011 - September 30, 2012	
<b>Allocated Fee:</b>	\$9,400,000	
<b>Revision Number:</b>	0 1	
<b>Senior level manager/Performance Incentive Manager:</b>	Pat McGuire Assistant Manager for Nuclear Material Stabilization Project (AMNMSP)	
<b>Senior technical advisor:</b>	Allen Gunter	
<b>Contract Performance Outcome:</b>		
Receive, store, ship, and disposition nuclear materials in a safe, and secure manner. Operate and maintain the H Canyon Complex to support disposition of nuclear materials. Receive Foreign Research Reactor (FRR) and Domestic Research Reactor (DRR) used nuclear fuel (UNF) in L Basin in coordination with the NNSA Nuclear Nonproliferation Program and other applicable DOE programs.		
<b><u>Contract Output SRNS2012NMO-01:</u></b>		
Receive, store, characterize, and disposition uranium materials.		
<b><u>Description/Background/Justification:</u></b>		
Activities associated with the contract outputs support receipt of FRR/DRR and are needed to meet or support DOE Strategic Objectives. These objectives include: maximizing risk reduction of surplus nuclear materials, supporting nuclear nonproliferation, and utilizing SRS facilities to store surplus nuclear materials.		
GFSI: Oak Ridge to provide \$170,000 in early FY12 to perform HFIR rack design review.		

<b>Up to \$3,402,500 of the allocated fee will be paid for this Contract Output.</b>			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 NMO-1.01	12/30/11	\$140,000	Ship remaining LEU offsite to satisfy existing TVA contract (For a minimum total of 301 MT of LEU).
<b>Acceptance Criteria</b>			
DOE-SR will validate the LEU shipment via the MC&A form 741 transfer documentation for each LEU shipment.			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 NMO-1.02	2/28/12	\$500,000	Complete flushing of bulk fissile material in H Canyon.
<b>Acceptance Criteria</b>			
DOE-SR will review H Canyon flush procedures or engineering memo documenting completion of flushing for meeting reduced MC&A surveys.			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 NMO-1.03	9/30/12	\$500,000; \$125,000 fee paid each quarter.	Charge two dummy bundles of UNF to the H Canyon dissolver mock-up each quarter (minimum).
<b>Acceptance Criteria</b>			
DOE-SR will review H Canyon UNF dummy dissolver proficiency procedure 1969-CR to ensure procedure completeness and minimum frequency and quantities are met.			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 NMO-1.04	9/30/12	\$1,000,000 \$250,000 fee paid each quarter.	Perform Canyon Cold Runs to address equipment operability and maintain operator proficiency.
<b>Acceptance Criteria</b>			
DOE-SR will review the completed quarterly Cold Run Operations procedures for completeness. Selected activities will also be observed and documented in a performance assessment.			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 NMO-1.05	<del>12/30/11</del> 3/31/12	\$200,000	Prepare and issue H Canyon Resumption Plan <del>documenting activities required to resume operations.</del> per the revised scope of the DOE letters of direction (11/10/11 and 11/22/11).
<b>Acceptance Criteria</b>			
DOE-SR will review the SRNS issued H Canyon Resumption Plan to ensure appropriate elements (for example: inspection, functional testing and surveillances of systems removed from operations) are considered for future deliberate system resumption.			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 NMO-1.06	9/30/12	\$500,000 \$125,000 fee paid each quarter.	Receive and unload FRR/DRR fuel per schedule.

Acceptance Criteria			
DOE-SR will review Cask Data Sheets for casks received and unloaded against the Receipt and Unloading Schedule Agreement.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-1.07	12/30/11 9/30/12	a.\$100,000 b.\$100,000	a. Develop augmented Surveillance & Maintenance (S&M) strategy for L Basin fuel by 12/30/11. b. Implement FY12 actions from S&M strategy by 9/30/12.
Acceptance Criteria			
DOE-SR will review the augmented S&M strategy for Used Nuclear Fuel (UNF) and authorize implementation upon acceptance. Implementation will be validated through an assessment of readiness and identification of A and B punch list items.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-1.08	6/30/12	\$100,000	Review HFIR storage rack design and provide estimate for design update, fabrication, and installation.
Acceptance Criteria			
DOE-SR will review the HFIR storage rack estimate and schedule to accommodate an additional 100 HFIR cores.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-1.09	9/30/12	\$262,500; \$8,750 per can measured; invoiced quarterly.	Perform 30 uranium measurements of 3013s; measurement results are not required to meet acceptance range.
Acceptance Criteria			
DOE-SR will review uranium measurement data / documentation and associated Combined Limits of Error (CLOE) for comparison.			
<b><u>Contract Output SRNS2012NMO-02:</u></b>			
Receive, store, characterize and disposition surplus plutonium materials.			
Description/Background/Justification:			
<p>K Area will continue to perform surveillance of the DOE-STD-3013 containers in storage. K Area will continue to receive and store containers of surplus plutonium from off-site. H Area facilities are scheduled to disposition surplus non-MOXable plutonium oxide and transfer to WIPP.</p> <p>GFSI: WIPP repackaging milestones are dependent on DOE funding the HB-Line 3009 DSA implementation, availability of POCs, WIPP Acceptable Knowledge characterization, approval of the OSA for POCs, and ROD approval by 6/30/12 to repackage more than 70kgs</p>			

to WIPP. SRR will provide a transfer window by 12/1/11 to a Sludge Batch #8 or completion date and/or milestone 2.05 will be renegotiated. DOE to ensure shipper readiness and execution within the receipt window (gap Pu).

**Up to \$1,980,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-2.01	9/30/12	\$180,000; \$20,000 per can; invoiced quarterly.	Complete 9 Destructive Evaluation (DE) Surveillances on DOE-STD-3013 Storage Containers.

**Acceptance Criteria**

DOE-SR will review operations log of DEs completed and review Surveillance Program Authority (SPA) Data Set 1 parameters for the DE samples. Sample size per DE is 28g or less.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-2.02	9/30/12	\$200,000; \$50,000 fee paid each quarter.	Receive K Area SNM shipments per schedule including gap Pu.

**Acceptance Criteria**

DOE-SR will verify receipts to KAC.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-2.03	6/30/12	\$1,050,000; \$15,000 per kg paid quarterly.	Repackage 70kgs bulk material of NEPA covered DE-3013 plutonium for WIPP.

**Acceptance Criteria**

DOE-SR will review completed in-hand procedures or log sheets to verify repackaging.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-2.04	9/30/12	\$300,000 \$15,000 per kg paid quarterly.	Repackage an additional 20 kgs bulk material of DE-3013 plutonium for WIPP.

**Acceptance Criteria**

DOE-SR will review completed in-hand procedures or log sheets to verify repackaging.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-2.05	4/31/12 6/30/12	\$250,000	Transfer all remaining Pu solution from Tanks 11.1 & 16.3 to Sludge Batch #8.

**Acceptance Criteria**

DOE-SR will review H Canyon neutralization / transfer log sheets or in-hand procedures for compliance.

**Contract Output SRNS2012NMO-03:**

Research and Development and Cost Saving Initiatives.

**Description/Background/Justification:**

This contract output supports innovative and cost effective means for receipt, storage, and dispositioning of surplus nuclear materials to meet or support DOE Strategic Objectives. H Canyon Complex will work with other agencies such as NNSA and Office of Nuclear Energy to support research and development for initiatives such as Vacuum Salt Distillation (VSD) and Fuel Cycle Research & Development and Used Fuel Disposition (FCRD/UFD).

GFSI: DSA implementation and readiness to allow storage of Special Items in culverts requires ARRA funding by 11/1/11.

**Up to \$2,967,500 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.01	9/30/12	\$1,217,500; \$304,375 per quarter.	Implement LEAN initiatives in H Area to improve operational efficiency (LEAN events completed in late FY11 / early FY12).

**Acceptance Criteria**

DOE-SR will review implementation documentation of LEAN initiatives to validate efficiency improvements and projected / documented savings.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.02	6/30/12	\$300,000	Issue strategy for disposition of high AI / low U UNF which includes cost and schedule.

**Acceptance Criteria**

DOE-SR will review the business plan for disposition of high AI / low U UNF to ensure objectives are met as communicated by DOE-SR (e.g. storage space made available for additional FRR/DRR receipts to minimize additional rack storage design, fabrication and installation, etc.).

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.03	9/30/12	\$300,000	Issue strategy for SRE disposition which includes cost and schedule.

**Acceptance Criteria**

DOE-SR will validate the cost, schedule and planning assumptions for SRE to ensure objectives are met as communicated by DOE.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.04	9/30/12	\$300,000	Develop H Canyon cost and schedule for FY13 and beyond activities to become a Collaborative R&D facility.

**Acceptance Criteria**

DOE-SR will review H Canyon cost and schedule for becoming a Collaborative R&D facility ensure objectives are met as communicated by DOE.



Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.05	12/31/11	\$200,000	Complete heavy water sampling plan & treatability study.
<b>Acceptance Criteria</b>			
DOE-SR will review the sampling plan and treatability study in accordance with approved Work for Others contract/agreement.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.06	6/30/12	\$150,000	Revise and submit (high quality SRNS approved) DSA to include revised functional classification of the KIS diesel generator.
<b>Acceptance Criteria</b>			
DOE-SR will review the DSA. Validation criteria includes ensuring submitted DSA has been approved by SRNS, is a high quality document and includes as a minimum the revised functional classification of the KIS diesel generator.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 NMO-3.07	9/30/12	\$500,000	Complete DSA implementation and declare readiness for culvert receipts.
<b>Acceptance Criteria</b>			
DOE-SR will validate DSA implementation, assess readiness activities and review readiness documentation.			
<b><u>Contract Output SRNS2012NMO-04:</u></b>			
Infrastructure / Facility life extension			
<b>Description/Background/Justification:</b>			
Infrastructure must be maintained to support the facilities in a safe and operable condition.			
<b>Up to \$1,050,000 of the allocated fee will be paid for this Contract Output.</b>			
Number	Date	Fee	Contract Output Completion Criteria:
SRSN2012 NMO-4.01	3/31/12 6/22/12	\$500,000 a) \$350,000 b) \$150,000	a. Complete Vault Acceptance for the 9975 shipping containers and turnover to operations by 3/31/12 (\$350,000) b. Complete PAV CD-4 milestone by 6/22/12 (\$150,000)
<b>Acceptance Criteria</b>			
<ol style="list-style-type: none"> <li>DOE-SR will verify / witness the contractor Readiness Assessment. All Type "A" findings will be closed, the Authorization Agreement approved, and the vault turned over to operations for storage of the 9975 shipping containers.</li> <li>DOE-SR will verify an acceptable complete CD-4 package has been submitted in accordance with 413.3 for project close-out verification. and that the PAV area has been turned over for operations with all startup findings closed.</li> </ol>			

Number	Date	Fee	Contract Output Completion Criteria:
SRSN2012 NMO-4.02	<del>12/30/11</del> 9/30/12	\$50,000	<del>Repair</del> Replace 235-F roof, south side, phase 1.
<b>Acceptance Criteria</b>			
DOE-SR will walk down roof repairs or review completed work package for completeness.			
Number	Date	Fee	Contract Output Completion Criteria:
SRSN2012 NMO-4.03	9/30/12	\$400,000	Implement F/H Lab footprint reduction and optimization.
<b>Acceptance Criteria</b>			
DOE-SR will observe implementation of footprint reduction activities (attend meetings, review and assess issued plans (e.g. ventilation balancing, etc.)).			
Number	Date	Fee	Contract Output Completion Criteria:
SRSN2012 NMO-4.04	9/30/12	\$100,000	Install a post indicator valve in 772-1F, a fire department connection and expand sprinkler area.
<b>Acceptance Criteria</b>			
DOE-SR will walk down installation of new fire equipment and/or review completed work package(s).			



## Performance Incentive Document

<b>PBI Number:</b>	SRSN2012SW	
<b>Activity Name:</b>	Solid Waste	
<b>WBS Number:</b>	1.29.32.25	
<b>Performance Period:</b>	October 1, 2011 – September 30, 2012	
<b>Allocated Fee:</b>	\$2,100,000	
<b>Revision Number:</b>	0	
<b>Senior level manager/Performance Incentive Manager:</b>	Terry Spears Assistant Manager for Waste Disposition Project (AMWDP)	
<b>Senior level supervisor/division manager:</b>	Jim Folk	
<p><b>Contract Performance Outcome:</b></p> <p>The Contractor shall manage the Solid Waste Program to safely and effectively prevent and/or minimize the generation of solid waste to include hazardous, low level, transuranic, mixed, and municipal sanitary wastes. The Contractor shall ensure that the handling, treatment, storage, transportation and disposal of existing “legacy” and future solid waste is environmentally sound and in compliance with DOE Directives, and applicable regulations and requirements.</p> <p>The Contractor shall manage and integrate site-wide solid waste recycling, treatment, storage, disposal and transportation activities and implement waste minimization/pollution prevention initiatives. The Contractor shall also provide on-site/off-site waste generators with technical support and verification of compliance with waste acceptance criteria, including Safety Basis and Performance Assessment objectives.</p>		
<p><b><u>Contract Output SRNS2012SW-01:</u></b></p> <p>Ensure the handling, treatment, storage, transportation and disposal of newly generated and existing “legacy” solid waste is environmentally sound, cost effective, and in compliance with DOE Directives, and applicable regulations and requirements.</p>		

Treat and dispose of all SRS newly generated sanitary (non-hazardous), low-level radioactive waste (LLW), mixed hazardous low-level radioactive waste (MLLW), and hazardous waste (HW) to prevent future waste accumulation.

**Description/Background/Justification:**

Timely disposal of all newly generated sanitary, LLW, HW, and MLLW will facilitate waste generators' normal operations, prevent potential spread of contamination, ensure regulatory compliance, reduce the need for waste storage space, maximize labor resource utilization and reduce the overall cost of SRS waste management. For the purposes of this PBI, a waste is determined to be treated when treatment is completed in accordance with applicable regulations (e.g., DOE Order 435.1, *Resource Conservation and Recovery Act of 1976 (RCRA)*, *Toxic Substances Control Act of 1976 (TSCA)*, etc.) for on-site treatment or has been shipped for off-site treatment. Disposal is defined as being physically placed in an approved disposal location for on-site disposition or shipped off-site for final disposition.

**Up to \$2,000,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SW-1.01	9/30/12	\$200,000; \$50,000 per quarter	Sanitary Waste-Reduce the amount of routine (i.e. office type) waste being disposed in local land fill sites through recycling at least 30% by weight over a three month rolling average.

**Acceptance Criteria**

DOE will perform validation by reviewing the total volume of sanitary waste shipped to an off-site recycling facility minus the volume of material recycled. Validation of performance is based on actual invoices received from the vendor. The percentage of waste recycled is calculated on the above delta on a monthly basis to be included a three month rolling average. Twenty-five percent of the total fee is awarded quarterly if the 30% recycling goal for the entire quarter is met.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SW-1.02	9/30/12	\$800,000; \$200,000 per quarter	LLW – Newly generated LLW will be disposed in a timely manner such that in-storage volume of newly generated LLW shall not exceed 400 cubic meters at any time over a three month rolling average. Wastes temporarily stored for near-term disposal will not be included in this calculation.

**Acceptance Criteria**

DOE will perform validation by reviewing end of month Waste Inventory Tracking System (WITS) reports, which lists all individual packages and associated volume in storage at time of the report. End of month report date is to be the same as utilized in reporting monthly IPABS performance measure volumes. The end of month in-storage volume is not to exceed 400 cubic meters over a three month rolling average. Review of WITS reports is supplemented with field walk-downs to visually validate reported information. Twenty-five

percent of the total fee is awarded quarterly if the 400 cubic meters in-storage volume over a three month rolling average goal for the entire quarter is met.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SW-1.03	9/30/12	\$400,000; \$100,000 per quarter	HW – Newly generated HW shall not exceed an in-storage timeframe of greater than one year from the accumulation start date, unless being stored for the purpose of accumulation in accordance with 40 CFR 268.50.

#### Acceptance Criteria

DOE will perform validation by reviewing end of month E-14 reports, which lists all containers and associated accumulation start dates (ASD). End of month report date is to be the same as utilized in reporting monthly IPABS performance measure volumes. All in-storage container data is reviewed to ensure the one-year storage limit, based on ASD, is not exceeded. Validation is supplemented with facility walk-downs to visually validate reported information. Twenty-five percent of the total fee is awarded quarterly if no containers exceed storage timeframes at any time within the in the quarter. Exception is storage for the purpose of accumulation in accordance with 40 CFR 268.50. However, justification shall be documented and an agreement reached with DOE-SR prior to invoking exception.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SW-1.04	9/30/12	\$600,000; \$150,000 per quarter	MW – Newly generated MLLW shall not exceed an in-storage timeframe of greater than one year from the accumulation start date, unless being stored for the purpose of accumulation in accordance with 40 CFR 268.50 or per the SRS Site Treatment Plan.

#### Acceptance Criteria

DOE will perform validation by reviewing end of month E-14 reports, which lists all containers and associated accumulation start dates (ASD). End of month report date is to be the same as utilized in reporting monthly IPABS performance measure volumes. All in-storage container data is reviewed to ensure the one-year storage limit, based on ASD, is not exceeded. Validation is supplemented with facility walk-downs to visually validate reported information. Twenty-five percent of the total fee is awarded quarterly if no containers exceed storage timeframes at any time within the in the quarter. Exception is storage for the purpose of accumulation in accordance with 40 CFR 268.50. However, justification shall be documented and an agreement reached with DOE-SR prior to invoking exception.

#### **Contract Output SRNS2012SW-02:**

Provide technical and project management support for E-Area activities required for first shipment of non-MOXable plutonium to the Waste Isolation Pilot Plant (WIPP).

#### **Description/Background/Justification:**

To support the SRS Strategic Plan, it is necessary to begin the process of shipping non-

MOXable plutonium from SRS to WIPP. This contract output ensures that SRS will meet commitments as put forth in the Strategic Plan.

**Up to \$100,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SW-2.01	9/30/12	\$100,000	Complete actions necessary to support DOE-SR waste shipment activities to include Centralized Characterization Project support necessary to achieve first shipment in FY2012. This effort may include revising and obtaining approval of changes to the Solid Waste management Facility Documented Safety Analysis / Technical Safety Requirements for receiving, storing and shipping pipe over-packs; developing / modifying E-Area Solid Waste Management Facility procedures.
<b>Acceptance Criteria</b>			
DOE will perform validation by reviewing shipping manifest and documentation necessary to support the shipment.			



## Performance Incentive Document

<b>PBI Number:</b>	SRNS2012ACP	
<b>Activity Name:</b>	Area Completion Project	
<b>WBS Number:</b>	1.29.32.01, 1.29.32.02, 1.29.32.03, 1.29.32.04, 1.29.32.05, 1.29.32.06	
<b>Performance Period:</b>	October 1, 2011 – September 30, 2012	
<b>Allocated Fee:</b>	\$3,500,000	
<b>Revision Number:</b>	0	
<b>Senior level manager/Performance Incentive Manager:</b>	Karen Guevara Assistant Manager for Infrastructure & Environmental Stewardship (AMI&ES)	
<b>Senior level supervisor/division manager:</b>	Helen Belencan	
<b>Contract Performance Outcome:</b>		
Meet all regulatory commitments, develop and implement alternative long range strategies, technologies and approaches in the refinement of the Area Completion Strategy and long-term stewardship.		
<b><u>Contract Output SRNS2012ACP-01:</u></b>		
Meet all FFA Milestones and RCRA Permit commitments due between October 1, 2011, and September 30, 2012, as described in the Federal Facility Agreement for the Savannah River Site (Administrative Document # 89-05-FF) and the SRS RCRA Part A & B Permits (SC 1890 008 089) to meet the Area Completion Strategy.		
<b><u>Description/Background/Justification:</u></b>		
Full compliance with all Area Completion Project FFA milestones and RCRA Permit commitments will allow SRS to meet regulatory requirements that will meet the Area Completion Strategy to clean up the SRS and reduce the Site footprint. Establishing regulatory commitments and milestones is the most direct way for the regulators and stakeholders to measure the progress of DOE EM cleanup activities at SRS. The regulatory and stakeholder support of the SRS depends on continued full regulatory compliance and achievement of commitments and milestones.		

<b>Up to \$2,500,000 of the allocated fee will be paid for this Contract Output.</b>			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 ACP-1.01	3/31/12	\$1,250,000	All RCRA Permit commitments and FFA milestones are achieved from October 1, 2011, through March 31, 2012.
<b>Acceptance Criteria</b>			
All FFA milestones and RCRA Permit commitments are met by the milestone/submittal dates. Documentation is provided demonstrating that milestone/submittal dates were met which will be verified by a DOE ACP review of Document Status information and/or the Administrative Record File.			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 ACP-1.02	9/30/12	\$1,250,000	All RCRA Permit commitments and FFA milestones are achieved from April 1, 2012, through September 30, 2012.
<b>Acceptance Criteria</b>			
All FFA milestones and RCRA Permit commitments are met by the milestone/submittal dates. Documentation is provided demonstrating that milestone/submittal dates were met which will be verified by a DOE ACP review of Document Status information and/or the Administrative Record File.			
<b><u>Contract Output: SRNS2012ACP-02:</u></b>			
Evaluate ACP groundwater sampling and reporting activities to identify opportunities to reduce project costs.			
<b><u>Description/Background/Justification:</u></b>			
<p>Prepare and provide to DOE ACP a plan that will define a comprehensive, technical approach for the evaluation and optimization of groundwater monitoring and reporting performed by SRNS Area Completion Projects which are required by the SRS RCRA Permit and SRS Federal Facility Agreement (FFA) Records of Decision. The plan will describe the approach to identify opportunities to reduce costs associated with reducing / optimizing the number of wells, analytes, monitoring frequency, and reporting requirements for ACP groundwater units. SRNS will submit this plan to DOE ACP by November 30, 2011. SRNS ACP and DOE ACP will discuss the plan with the regulators.</p> <p>Using the DOE-approved plan, SRNS will conduct a technical evaluation of monitoring and reporting optimization opportunities for ACP groundwater units. A report documenting the results of this evaluation and a schedule for negotiating recommended changes to existing RCRA Permit and FFA requirements with the regulators will be prepared and submitted to DOE ACP by April 30, 2012. SRNS ACP, in collaboration with DOE ACP, will engage the</p>			



regulators in negotiations in Fiscal Year 2012 if evaluation results indicate that groundwater optimization opportunities exist.

**Up to \$1,000,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 ACP-2.01	11/30/11	\$500,000	Prepare and provide to DOE ACP a groundwater optimization plan for ACP groundwater units.

**Acceptance Criteria**

Submittal of the plan by the due date. The plan comprehensively addresses all RCRA Permit groundwater plumes and CERCLA groundwater plumes for which there is a ROD. The plan contains a logical, clearly defined, and technically defensible approach for evaluating groundwater monitoring and reporting opportunities.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 ACP-2.02	4/30/12	\$500,000	Prepare and provide to DOE ACP a report documenting the groundwater monitoring and reporting optimization opportunities for ACP groundwater units.

**Acceptance Criteria**

Submittal of the report by the due date. The report contains a thorough evaluation of groundwater optimization opportunities for all RCRA Permit groundwater plumes and CERCLA groundwater plumes for which there is a ROD with a ROM estimate of implementation and cost avoidance. The report contains technically defensible and comprehensive recommendations for changes to RCRA Permit and CERCLA ROD requirements. The report contains a reasonable schedule for negotiating with the regulators any recommended changes to RCRA Permit and CERCLA ROD requirements.



## Performance Incentive Document

<b>PBI Number:</b>	SRNS2012LS	
<b>Activity Name:</b>	EM Landlord Services	
<b>WBS Number:</b>	Various / Indirect	
<b>Performance Period:</b>	October 1, 2011 – September 30, 2012	
<b>Allocated Fee:</b>	\$4,000,000	
<b>Revision Number:</b>	0	
<b>Senior level managers/Performance Incentive Managers:</b>	Doug Hintze, AM Mission Support (AMMS) Karen Guevara, AM Infrastructure & Environmental Stewardship (AMI&ES)	
<b>Senior level supervisor/division manager:</b>	Nick Delaplane Arthur Gould	
<b>Contract Performance Outcome:</b>		
<p>The Contractor shall execute assigned landlord responsibilities and provide a range of services to other organizations and site tenants, including other agencies and contractors, doing work on the Savannah River Site. These services encompass both direct and indirect scope.</p>		
<b><u>Contract Output SRNS2012LS-01:</u></b>		
<b><u>Comprehensive Site Planning</u></b>		
<p>Implement Site wide planning process to integrate site mission planning, real property asset management, and workforce planning. These recommendations and objectives will demonstrate improved linkage and dependencies at strategic, operational and tactical levels in support of the successful execution of the EM cleanup mission and landlord functions at SRS that includes support of all Site missions to include tenant organizations and the developing Enterprise SRS vision.</p>		
<b>Description/Background/Justification:</b>		
<p>The overall goal is to implement a formal integrated planning process for SRNS that efficiently and effectively links top level strategic missions and mission success goals with</p>		

operational/functional planning required for goal achievement. This planning process should facilitate the effective flow of information regarding work breakdown, funding, schedules, resource allocation, interface dependencies, and other factors vital to performing the required work.

A joint DOE-SR / SRNS task team has been established to support this contract output.

**Up to \$750,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	
SRNS2012 LS-1.01	9/30/12	\$750,000	

#### **Contract Output Completion Criteria:**

Development of a Comprehensive Plan is the reflection of actual overarching planning that is integrated and comprehensive, not just a summary of disjointed planning documents resulting from stove piped planning efforts. It will be a vehicle for bringing planning efforts together and guiding lower level implementing plans as intended. As such, it would reflect the following:

The utilization of EM program life cycle plans, System plans, and other Site mission plans (NNSA), including tenant organizations, in determining the real property asset life cycle management requirements. Further, it will reflect the participation of the organizations responsible for those plans in translating the mission plans into the real property asset requirements needed to support the lifecycle of the missions and articulating them in a clear manner.

The real property asset requirements to support Site missions will be shown by geographic areas of the site. Planning for each area of the Site will be holistic, reflecting the real property asset requirements for all missions utilizing, or projected to utilize, the areas. This approach would reflect thoughtful consideration of the future and the integration of all aspects such as EM area closure, site specific requirements for clean up projects that will required transition to Long Term Stewardship, support for continuing missions, consideration of potential new missions, as well as recommendation for transitioning the site to more efficient configurations. The information would be developed through the participation of subject matter experts and presented in tables, maps and narrative in sufficient detail to serve as the basis for lower level planning. This would require multiple organizations working together to develop this information.

Crosscutting infrastructure planning will be a participant in the process, addressing the path forward for meeting the sum of the requirements from the area by area analysis and projected future site configuration. Such integrated planning will be the basis for determining critical infrastructure projects and priorities and will be reflected in the plan and will constitute the Infrastructure Master Plan.

The overarching planning described above will serve as the guide and basis for integrating related lower level real property asset life cycle management functions such as acquisition, condition assessments, maintenance, recapitalization, disposition, and long term stewardship and include participation from subject matter experts from these disciplines. Comprehensive planning would include participation from financial organizations and the requirements would in turn be reflected in a transparent manner in the Integrated Facilities & Infrastructure crosscuts budget in the Comprehensive Plan.

#### **Acceptance Criteria**

DOE will review and evaluate documentation provided for technical accuracy, quality of product, review level and comment resolution, and if the documentation meets the intent of an improved comprehensive planning system as described in the Contract Output Completion Criteria.

The following list of various documents, although not inclusive, will be reviewed by DOE-SR in order to

evaluate acceptance of the Completion Criteria:

1. SRS Comprehensive Plan (DOE 430 requirement) will be delivered to DOE-SR per established schedule
  - a. including a planning document for land use analysis and strategies by site areas
  - b. representing policy in terms of program mission, physical requirements and new mission development (e.g. transportation, utilities, land use, housing)
2. EM Lifecycle Baseline (Integrated Lifecycle Baseline) management planning strategy for integrating site Contractor Performance Baselines, Change Control, Risks and Assumptions
3. ~~Revised Nuclear Materials Operations Systems Plan by April 30, 2012 to reflect latest nuclear material storage, disposition and stabilization assumptions, risks, and facility capabilities. (Delete)~~
4. Strategic initiatives supporting Enterprise SRS have been integrated with overall site planning
5. Annual updates to Contractor Performance Baseline and Integrated Lifecycle Baseline are integrated
6. EM Liability response to DOE-SR request for supporting preparation of the role forward “explanation of changes from prior year liability”
7. Documentation demonstrating the comprehensive planning system is institutionalized (e.g. contractor procedures have been developed and approved)
8. Continue to improve implementing Condition Assessments on at least 20% of additional SRNS structures per the DOE approved SRS Real Property Asset Management Plan
9. Populate the FIMS database with all applicable facilities per the DOE approved SRS Real Property Asset Management Plan (SRNS-PR-2011-00202) schedule.
10. Develop and implement an integrated process to identify completed major deferred maintenance (DM) and update the DOE-HQ Condition Assessment Information System to offset DM cost.

### **Contract Output SRNS2012LS-02:**

The contractor is required to maintain and manage to an approved multi-year performance baseline, and to support the development and integration of a life cycle baseline to meet the DOE-SR requirements to HQ. The multi-year performance baseline will be updated in COBRA utilizing a project management approach conforming to DOE Orders & Guidance and will contain resource & cost estimates, schedule and risk management at appropriate levels as defined by SRNS Procedures for technical baseline development and management.

### **Description/Background/Justification:**

With the SRNS financial system being replaced, and the Procurement and Contracts system scheduled to be replaced by the end of the first quarter, FY2012, effort is required to determine the COBRA interfaces with these new system replacements. Follow-up is also needed to ensure that identified functionalities contained within ICTS are dispositioned accordingly.

**Up to \$400,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-2.01	9/30/12	\$400,000	Utilizing COBRA, ensure all programs, including indirects, NNSA and SRNL are managed and controlled. This includes: <ol style="list-style-type: none"> <li>1. Planning for all programs and indirects – demonstrated by submittal of the baseline BCPs and Work Authorization Execution Plan (WAEP)</li> </ol>

			<ol style="list-style-type: none"> <li>2. Performance measurement (EV), quarterly report submittal</li> <li>3. Change Control, quarterly submittal of the SRNS Change Log</li> <li>4. Reporting, quarterly submittal of monthly IPABS and PARS reports for EM and required NNSA reports</li> </ol>
<b>Acceptance Criteria</b>			
<p>The following documentation will be submitted to DOE-SR for review:</p> <ol style="list-style-type: none"> <li>1. Baseline BCPs and the WAEP to demonstrate Baseline Planning</li> <li>2. Quarterly EV internal surveillance program results based on COBRA generated reports to demonstrate performance measurement for EM Programs</li> <li>3. Quarterly SRNS Change Log submittal to demonstrate Change Control</li> <li>4. Monthly IPABS and PARS reports for EM and required NNSA reports submitted on a quarterly basis to demonstrate Reporting.</li> </ol>			
<p><b><u>Contract Output SRNS2012LS-03:</u></b></p> <p>Continue to analyze methods and opportunities to reduce site overhead costs through various methods, including, but not limited to, cost sharing among site tenants, cost reductions, increased transparency, and other such initiatives. Estimated savings will be measured as a result of Continuous Improvement Projects, Lean Events, Quick Hits in the C.I. Tracking System database (CITS), etc.</p>			
<b>Description/Background/Justification:</b>			
<p>Site indirect costs include various components including overheads and essential site services which require continual review to ensure these costs appropriately reflect the size and function of the work performed at SRS by the M&amp;O contractor for M&amp;O and other site tenants. A Blue Team, comprised of DOE-SR EM and NNSA members, was established in FY2011 to review and assess the site ESS requirements, and present recommendations to senior DOE-SR and SRNS management for acceptance.</p> <p><b>Up to \$100,000 of the allocated fee will be paid for this Contract Output.</b></p>			
<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 LS-3.01	9/30/12	\$100,000	(1) Implement those initiatives briefed to the DOE-SR/SRNS Blue Team that are required to meet aggressive reduction targets, and (2) implement other Continuous Improvement (CI) initiatives as identified by SRNS and agreed to by DOE-SR.
<b>Acceptance Criteria</b>			
DOE-SR will validate the CI improvements based on documentation (such as revised			

procedures, tailored implementation of requirements, organizational changes, etc.) provided by SRNS that describes the actions taken and resulting change control documentation as initiatives are implemented.

DOE-SR will review the final cost report at year end that reflects meeting the revised baseline target.

**Contract Output SRNS2012LS-04:**

The Contractor shall execute Interface Management with site tenants to deliver landlord services in support of mission execution.

**Description/Background/Justification:**

Effective implementation of site interface management process (necessary maintenance and communication of interface processes, procedures and agreements) results in the effective delivery of landlord services. This ensures an efficient process to support tenant site mission completion activities.

**Up to \$200,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-4.01	9/30/12	\$150,000	Define Landlord Services in partnership with DOE.

**Acceptance Criteria**

DOE-SR will be provided the following documents:

1. Landlord Services definition and list of landlord services / service areas
2. Cost distribution model for landlord services costs
3. Model Landlord Services contract language for tenant contracts
4. Reorganization strategy for Landlord Services Program

The documents will be reviewed for technical accuracy, quality of content, and how well they meet the intent of the Contract Output.

**NOTE:** The documents must include input from other site tenants, as applicable. Each document must demonstrate effort by site Subject Matter Experts and management, and provide DOE-SR the ability to assess, analyze and provide a viable decision-making process.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-4.02	9/30/12	\$50,000	Perform SRNS integration efforts by: <ol style="list-style-type: none"> <li>1. Executing annual revision of interface agreements (SRR/SWPF, Ameresco, WSI, USFS, SREL, SCE&amp;G, MOX, PDC)</li> <li>2. Improve the site interface process by defining, planning and implementing per implementation plan, applicable</li> </ol>

			improvements from the EFCOG Complex-wide benchmarking survey
--	--	--	--

#### Acceptance Criteria

DOE-SR will review the annual interface agreement revisions and the improvements implemented from the benchmarking survey.

#### **Contract Output SRNS2012LS-05:**

**Biomass Project Support for the Biomass Cogeneration Facility (BCF).** The Contractor shall meet all SRNS agreed upon scheduled milestones to ensure successful construction and startup of the BCF.

#### **Description/Background/Justification:**

The purpose of the new Biomass Cogeneration Facility is to provide reliable steam while maximizing the use of a renewable energy source. The impacts associated with not successfully constructing and starting up these new facilities in a timely manner will lead to the following: (1) the inability to provide reliable steam to facilities such as H Canyon, F and H Tank Farms, and DWPF; (2) not meeting target dates for deactivation of the 484-D powerhouse, and (3) additional delays in achievement of renewable energy goals outlined in current federal legislation. Operational issues have occurred in the aged 484-D plant which have impacted site steam requirements, and this will worsen over time without a new replacement facility. Site Infrastructure will be utilized as a technical agency to provide operational, technical, and logistical input on matters associated with the multitude of utility services to help ensure successful execution of the project. SRNS Infrastructure Services will support the project by facilitating required interfaces with other SRS organizations and the Ameresco on-site construction team.

**Up to \$1,100,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012LS-5.01	9/30/12	\$200,000	Provide infrastructure liaison support (Subject Matter Experts, Project & Contract Management, performing observations, etc.) that facilitates Ameresco's schedule by identifying, eliminating or mitigating impediments and facilitating Government Furnished Services/Items (GFSI) to also include the site use/site clearance permit development and approval process. In addition, provide services per Service Level Agreement (SLA) as requested and funded by Ameresco.

#### Acceptance Criteria

DOE-SR will review SRNS document log of impediments that have been identified and overcome, including documentation of specific mitigation activities, perform verification

field walk down if applicable, and use the following to validate this performance based initiative.

- Log of liaison support
- River water supply history records
- Post traffic set-up to support succinct biomass delivery
- Log of Telecommunications support and infrastructure coordination support for the K, L-Area Biomass Steam Plants and Biomass Cogeneration Facility
- Transmission & steam line operations and maintenance records as generated
- Domestic water and sanitary utility operations and maintenance records as generated
- Log of site use/site clearance permits
- Approved Service Level Agreements
- Timely documentation and communication of potential issues
- Project & Contract Management Support
- Monthly report of activities

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012LS-5.02	9/30/12	\$200,000	Provide DOE-SR/Ameresco Biomass Cogeneration Facility Readiness Assessment support as requested by DOE-SR.

#### Acceptance Criteria

DOE-SR will review the following documentation and perform a field/system walk down to verify evidence of implementation:

- Readiness Assessment Plan for Operation of the Biomass Cogeneration Facility SRNS input including Lines of Inquiry (LOIs) & observations
- Field verifications of Lines of Inquiry (LOIs)
- Operations Memoranda of Agreement (MOA), Functional Service Agreements (FSA), Operations Service Level Agreements and interface procedures
- Finding determinations
- Issue Resolution

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012LS-5.03	9/30/12	\$100,000	Provide DOE-SR capitalization recommendations and the initial document control for the Biomass Cogeneration Facility.

#### Acceptance Criteria

- DOE-SR will review the Ameresco-provided documentation of asset cost basis.
- DOE-SR will review documentation of SRNS-recommended capitalized assets.
- DOE-SR will perform a system walk down to verify that sampling assets have been booked into the Asset Management Information System (as information is timely provided by Ameresco/DOE).
- DOE-SR will perform a system walk down to verify that sampling initial as-builts have



been established in the Document Control system (as information is timely provided by Ameresco/DOE-SR).

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012LS-5.04	9/30/12	\$400,000	Implement and maintain the “Infrastructure Services 484-D Powerhouse Transition Strategy Plan Phases I, II, and III” which is outlined in the site document SRNS-RP-2011-00978.

#### Acceptance Criteria

DOE-SR will review Infrastructure Services 484-D Powerhouse Transition Strategy Plan Phases I, II, and III (SRNS-RP-2011-00978) activities supported by the Ameresco schedule and DOE-SR direction and use the following to validate this performance based initiative.

- Schedule showing completed activities
- Monthly report of activities
- Field/system walk down to verify evidence of completed activities

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012LS-5.05	9/30/12	\$100,000	Ensure steam and electrical power generation and transmission during the Biomass Cogeneration Facility (BCF) operational readiness testing with the D-Powerhouse as the primary source.

#### Acceptance Criteria

DOE-SR will review D-Powerhouse steam and power availability data relative to site support needs and perform a system walk down for data validation.

- Steam and electrical power availability data during (BCF) operational readiness testing
- Monthly report of activities

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012LS-5.06	9/30/12	\$100,000	Ensure that D-Powerhouse will provide contingency steam supply (hot standby boiler operation) for Savannah River Site as directed by DOE when BCF is the primary steam supplier during operational testing.

#### Acceptance Criteria

DOE-SR will review D-Powerhouse steam and electrical power availability data relative to site support needs and perform a system walk down for data validation.

- Steam and electrical power availability data during (BCF) operational readiness testing

--

**Contract Output SRNS2012LS-06:**

The Contractor shall meet all SRNS agreed upon scheduled milestones and activities to ensure continued focus and development of sustainability efforts.

**Description/Background/Justification:**

DOE has approved a Complex-wide Strategic Sustainability Performance Plan. This plan addresses such topics as greenhouse gas emission reductions, High Performance Sustainable Buildings (HPSB), water use, and pollution prevention/waste elimination. DOE sites have been tasked to make progress toward goals established for 2015 and 2020. The benchmark for the HPSB 15% reduction is defined in Executive Order (E.O.) 13514 section 2(g).

**Up to \$200,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-6.01	9/30/12	\$200,000	Develop the annual SRS Site Sustainability Plan by 3/31/12 to ensure SRS is working toward goals outlined in the Strategic Sustainability Performance Plan established by DOE-HQ, and implement planned FY2012 high performance Sustainability Building Guiding Principles compliance activities in 15% of existing building square footage which is defined in Executive Order (E.O.) 13514 section 2(g).

**Acceptance Criteria**

DOE-SR will review the Site Sustainability Plan.

DOE-SR will perform a field walk down to verify evidence of implementation:

- Summary letter and supporting documentation on FY12 High Performance Sustainability Building- Existing Buildings (HPSB-EB) progress to include:
  - Energy Audits - Complete energy audit actions described in “Summary of Progress Associated with High Performance Sustainable Building Guiding Principles in Existing Buildings” (Sept. 2010) in approximately one-half of square footage identified in this document.
  - Commissioning – Complete FY12 commissioning actions described in “Summary of Progress Associated with High Performance Sustainable Building Guiding Principles in Existing Buildings” (Sept. 2010) in approximately one-half of square footage identified in this document.
  - Ventilation Comfort – Evaluate compliance with ASHRAE standards 55-2004 and 62.1-2004 described in “Summary of Progress Associated with High Performance Sustainable Building

- Guiding Principles in Existing Buildings” (Sept. 2010) in approximately one-half of square footage
- Utility Metering – Obtain data from installed chilled water meters (730-B, -1B, -2B, -4B, 735-B, -2B) and new electricity meters (704-C, 704-N, 704-1N, & 705-1C) to support data collection requirements associated with HPSB-EB.
  - Construction Waste / Pollution Prevention – Provide strategies to achieve the 50% recycle goal for C&D waste by September 2015. The plan shall be based on FY12 receipt data and a forecast of FY13 to FY16 waste to be transported to the SRS C&D landfill for disposal. Costs to meet the 50% goal will be established and funding requested for the FY14 budget cycle.

### **Contract Output SRNS2012LS-07:**

The Contractor shall build, modernize, and/or maintain facilities and infrastructure to achieve mission goals and ensure a safe and secure workplace for all SRS personnel and support Enterprise SRS for successful new mission opportunities (i.e., implement infrastructure rightsizing initiatives, execute infrastructure projects per the Critical Infrastructure IPL, etc.).

- Execute projects to improve the aging site infrastructure (i.e., fire water distribution system).
- Further develop & maintain the Critical Infrastructure IPL that will include other SRS tenants (NNSA, SRR, WSI, USFS and SREL).
- Develop and initiate implementation of Comprehensive Site Housing Consolidation Plan.
- Identify and implement infrastructure right-sizing initiatives. When feasible, make recommendations and coordinate opportunities for the beneficial reuse of DOE assets in support of local community economic development.

### **Description/Background/Justification:**

New and existing SRS missions can be performed safely and efficiently only with a reliable infrastructure in place. Over the past 10 years, funding for infrastructure repairs/replacements has declined considerably as budget pressures increased and funds were needed to support direct mission activities. The Contractor will re-invest in Site Infrastructure through the implementation of repairs and upgrades as identified in the approved Infrastructure Mission Alignment Plans. The scope will be based on projects from the SRNS Critical Infrastructure IPL which are currently identified in the SRS FY12-FY17 baseline and additional emergent work required.

Through the Infrastructure right sizing initiatives, surplus assets are identified and, when feasible, made available to the SRS Community Reuse Organization for economic development and job creation.

**Up to \$600,000 of the allocated fee will be paid for this Contract Output.**

<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 LS-7.01	9/30/12	\$600,000	Provide Facilities & Infrastructure Modernization and Asset Revitalization to achieve mission goals as follows: <ul style="list-style-type: none"> <li>● Execute projects to improve the aging Site infrastructure (\$300,000)</li> </ul>

			<ul style="list-style-type: none"> <li>• Develop and initiate implementation of Comprehensive Site Housing Consolidation Plan (\$100,000)</li> <li>• Identify and implement infrastructure right-sizing initiatives. Recommend and coordinate opportunities for beneficial reuse of DOE assets in support of local community economic development (\$100,000)</li> <li>• Further develop and maintain the Critical infrastructure IPL that will also include other key SRS tenants (\$100,000)</li> </ul>
--	--	--	---

### **Acceptance Criteria**

DOE-SR will review the following documentation and, if applicable, perform a field/system walk down to verify evidence of implementation:

- Final Acceptance Inspection (FAI) of the completed projects.
- Comprehensive Site Housing Consolidation Plan.
- Monthly report of activities to show implementation of right-sizing initiatives to also include support of the local community economic development.
- Revised SRS Critical Infrastructure Integrated Priority List (CI IPL) Executive Integrated Project Team Charter and a consolidated priority listing to include the following SRS tenants: SRNS, SRR, NNSA, WSI, USFS, and SREL.

### **Contract Output SRNS2012LS-08:**

The Contractor shall develop and implement innovative approaches to gain cost efficiencies in support of government liability reduction initiatives and address challenging budget constraints.

### **Description/Background/Justification:**

In support of government liability reduction initiatives, Infrastructure Services will evaluate organizational requirements and practices to identify efficiency gains and cost improvements resulting in minimum expenditure of energy, time, or resources. Also evaluate outsourcing and consolidation of facilities, services and functions resulting in: (1) lowering the overall cost of the service to the business. This will involve reducing the scope, defining quality levels, cost restructuring, etc. (2) Allows resources to focus on developing the Core Business; (3) access to operational expertise or best practices that would be too difficult or time consuming to develop in-house; (4) access to intellectual property and wider experience and knowledge; and (5) access to a larger talent pool and a sustainable source of skills.

**Up to \$100,000 of the allocated fee will be paid for this Contract Output.**

<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
---------------	-------------	------------	---

SRNS2012 LS-8.01	9/30/12	\$100,000	Develop and implement cost efficiencies in Infrastructure Services such as reducing site facility maintenance requirements and through evaluating outsourcing and consolidation opportunities.
<b>Acceptance Criteria</b>			
DOE-SR will review documentation that outlines the cost efficiency improvement activities and perform a field/system walk down to verify evidence of implementation.			

**Contract Output SRNS2012LS-09:**

The Contractor shall support DOE-SR in moving toward the Enterprise SRS vision which encompasses national security, clean energy and environmental stewardship.

**Description/Background/Justification:**

**Clean Energy – Programmatic Environmental Impact Statement**

The DOE and DOD have signed a MOU to collaborate on energy projects. SRNS has been requested to lead preparation of the Southeast Energy Initiative (SEEI) to develop energy projects in support of the DOE/DOD MOU.

**National Security- Clean Energy- Southeast Defense Energy Initiative**

This initiative supports the MOU between DOE and DOD Concerning Cooperation in Strategic Partnerships to Enhance Energy Security signed July 22, 2010.

**Environmental Stewardship - Nuclear Security - Used Fuel Storage**

SRS would benefit from having access to used nuclear fuel in support of several related missions:

- SRS will need to have an inventory of used fuel to support advanced reactor fuel design and fuel fabrication
- SRS will need to have material for advanced fuel recycling R&D
- SRS will need access to used nuclear fuel for modeling of material aging and degradation during proposed extended storage periods (65 years)

**Clean Energy –National Security -SMR Test Facility**

SMR designs have not been tested and due to the new designs, it is anticipated that testing will be required to support licensing. Rather than each company building individual test facilities, SRNS is proposing that an SMR Test Facility be constructed that can become a user facility for all U.S.manufacturers. This would be one of the first steps to locating SMRs at SRS. Funds for a test facility can be private or public/private that minimizes or eliminates the need of DOE funds.

**Clean Energy-National Security-Small Modular Reactors**

Small Modular Reactors are the corner stone of Enterprise SRS. Several companies have concepts for small modular reactors that are factory made, transportable, have enhanced safety features and are far less costly to produce.

**Clean Energy-National Security-Advanced Reactors**

Advanced Reactors (fast spectrum reactors) have the capability to produce sufficient heat for industrial applications including hydrogen production, water purification and other purposes. These reactors also can

burn fuel manufactured from excess nuclear materials, in support of the nuclear non-proliferation mission. Advanced small reactors can be used to generate power at DOD forward positions. Candidate designs have the capability to produce greenhouse gas free power.

#### **Environmental Stewardship-Clean Energy-National Security-Infrastructure Improvements, New Facilities and Consolidation**

SRS is not a closure site and requires infrastructure improvements. Capital funding is extremely difficult to obtain and with shrinking federal budgets, future budgets are most likely to be even more austere. Southern Carolina Regional Development Alliance has provided DOE with an unsolicited proposal to rebuild/replace several areas of the site

#### **National Security- Tritium Production**

NNSA produces tritium in commercial TVA reactors and the rods permeate more tritium than designed, a significant problem for a commercial operation. Small modular light water reactors can be located at SRS that produce both clean electrical power to the site and tritium. This would place tritium production back under complete control of NNSA and consolidate all tritium operations at NNSA's Tritium Center of Excellence – SRS.

**Up to \$550,000 of the allocated fee will be paid for this Contract Output.**

<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 LS-9.01	8/30/12	\$50,000; 50% fee paid when the estimate/ proposal is sent to DOE, 50% remaining fee paid upon DOD authorizing SRNS to begin work	Prepare a programmatic environmental impact statement (mission need, risk analysis, cost estimate and alternatives analysis) in support of the DOE/DOD Southeast Energy Initiative (SEEI).

#### **Acceptance Criteria**

DOE-SR will perform a technical review of the EIS estimates, analyses and proposed scenarios to ensure compliance with requirements for both agencies.

<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
SRNS2012 LS-9.02	9/30/12	\$50,000	Implement a teaming agreement with companies that can provide the technology necessary to meet federal mandates in support of the DOE/DOD MOU Concerning Cooperation in Strategic Partnerships to Enhance Energy Security.

#### **Acceptance Criteria**

DOE-SR will review the signed Teaming Agreement and perform a technical assessment measuring effectiveness of implementation.

<b>Number</b>	<b>Date</b>	<b>Fee</b>	<b>Contract Output Completion Criteria:</b>
---------------	-------------	------------	---

SRNS2012 LS-9.03	9/30/12	\$50,000	Develop multiple business case scenarios, endorsed by a South Carolina Utility, showing economics for constructing an interim used fuel storage facility at SRS, along with storage methods and potential site locations.
---------------------	---------	----------	---

#### Acceptance Criteria

DOE-SR will perform a cost review of the business cases to ensure estimated costs are valid and accurate, and DOE-SR will perform a technical review of proposed options endorsed by a South Carolina Utility.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-9.04	3/30/12	\$150,000	Prepare a conceptual design of a Small Modular Reactor Test Facility, including a siting plan for on- and off-site locations to facilitate commercial interest and use.

#### Acceptance Criteria

DOE-SR will perform a technical review of the conceptual design of an SMR Test Facility, and provide a summary of cost and technical scenarios including discussion on feasibility issues and alternatives.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-9.05	9/30/12	\$50,000	Execute a teaming agreement with a public utility and Small Modular Reactor (SMR) vendor for the SMR project at SRS.

#### Acceptance Criteria

DOE-SR will review the signed teaming agreement and assess effectiveness of its implementation based on legal and regulatory binding parameters, cost estimates and alternatives analyses.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-9.06	9/30/12	\$100,000	Develop a proposed regulatory strategy for Advanced Reactors and review this strategy with the NRC and with no less than three Advanced Reactor Design companies.

#### Acceptance Criteria

DOE-SR will review the proposed regulatory strategy, comments provided by NRC and the Advanced Reactor Design companies, and analyze cost and feasibility of suggested/proposed

corrective measures.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-9.07	9/30/12	\$50,000	Assist the regional economic development organization by providing specific opportunities for development and requirements necessary to use these facilities. A functions and requirements document will be developed for the regional economic development organization.
<b>Acceptance Criteria</b>			
DOE-SR will review functions and requirements documentation, as well as perform review and analysis of estimates, alternatives, scenarios related to federal and state laws, regulatory requirements, standards, directives and funding as applicable and/or identified in the documentation.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 LS-9.08	6/30/12	\$50,000	Perform pre-conceptual planning, with review by SMR vendors, which provides an independent cost review and program requirements documentation assessing the quantity of tritium that can be produced and power generated, and cost per gram estimated for each type of SMR reactor.
<b>Acceptance Criteria</b>			
DOE-SR will perform a technical review of the estimates and proposed requirements related to the quantity of tritium produced and electrical power generation.			





## Performance Incentive Document

<b>PBI Number:</b>	SRNS2012SRNL	
<b>Activity Name:</b>	Savannah River National Laboratory (SRNL)	
<b>WBS Number:</b>	Multiple	
<b>Performance Period:</b>	October 1, 2011 – September 30, 2012	
<b>Allocated Fee:</b>	\$4,000,000	
<b>Revision Number:</b>	0	
<b>Senior level manager/Performance Incentive Manager:</b>	Karen Hooker	
<b>Senior level supervisor/division manager:</b>	Ann Thomas	
<b>Contract Performance Outcome:</b>  SRNL's three-fold mission is to enable the success of SRS and the Office of Environmental Management (EM) operations and projects, to provide technical leadership for future site missions, and to utilize its technical expertise to provide vital national and regional support in achieving the broader goals of DOE and the federal government. The vision for SRNL is to be the nations' premier laboratory in Environmental Management, National & Homeland Security, and Energy Security (Source: SRNS Contract).		
<b><u>Contract Output SRNS2012SRNL-01:</u></b>  Establish Center for Applied Separations Sciences and Engineering (CASSE).		
<b><u>Description/Background/Justification:</u></b>  For over 50 years, the H Canyon/HB Line facility has performed radiochemical separations of irradiated fuel and targets to produce materials for national defense, research, medical use and the National Aeronautics and Space Administration (NASA). The re-emergence of the commercial nuclear power industry offers another opportunity to leverage the assets of the H Canyon facility in the national interest.  H Canyon and HB Line offer a unique combination of capabilities, equipment and		

infrastructure that are not available anywhere else in the U.S. H Canyon can receive and dissolve irradiated nuclear fuel and targets, separating and recovering many useful products in a series of process cells using existing equipment. H Canyon design flexibility allows for equipment to be replaced or reconfigured to accommodate changing process demands, including the installation of stand-alone, modular processes configured on prefabricated structural frames. HB Line contains a series of shielded glove box lines that allow “hands-on” processing, including purification, solidification and packaging of smaller quantities of plutonium and other minor actinides or special products.

As commercial interest in all aspects of the nuclear fuel cycle accelerates, laboratory research and development for existing and advanced fuel cycles can be scaled up and demonstrated in H Canyon. Whether for an individual corporate sponsor or a public-private partnership, the investment made in the facility infrastructure, including “safety class” confinement systems, liquid waste handling facilities and trained workforce can provide a cost-effective option for the advancement of critical technologies for a sustainable nuclear energy future. The replacement cost for H Canyon/HB Line is estimated to be \$15-20 billion and represents significant startup cost avoidance relative to establishing this kind of capability in a new facility.

**Up to \$75,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-1.01	9/30/12	\$75,000	Assuming funding is available, develop a multi-institution partnership to establish the Center for Applied Separations Sciences and Engineering (CASSE). Identify partner organizations and execute Memoranda of Agreement/Understanding with appropriate institutions. Develop a governance model and establish a leadership and steering team for CASSE activities. Develop a CASSE Program Plan that addresses missions’ needs and aligns work scope with facility capabilities and CASSE partner institutions.

#### **Acceptance Criteria**

- Review and evaluate Memoranda of Agreement/Understanding with appropriate institutions.
- Review and evaluate governance model and a leadership and steering team for CASSE activities.
- Review and evaluate Program Plan documentation that addresses mission’s needs and aligns work scope with facility capabilities and CASSE partner institutions.

#### **Contract Output SRNS2012SRNL-02:**

Develop Solutions to advance the Nuclear Fuel Cycle R, D, & D Program.

**Description/Background/Justification:**

One of the most daunting tasks facing further deployment of nuclear power in the U.S. is the question of what to do with the used fuel once it is discharged from a reactor. Other countries have “closed the fuel cycle” and reprocess the used fuel in order to salvage much of the material for use in the manufacture of fresh fuel and reduce the volume of radioactive waste. In the U.S., reprocessing was stopped many years ago by Presidential mandate so used fuel must be stored indefinitely. This approach places our nuclear power program at a significant disadvantage for several reasons. First, large quantities of highly radioactive nuclear used fuel must be stored and managed at significant cost.

Second, used fuel stored in this way represents a security, health and safety, and environmental risk that must also be managed. Third, without a viable path to safe disposition of used fuel, the commercial nuclear industry is vulnerable to criticism by intervening groups and political pressure which makes investment in new plants unattractive. SRS will address these issues and further develop the safe technology for processing used fuel and retrieving the useful constituents while converting the waste to a safer form for permanent disposal.

**Up to \$225,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-2.01	9/30/12	\$225,000	Execute all SRNS scope defined and funded by the DOE-NE Fuel Cycle Research & Development (FCR&D) program. Develop an integrated program plan to align SRS/SRNL facilities and capabilities with the Nation’s Used Nuclear Fuel storage and disposition strategy as recommended by the President’s Blue Ribbon Commission (BRC) on America’s Nuclear Future. This is a key SRS strategic initiative that will help revitalize the site, SRNL, and their ability to continue to support EM.

**Acceptance Criteria**

- Reports, presentations, and publications associated with funded DOE-NE FCR&D scope.
- An integrated program plan aligning SRS/SRNL facilities and capabilities with the recommended actions from the BRC.

**Contract Output SRNS2012SRNL-03:**

Deliver products and services that reduce technical risk and enhance the schedule of liquid high level waste dispositioning.

**Description/Background/Justification:**

EM’s goal at SRS is to reliably complete radioactive liquid waste treatment, safely manage

the treated waste and meet DOE commitments to close the liquid waste tanks, while incorporating new technology and to enhance efficiency as we go. In so doing, EM is closing the circle on the legacy of radioactive liquid waste. These programs support The Roadmap for EM's Journey to Excellence, December 2010, especially Goal 1 (Complete the three major tank waste treatment construction projects), and Goal 2 (Reduce the lifecycle costs and accelerate the cleanup of the Cold War legacy).

The insoluble sludge solids from tank waste are vitrified at the Defense Waste Processing Facility (DWPF) and converted into a solid glass form. This process safely and permanently immobilizes the waste material and enables permanent safe storage.

Design is nearing completion and construction has begun on a high capacity Salt Waste Processing Facility that will remove almost all the radioactivity from salt waste in SRS tanks. The removed radioactive component of the waste will be vitrified at DWPF for disposition off-site. This will enable cost effective conversion of the remaining decontaminated liquids from the tank waste to "saltstone" for safe onsite disposal.

The Tank Closure Program at SRS has made significant progress. Tank Closure Program activities are on schedule to meet or exceed all Federal Facility Agreement commitments.

**Up to \$1,735,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-3.01	9/30/12	\$1,735,000	Objective evidence demonstrating satisfactory completion of quality products and provision of services (such as flow sheets, technology development and deployment) to reduce the technical risks and accelerate the schedule of EM liquid waste projects and operations and projects at SRS and across DOE. This includes technical support to SRS-focused Liquid Waste Operations and projects and other high level waste-related activities in the EM DOE Complex. Quarterly reports of progress will be provided. Funding, scope and schedule will be provided by EM-HQ and EM Customers. As EM customers task SRNL with work scope throughout FY12, SRNL will document the status of deliverables and milestones for each project and track progress.

#### Acceptance Criteria

Review and evaluate work deliverables and documentation quarterly to validate completion of milestones and deliverables. Solicit customer feedback to assess quality of SRNL work products and support.

#### **Contract Output SRNS2012SRNL-04:**

Deliver disposition paths for nuclear materials.

**Description/Background/Justification:**

SRS's unique facilities and capabilities enable it to support consolidation and processing of nuclear materials from other DOE facilities as well as other U.S. and foreign sources. This is important for reducing nuclear and proliferation threats, avoiding the additional costs of protecting materials at multiple sites and enabling closure of other facilities that are no longer needed.

The Site will continue to safely and securely store nuclear materials (plutonium, enriched uranium, used nuclear fuel, and other nuclear materials) pending disposition to meet commitments to the State of South Carolina.

**Plutonium**

SRS has been placed in a lead role by DOE to dispose of plutonium from the cleanup of weapons facilities throughout the DOE Complex.

Plutonium from the cleanup of weapons facilities (non-pit plutonium) has been primarily consolidated at SRS where, depending on future decisions, it is planned to be disposed of by a variety of alternative means including;

- Blending, packaging and shipping to the Waste Isolation Pilot Plant (WIPP) in New Mexico
- Processing through H Canyon and vitrifying with high level waste at the Defense Waste Processing Facility (DWPF) at SRS
- Converting to reusable nuclear fuel

**Highly Enriched Uranium**

SRS continues to support the DOE complex-wide effort to down blend excess HEU to a more useable and less proliferable low enriched uranium (LEU) enrichment. The LEU is provided to the Tennessee Valley Authority (TVA). A TVA vendor then uses the LEU to manufacture commercial nuclear fuel for use in TVA reactors for the generation of electricity. Commitments of LEU delivery by SRS to TVA will be completed in FY11. Additional LEU commitments from the processing of Used Nuclear Fuel (UNF) could be made to TVA pending a decision by DOE to extend the provisions of an interagency agreement.

**Used (Spent) Nuclear Fuel**

SRS supports the nation's nonproliferation goals by receiving U.S. owned/loaned HEU fuel from foreign countries. The UNF is safely being stored in L Basin pending disposition.

**Up to \$375,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-4.01	9/30/12	\$375,000	Objective evidence demonstrating satisfactory completion of quality products and provision of services (such as flow sheets, technology development and deployment including spent fuel and 3013 programs) to reduce the technical risks of EM operations and projects at SRS and across DOE. This includes technical support to SRS Nuclear Materials projects and operations. Quarterly reports of progress will be provided. Funding, scope and schedule will be provided by EM-HQ and EM Customers. As EM customers task SRNL with work scope throughout FY12, SRNL will document the status of deliverables and milestones for each project and track progress.
<b>Acceptance Criteria</b>			
Review and evaluate work deliverables and documentation quarterly to validate completion of milestones and deliverables. Solicit customer feedback to assess quality of SRNL work products and support.			

**Contract Output SRNS2012SRNL-05:**

Reduce greenhouse gas emission via Clean Alternative Energy Projects.

**Description/Background/Justification:**

SRS is heavily involved in several initiatives that will reduce greenhouse gases in accordance with Executive Order 13514. The SMR initiative mentioned earlier will have a significant benefit to this reduction when they are deployed. Further, SRNL's hydrogen center will continue to advance the concept of clean fuels based on the hydrogen technology that SRS has developed over years of tritium research and production. In the near-term, SRS is converting local steam and electrical generation facilities to cleaner bio-fueled technology with a reduced greenhouse gas environmental impact.

Hydrogen has the potential to play a major role in America's future energy system. An energy economy based on hydrogen could resolve growing concerns about America's energy supply, security, air pollution, and greenhouse gas emissions.

SRS has over 50 years of experience in developing and deploying technologies for safely and efficiently working with hydrogen. This expertise is grounded in five decades of technology support by SRNL for SRS's work with tritium, the radioactive isotope of hydrogen that is a vital component of modern nuclear defense. SRS operates the Hydrogen Technology Research Laboratory and works extensively with DOE, commercial companies, and national and international universities to expand the hydrogen and fuel cell infrastructure. SRS was awarded the lead for DOE's Hydrogen Storage Engineering Center

of Excellence and continues to work with DOE to expand the center's mission beyond transportation applications to stationary and portable hydrogen storage systems.

Further, the near-term conversion of SRS electrical and steam generation from traditional coal-fired boilers to new bio-fueled plants that significantly reduce Site contributions to greenhouse gases is another demonstration of the SRS commitment to modernize operations and reduce its environmental footprint. At present one bio-fueled cogeneration facility is in full operation and construction is well under way on a much larger, central generation facility that will allow the shutdown of the 50-year-old central coal-fired generation facility.

Projects to reduce greenhouse gas emissions are a key SRS strategic initiative and goal for EM sites. SRNL will be receiving about \$8M in funding through EERE and the Office of Science. Although not EM funded, this work does support EM goals.

**Up to \$600,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-5.01	9/30/12	\$160,000	Through the Hydrogen Storage Engineering Center of Excellence (HSECoE), complete demonstration of a flow through cooling system and verify thermal models for a cryo-adsorbent media. Funded by DOE EERE.

**Acceptance Criteria**

Deliver to DOE-EERE Milestone documentation for meeting HSECoE key milestone.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-5.02	9/30/12	\$75,000	Provide direct technical assistance in the design, specification, integration, configuration, and deployment of a high fidelity, custom Data Acquisition System (DAS) for the Drive Train Test Facility (DTTF). Issue the design drawings for the DAS for the 7.5 Mega Watt test rig. Write and issue all purchasing information and specifications for the DAS equipment for the 7.5 Mega Watt test rig. Funded by DOE EERE.

**Acceptance Criteria**

- Transmittal letters of Design drawings
- Transmittal letters of Purchase Specifications

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-5.03	9/30/12	\$30,000	Perform a risk assessment of algal production systems on a DOE EERE Office of Biomass funded project. Execute all scope associated project within defined scope and schedule. Complete "Results

			and Risk Analysis Report” with recommendations.
--	--	--	---

#### Acceptance Criteria

Review and evaluate work deliverables and final report.  
Solicit customer feedback to assess quality of SRNL work.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-5.04	12/31/11	\$85,000	Deliver to US ITER Project Office (US IPO) documentation and make presentation for SRNL scope (Tokamak Exhaust Process) for Office of Science Review.

#### Acceptance Criteria

Evaluation of documentation to US IPO.

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-5.05	9/30/12	\$250,000	Provide direct technical performance of the design, specification, integration, and configuration of the ITER TEP project. Transmittal of documents to ITER International Organization: Evaluation of vendor manufacturing study on the conceptual design of TEP, Updated TEP Process Flow Diagram, and suggested compensatory measures to comply with the French regulation (ESPN/PED) of hydrostatic testing for TEP tritium equipment. Funded by Office of Science.

#### Acceptance Criteria

Evaluation of documentation.

#### Contract Output SRNS2012SRNL-06:

Develop and deploy Next Generation Cleanup Technologies.

#### Description/Background/Justification:

The environmental cleanup of SRS will continue to receive emphasis for the foreseeable future as we reverse the environmental impact from legacy operations performed on the Site. With each success, the Site becomes safer for future generations and less costly to maintain. These cleanup operations are not trivial nor are they straightforward.

SRS has had to develop new and innovative applied technologies in order to accomplish much of the cleanup. This will continue to be the case as the cleanup challenges get more and more difficult. SRS plans to make these new technologies available across the country and internationally to assist others in their own cleanup efforts.



**Up to \$375,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-6.01	9/30/12	\$375,000	Objective evidence demonstrating satisfactory completion of quality products related to technology development and deployment of cleanup technologies primarily in Soil and Groundwater and D&D. This includes technical support to DOE-EM HQ, SRS contractors and EM DOE Complex. Quarterly reports of progress will be provided. Funding, scope and schedule will be provided by EM-HQ and EM Customers. As EM customers task SRNL with work scope throughout FY12, SRNL will document the status of deliverables and milestones for each project and track progress.

**Acceptance Criteria**

Review and evaluate work deliverables and documentation quarterly to validate completion of milestones and deliverables. Solicit customer feedback to assess quality of SRNL work products and support.

**Contract Output SRNS2012SRNL-07:**

Expand reach and impact of National Center for Radioecology.

**Description/Background/Justification:**

SRNL is the lead and is teaming with leading U.S. and international universities, including SREL, as part of the National Center for Radioecology. Radioecology (NCoRE) is a branch of ecology, which studies how radioactive substances interact with nature; how different mechanisms affect the substances' migration and uptake in the food chain and ecosystems. The Site has long been a premier research center for the study of how radionuclides interact and affect the environment. We will expand this effort and provide knowledge which will be applied worldwide to minimize and manage any adverse environmental impacts due to the use of nuclear energy or nuclear material (e.g., medical isotopes, nuclear instruments) production. This work will support SRS, other DOE sites, and the global community in the field of radioecology.

**Up to \$115,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-7.01	9/30/12	\$115,000	Assuming funding is available, lead and expand with NCoRE key partners, including SREL, in establishing radioecology research needs and

			<p>priorities. Utilize SRS Site facilities. This will include studies of lessons learned from the Japanese Fukushima incident. Expand NCoRE key partners by completing agreements with McMaster University and Russian Institute of Agricultural Radiology and Agroecology. Organize and hold a special session on radioecology at a national society conference (e.g., ANS or HPS). Initiate preparation of and/or publish special supplements on radioecology in the Health Physics journal. Submit proposals with key partners for radioecology projects. Support/host radioecology graduate students with key partners.</p>
--	--	--	---

#### Acceptance Criteria

Review and evaluate the following:

- Documentation of NCoRE meetings and national conference special sessions
- Completed Memoranda of Agreement/Understanding with new key partner
- Documentation or copies of special supplements in Health Physics
- Copies of submitted research proposals
- Documentation associated with NCoRE graduate students

#### Contract Output SRNS2012SRNL-08:

Leverage and revitalize assets to solve National issues.

#### Description/Background/Justification:

Although SRNL was originally built as a part of the nuclear weapon complex to maintain the U.S. nuclear deterrent, the facilities obtained and constructed for that purpose represent a significant asset to the country and have the potential to be repurposed to solve National issues. SRNL will actively seek ways to revitalize and present these assets for more wide-spread beneficial use.

**Up to \$500,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-8.01	9/30/12	\$300,000	SRNL will implement candidate IGPP capital projects needed to restore and sustain critical facility infrastructure considered necessary to allow adequate safe operations and support Site and Headquarters EM missions. This assumes funding level is sustained at \$4M for FY12.

#### Acceptance Criteria

Review and evaluation of documentation for completion of planned scopes of IGPP projects.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-8.02	8/31/12	\$75,000	Modify and revitalize 705-A for new National Security missions for DOE-IN. 705-A will be ready for inspection per OSR 20-22, SRS Final Acceptance Inspection. \$1-1.5M will be spent on this project in FY12 (\$4M total).
<b>Acceptance Criteria</b>			
Review and evaluation of documentation that 705-A will be ready for inspection per OSR 20-22, SRS Final Acceptance Inspection.			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-8.03	9/30/12	\$25,000	Review and approve DSA Major Upgrade.
<b>Acceptance Criteria</b>			
Review and evaluate documentation for the SRNL DSA Major Upgrade, including DSA, DOE-SR Manager approval letter, and the Safety Evaluation Report (SER).			
Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SRNL-8.04	9/30/12	\$100,000	Meet project milestones on the approved schedule for the Y189 Project, E-wing Ventilation. (assumes \$1.3M funding)
<b>Acceptance Criteria</b>			
Review of work completion in accordance with the project schedule and associated documentation.			



## Performance Incentive Document

<b>PBI Number:</b>	SRNS2012SUBJ	
<b>Activity Name:</b>	Management & Operations - Subjective	
<b>WBS Number:</b>	Various / Indirect	
<b>Performance Period:</b>	October 1, 2011 – September 30, 2012	
<b>Allocated Fee:</b>	\$5,039,000	
<b>Revision Number:</b>	0	
<b>Senior level manager:</b>	Doug Hintze Assistant Manager Mission Support (AMMS)	
<b>Senior level supervisor/division manager:</b>	Nick Delaplane	
<b>Contract Performance Outcome:</b>  <b>Operations Support</b>  <p>The Contractor shall implement site-wide programs and coordinate their implementation with all site organizations. The Contractor shall provide technical support for all its activities and operations. The Contractor shall also provide technical support for other organizations as directed by the CO or as requested by other organizations and approved by the CO. Except as otherwise directed by the CO, services to other contractors generally do not extend to within their facilities or areas under the control of other tenant organizations.</p> <b>Business Services</b>  <p>The Contractor shall provide general planning, management and administrative services for all its activities and for other organizations as directed by the CO.</p>		
<b><u>Contract Output SRNS2012SUBJ-01:</u></b>  <p>This incentive is measured with an adjectival rating to measure technical performance, cost control, schedule performance and business relations / management for all of the fiscal year 2012 authorized scope.</p>		

This Contract Output will receive an adjectival grade and numerical score. In order to provide for consistency across the Complex, DOE-SR will use the five tier adjectival ratings and definitions set forth in FAR 16.4 described below.

Adjectival Rating	Percent of allocable fee	Definition
Excellent	91% - 100%	Contractor has exceeded almost all of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Very Good	76% - 90%	Contractor has exceeded many of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Good	51% to 75%	Contractor has exceeded some of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Satisfactory	1% to 50%	Contractor has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Unsatisfactory	0%	Contractor has failed to meet overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.

**Description/Background/Justification:**

To achieve its vision and implement all desired management improvement efforts will require an organized, systematic approach to project execution. EM has developed and implemented the EM Program Management System (EMPMS) to clarify roles and responsibilities, to provide for more integrated operations, and to further establish a solid baseline for workforce planning.

The EMPMS is a performance-based management system. Performance-based management uses performance measurement information to help set agreed-upon performance goals, to allocate and prioritize resources, to inform managers so they can manage program activities to meet those goals, and to report on their status. It also offers opportunity to learn from any

failures in performance and to continuously improve management practices.

The IPT, as identified in the PEMP, will conduct informal surveys of the following organizations in order to solicit feedback related to contractor performance in the areas of Business Relations, Technical Quality, Cost Control and Schedule (timeliness):

- Assistant Manager for Infrastructure and Environmental Stewardship (AMIES)
- Assistant Manager for Mission Support (AMMS)
  - Assistant Manager for Integration and Planning (AMIP)
  - Office of Acquisition Management (OAM)
  - Office of Human Capital Management (OHCM)
- Assistant Manager for Nuclear Material Stabilization Project (AMNMSP)
- Assistant Manager for Waste Disposition Project (AMWDP)
- Office of Field Chief Financial Officer (CFO)
- Office of Chief Counsel (OCC)
- Office of Civil Rights (OCR)
- Office of External Affairs (OEA)
- Office of Laboratory Oversight (OLO)
- Office of Safety and Quality Assurance (OSQA)
- Office of Safeguards, Security and Emergency Services (OSSES)

SRNS organizations will provide monthly self-assessments throughout the performance period to provide contractor feedback in cross-cutting areas of performance, such as safety, efficient use of trained and qualified human capital, quality, continuous improvement, cost effectiveness, timeliness of deliverables, compliance with contract, etc. The self-assessments will be used to measure and report contractor technical performance (quality of product/service), cost control, adherence to schedule, and business relations / management as these relate to the contractor support of the individual and collective DOE organizations. These self-assessments will be captured on the electronic web-based DOE Scorecard and used to facilitate enhanced communication between DOE-SR and SRNS.

These assessments are critical to record contract performance that is considered implicit, or subjective. Clear measures will be defined and consistent with standards of reporting contractor performance (FAR 42.15, FAR 15.3, FAR 9.1, and DEAR 909.1), The Federal Acquisition Streamlining Act of 1994, and the federal acquisition guide, chapter 42.15.

Subjective incentives use adjectival measures related to quality of service or product. The success of a contractor against subjective measures is determined by the government, which will consider the related conditions under which the work was performed and the contractor's specific performance as measured against the government's objective.

Customer service is an implicit performance expectation. Both federal and contractor employees will strive to reach mutual expectations and conduct beneficial communications in support of site missions.

Per contract clause H-33: PROVISIONAL PAYMENT OF INCENTIVE FEE, the contractor may request monthly provisional fee payments for up to 1/12th of 50% of the total subjective fee for the performance period. Provisional fee is not considered earned fee and is contingent upon a final fee determination by the Fee Determination Official.

**Up to \$5,039,000 of the allocated fee will be paid for this Contract Output.**

Number	Date	Fee	Contract Output Completion Criteria:
SRNS2012 SUBJ-1.01	9/30/12	\$5,039,000	Provide a monthly report measuring trends and improvements in technical, cost, schedule performance and business relations / management activities. The report will include trending data and analysis of direct program (PBS) continuous improvement efforts, and cost performance of the Indirect cost pools (Essential Site Services and G&A).
<b>Acceptance Criteria</b>			
DOE-SR will review the contractor monthly report measuring technical, cost, schedule performance and business relations / management in accordance with site performance reporting to support the DOE-SR Contractor Performance Assessment Reporting (CPAR) requirements.			

**Attachment D, NNSA Performance Incentive Documents for fiscal year 2012**

(See attached)





## Performance Fee Agreement

PBI Number: SRNS2012TP

**Activity Name:** Tritium Programs

WBS Number: 1.03

Performance Period: October 1, 2011 - September 30, 2012

Allocated Fee:	Objective Amount: (45% of allocated fee) Nominal \$6,252,750	Subjective Amount: (55% of allocated fee) Nominal \$7,642,250
----------------	--	---

Revision Number: Revision 0

Senior level manager name:  
Douglas Dearolph

Senior level supervisor/division manager name:  
Tim Fischer

---

### **Performance Outcome:**

The Contractor shall manage the Tritium program as a defined severable work activity within the Management and Operating (M&O) contract structure so that it will be positioned to be responsive to any future direction with the National Nuclear Security Administration (NNSA) Nuclear Security Enterprise (NSE).

### **Contract Output:** SRNS2012TP

The Tritium Performance Fee Agreement has eight contract outputs which are fully developed in the Tritium Performance Based Incentives (PBI). A summary of each contract output is provided below. The Performance Outcome and associated Contract Outputs and Completion Criteria are based on anticipated fully-funded NNSA-Headquarters (HQ) program level Work Authorizations. In the event there are any substantive differences identified in work scope or funding, this PBI will be modified in a timely manner to allow the allocated fee to be earned in FY 2012. The PBI includes both objective and subjective performance elements. The subjective elements will receive an adjectival rating using the enclosed Subjective Rating and Criteria Description table.

Number	Value	Indicator
SRNS2012TP-01	\$3,473,750	Support the nuclear weapons stockpile by safely providing tritium and non-tritium loaded reservoirs to the Department of Defense and NNSA (i.e., Pantex Plant) in accordance with NNSA guidance and direction. Provides incentive to the contractor to meet all requirements associated with the Helium 3 mission. Provide the contractor incentive to achieve NNSA Reservoir Surveillance Operations work scope that is required for continuing Stockpile certification, Life Extension Program, First Production Unit and related functions. Includes receipt and extraction of tritium from irradiated Tritium-Producing Burnable Absorber Rods (TPBARs).
SRNS2012TP-02	\$694,750	Conduct research and development and Science, Technology and Engineering (ST&E) sustainment activities that solve complex problems related to mission of SRSO and the NNSA. These activities are sponsored by the Readiness and Engineering Campaigns, and Plant-Directed Research & Development (PDRD) and support development activities for NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.
SRNS2012TP-03	\$694,750	Support the Tritium Programs mission by safe and efficient execution of projects.
SRNS2012TP-04	\$1,389,500	NNSA Multi-Site Incentives
SRNS2012TP-05		Governance:  Support the NNSA Governance Reform initiative being implemented across the Nuclear

		Security Enterprise (NSE).
SRNS2012TP-06	\$2,779,000	Operations: Maintain the Tritium Facilities in a safe, secure and responsive operating condition.
		Facility and Site Management/ Maintenance Operations and Work Planning Quality Assurance Engineering Nuclear Safety and Fire Protection Radiation Protection Training and Qualification
SRNS2012TP-07	\$2,084,250	ES&H and S&S: Maintain the Tritium Facilities in a safe, secure and responsive operating condition.
		Emergency Management Health & Safety (excludes fire protection) Environmental and Waste Management Safeguards and Security Cyber Security Project Management
SRNS2012TP-08	\$2,084,250	Business: Maintain the Tritium Facilities in a safe, secure and responsive operating condition.
		Fiscal Management Program Management Information Technology/Process Control Modernization e-Sourcing

**Evaluation Criteria:**

SRNS2012TP

Objective and subjective evaluation criteria will be used to document review and acceptance of this performance fee agreement.

Objective Evaluation  
Criteria:

Will be evaluated as performance is completed and will be discussed and documented in the monthly SRSO and contractor performance meeting.

Subjective Adjectival  
Rating Criteria:

For those Completion Criteria that receive an adjectival grade and numerical score the following table will be used to define the different levels of performance and the corresponding grade/score that goes with the evaluation thereof.

Subjective Rating Criteria	Subjective Rating Evaluation Criteria Description	At Risk Fee Earned
Excellent	Contractor has <u>exceeded almost all</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	91 – 100%
Very Good	Contractor has <u>exceeded many</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	76 – 90%
Good	Contractor has <u>exceeded some of</u> the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	51 – 75%
Satisfactory	Contractor has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	1 – 50%
Unsatisfactory	Contractor has failed to meet overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	0%

**Contract Output 1.** Support the nuclear weapons stockpile by safely providing tritium and non-tritium loaded reservoirs to the Department of Defense and NNSA (i.e., Pantex Plant) in accordance with NNSA guidance and direction.

This work is the highest priority Stockpile Stewardship mission at the Savannah River Site. This Contract Output provides the contractor incentive to meet all Production Directive and shipping commitments on schedule. The work covered by this Contract Output is to accomplish the Directed Stockpile Work (DSW) mission to provide loaded reservoirs in support of the nuclear weapons stockpile, and to meet all monthly directive commitments for delivery of Limited Life Components (LLC) to the Department of Defense and Pantex Plant.

In addition to providing reservoirs to meet LLC directive commitments, a goal of this PBI is to drive the improvement of reservoir quality for each weapon system. The goal is to achieve a high Tritium Production Acceptance Group (TPAG) acceptance rate for each reservoir system.

This Contract Output provides contractor incentive to meet all requirements associated with the Helium-3 mission.

This Contract Output also provides the contractor incentive to achieve NNSA Reservoir Surveillance Operations (RSO) work scope that is required for continuing Stockpile certification, Life Extension Program First Production Unit, and related functions. The Gas Transfer System (GTS) testing program is a key activity in the Nuclear Weapons Stockpile Surveillance Program. The NNSA and Design Agencies have placed a high priority on timely GTS testing and reporting. The on-time delivery of GTS test data provides key information on the performance and aging effects of GTS components, and support decisions for future weapon design.

The work scope consists of function testing, burst testing, nondestructive examinations, and metallographic examination of Stockpile Laboratory Tests (SLTs), Retrofit Evaluation System Tests (RESTs), and similar testing of units from the Life Storage Program (LSP). The work scope also includes testing of production samples. Other activities in support of the surveillance program include loading, unloading, reclamation, and storage of LSP reservoirs. Work scope is considered complete when 1) GTS performance data is documented in Rapid Analysis Promulgated To Obtain Results (RAPTOR) reports and 2) destructive examination results are documented in Reservoir and Integrated Surveillance Information Network (RAISIN) reports for SLT and REST units, Metallurgical reports for LSP units, and annual production sample pinch weld reports for production samples. Specific work scope is documented and tracked to completion in the RSO schedule.

Extract tritium from irradiated Tritium-Producing Burnable Absorber Rods. The work scope consists of completing selected tritium production-related milestones that are significant to support the Tritium Readiness Program and operation of the Tritium Extraction Facility (TEF) to receive and extract TPBARs. The TEF will be operated in accordance with the TEF Annual Operating Plan and the Responsive Operations Plan.

ARMS: This contract output provides incentive to the contractor in FY12 for scope associated with the ARMS II computer system as described in the post project scope cost, plan, and schedule transmitted in FY10 (Tritium Automated Reservoir Management System (ARMS) Modernization Post-Project Plan (Rev. 0) dated January 28, 2010). Stretch completion criteria have been identified that ensure progress is being made towards supporting the July 2013 ARMS II implementation date.

**Up to \$3,473,750 of the allocated Tritium Programs PBI fee may be earned by Contract Output 1. The available fee, portion of the maximum Contract Output 1 fee, and criteria for payment are as follows.**

Essential Fee

1. \$972,650 available fee for Completion Criterion 1. Monthly fee payments (1/12th of the available fee) will be earned, consistent with successful monthly performance of Completion Criterion 1.
2. \$694,750 available fee of the Contract Output may be earned at the end of the assessment period for the completion of Completion Criterion 2.
3. \$277,900 available fee of this Contract Output may be earned for the completion of Completion Criterion 3.
4. \$416,850 available fee for Completion Criterion 4. Fee payments will be made quarterly, consistent with completed performance of Completion Criterion 4 at the end of each quarter (December 31, 2011; March 31, 2012; June 30, 2012 and September 30, 2012).
5. \$277,900 available fee for Completion Criterion 5. Fee payments will be made quarterly consistent with completed performance of Completion Criterion 5 at the end of each quarter (December 31, 2011; March 31, 2012; June 30, 2012 and September 30, 2012).
6. \$138,950 available fee for Completion Criterion 6. Fee payments will be made at the completion of Criterion 6.
7. \$416,850 available fee for Completion of Criterion 7. Fee payments will be made at the completion of Criterion 7.
8. \$277,900 available fee for Completion of Criterion 8. Fee payments will be made at the completion of Criterion 8.

**Completion Criteria**

1. Complete the monthly loading, packaging, and shipping of reservoirs per Savannah River Site Office (SRSO) Production Directive and the monthly shipping schedule. Perform delegated stamping authority and ship product as scheduled that meets NNSA quality acceptance and shipping requirement.
2. The total reservoir product of all weapon systems will have a facility TPAAG acceptance rate of 98.5% or greater for completed items. The weapon systems to be measured are B61, W76-0, W76-1, W78, W80, B83, W87, and W88. The calculation will be annualized such that the defect rate will be based on the total number of reservoirs submitted for inspection during the year. If the TPAAG acceptance rate performance is 98.5% or greater,

then 100% of the available fee will be earned. The fee earned for this Completion Criterion will be determined as follows:

- a. TPAG acceptance rate greater than or equal to 98.5%, fee earned will be 100% of the available fee.
  - b. TPAG acceptance rate equal to 98.0% but less than 98.5%, fee earned will be 75% of the available fee.
  - c. TPAG acceptance rate equal to 97.0% but less than 98.0%, fee earned will be 50% of the available fee.
  - d. TPAG acceptance rate less than 97.0%, no fee will be earned for this Completion Criterion.
3. The Helium-3 program is executed to support the Memorandum of Understanding between the NNSA-SRSO and the Department of Energy (DOE) Isotope Program.
  - a. Process Helium-3 by-product so that it is available for sale through the DOE Isotope Program. This is to be accomplished without adverse impact to the central mission of the H-Area New Manufacturing (HANM) facility.
  - b. Complete first byproduct loading run for Project Y504, He-3 Separation and Bottling Process by June 30, 2012. Completion is recognized at receipt of satisfactory mass spectroscopy results.
  - c. Complete operations plan (schedule and cost estimate) for extraction of He-3 from process beds by February 29, 2012, if funded.
4. Function Testing. Completion of 140 Function Test Equivalents with test data documented in RAPTOR reports.
5. Post-Function Testing. Completion of destructive examinations of 35 LSP units and documentation of results in Metallurgical reports.
6. Receive Cycle 10a and 10b TPBARS and place in storage by December 30, 2011. Activity is complete when Cycle 10a and 10b TPBARs are in storage location in the TEF Remote Handling Building.
7. Extract Cycle 10a TPBARS by July 31, 2012. Tritium extraction activity is complete when gas has been extracted and is accounted for in ARMS.
8. Continue to follow the baseline (ref. FY10 PBI ARMS 2 Implementation Cost Plan & Schedule) from the ARMs implementation plan for FY 12 to include:
  - a. Accelerate the H1616 container certification and management scope from the plan. Complete the outlined scope and have operational by March 31, 2012.
  - b. Accelerate the Non-robust container scope from the plan and have programming completed by April 30, 2012
  - c. Accelerate and complete post project scope programming and validation testing on the W80 and W87 (tritium filled) programs by March 31, 2012.

## **Assumptions**

1. For Completion Criterion 1.
  - a. The basis for evaluation will be loading / shipping of Production Directive requirements as specified to the contractor by NNSA-SRSO in a 3 month "look ahead" Production Directive schedule. A new Production Directive will be issued by NNSA-SRSO each month. If SRNS considers that the specified schedule changes will increase costs or delay any delivery, SRNS shall promptly notify the NNSA-SRSO Contracting Officer, orally, followed by confirmation and explanation of the notification in writing within 5 working days. Following submission of the written notice of impacts, SRNS shall await further direction. Shipping is performed in accordance with a monthly shipping schedule. If packaging is completed but a shipment is missed for some reason beyond SRNS control, the Completion Criteria shall be considered complete.
  - b. Performance is evaluated monthly. Any missed shipment as a result of SRNS performance will result in nonpayment for that month's portion of this Contract Output.
  - c. Failure to maintain acceptable quality performance, as indicated by the following established metrics will subject SRNS to the following described fee reductions.
    1. Cost of Non-Conformance (CONC) evaluates the Tritium Facilities cost of nonconformance as compared to the Tritium Facilities total product cost. A fee deduction may be imposed if cost exceeds 1.5% in any month. At the end of the PBI period if the annual CONC is less than or equal to 1%, SRSO may grant payment of any previously unearned CONC fee.
    2. The maximum total fee deduction associated with any month's reservoir shipment (Completion Criteria 1) cannot exceed the monthly maximum fee payment.
2. For Completion Criteria 2, TPAG formula is based on the following;
  - a. The formula for arriving at a Fiscal Year To Date (FYTD) percentage for First- Time Use Evaluation (FUE) is as follows:  $\text{Combined percentage ((Monthly percentage of finished units accepted} + \text{Monthly percentage of reclamation units accepted) / 2)}$  provides the average monthly percentage. To annualize the monthly averages are added together YTD divided by the number of months YTD.
3. For Completion Criterion 4.
  - a. This PBI will use the Function Test Equivalents which have been developed and jointly agreed upon by SRSO and SRNS. Test equivalents may be modified to respond to changes in testing requirements or methodology by SRSO or the Design Agencies.
  - b. Completed function tests that have not had their respective RAPTOR reports issued before the next fiscal year begins for reasons not attributable to SRNS performance shall not be cause for fee reduction.
  - c. Completion Criteria delays resulting from a function test system or environmental conditioning system malfunction not attributable to SRNS performance will allow the adjustment of the Completion Criteria and reallocation of the fee. SRSO has accepted risk for single-point failure in lieu of additional costs to provide redundant and backup capability.



## **Government Furnished Services / Items**

1. War Reserve components required from other sites to support the Production Directive must be received at SR, free of defects, with sufficient plant required lead time in advance of the scheduled ship date. Processing and shipping of components not meeting these requirements, and / or due to changes to the Production Directive less than 90 days in advance of the ship date, will be accomplished in a "best effort" manner, and SRNS will not be penalized for failure to meet the scheduled date.
2. Supporting agencies must provide timely delivery of components required for testing.
3. There will not be a delay in testing that is directed from the Design Agencies due to systematic anomaly not associated with SRNS negligence.
4. For Completion Criteria 6 and 7 related to receive and extract TPBARS, the TPBARs must be received on the SRS property from TVA and NAC by October 24, 2011. If the casks are received beyond this date, there will be a day-for-day slip in the completion dates for these activities.

**Contract Output 2.** Conduct Research and Development and Science, Technology and Engineering (ST&E) sustainment activities that solve complex problems related to mission of SRSO and the NNSA.

These activities are sponsored by the Readiness and Engineering Campaigns, and Plant-Directed Research & Development (PDRD) and support development activities for NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.

Research and development activities are conducted to solve complex problems related to the mission of SRSO and the NNSA.

A focused research and development program advances the design and manufacture of Gas Transfer System components and manufacturing methods.

This Contract Output provides the contractor incentive to complete research and development activities that support NNSA missions at Savannah River and other NNSA sites and maintain skill and core competencies that are critical to mission sustainability and execution.

**Up to \$694,750 of the allocated Tritium Programs PBI fee may be earned by Contract Output 2 as follows.**

**Essential Fee**

1. \$69,475 available fee for this Contract Output may be earned for the completion of Criterion 1.a.
2. \$69,475 available fee for this Contract Output may be earned for the completion of Criterion 1.b.
3. \$138,950 available fee for this Contract Output may be earned for the completion of Criterion 1.c.
4. \$138,950 available fee for this Contract Output may be earned for the completion of Criterion 2.a.
5. \$69,475 available fee for this Contract Output may be earned for the completion of Criterion 2.b.
6. \$69,475 available fee for this Contract Output may be earned for the completion of Criterion 2.c.
7. \$138,950 available fee for this Contract Output may be earned for the completion of Criterion 2.d.

**Completion Criteria**

**1. STOCKPILE SUPPORT**

**1.a Annual Stockpile Aging Assessment Report.**

Deliverable: Perform tests to quantify and understand tritium effects on fracture toughness properties of reservoir structural materials as directed by the weapons Design Agencies. Prepare samples, expose to tritium and/or hydrogen, and perform mechanical tests. Complete an annual Enhanced Surveillance stockpile aging assessment and Issue annual report to NNSA-HQ by November 30, 2011.

Why it's Important: Provides input to Los Alamos and Sandia to support the annual assessment process and the Technical Basis for Stockpile Planning (TBSTP). Funded by Engineering Campaign.

### **1.b Stockpile Surveillance Transformation Support.**

Deliverable: Annual report of aging studies and diagnostic development activities to NNSA- HQ March 31, 2012

Why It's Important: Supports the development of aging models and assessments, diagnostics, and tools needed to achieve science based lifetime predictions and stockpile surveillance transformation (MYSO). Funded by Engineering Campaign.

### **1.c Aging Studies of EPDM O-Ring Material for H1616 Containers**

Deliverable: Perform testing to develop technical bases to extend the life time of EDPM O-Rings used to seal the H1616 Containers. Provide a status report on Phase I of the testing.

Why It's Important: The purpose of this scope of work is to evaluate O-ring material performance to determine whether the EPDM seals can withstand a lifetime within the H1616 (-1 &-2) containers of up to at least two years and possibly longer. This is a substantial cost savings.  
FUNDED in DSW.

## **2 MODERNIZATION**

### **2.a Mini-TCAP System Demonstration.**

Deliverable: Design and develop engineering Design Input Document for a Plant Configured Mini-TCAP System; fabricate, and demonstrate a plant-configured Pd/K –MS experimental unit with D2/H2 separation by 9/30/2012.

Why It's Important: To totally eliminate the use of hot/cold nitrogen in the Process, the 3 current users, namely 1) current TCAP units, 2) Flow Through Beds (FTBs), and 3) hydride storage beds must be re-designed to perform without the hot/cold nitrogen system. This project will demonstrate acceptable operation of a HOT/Cold nitrogen free Mini-TCAP plant configured unit.  
FUNDED by continuing PDRD activity into FY12.

### **2.b Tritium Advanced Research Test Facility (Function test station and tritium gas handling glove box) conceptual design.**

Deliverable: Complete conceptual design study and cost estimate for a R&D Function Test Station & Glovebox at SRS by 9/30/12.

Why It's Important: Provides cost estimate and schedule information to enable the proposed project. Sandia intends to establish on-going tritium R&D activities at Savannah River in support of Sandia GTS development. Having the ability to perform R&D function

tests without displacing Surveillance tests will support both GTS development and Surveillance. This supports and enables the Tritium R&D Mission ROD.  
Funded by Stockpile Readiness Campaign.

## **2.c FISH (Four Inch Short Hydride) Beds Development**

Deliverable: Experimentally verify that engineering strains under design conditions are within ASME Code allowable on the prototype FISH bed, and document results by 9/30/2012.

Why It's Important: To totally eliminate the use of hot/cold nitrogen in the Process, the 3 current users, namely 1) current TCAP units, 2) Flow Through Beds (FTBs), and 3) hydride storage beds must be re-designed to perform without the hot/cold nitrogen system. The FISH beds are the proposed replacement storage beds that do not use Hot/Cold nitrogen.

FUNDED by continuing PDRD activity into FY12.

## **2.d Micro-TCAP System Demonstration**

Deliverable: Design and develop Micro-TCAP units to support tritium & deuterium NA-11 and NA-12 cleanup requirements at the LLNL NIF and University of Rochester OMEGA facilities. Construct and test the OMEGA Facility Unit by 9/30/2012

Why It's Important: The National Ignition Facility (NIF) at LLNL and the OMEGA Facility in the Laser Lab for Energetics (LLE) at the University of Rochester use tritium and deuterium in the targets for the fusion energy experiments at each facility. The Micro-TCAP Units will allow both facilities to perform T2/D2/H2 isotope separation at the facilities, avoiding the shipment of T2/D2/H2 mixtures over the road to SRS for separation. The on-site separation capability will also allow LLNL to close couple the target manufacturing process, and meet a more aggressive shot schedule as the experiments escalate.

UNFUNDED. Expected Funding source is NA-11 and NA-12.

GFSI: \$400K Funding from NA-11. Project execution is contingent on timely receipt of funding.

## **Assumptions**

None

## **Government Furnished Services / Items**

1. Tritium Advanced Research Test Facility design and cost element is contingent upon receipt of funding.
2. Project execution for Micro-TCAP System Demonstration is contingent on timely receipt of \$400K funding from NA-11.

**Contract Output 3.** Support the Tritium Programs missions by safe and efficient execution of projects.

**Up to \$694,750 of the allocated Tritium Programs PBI fee may be earned by Contract Output 3.**

Essential Fee

\$694,750 available fee for this Contract Output may be earned for the completion of Criterion 1.

**Completion Criteria**

1. The following project work is to be completed in FY12 and SRSO will allow Tritium Programs to manage the work scope to achieve the lowest cost to NNSA by leveling work scope for design authority, design, and construction resources while expending the desired funds for Fiscal Year 2012. **All specified work will be completed by September 28, 2012 within approved baselines.**

1. Facility Projects

- a. For the Project Y551, Replace HANM UPS, the new UPS will be mechanical complete. Procurement of the UPS will start in FY11 and it is assumed that funding required to meet the milestone is available in FY12 . This achieves replacement of the old existing UPS; thereby reducing HANM deferred maintenance.
- b. For Project Y552, UPS Bypass, will be mechanical complete. This project will reduce production downtime in HANM in the future when other UPS work is needed.
- c. For Project, SS System Piping Modifications, will be design complete. This scope must be accomplished and ready for construction activities to run parallel to an ARMS outage in FY13. Otherwise, two significant loading outages will be required instead of one.
- d. For Project Y587, TEF Tie-in DCS to HANM, the facility will demonstrate operations. Completion of this scope allows the program to achieve the final cost reductions of the TEF Responsive Operations Plan.
- e. For Project Y608, TEF Diffuser Stacking, design will be completed. Completion of this scope reduces risk to stacking operations in both TEF and HANM.
- f. For TRIM project, Removal of Compressor A (part of HANM Finishing scope), conceptual design will be complete. This scope provides a refined estimate and schedule to complete a portion of the TRIM scope.

g. For Project Y554, Unloading Line B Modification, will be mechanical complete. Completion of this project allows for unloading of Gas Transfer Systems in the existing stockpile and recovery of tritium for future loading commitments.

h. Electrical Metering Project – For the Energy Modernization and Investment Program (EMIP), complete the facility metering project to install electrical meters on HANM substation T2, the unclassified data center in 248-H, and the classified data center in 248-H. This PBI assumes additional energy funding is available Oct 1, 2011 to allow for a conceptual design start early in FY12.

### **Assumptions**

Assumptions are included in the individual Completion Criteria.

### **Government Furnished Services / Items**

1. Electrical Metering Project – requires additional energy funding is available Oct 1, 2011 to allow for a conceptual design start early in FY12.

**Contract Output 4.** Participate in the NNSA Multi-Site Incentives and NNSA Nuclear Security Enterprise Initiatives.

Participate in the NNSA Multi-Site Incentives (MSIs) by working with Nuclear Security Enterprise partners to achieve Enterprise-wide goals. Although SRS Tritium Programs' level of participation will vary across the individual Multi-Site Incentives, the distribution of available fee according to Assumption 1 encourages partnership with other Nuclear Security Enterprise (NSE) sites to achieve NNSA's objectives. This is the purpose of Multi-Site Incentives.

**Up to \$1,389,500 of the allocated Tritium Programs PBI fee may be earned by Contract Output 4 as follows.**

Essential Fee

1. \$1,389,500 available fee of this Contract Output may be earned at the completion of Completion Criterion 1. The fee is distributed per Assumptions 1 and 2.

**Completion Criteria**

1. Participate in the FY 2012 MSIs cited in the NNSA Milestone Reporting Tool (MRT) by working with Nuclear Security Enterprise (NSE) partners to achieve NSE-wide goals. Successful completion for each individual milestone within the overall MSI is assigned by NNSA Headquarters. Any unspecified % allocation to the Site Office Manager discretion will be provided as Technical Direction to the Contractor subsequent to this PBI approval.

**Multi-Site Target Assumptions**

1. Letter, NA-10 to Distribution, FY2012 Multi-Site Targets and Success Criteria.
2. Inclusion of specific scope and fee distribution into this PBI will be accomplished through a letter issued by the National Nuclear Security Administration Savannah River Site Office (NNSA-SRSO) Manager to Savannah River Nuclear Solutions, LLC (SRNS).

**Government Furnished Services / Items**

1. NNSA Headquarters defines the FY 2012 Multi-Site Incentives with associated completion criteria and fee distribution method.

## **Contract Output 5. Governance (Business Management)**

This Contract Output emphasizes Performance Activities that enable implementation of Governance for SRNS Tritium Programs.

This Contract Output has a two Completion Criteria associated with Governance in the following areas:

- Governance
- Contractor Assurance System

### **Governance:**

SRNS will support the NNSA Governance Reform initiative being implemented across the complex. The current expectation is that the activities necessary to implement governance within the Tritium facilities will be completed per the agreed upon implementation schedule.

SRNS will report accomplishments achieved through the governance reform effort (effective CAS, reduced Federal oversight, and requirements reform) including information on cost savings and efficiencies.

### **Contractor Assurance System**

SRNS will have a Tritium-wide, comprehensive, and integrated Contractor Assurance System (CAS). As efforts move forward to implement “Governance” within the Tritium Facilities, SRSO acknowledges that the CAS will be evolving to fit the new governance model.

## **Up to \$694,750 of the allocated Tritium Programs PBI fee may be earned by Contract Output 5 as follows.**

### Essential Fee

1. \$694,750 available fee for the Tritium Programs performance may be earned at the end of the assessment period. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

## **Completion Criteria**

Completion criteria include:

1. TP will complete the FY12 scheduled activities as identified in the CAS improvement plan submitted in FY09.
2. Demonstrate an effective, comprehensive, integrated CAS Program. Elements include the following.
  - i. Integrated assessment schedule (includes internal audit, independent assessments, and management activities)
  - ii. Integrated assessment results (includes all formal assessment activities)



- iii. Integrated risk management priorities
- 3. Demonstrate that an issues management system is implemented, and results are regularly reviewed by senior management. (This includes capturing program and performance deficiencies, regardless of their source, in a system or systems that provides for analysis, resolution, and tracking.)
- 4. Support the Line Oversight Contractor Assurance System (LOCAS) initiative.
- 5. Complete all FY12 activities required to support LOCAS affirmation in FY13.
- 6. Accomplishments achieved through the governance reform effort (effective CAS, reduced Federal oversight, and requirements reform) including information on cost savings and efficiencies, where available, with a target 5% annual efficiency gain and/or cost saving compared to the previous year.

#### **Assumptions**

Assumptions are included in the individual Completion Criteria.

#### **Government Furnished Services / Items**

None.

**Contract Output 6.** Maintain the Tritium Facilities in a safe, secure and responsive operating condition. (Operations)

This Contract Output emphasizes Operations programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criteria associated with Operations in the following areas:

Facility and Site Management/Maintenance  
Operations and Work Planning  
Quality Assurance  
Engineering  
Nuclear Safety and Fire Protection  
Radiation Protection  
Training and Qualification

**Up to \$2,779,000 of the allocated Tritium Programs PBI fee may be earned by Contract Output 6 as follows.**

Essential Fee

1. \$2,779,000 available fee of the Contract Output may be earned at the end of the assessment period for Completion Criterion 1 associated with Operations. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Completion Criteria**

1.A. Facility and Site Management/Maintenance.

SRNS will comprehensively manage the Tritium Facilities and will continuously assess and report on aspects of the health and condition of Tritium Operations facilities to ensure that issues and problems are raised to the appropriate level for resolution through submittal of appropriate metrics.

Completion criteria include:

1. The ten year site plan for the Tritium Facilities, as required by NNSA and RPAM (Real Property Asset Management), will be updated annually to reflect the facility improvements, replacements-in-kind, and general facility maintenance required to support the active programs and missions. This document will comply with the format, content, and schedule provided by NNSA/HQ.
2. Health and condition of the major production facilities, as evidenced by facility assessments and the monthly facility availability metric, will be accurately reported each

month and will demonstrate that the facilities are available to meet the mission deliverables.

3. Real property assets will be maintained in a cost-effective manner that includes management of Deferred Maintenance (reported yearly), facility improvements, and Replacement-In-Kind (RIK) projects to ensure facilities and equipment are available to meet mission deliverables. The Facility Information Management System (FIMS) reporting requirements are timely, accurate, and include the Facility Condition Index (FCI).
4. Concurrent with the budget cycle and ten year site plan for the Tritium Facilities, provide NNSA/SRSO an analysis of the Tritium Facilities deferred maintenance, replacement plant value and FCI. Include funding needs to stabilize and improve the FCI along with maintenance and project recommendations.
5. Ensure implementation of a cost-effective, comprehensive, and efficient Maintenance Program that accomplishes the work required to prevent degradation of the condition of the facilities and equipment to ensure that the facilities and equipment are available to support the mission. Metrics (such as locked-in completion, open work activities, corrective maintenance backlog, etc.) shall provide an accurate representation of performance, and will identify areas for improvement.

#### B. Operations and Work Planning.

SRNS Tritium Programs' work will be effectively executed in accordance with Conduct of Operations practices and requirements as defined in the S/RIDs and work will be effectively planned and coordinated.

Completion criteria include:

1. Effective Operations and Work Planning implementation, as indicated with Conduct of Operations issues metrics will be accurately reported each month and will demonstrate acceptable trends.
2. Implementation of continuous improvement initiatives of Operations and Work Planning, will be accurately reported each month and will demonstrate that self assessments and facility personnel are identifying errors and other areas for improvement. The Conduct Of Operations metrics will also demonstrate that fact finding and post job reviews are being conducted as appropriate and in a timely manner. In addition, corrective actions identified in the reviews are effective and result in improving trends in operations and work planning activities.

#### C. Quality Assurance.

The Tritium Quality Assurance Program will be managed and implemented in accordance with the requirements of 10 CFR 830, DOE Order 414.ID, NNSA directives (e.g., QC-1, Primary Standards Laboratory memorandum, Development and Production Manual) as defined in S/RIDS and the SRS 1Q Manual.

Completion criteria include:

1. The aggregate of survey and assessment (SRSO, SRNS and external) results provide confidence that quality is assured through an effectively implemented QA program.

2. Provide quality and process improvements, report and trend improvements including corrective action/prevention of recurrence.
3. Effectiveness of product/production is evidenced by quality trending of defects and non-conformance metrics from NCR, TCNCR, UR, and IMR reports, and the associated Cost of Nonconformance.
  - a. A fee deduction may be imposed if reports exceed 3 in any month. At the end of the PBI period, if the total count of annual nonconforming material reports and unsatisfactory reports collectively for the year is less than or equal to 24, SRSO may grant payment of any previously unearned fee. IMR and URs that will be included in the total count are:
    - Monthly UR/IMR received at SRNS TP that are determined to violate design requirements due to SRNS TP processing. These will not be included in the count until they are dispositioned as being a fault of SRNS TP not upon receipt of the notification of an UR/IMR.

Excluded from the total count is any UR or IMR:

- Received that met Design and Administrative requirements and/or that is not the fault of SRNS.
- That is dispositioned and closed by the Design Agency and sent for information only.
- That is identified greater than twenty four months after the shipment date from SRNS TP

**D. Engineering:**

Engineering will be managed and implemented in accordance with the requirements of applicable DOE orders as defined in S/RIDS and SRNS Engineering Procedures as defined per manual E7.

Completion Criteria include:

1. Deliver/maintain compliant engineering products in support of facility operations and projects. Acceptable performance in this area will be based on the following:
  - a. engineering products shall be configured in accordance with site and facility procedures
  - b. engineering errors will be identified and tracked via facility protocols. Errors will be evaluated by engineering management to determine if lessons learned exist
2. Deliver/maintain configuration controlled Safety Systems that will perform as described in the safety basis, that will support the Tritium Programs mission including support to the weapons design agencies. Acceptable performance in this area will be based on the following:
  - a. Documents constituting the technical baseline for Tritium Programs shall be maintained current reflecting the field conditions.
  - b. Engineering self-assessments shall be identified that take into account issues and events. Performance shall be documented. These self-assessments will include lines of inquiry that assess performance in accordance with the Safety Basis as applicable.
  - c. System health reports are generated per the requirements of SRNS procedures and per the expectations of TP Engineering Management.
  - d. Principles of Reliability Centered Maintenance (RCM) are investigated and evaluated for use in the facilities. At a minimum, a pilot for evaluation/implementation of PMs or evaluation/reduction of CMs for one system based on RCM principles will be performed. The results of the pilot will be written up in report format with recommendations to TP management regarding further involvement in the program.
3. System engineers shall have sufficient depth of knowledge of their assigned systems to support operations and maintenance while ensuring operation of the systems within the safety basis. Acceptable performance will be based on the following:
  - a. System engineer training will be developed/implemented to meet the training program description on the schedule presented in the Plan of the Week. Training development will be on a forward-fit basis with objective of all newly-assigned System Engineers qualifying via the new training program.
  - b. Shift Technical Engineer training will be developed/implemented to meet the training program description on the schedule presented in the Plan of the Week. New STEs entering STE training as of 10/1/11 will qualify via the new STE training program.
  - c. Engineering Technical Staff personnel take on-going continuing training.

4. The engineering organization shall support the goals of the TP mission. Acceptable performance will be based on the following:
  - a. Ensure safe and secure operations based on using HPI tools, conduct of engineering principles, and good housekeeping. Errors will be identified and tracked in the error reporting tool with actions taken as required to correct programmatic deficiencies.
  - b. Ensure delivery of quality products on time by meeting schedules, honoring commitments, and identifying/correcting issues and problems.
  - c. Participate in continuous improvement (CI) initiatives to include continuous improvement training participation, leading/participating on CI projects.

E. Nuclear Safety & Fire Protection: The Tritium Safety Basis and Fire Protection Programs will be managed in accordance with applicable regulations, DOE Directives as defined in SRIDS, and site requirements.

Completion criteria include:

- 1) The SRNS Safety Basis Program(s) achieves and maintains full compliance with regulatory requirements as defined in the S/RID-applicable safety basis requirements.
- 2) Produce and maintain compliant safety basis engineering product deliverables that support operations and projects. These products include DSAs, TSRs, hazard analyses, USQD documents, and supporting analyses.
- 3) The TORC process is managed in a manner which provides an appropriate and adequate level of oversight of the facility safety basis program as defined by the TORC charter.
- 4) Develop and submit the following items per the target completion dates as identified in the TP Plan of the Week:
  - a. Develop and submit FY12 Annual Safety Basis updates for all applicable facilities in accordance with the required delivery schedule
  - b. Implement the TEF DSA upgrade
- 5) The Fire Protection Program shall be implemented and maintained as required by the safety basis documents and by applicable NFPA requirements. Acceptable performance will be based on the following:
  - a. Planned and unplanned impairments and their duration shall be documented and tracked with emphasis on minimization of number and duration of unplanned impairments  
False and nuisance alarms shall be documented and tracked with emphasis on minimization of these types of alarms.
  - c. Failure of components which impact the reliability of the fire protection equipment (such as heat detectors, smoke detectors, sprinkler heads, etc) shall be documented and tracked so that the potential for improvements can be identified.

F. Radiation Protection.

SRS Tritium Programs' Radiation Protection Program will be managed and implemented in accordance with the requirements of 10 CFR 835, applicable S/RIDs, and the SRNS Radiological Protection Program.

Completion criteria include:

1. The aggregate evaluation of assessment results and metrics, including facility contamination events, personnel contaminations and radiation exposure, habitability survey performance, shows the radiological protection program is implemented in accordance with requirements.
2. No significant radiological deficiencies occur which preclude the performance of Tritium operations or accomplishment of missions.

**G. Training and Qualification.**

The Tritium Training and Qualification Program will be managed and implemented in accordance with the requirements of DOE Order 426.2, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, as defined in the S/RIDS, and plant policies and procedures.

Completion criteria include:

1. No significant programmatic training deficiencies will occur which affect the performance of Tritium Program activities or accomplishment of mission.
2. Operations Technical Qualification Expiration for all Operations Watchstander employees is tracked, reported, and maintained to demonstrate that fully qualified facility personnel are available to support accomplishment of the mission.

**Contract Output 7.** Maintain the Tritium Facilities in a safe, secure and responsive operating condition. (ES&H/S&S)

This Contract Output emphasizes Safety and Health and Safeguards and Security programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criteria associated with Safety and Health and Safeguards and Security in the following areas:

- Emergency Management
- Health and Safety
- Environmental and Waste Management
- Safeguards and Security
- Cyber Security
- Project Management

**Up to \$2,084,250 of the allocated Tritium Programs PBI fee may be earned by Contract Output 7 as follows.**

Essential Fee

1. \$2,084,250 available fee of the Contract Output may be earned at the end of the assessment period for Completion Criterion 1 associated with Safety and Health and Safeguards and Security. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Completion Criteria**

A. Emergency Management.

Ensure implementation of a cost-effective, comprehensive, and efficient Emergency Management Program that ensures response to and mitigation of abnormal events by a knowledgeable and fully trained workforce with minimum impact to mission accomplishment. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

B. Health & Safety.

Ensure implementation of a cost-effective, comprehensive, and efficient Health & Safety Program that ensures response to and mitigation of abnormal events by a knowledgeable and fully trained workforce with minimum impact to mission accomplishment. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

C. Environmental and Waste Management.



Ensure implementation of a cost-effective, comprehensive, and efficient Environmental Management Program that ensures no significant deficiencies will occur that affect the performance of the SRNS Tritium operations accomplishment of missions. Metrics shall provide an accurate representation of performance, and will identify areas for improvement. Ensure implementation of a cost-effective, comprehensive, and efficient Waste Management Program that ensures minimum waste generation, minimum waste accumulation in the facilities, and compliance with the waste acceptance criteria for disposal. Metrics shall provide an accurate representation of performance, and will identify areas for improvement.

#### D. Safeguards and Security

Operate an effective and efficient Safeguards and Security Program that meets DOE, NNSA, and Site requirements/directives and expectations as verified by Contractor self- assessment, SRSO oversight, and external inspections. Maintain effective Tritium Programs performance while completing milestones on schedule and within budget.

Completion Criteria include:

1. Support the NNSA Enterprise through DNS Management Excellence.
  - a. Provide transparency into the security budget formulation and execution activities. Site FS-20 budgets must align with NNSA Field CFO issued costing principles.
  - b. Achieve full compliance, upon final issuance of PPM NAP, with DNS Costing Principles and Budget Reporting (B&R) categorizations in both budgeting and execution. Provide all DNS Planning, Programming, Budgeting and Evaluation (PPBE) deliverables according to DNS schedule and instructions.
  - c. Incorporate traceability across all security planning documentation, (i.e., Tritium Programs Work Authorization and Execution Plan (WAEP), Budget Requests, Site Safeguards and Security Plans, Performance Evaluation Plans, including Performance Based Incentives, etc.) Site Office approved FY12 WAEP must be provided to DNS by October 1st for Fiscal Year 2012.
  - d. Provide 100% alignment of resources, i.e., Full Time Equivalent (FTE) and subcontractors to WAEP.
  - e. Support NA-70 initiatives, both the Security Commodity Team and Physical Security Technology Management Plan (PSTMP), by providing data and expertise as requested.
2. Security plans, policies and procedures are to be updated to reflect NNSA security policy by FY 2012 or as stated in the NNSA security policy.
  - a. Implement security reform to improve mission effectiveness and drive cost efficiency.
  - b. Implement program improvement tied to NNSA security standards in accordance with SRNS Contract Modification process and mutually agreed upon implementation schedule.
  - c. Continue to update security program to align with forthcoming NNSA Policy (NAP) documents in accordance with agreed upon schedules.
3. Achieve efficiencies based on the current state of the site security footprint. (Security footprint includes documents, buildings, clearances, Closed Areas (CAs), etc.)

- a. S&S should work with site operations to evaluate and implement a plan to achieve cost efficiencies to include a reduction in the site security footprint to include reducing unnecessary facilities and surplus materials (classified parts, documents, CAs, etc.) in accordance with the Ten Year Site Plan..
  - b. Ensure that PF posts are automated as much as is feasible.
4. Develop site specific condition assessments and lifecycle cost management plans for all FS-20 funded security systems and components. Produce a plan with components that address the following concepts:
  - a. Realize operational efficiencies through modernization or operational/process improvements.
  - b. Evaluate, develop, and implement a systems modernization plan to include economical life cycle management for physical security systems as approved by the Site Office considering the Enterprise-wide perspective.
5. Achieve overall satisfactory or effective performance on Site Office and external surveys or assessments.
  - a. Maintain and sustain an effective S&S program in all applicable functional of the DOE F 470.8.
  - b. Conduct S&S self-assessment in all applicable S&S functional areas and provide periodic performance conclusions to the Site Office.
  - c. All corrective actions are completed on-time, within agreed budget, and effectively address the performance issues.
  - d. Ensure that there are no repeat findings in any S&S functional area.
  - e. Demonstrate that the Contractor Assurance System (CAS) incorporates all applicable functional areas and requirement
6. Use current Site Lessons Learned program to ensure S&S information is shared throughout the SRNS NNSA Facilities.
7. Ensure S&S security staff are trained in accordance with the site S&S Training Plan.
  - a. Identify and address skill gaps for S&S personnel in the S&S personnel in the S&S Training Plan.

**E. Cyber Security.**

Operate effective and efficient Tritium Programs Cyber Security activities that meet DOE, NNSA, and Savannah River Nuclear Solutions (SRNS) requirements/directives and expectations as verified via contractor self-assessments, SRSO oversight, and external inspections.

Completion Criteria include:

1. Implement a Cyber Security Program, based on the NNSA Program Cyber Security Program (PCSP), to protect classified, sensitive-unclassified, and unclassified information to which the site has access or custody.

2. Develop and implement a risk management framework for cyber security, utilizing the NIST SP 800-37, 800-39 DRAFT, and 800-60 as a guideline for the development of the framework.
  - a. Risk management framework will be developed and submitted to headquarters.
  - b. Update the site CSPP with new and updated policies and procedures under the risk management framework.
3. Continue to implement and, where possible, accelerate the implementation of the NNSA PCSP.
4. Implement information system minimum security configurations established by the NNSA.
5. Ensure that significant site risks are adequately evaluated and managed and that sensitive information and systems on the SRS unclassified networks are properly protected.
6. Establish and maintain effective feedback and improvement mechanisms to identify cyber security vulnerabilities, eradicate them from site networks, and prevent recurrence.
7. Establish and maintain a comprehensive self-assessment program for the SRS Cyber Security Program.
8. Actively participate in the NNSA Headquarters' ZBSR for cyber security.
9. Participate in Cyber Tracer (TracerFire) activities, as funded.
10. Establish an effective program to manage risk associated with the implementation of wireless computer technology.
11. Prepare and provide a quarterly status report to the NNSA OCIO CSPM on the SRS program that includes AOP status, Cyber Security Program implementation, budget execution performance, and other status/performance information as requested.
12. Ensure that POA&Ms and CAPs are appropriately monitored and closed, per schedule.
13. Identify requirements and fully Implement Data Loss Prevention (DLP) tool as funded.
14. Identify requirements and fully implement a continuous monitoring plan by September 2012.

**F. Project Management.**

Completion criteria include:

1. Aggregate evaluation of review results indicates projects are routinely implemented in accordance with requirements. No significant deficiencies will occur which affect the performance of the SRNS Tritium operations or accomplishment of missions.
2. Safety will be emphasized for all aspects of the project from design through startup. Ensure effective integration of safety and security into the design and construction of all nuclear line item projects in accordance with DOE-STD-1189. Projects safety indices demonstrate prime and subcontractor performance meet or exceed national safety performance standards and the Departmental/Site Office safety goals as prescribed. Projects will routinely discuss safety in

meetings for project personnel and will emphasize lessons learned at SRS construction sites and projects at other DOE sites. During construction phase each project manager or designee will proactively participate and conduct safety walk downs and document on Management Field Observation forms in STAR.

3. Manage projects within established scope, cost, and schedule baselines per SRSO approved Integrated Priority List. Cost and schedule performance are measured through Cost Performance Index (CPI) and Schedule Performance Index (SPI) for large projects and cost and schedule baselines for small projects. CPI and SPI are at or above 0.90
4. Projects use a graded approach compliant with DOE 413.3B principles. Project activities and resources are effectively planned and integrated to ensure the performance baseline is maintained. This includes the use of integrated schedules in the day-to-day management of projects.
5. Monthly project status reports are timely and submitted for each line item project, GPP/GPE/MIEs, and for selected operating expense funded projects. Reports contain indices of overall project performance. Reports include analysis of baseline variances, trends, funds, and contingency management, risk management. Reports contain baseline change control register.

**Contract Output 8.** Maintain the Tritium Facilities in a safe, secure, and responsive operating condition. (Business Management)

This Contract Output emphasizes Business programs that provide the physical infrastructure and operational capabilities required to conduct Directed Stockpile and Campaign activities.

This Contract Output has a single Completion Criterion associated with Business in the following areas:

Fiscal Management  
Program Management  
Information Technology/Process Control  
Modernization  
eSourcing

**Up to \$2,084,250 of the allocated Tritium Programs PBI fee may be earned by Contract Output 8 as follows.**

Essential Fee

1. \$2,084,250 available fee for the Tritium Programs performance may be earned at the end of the assessment period associated with Business Management. Fee will be determined at the end of the assessment period for each Completion Criterion commensurate with performance as measured by the Subjective Adjectival Rating Criteria.

**Business Management**

**A. Fiscal Management.**

Budget and financial deliverables per the Planning, Programming, Budget, and Evaluation (PPBE) process will be provided in accordance with established due dates.

Completion criteria include:

1. The SRNS Tritium Program (TP) will maintain an effective and timely information response process. Information requests, budget exercises, work insertion requests, etc., will be fully supported at both the TP and SRNS corporate level. The fiscal management efforts and work product will be evaluated on such factors as responsiveness, quality and timeliness, proactive resolution of emergent issues and concerns, and communication with SRSO and SRNS.
2. SRNS TP will keep SRSO apprised of and invited to participate in joint contractor-Federal discussions, meetings, and briefings germane to accounting changes that affect NNSA costs or have potential service impacts. This includes, but is not limited to, changes to indirect rates, cost collection methodologies for pension and Work Force Restructuring costs, etc. SRNS must ensure that unilateral actions are not taken to the disadvantage of NNSA's interests without attempting to influence the decision and providing SRSO sufficient opportunity to intercede at the Federal level.
3. SRNS will maintain an effective and efficient funds controls system including the following:
  - a. No legal or administrative violations occur with regards to the management of appropriations for which controls have been established by DOE/HQ, or for which funds of other federal agencies or governmental entities have been entrusted to DOE for performance of supporting scopes of work. (Tritium only)
  - b. Uncosted balances are maintained consistent with sound financial management. Due consideration will be given to multi year expense projects, multi-year program and productivity strategies and timing of funding and scope direction.
  - c. Reprogramming actions and supplemental financial plans will be timely, accurate, comprehensible, and minimized via advance planning and forecasting processes. Any identified need for a reprogramming action will be identified early in the fiscal year, have SRSO program approval, and clearly identify all funding sources. Due consideration will be given for late year reprogramming request driven from customer requested schedule changes and mutually agreed upon program and business opportunities.
  - d. Indirect costs and rates will be tracked and managed to identify and mitigate potential perturbations to planned direct work.
4. SRNS will have a controlled integrated baseline for all Tritium programs, projects and functions. The baseline will appropriately:
  - a. Include the NNSA Uniform Program Cost Reporting Structure format elements.
  - b. Be compatible with and in a Work Breakdown Structure (WBS) format ready for incorporation into the NNSA Cost Management Initiative database.
  - c. Have tools in place to (1) manage mission changes in scope, cost and schedule, (2) compare Actual Cost to Budgeted Cost (3) accurately forecast estimated cost to complete and estimated total costs at completion, and (4) document deviations from the performance measurement baseline and notify the Contacting Officer of such changes on a timely basis.
  - d. Prohibit retroactive changes to records pertaining to work performed that will change previously reported costs, except for correction of errors and routine accounting adjustments.

- e. Prohibit retroactive changes that result in funding fluctuations or revisions to the EAC.
- 5. Offline quarterly and year-end reporting will be provided per reporting requirements.
- 6. Impact analyses and ad hoc exercises will be responded to in a timely manner and be coordinated with SRNS.
- 7. Budget formulation requirements will be provided per requirements and coordinated with all appropriate organizations.
- 8. Financial reporting will demonstrate effective and transparent accounting practices.
- 9. The integrated baseline will be in place and ready for validation by the NNSA CFO by September 30, 2012. (Implementation is predicated on receiving requirements in appropriate timeframe).

#### B. Program Management.

SRNS will manage programs consistent with the NNSA Program Management Policy (BOP-006.001) and the Defense Programs Program Management Manual. A Program is a group of ongoing activities and related projects conducted with a defined set of resources (financial, human, etc.) managed in a coordinated way to achieve mission objectives and obtain benefits not available from managing them individually.

Program Management within Tritium Programs applies primarily to RTBF, DSW, Engineering and Readiness Campaigns, FIRP, S&S, etc.

Program Management philosophy views programs as falling across a spectrum ranging from operational or level-of-effort programs, such as surveillance of the nuclear weapons stockpile at one end, to major capital acquisition projects at the other end. The diversity of programs within the NNSA demands the “tailored” application of the program management principles to accommodate the requirements of each program.

Completion criteria include:

Plan, execute, and manage to established scope, cost, schedule, and risk baselines for all program elements including:

1. Each individual program will be planned, executed, managed, and will maintain acceptable cost and schedule performance as established by Work Authorization Directives, Prioritized Project Lists, PCD Requirements, Baseline Dismantlement Schedule, program implementation plans, program execution plan, and all other program requirements.
2. Aggregate evaluation of review results indicates programs are routinely implemented in accordance with requirements. No significant deficiencies will occur which affect the performance of the SRNS Tritium operations or accomplishment of missions.
3. SRNS’ scope associated with NNSA Milestone Reporting Tool (MRT) Level 1 and 2 milestones will be completed on schedule. This excludes milestones associated with the Multi-Site PBI that are addressed in Contract Output 4.
4. Information requests, budget exercises, work insertion requests, etc., will be supported. Develop and submit business cases as requested.
5. Submit Performance reports as required by individual Programs’ Execution Plans.

6. Quarterly program status reviews are conducted that contain overall indices of performance, analysis of baseline variances, trends, funds and reserve management, and risk management. A review of HQ deliverables and issues will also be discussed.

**C. Information Technology/Process Control.**

Ensure implementation of a cost-effective, comprehensive, and efficient Information Technology/Process Control Management Program that ensures no significant deficiencies will occur that affect the performance of the SRNS Tritium operations accomplishment of missions. Metrics shall provide an accurate representation of performance, and will identify areas for improvement. SRNS must demonstrate that all classified networks are available to support NNSA missions by meeting the following criteria:

1. Maintain the Tritium Programs Classified Network (TFnet) Availability at greater than 98%.
2. Maintain Tritium's Programs Enterprise Secure Network (ESN) Availability at greater than 98%.
3. Complete a minimum of 4 Intrusion Detection System (IDS) Reviews per month.
4. Maintain Tritium Programs Data Server Availability at greater than 98.7%.

**D. Modernization**

Completion criteria include:

1. Enterprise Initiatives
  - a. Record of Decision
    - i. Facilitate communication and implement actions needed by the Nuclear Security Enterprise to support the Record of Decision.(Tritium R&D)
  - b. Transformation Activities
    - i. Support key modernization and strategic planning initiatives.
  - c. Stockpile Services Modernization Plan (SSMP)
    - i. Work with NNSA-SRSO, NNSA-HQ, and the NSE to support the key Congressional inputs required in SSMP document updates and it's strategies within funding limits.
2. Facility Modernization
  - a. Demonstrate support for implementation of the Tritium Programs transformation strategies and goal per NNSA direction within funding limits.
  - b. Support key facility modernization and strategic planning initiatives, such as the Tritium Programs Strategic Plan, Human Capital Management Plan, and Business Transformation Plan within funding limits.

**E. eSourcing:**

Completion criteria include:

1. Implement e-Sourcing for NNSA procurements where applicable. Participate and support SCMC activities and EM like initiatives as appropriate.
2. Utilize the eSourcing tools available at the NNSA Supply Chain Management Center and achieve ten eSourcing events.

3. Continue to work with SCMC to modify supplier agreements allowing SRNS to purchase using SCMC e-catalogs and other supplier agreements.



**Approvals:**

**SRNS NNSA Programs**

**Dennis J. Donati**

**Date**




9/20/11

**NNSA SRSO**

**Douglas J. Dearolph**

**Date**



9/20/11



## Performance Incentive Document

PBI: SRNS2012NNP

Activity: Nuclear Nonproliferation Program

WBS: 01.25.60

Performance Period: October 1, 2011 – September 30, 2012

Allocated Fee: \$7,016,000

Revision Number: 0

---

### **Performance Outcome:**

Provide cost-effective management and technical support to the Nuclear Nonproliferation Program so that the program is executed within the Performance Management Baselines and in accordance with DOE Order 413.3B and other applicable DOE directives, regulations, and requirements.

Contract Output	Value	Indicator
SRNS2012NNP-01	\$100,000	Safely execute the Operations Activities required in support of the readiness completion of the Waste Solidification Building (WSB) in accordance with the approved Performance Management Baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).
SRNS2012NNP-02	\$495,000	Conduct WSB Title III Design Engineering and Design Authority activities and planning in accordance with the baseline schedule in order to support construction, acceptance testing, and facility operation.
SRNS2012NNP-03	\$795,000	Execute WSB Startup and Construction activities and planning in accordance with the baseline schedule in order to support system and facility readiness testing.

### **OFFICIAL USE ONLY**

Contains information which may be exempt from public release under the Freedom of Information Act (5 U.S.C. 552), Exemption number 4, Commercial/ Proprietary. Approval by the Department of Energy prior to public release is required.  
Reviewed by: P. O. "Tim" DuVall, PDC O&M Engineer  
Date: 09/21/2011 Guidance Used: N/A

SRNS2012NNP-04	\$2,610,000	Safely execute the WSB project activities in a cost effective manner and on the schedule necessary to meet the MFFF need date and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked) and DOE Order 413.3B (or successor).
SRNS2012NNP-05	\$350,000	Safely execute SRNS assigned work on the MOX Fuel Fabrication Facility (MFFF) project and MOX Fuel Irradiation, Feedstock and Transportation (MIFT) program scope and activities in accordance with approved cost and schedule baselines and scope defined in work authorizations/approved Work Task Agreements. <i>(Subjective)</i>
SRNS2012NNP-06	\$600,000	Prepare, submit, and support the NNSA review of a Pit Disassembly and Conversions (PDC) project Critical Decision (CD) 1 package in accordance with DOE Order 413.3B.
SRNS2012NNP-07	\$400,000	Execute PDC activities in compliance with the current version of DOE Order 413.3B along with all contractual requirements in a quality, responsive and cost effective manner in accordance with the PDC IPT schedule. <i>(Subjective)</i>
SRNS2012NNP-08	\$1,566,000	Execute SRNS assigned work related to NNP Pu Disposition Program management and integration and associated work activities by providing cost-effective support for those activities common to the nonproliferation program and projects.  Execute program and project management in accordance with NNSA Program and Project Management Policy (BOP-006.001), provide support to the NN Planning, Programming, Budget and Evaluation Process (PPBE), and support NN program communications and outreach efforts. <i>(Subjective)</i>
SRNS2012NNP-09	\$100,000	Develop plan and cost estimate for restoration of F Area facilities in support of NNP needs. Restore identified facility in a cost effective, timely manner.
NNP Multi-year		Safely execute the construction of the Waste Solidification Building in accordance with the approved project baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

--	--	--

**Evaluation Criteria:**

SRNS2012NNP	Objective and subjective evaluation criteria will be used to document review and acceptance of this performance fee agreement.
Objective Evaluation Criteria:	Will be evaluated as performance is completed and will be discussed and documented in the monthly NNSA and contractor performance meeting.
Subjective Adjectival Rating Criteria:	For those Completion Criteria that receive an adjectival grade and numerical score the following table will be used to define the different levels of performance and the corresponding grade/score that goes with the evaluation thereof.

Subjective Rating Criteria	Subjective Rating Evaluation Criteria Description	At Risk Fee Earned
Excellent	Contractor has <u>exceeded almost all</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	91 – 100%
Very Good	Contractor has <u>exceeded many</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	76 – 90%
Good	Contractor has <u>exceeded some</u> of the significant award fee criteria and has met overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	51 – 75%
Satisfactory	Contractor has <u>met</u> overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	1 – 50%
Unsatisfactory	Contractor has <u>failed</u> to meet overall cost, schedule and technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period.	0%

---

**\$4,000,000 of the Nuclear Nonproliferation PBI will be paid for the construction, startup testing and operational preparedness of the WSB. (Contract Outputs 1-4)**

**WBS: 01.25.60.01.02**

**Contract Output 1:** Safely execute the Operations Activities required in the support of the readiness completion of the Waste Solidification Building (WSB) in accordance with the approved Performance Management Baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

**3% (\$100,000) of the allocated fee for the Operational Activities required to support the operational readiness of the WSB will be earned as follows:**

**1A. Complete System Specific Classroom Training - MSTs by July 30, 2012 (Schedule ID XXTR000085). (\$20,000)**

**Completion Criteria:**

- System specific training modules will be completed and approved.
- Training will be provided in a classroom environment to the MSTs and will not include field job performance measures (JPMs) to be completed later.
- Documentation of training completion will be through the MST Qualification Card.

**Assumptions:**

- System specific training will be developed based on the existing, approved Plant and process design. If there are significant design changes that require development of additional system specific training, it will be considered additional scope.
- The completion date is based on the specific training activity in the WSB project baseline schedule. If the decision is made to extend training period to support other critical path needs of the project (i.e., support for construction or testing), and the extension does not result in training becoming a critical path activity, the fee associated with this contract measure will be paid upon completion, provided that the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**1B. Complete the 12 modules of Conduct of Operations Training for the MSTs by December 30, 2011 (Schedule ID XXTR000600). (\$20,000)**

**Completion Criteria:**

- Training of the 12 Conduct of Operations modules will be provided in a classroom environment.
- Documentation of training completion will be through the MST Qualification Card.

**Assumptions:**

The completion date is based on the specific training activity in the WSB project baseline schedule. If the decision is made to extend training period to support other critical path needs of the project (i.e., support for construction or testing), and the extension does not result in training becoming a critical path activity, the fee associated with this contract measure will be paid upon completion, provided that the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**1C.** Develop and approve the training courses for MST E&I qualification by January 26, 2012 (Schedule ID XXTR000550). **(\$20,000)**

**Completion Criteria:**

- The training curriculum required for MSTs to attain E&I qualification defined and approved.
- Based on the curriculum, actual training courses will be developed and approved.
- Documentation will be the approved curriculum and approval of the training courses supporting the curriculum by Site Training

**Assumptions:**

At present, there is no program on Site to allow MSTs to attain E&I Qualifications. A proposal has been developed to allow the WSB MSTs to attain E&I Qualification based on an electrical training curriculum. The proposed curriculum will be approved by SRNS Site Management and then detailed training courses will be developed and approved based on this curriculum.

The completion date is based on the specific training course development activity in the WSB project baseline schedule. If the decision is made to extend training period to support other critical path needs of the project (i.e., resources needed to develop more critical path training), and the extension does not result in this training course development becoming a critical path activity, the fee associated with this contract measure will be paid upon completion, provided that the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**1D.** The WSB Readiness Assessment Plan will be developed, approved and issued by March 30, 2012 (Schedule ID XXOPS0580). **(\$20,000)**

**Completion Criteria:**

Early readiness planning is critical to ensure that the WSB project has adequately addressed all issues necessary to ensure a successful Contractor Readiness Assessment. The WSB will develop, approve and issue a DOE Order 425.1D compliant Readiness Assessment Plan by March 30, 2012. Documentation of completion will be the approved Plan in Document Control.

**Assumptions:**

The completion date is based on the Contractor Readiness Assessment Plan approval date in the

WSB project baseline schedule. This represents the initial revision of the RA Plan. It is understood that throughout the life of the WSB Project, the RA Plan will be revised based on lessons learned from other projects and any potential changes to the requirements.

**Government Furnished Services / Items:**

None identified.

**1E.** The WSB EIPs (Emergency Plan Implementing Procedures) will be developed, approved and issued by July 19, 2012 (Schedule ID XXCNDSA324). **(\$20,000)**

**Completion Criteria:**

Developing the Emergency Plan Implementing Procedures is key to establishing the necessary actions that must be taken and integrated at the Site level to ensure adequate training and response for potential emergency conditions. This represents the initial revision of the procedures and ensures the procedures are written, approved and in place prior to the Readiness Assessment. Documentation of completion will be the approved Emergency Plan Implementing Procedures in Document Control.

**Assumptions:**

The completion date is based on the schedule activity in the WSB Project baseline schedule for development of the Emergency Plan Implementing Procedures. This represents the initial revision of the Emergency Plan Implementing Procedures. It is understood that throughout the life of the WSB Project, the Emergency Plan Implementing Procedures will be revised as necessary to support any potential changes to the requirements.

**Government Furnished Services / Items:**

None identified.

**Contract Output 2:** Conduct Title III Design Engineering and Design Authority activities and planning in accordance with the baseline schedule in order to support construction, acceptance testing, and facility operation.

**12% (\$495,000) of the allocated fee for the construction of the WSB will be earned as follows:**

**2A.** The fee allocated **(\$300,000)** for this contract output may be earned for completion of the criteria below. NNSA will provide a periodic evaluation of SRNS' performance with respect to this completion criterion as part of the normal contractor evaluation process. Award fee payments will be made quarterly **(\$75,000 at the end of each quarter)** based on the acceptability of performance for the quarter as determined by NNSA. If NNSA determines that SRNS' performance for a quarter is not satisfactory, NNSA will determine the amount of quarterly award fee to be deducted.

**Completion Criteria:**

- Engineering support and responses for the BOP subcontractor are provided in a timely manner and ensure the project is constructed to appropriate codes and standards.



- Coordination is achieved between SRNS and the BOP subcontractor in establishing the engineering priorities and ensuring timely resolution to support the subcontractor's procurement and construction schedule.
- Requests for deviations and changes are evaluated within the time allotted within the contract, at a minimum. However, communication, coordination, and expediting of requests will be necessary to maintain, improve, or mitigate schedule impacts.
- Communication between SRNS and the subcontractor will be assessed to ensure that submittals are resolved with minimal iterations for clarifications or corrections.

**Assumptions:**

None.

**Government Furnished Services / Items:**

None identified.

**2B.** Approve and issue the ETP Waste Compliance Plan for Water Runs by May 1, 2012 (Schedule ID XXDAWR85). **(\$15,000)**

**Completion Criteria:**

The ETP Waste Compliance Plan for WSB Water Runs will be approved to support any water transfers between the WSB Facility and the ETP. Documentation will be the ETP Waste Compliance Plan in document control.

**Assumptions:**

The completion date is based on the specific activity in the WSB project baseline schedule for having an approved ETP Waste Compliance Plan for Water Runs. If the decision is made to extend the completion date for this out to allow key resources to address other critical path needs of the Project, and the extension does not result in this activity becoming a critical path activity, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

If the decision is made that it is more prudent for the WSB Project to dispose of the water generated for water runs in a different manner than transferring the water to ETP, this contract deliverable may be converted to address the necessary plan development required for the alternate disposal method at the discretion of NNSA.

**Government Furnished Services / Items:**

None identified

**2C.** Approve and Issue the Waste Acceptance Criteria for WSB liquid waste streams by September 18, 2012 (Schedule ID XXDAWAC95). **(\$15,000)**

**Completion Criteria:**

The Waste Compliance Criteria for WSB liquid waste streams will be approved to support the WSB Contractor Readiness Assessment. Documentation will be the Waste Acceptance Criteria document in document control.

**Assumptions:**

The completion date is based on the specific activity in the WSB project baseline schedule for having an approved Waste Acceptance Criteria for WSB waste streams. If the decision is made to extend the completion date for this to allow key resources to address other critical path needs of the Project, and the extension does not result in this activity becoming a critical path activity, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**2D.** Complete development of the Tech Staff Training Requirements by October 24, 2011 (Schedule ID XXDATS005). **(\$15,000)**

**Completion Criteria:**

- The training curriculum required for WSB Tech Staff will be defined and approved.
- Based on the curriculum, actual training course requirements will be developed and approved.
- Documentation will be the approved curriculum and the training courses requirements by Site Training.

**Assumptions:**

To support the Contractor Readiness Assessment, WSB Tech Staff training must be defined through a course curriculum and training course requirements to support the curriculum defined. The proposed curriculum will be approved by SRNS Site Management and then detailed training course requirements will be defined and approved based on this curriculum.

The completion date is based on the specific training course curriculum development activity in the WSB project baseline schedule. If the decision is made to extend training development period to support other critical path needs of the project (i.e., resources needed to support more critical path project specific activities), and the extension does not result in this training course curriculum development becoming a critical path activity, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**2E.** Compl-098765ete the required training and formally establish the WSB FOSC by June 1, 2012 (Schedule ID XXFOSC013). **(\$15,000)**

**Completion Criteria:**

The membership and training requirements for the WSB FOSC are defined by Site Level procedures and requirements. The FOSC is a critical component for normal plant operations and is required to be functional to support the Contractor Readiness Assessment. A FOSC Charter

will be written and approved establishing the WSB FOSC and defining the FOSC membership and required training. Documentation of training completion will be in the Site Train Program.

**Assumptions:**

To support the Contractor Readiness Assessment, the WSB FOSC must be established and all FOSC members have to complete the required training. It is recognized that through the course of the WSB Project, organizational changes may take place that will involve the FOSC. Alternate FOSC members will be defined by the FOSC charter. The FOSC is considered established and trained as long as there are members or alternates available for all defined FOSC positions.

The completion date is based on the date in the WSB project baseline for this specific activity. If the decision is made to extend the date for establishing the FOSC beyond this date to support more critical project activities, and the extension does not result in this activity becoming critical path, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified

**2F.** Complete the Seismic Analysis and Testing for the equipment that requires seismic testing at an independent laboratory in support of the construction subcontractor's need date. The completion date is based on the delivery date for the final piece of seismically qualified equipment that SRNS is responsible for as defined by the equipment delivery date in the WSB project baseline schedule – May 14, 2012 (Schedule ID XXBOPST100). **(\$15,000)**

**Completion Criteria:**

Design Engineering is responsible for ensuring that seismic testing for certain critical components is completed on those components in time for system turnover from the subcontractor to SRNS Startup and Testing. SRNS will ensure that seismic testing is complete and the required documentation to support the testing is in document control.

**Assumptions:**

All seismically qualified equipment is identified in the WSB project baseline schedule and a need date has been established for having the equipment seismic testing completed and the testing documentation in Document Control. The schedule dates support the subcontractor's system turnover dates. If the subcontractor elects to move the system turnover date out, the need date for completing the seismic testing may move accordingly; however, because the seismic testing is performed by an independent laboratory and the testing window is fixed, the seismic testing can not be move forward.

Any new equipment identified as a result of design changes or equipment needed to replace equipment that fails the initial seismic testing is not included as part of this contract performance measure.

**Government Furnished Services / Items:**

None identified.

**2G.** Submit the WSB non-radioactive air emissions Operational Flexibility Request (application for increases in air emissions from WSB) to SCDHEC, which supports approval from SCDHEC to begin simulant runs by September 20, 2012 (Schedule ID XXDAISD035). **(\$15,000)**

**Completion Criteria:**

The non-radioactive air emissions Operational Flexibility Request is a precursor to beginning simulant runs in the WSB facility. This request for increased air emissions will document the increased air emissions which will occur due to acid fumes emitted during simulant runs.

Approval from SCDHEC will document their authorization for increases non-radioactive air emissions from the WSB. The completion criteria will be the completed non-radioactive air emissions Operational Flexibility Request formally transmitted to SCDHEC for their action.

**Assumptions:**

All necessary information will be available to support the development of the WSB Operational Flexibility Request. If there are changes in the requirements for the Operational Flexibility Request that require additional actions by SRNS to support the permit application and these requirements were outside of the control of SRNS, NNSA may elect to modify the completion date for this contract deliverable.

**Government Furnished Services / Items:**

None identified.

**2H.** Issue the EPHA and EAL Procedures by June 25, 2012 (Schedule ID XXCNDSA323). **(\$15,000)**

**Completion Criteria:**

The EPHA and the EAL procedures are critical to ensuring that the Project is adequately prepared from an Emergency Response perspective. The EPHA and EAL procedures must be approved and in Document Control to support the Contractor's Readiness Assessment.

Completion of the WSB EPHA and EAL Procedures will be documented by copies of the procedures as Revision 0 or later in Document Control.

**Assumptions:**

All necessary information will be available to support the development of the WSB EPHA and EAL procedures. The completion date is based on the date in the WSB project baseline for this specific activity. If the decision is made to extend the date for completing the EPHA and EAL procedures beyond this date to support more critical project activities, and the extension does not result in this activity becoming critical path, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**2I.** Transmit the Documented Safety Analysis (DSA) and Technical Safety Requirements (TSRs) to NNSA by September 30, 2012 (Schedule ID XXCNDSA305). **(\$75,000)**

**Completion Criteria:**

The WSB Documented Safety Analysis (DSA) and Technical Safety Requirements documents will be formally transmitted to NNSA. The DSA and TSR are necessary documents to support the Contractor's Readiness Assessment. Completion of this contractor deliverable will be the formal transmittal of the documents to NNSA.

**Assumptions:**

All necessary information will be available to support the development of the WSB Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) documents. The completion date is based on the date in the WSB project baseline for this specific activity. If the decision is made to extend the date for the development of the WSB DSA and TSR documents beyond this date to support more critical project activities, and the extension does not result in this activity becoming critical path, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified

**2J.** Complete the Radiological Controls dose calculations and issue the formal report by June 22, 2012 (Schedule ID XXR037005). **(\$15,000)**

**Completion Criteria:**

The WSB Radiological Controls dose calculations and report are necessary documents to support the Contractor's Readiness Assessment. Completion of this contractor deliverable will be documented by transmittal of the documents to Document Control.

**Assumptions:**

All necessary information will be available to support the Radiological Controls dose calculations and report development. The completion date for this activity is based on the date in the WSB project baseline. If the decision is made to extend the date for completing the Radiological Controls dose calculations beyond this date to support more critical project activities, and the extension does not result in this activity becoming critical path, the fee associated with this contract measure will be paid upon completion, providing the completion is within the fiscal year.

**Government Furnished Services / Items:**

None identified.

**Contract Output 3:** Execute Construction and Startup activities and planning in accordance with the baseline schedule in order to support system completion, turnover and facility readiness testing:

**20% (\$795,000) of the allocated fee for the construction and startup of the WSB will be earned as follows:**

There are 3 key system turnovers for the Waste Solidification Building that are critical to demonstrating process operations. These 3 key system turnovers are: the HAW Evaporator System (HA02), LAW Evaporator System (LA02), and the Process Control System (PCS01). Demonstration of the functional performance of these three systems is essential to ensuring plant operations consistent with the design and functional requirements for the Facility and will also necessitate completion of a number of interrelated systems. As such, these 3 key systems will be established as critical contract performance measures and the startup testing completion dates as defined in the WSB project baseline schedule will be used to drive support for the WSB Project meeting the CD-4 completion date.

**3A.** Complete the startup testing of the Process Computer System (PCS01) by June 4, 2012 (Schedule ID XPCS01130). **(\$200,000)**

**Completion Criteria:**

Completion of startup testing of the Process Computer System (PCS01) is defined by the Startup system turnover boundaries and the PCS Startup Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Process Computer System (PCS01) is an integrated system that provides modular control for various independent systems throughout the facility. If it becomes necessary to prioritize modules within the PCS integrated system to support more critical system startups and this results in a delay in completion of the entire scope of the PCS, NNSA may elect at their discretion to award partial payment of this contract performance measure based on support for critical startup testing.

**Government Furnished Services / Items:**

None identified.

**3A-1.** Complete the startup testing of the Process Computer System Power Supply (ELLVIPP02) by June 4, 2012 (Schedule ID XVIPP02100). **(\$25,000)**

**Completion Criteria:**

Completion of startup testing of the Process Computer System Power Supply (ELLVIPP02) is defined by the Startup system turnover boundaries and the Process Computer System Power

Supply (ELLVIPP02) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Process Computer System Power Supply (ELLVIPP02) system is required to support the operational testing of the Process Computer System (PCS01) and therefore is more critical to support for the Process Computer System than it is to the overall project startup logic. As a result, the startup testing completion date for the Process Computer System Power Supply (ELLVIPP02) is more critical as it relates to the Process Computer System (PCS01) completion date. Therefore, the contract performance measure for the Process Computer System Power Supply (ELLVIPP02) will be considered met as long as the startup testing completion date supports the Process Computer System (PCS01).

**Government Furnished Services / Items:**

None identified.

**3B.** Complete the startup testing of the High Activity Evaporator System (HA02) by July 2, 2012 (Schedule ID XHA02130). **(\$200,000)**

**Completion Criteria:**

Completion of startup testing of the High Activity Evaporator System (HA02) is defined by the Startup system turnover boundaries and the High Activity Evaporator System (HA02) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The High Activity Evaporator System (HA02) demonstrates the ability to transfer material into the HAW Evaporator and boil the material, generating evaporator overheads and simulated concentrate. If it becomes necessary to defer testing of portions of the HAW Evaporator system to support more critical system startup activities and this results in a delay in completion of the entire scope of the HA02, NNSA may elect at their discretion to award partial payment of this contract performance measure based on support for critical startup testing.

**Government Furnished Services / Items:**

None identified.

**3B-1.** Complete the startup testing of the Instrument Air System (IA01) by May 1, 2012 (Schedule ID XIA01130). **(\$25,000)**

**Completion Criteria:**

Completion of startup testing of the Instrument Air System (IA01) is defined by the Startup system turnover boundaries and the Instrument Air System (IA01) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.



**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Instrument Air System (IA01) system is required to support the operational testing of the High Activity Evaporator System (HA02) and therefore is more critical to support for the HAW Evaporator system than it is to the overall project startup logic. As a result, the startup testing completion date for the Instrument Air System (IA01) is more critical as it relates to the High Activity Evaporator System (HA02) completion date. Therefore, the contract performance measure for the Instrument Air System (IA01) will be considered met if as long as the startup testing completion date supports the High Activity Evaporator System (HA02).

**Government Furnished Services / Items:**

None identified.

**3B-2.** Complete the startup testing of the Cooling Tower Water System (CTW01) by May 1, 2012 (Schedule ID XCTW01130). **(\$25,000)**

**Completion Criteria:**

Completion of startup testing of the Cooling Tower Water System (CTW01) is defined by the Startup system turnover boundaries and the Cooling Tower Water System (CTW01) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Cooling Tower Water System (CTW01) system is required to support the operational testing of the High Activity Evaporator System (HA02) and therefore is more critical to support for the HAW Evaporator system than it is to the overall project startup logic. As a result, the startup testing completion date for the Cooling Tower Water System (CTW01) is more critical as it relates to the High Activity Evaporator System (HA02) completion date. Therefore, the contract performance measure for the Cooling Tower Water System (CTW01) will be considered met as long as the startup testing completion date supports the High Activity Evaporator System (HA02).

**Government Furnished Services / Items:**

None identified.

**3B-3.** Complete the startup testing of the High Activity Waste Receipt Tanks (HA01) by May 17, 2012 (Schedule ID XHA01130). **(\$25,000)**

**Completion Criteria:**

Completion of startup testing of the High Activity Waste Receipt Tanks (HA01) is defined by the Startup system turnover boundaries and the High Activity Waste Receipt Tanks (HA01) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The High Activity Waste Receipt Tanks (HA01) system is required to support the operational testing of the High Activity Evaporator System (HA02) and therefore is more critical to support for the HAW Evaporator system than it is to the overall project startup logic. As a result, the startup testing completion date for the High Activity Waste Receipt Tanks (HA01) is more critical as it relates to the High Activity Evaporator System (HA02) completion date. Therefore, the contract performance measure for the High Activity Waste Receipt Tanks (HA01) will be considered met if as long as the startup testing completion date supports the High Activity Evaporator System (HA02).

**Government Furnished Services / Items:**

None identified.

**3B-4.** Complete the startup testing of the Package Process Steam System (PST01) by (Schedule ID XPST01130) April 18, 2012. **(\$25,000)**

**Completion Criteria:**

Completion of startup testing of the Process Steam System (PST01) is defined by the Startup system turnover boundaries and the Process Steam System (PST01) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Process Steam System (PST01) system is required to support the operational testing of the High Activity Evaporator System (HA02) and therefore is more critical to support for the HAW Evaporator system than it is to the overall project startup logic. As a result, the startup testing completion date for the Process Steam System (PST01) is more critical as it relates to the High Activity Evaporator System (HA02) completion date. Therefore, the contract performance measure for the Process Steam System (PST01) will be considered met as long as the startup testing completion date supports the High Activity Evaporator System (HA02).

**Government Furnished Services / Items:**

None identified.

**3C.** Complete the startup testing of the Low Activity Evaporator System (LA02) (Schedule ID XLA02130) by June 4, 2012. **(\$200,000)**

**Completion Criteria:**

Completion of startup testing of the Low Activity Evaporator System (LA02) is defined by the Startup system turnover boundaries and the Low Activity Evaporator System (LA02) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Low Activity Evaporator System (LA02) demonstrates the ability to transfer material into the LAW Evaporator and boil the material, generating evaporator overheads and simulated concentrate. If it becomes necessary to defer testing of portions of the LAW Evaporator system to support more critical system startup activities and this results in a delay in completion of the entire scope of the LA02, NNSA may elect at their discretion to award partial payment of this contract performance measure based on support for critical startup testing.

**Government Furnished Services / Items:**

None identified.

**3C-1.** Complete the startup testing of the Low Activity Waste Receipt Tanks (LA01) (Schedule ID XLA01130) by May 17, 2012. **(\$25,000)**

**Completion Criteria:**

Completion of startup testing of the Low Activity Waste Receipt Tanks (LA01) is defined by the Startup system turnover boundaries and the Low Activity Waste Receipt Tanks (LA01) Test Procedure. The completion date is the date that field testing is completed. The documentation for the completion of testing will be the formal approval of the Startup Test Procedure by the

WSB Test Review Board. The date for formal approval of the Startup Test Procedure will by definition lag the completion date for the field testing. The contract performance measurement will be determined by the date testing is completed.

**Assumptions:**

The completion date for this activity is based on the WSB project baseline schedule. If the WSB Project schedule baseline is formally changed through a Baseline Change Proposal, then the completion date for this activity will be modified accordingly.

The Low Activity Waste Receipt Tanks (LA01) system is required to support the operational testing of the Low Activity Evaporator System (LA02) and therefore is more critical to support for the LAW Evaporator system than it is to the overall project startup logic. As a result, the startup testing completion date for the Low Activity Waste Receipt Tanks (LA01) is more critical as it relates to the Low Activity Evaporator System (LA02) completion date. Therefore, the contract performance measure for the Low Activity Waste Receipt Tanks (LA01) will be considered met as long as the startup testing completion date supports the Low Activity Evaporator System (LA02).

**Government Furnished Services / Items:**

None identified.

**3D.** Complete the installation of the diesel generator by October 12, 2011 (Schedule ID SR-SDG01). **(\$25,000)**

**Completion Criteria:**

Correctly locate the diesel generator and associated equipment. Complete all records documenting the completion of the subject activity in accordance with the applicable requirements.

**Assumptions:**

Funding is available to support the Balance of Plant contract execution.

The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

**Government Furnished Services / Items:**

None identified.

**3E.** Place the Floor Drain Collection Tank in accordance with the BOP subcontractor's placement schedule (Schedule ID SR-BLDG02) by November 16, 2011 **(\$20,000)**

**Completion Criteria:**

Correctly locate the Floor Drain Collection Tank in the cell. Complete all records documenting the completion of the subject activity in accordance with the applicable requirements.

**Assumptions:**

Funding is available to support the Balance of Plant contract execution.

The completion date is based on the construction subcontractor's baseline schedule. Should the subcontractor later propose a schedule modification that does not impact the construction critical path, this contract measure will be considered complete. Payment, however, would be withheld until the component(s) are placed and verification of no impact validated.

Setting of the equipment is exclusive of the final tie-ins of the various piping systems that provide inputs to the Floor Drain Collection Tank and are considered part of other system turnover boundaries.

**Government Furnished Services / Items:**

None identified.

**Contract Output 4:** Safely execute the Waste Solidification Building project activities in a cost effective manner and on the schedule necessary to meet the MFFF need date and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked) and DOE Order 413.3B (or successor).

**65% (\$2,610,000) of the allocated fee for the Project Management and Construction of the WSB will be earned as follows:**

**4A. Cost Performance Index - \$1,510,000** of the allocated fee for this contract output may be earned for completion of criteria 1. The cumulative Project Cost Performance Index (CPI) will be reviewed by NNSA monthly. Award fee payments will be made quarterly based on cumulative Project Cost Performance Index at the end of each quarter.

**4B . Schedule Performance Index - \$1,100,000** of the allocated fee for this contract output may be earned for completion of criteria 2. The cumulative overall Project Schedule Performance Index will be reviewed by NNSA monthly. Award fee payments will be made quarterly based on cumulative Project Schedule Performance Index at the end of each quarter.

**Completion Criteria:**

1. The WSB Project is executed with a (TPC) Cost Performance Index (cumulative) of 0.98 or greater (\$290,000 at the end of each quarter). If the cumulative CPI is 0.95 - 0.98, the PBI will be reduced to \$150,000 for that quarter. If the cumulative CPI is 1.02 or greater, the PBI for the quarter will be increased to \$377,500.
2. The WSB Project is executed with a (TPC) Schedule Performance Index (cumulative) of 0.98 or greater (\$275,000 at the end of each quarter). If the cumulative WSB Project (TPC) SPI is less than 0.98, but is 1.0 or greater for the individual quarter, the criteria will be considered to have been met.

**Assumptions:**

- Construction activities associated with other NNSA contractors will not unduly affect the work on the Waste Solidification Building. SRNS has the responsibility for adequately coordinating and integrating the WSB scope of work with other entities on-site.
- Funding is available to complete the task.

- It is recognized that CPI's and SPI's may fluctuate for a variety of reasons, some of which do not accurately reflect project performance. In the event that the cumulative CPI and/or SPI falls below the threshold value at the end of a quarter, the quarterly payments for the affected CPI and/or SPI will be withheld. However, the performance fee for a previous quarter under this measure may be earned at the end of a subsequent quarter if the cumulative CPI and/or SPI increases above the required threshold. At the conclusion of FY 2012, however, any performance fee for the 4<sup>th</sup> or previous quarters not yet earned will not be paid. Available fee under this measure is not eligible to be earned in FY 2013.

**Government Furnished Services / Items:**

None identified.

---

**\$350,000 of the Nuclear Nonproliferation PBI will be paid quarterly for providing timely support to the MFFF project and MOX Fuel Irradiation, Feedstock and Transportation (MIFT) program in accordance with the integrated project schedule. (Contract Output 5)**

**WBS: 01.25.60.03**

**Contract Output 5:** Safely execute SRNS assigned work on the MOX Fuel Fabrication Facility (MFFF) project in accordance with approved cost and schedule baselines contained in authorized Work Task Agreements (WTA's) and MOX Fuel Irradiation, Feedstock and Transportation (MIFT) scope assigned through either WTAs or NNSA work authorization process.

**100%(\$350,000) of the fee allocated for execution of the NNP scope related to SRNS support of MOX and MIFT is based on the following completion criteria. (Subjective)**

**Completion Criteria:**

Fee will be assessed on a quarterly basis **(\$87,500 at the end of each quarter)**. Fee for this contract output will be subjectively evaluated based on the contractor's performance, documented quarterly, of the objectives identified below.

1. Execute assigned support tasks in accordance with approved Work Task Agreements with Shaw AREVA MOX Services in a timely and efficient manner.
  - Construction support (utilities, waste hauling/disposal, badging, training)
  - Support security modeling exercises and simulation analysis
  - Support physical security design activities
  - Support installation and testing of meteorological tower and air quality monitors
2. Execute assigned tasks as requested by NNSA in support of the MFFF project and MIFT program in a timely and efficient manner.
  - Program management
  - Feed materials characterization, including support in identification of feed materials for direct introduction into fuel manufacturing (MP) process of MFFF
  - Alternate Feed Stock (AFS) studies, including preparation of AFS certification packages that will be transmitted to MOX Services that characterizes feed material
  - MOX start-up strategy and operations planning reviews

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified.

---

**\$1,000,000 of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the PDC project activities. (Contract Outputs 6 - 7)**

**WBS 01.25.60.01.03**

**Contract Output 6:** This contract output includes the preparation, submittal, and support of the NNSA review of a PDC CD-1 package in accordance with DOE O 413.3B.

**60% (\$600,000) of the allocated fee for the execution of assigned work related to the PDC Project will be earned as follows:**

**6A.**Based on the selected PDC alternative, prepare and submit a CD-1 package to NNSA.  
**(\$240,000)**

**Completion Criteria:**

1. Consistent with the CD-1 requirements in DOE O 413.3B, prepare and submit a CD-1 package to NNSA-SR by March 31, 2012.
2. In accordance with the current, approved version of the CD-1 document tree, prepare and submit supporting documents for the CD-1 package by June 1, 2012.
3. The CD-1 deliverables in the Integrated Project Team (IPT) schedule will be maintained to reflect actual status and will be aligned with ongoing work efforts.
4. CD-1 document deliverables are of a high quality from an overall perspective of technical content, editorial completeness, document format and adherence to applicable requirements.
5. Work is performed within agreed upon cost and schedule.

**Assumptions:**

FY 2012 new BA funding for PDC is assumed to be \$13M OPC.

**Government Furnished Services / Items:**

1. By October 31, 2011, the PDC alternative will be selected.
2. NNSA will complete reviews within 10 working days or as agreed.

**6B.**Provide Project Integrator and Design Authority support for NNSA site and HQ reviews resulting in a CD-1 package ready for ESAAB approval. **(\$360,000)**

**Completion Criteria:**



1. CD-1 package process is fully supported by SRNS and the package is ready for ESAAB and other NNSA reviews in sufficient time to meet a June 1, 2012 scheduled approval.
2. Support CD-1 package reviews, submit corrective actions, if any; and disposition CD-1 comments in a timely and accurate manner.

**Assumptions:**

1. Funding will be available to support this scope.
2. SRNS is the project integrator for PDC Project.

**Government Furnished Services/Items:**

1. NNSA will complete reviews within 10 working days or as agreed.

**Contract Output 7:** Execute PDC activities in compliance with the current version of DOE Order 413.3B along with all contractual requirements in a quality, responsive, and cost effective manner in accordance with the PDC IPT schedule.

**40% (\$400,000) of the allocated fee for PDC project activities will be earned for executing the PDC project within the expectations defined below. (Subjective)**

Fee will be assessed on a quarterly basis **(\$100,000 at the end of each quarter)**. NNSA will provide a quarterly evaluation of SRNS' performance with respect to these completion criteria in accordance with the rating system used in the contractor feedback process.

**7A. Integrated Safety and Security**

NNSA expects SRNS to have a mature PDC project integrated safety and security management systems in accordance with DOE Policies 450.4 and 470.1 and have a standard methodology/business model for integrating safety and security within all project systems, processes, and procedures such that there exists a high likelihood of no safety or security events.

**Completion Criteria:**

1. No safety incidents, issues, or concerns during the performance period.
2. No safeguards and security incidents, issues, or concerns during the performance period.
3. Any incidents, issues, or concerns will be properly communicated and addressed in a timely manner and evaluated to avoid reoccurrence.
4. Identify corrective actions when incidents occur and monitor effectiveness.
5. Institute a proactive program to avoid safety and security issues and these report activities.
6. Effectively participate in the Safety Design Integration Team and the Security Design Integration Team to optimize PDC design, construction, and operations activities.
7. Responds to IPT members, customers, and stakeholders in an integrated, timely, constructive, and quality manner.
8. Tracks, provides status and reports Safety and Security metrics.

**Assumptions:**

Funding will be available to support this scope.

**Government Furnished Services / Items:**

NNSA will complete reviews within 10 working days or as agreed.

**7B. Contractor Assurance**

PDC Project Contractor Assurance systems are uniquely tailored and effectively implemented to meet requirements for managing project risks; and protect the interests of all parties with respect to the environment, safety, health, safeguards, security, and cyber security. Assessments, Surveillances, and Audits are appropriately selected to achieve the proper level of PDC Project assurance, quality, and performance of work products.

**Completion Criteria:**

1. Maintains the CAS Plan as necessary to ensure a single comprehensive PDC Project performance management system. This includes updates to the Requirements Applicability Matrix.
2. Performs planned assessments per the approved PDC Project Management Assessment Plan and monitor and document oversight through QA surveillances.
3. Recommend for NNSA approval, and then publish, specific performance indicators for the PDC Project to demonstrate performance and identify trends.
4. Documents analyses, resolutions, and tracking/retrieval of issues to enhance project performance.
5. Issues Operating Experience to the PDC IPT and effectively manage the PDC Project Lessons Learned Program.
6. Publishes a PDC Project Lessons Learned Procedure
7. Develop an integrated PDC Project Assessment Schedule that combines SRNS, URS, and LANL assessment activities to increase efficiency and productivity.
8. Coordinates appropriate information exchanges with URS, LANL, and NNSA counterparts to ensure alignment in accomplishing project needs and goals.
9. Responds to IPT members, customers, and stakeholders in an integrated, timely, constructive, and quality manner.

**Assumptions:**

Funding will be available to support this scope.

**Government Furnished Services / Items:**

NNSA will complete reviews within 10 working days or as agreed.

**7C. Conduct of Project Management**

NNSA expects SRNS to have a mature DOE O 413.3B project management system and to execute project management with a standard methodology/business model with accompanying systems and processes.

It is expected that SRNS develop a project management culture throughout the entire lifecycle of the PDC project that consistently executes project management tools, techniques, processes, and procedures.

**Completion Criteria:**

1. Earned value management principles are utilized to monitor and report performance and provide required project performance metrics that effectively depict the project health. The trend program and Change Control Board (CCB) function in a disciplined and timely process.
2. The Risk Management program captures/document risks and identifies opportunities. Identified risks will be managed and monitored for on-going risk handling actions.
3. Accurate monthly reports are provided to NNSA demonstrating prudent project management and ownership.
4. Project budget, cost, schedule, contract and business management activities are effectively coordinated with NNSA staff and IPT members. Processes and procedures are efficient and work products require few or no revisions. Cost and schedule reports accurately demonstrate effective project management, integrated content, and project status.
5. The project integration role is instilled and evident within all teams, and work proceeds seamlessly toward project goals and milestones.
6. A resource-loaded Integrated Project Schedule is in place to monitor project performance on at least a bi-weekly basis.
7. Fully support the Federal Budget Process with high quality, timely planning tools and deliverables.
8. Develop and maintain, as necessary, an Integrated Priority List (IPL), aligned with the project Work Breakdown Structure (WBS) that readily allows for decisions for work prioritization and budget determinations.
9. Responds to IPT members, customers, and stakeholders in an integrated, timely, constructive, and quality manner.
10. The contractor, as the project integrator, will proactively manage resources throughout FY 2012 to allow for the effective execution of preliminary design from July 1, 2012 to September 30, 2012.

**Assumptions:**

Funding will be available to support this scope.

**Government Furnished Services / Items:**

NNSA will complete reviews within 10 working days or as agreed.

**7D. Conduct of Engineering**

NNSA expects SRNS to have a mature DOE O 413.3B Engineering oversight & Design Authority (DA) and to execute engineering and oversight with a standard methodology with accompanying systems, processes.

NNSA expects SRNS, as the DA, to be an independent Engineering Authority that is responsible for technical requirements and identification of all waivers/exceptions/exemptions to them, and

will build a disciplined, systematic approach to identifying, analyzing, and controlling requirements and hazards throughout the life cycle of the PDC Project execution. It is expected DA does the following as a minimum:

- a) Develop and maintain FDD & SDD for the PDC project.
- b) Be the waiver/exception/exemption authority for technical standards bringing those to the NNSA Authority Having Jurisdiction for approvals.
- c) Conduct trend and risk analysis at the appropriate level commensurate with the maturity of the project.
- d) Conduct, support, and oversee integrated hazard analysis.
- e) Independently verify project and operational technical readiness.

**Completion Criteria:**

- 1. Actively participate and provide integrated, timely, constructive, and quality support to the Technical Oversight Group (TOG) and the Integrated Project Team (IPT).
- 2. SRNS activities and support should enhance, not adversely impact, other IPT activities, members or schedule.
- 3. Design Authority (DA) role provides timely and solid engineering documents and input to the design agent, NNSA, and other stakeholders.
- 4. Studies, technical reviews, technology development review and assessment are supported by the DA and operations to provide project scope affirmation and/or changes.
- 5. Supports Project Engineering Integration Manager activities in order to optimize project performance.
- 6. Fully supports project trend program by identifying potential opportunities, cost, or schedule issues as early as possible.
- 7. Actively participates and supports Value Engineering to aid in the identification of cost saving opportunities.
- 8. The contractor, as the project integrator, will proactively manage resources throughout FY 2012 to allow for the effective execution of preliminary design from July 1, 2012 to September 30, 2012.

**Assumptions:**

Funding will be available to support this scope.

**Government Furnished Services / Items:**

NNSA will complete reviews within 10 working days or as agreed. (Emphasis is added that reviews for Safety Documentation will be per mutually agreed schedule.)

---

**\$1,666,000 of the Nuclear Nonproliferation PBI will be paid for executing assigned scope related to the Plutonium Disposition Infrastructure and Integration activities. (Contract Outputs 8-9)**

**WBS: 01.25.60.05**

**Contract Output 8:** Execute assigned SRNS scope and associated work activities related to management and integration of the Plutonium Disposition Program. Provide program planning and cost-effective support for activities common to the SRS scope associated with the Defense Nuclear Nonproliferation program and projects.

**94% (\$1,566,000) of the Plutonium Disposition Infrastructure and Integration activities fee is allocated for the execution of scope related to the Plutonium Disposition Program planning, integration and technical support. (Subjective)**

**Completion Criteria:**

Fee will be assessed on a quarterly basis (**\$391,500 at the end of each quarter**). Fee for this contract output will be evaluated quarterly based on SRNS performance using Subjective Rating Evaluation Criteria and documented for each of the areas identified below.

**8A. Program Planning and Integration**

SRNS will support NNSA in program planning and execution; technical and regulatory support; nuclear materials planning; and program integration for major aspects of the Plutonium Disposition Program associated with the following objectives.

1. Demonstrate leadership and management of the NNSA Plutonium Disposition Program through development of an organizational entity that provides timely, quality, contractor neutral information, recommendations, reports, and studies. SRNS will provide the business systems and management structure necessary to define clear ownership of the Plutonium Disposition Program within SRNS, maintain a direct counterpart to NNSA Office of Fissile Material Disposition organizations at SRS, and demonstrate SRNS's commitment to provide the resources necessary to support the projects and programs that make up the Plutonium Disposition Program.
2. Maintain key Plutonium Disposition Program planning and management documents including the Program Execution Plan, integrated schedule, and risk management plan and assessment. Update documents on an annual basis consistent with NNSA direction.
3. Maintain all required interface control documents (ICDs) for the Plutonium Disposition Program including development of new or revised ICDs requested by NNSA. Provide central access to the latest revisions of all ICDs.
4. Support NNSA's evaluation of alternatives in support of a PDC decision.
5. Support the development of the Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SEIS) including: responses to information and data requests, hearings on the draft SEIS, and support for NNSA development of responses to comments.
6. Integrate implementation of the test plan with Los Alamos National Laboratory to demonstrate 3013 container equivalency at a lower stabilization temperature and support Plutonium Disposition Program efforts integrate changes associated with the lower stabilization temperature.
7. Provide communications and outreach support to NNSA as requested. Support development of communications publications and graphics.
8. Support at least two semi-annual project and program reviews consistent with the content and format requested by NNSA-HQ.

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified.

**8B. Financial Management**

Budget and financial deliverables per the Planning, Programming, Budget, and Evaluation (PPBE) process will be provided in accordance with established due dates.

**Completion Criteria:**

1. The SRNS Nuclear Nonproliferation Program (NNP) will maintain an effective and timely information response process. All information requests, budget exercises, work insertion requests, etc., will be fully supported at both the NNP and SRNS corporate level. The fiscal management efforts and work products will be evaluated on such factors as responsiveness, quality, timeliness, proactive resolution of emergent issues and concerns, and communication between NA-26/SRS and SRNS.
2. SRNS NNP will keep NNSA apprised of any and all accounting changes that affect NNSA costs. This includes, but is not limited to, changes to indirect rates, cost collection methodologies for pension and Work Force Restructuring costs, etc. SRNS NNP must ensure that NNSA's interests are considered and SRNS corporate provides NNSA (NA-26/SRS and/or SRSO) sufficient opportunity to participate in discussions prior to a decision being made.
3. SRNS will maintain an effective and efficient funds controls system. Uncosted balances are maintained consistent with sound financial management. Due consideration will be given to multi-year expense projects, multi-year program and productivity strategies, and timing of funding and scope direction. Indirect costs and rates will be tracked and managed to identify and mitigate potential perturbations to planned direct work.

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified.

**8C. Program & Project Management**

SRNS will manage their portions of the Nuclear Nonproliferation Program (NNP) consistent with the NNSA Program Management Policy (BOP-006.001) and in an integrated, professional manner. The NNP includes both major line item projects and day to day program management functions. NNSA relies upon SRNS to provide technical information, advice, and program management functions that must be strategic in nature and focused with the best interests of NNSA and the program at the forefront.

**Completion Criteria:**

Plan, execute, and manage to established scope, cost, schedule, and risk baselines for all program elements including:

1. Each individual program will be planned, executed, managed, and will maintain acceptable cost and schedule performance as established by Work Authorization Directives, Prioritized Project Lists, PRD Requirements, program implementation plans, program execution plan, and all other program requirements.
2. Aggregate evaluation of review results indicates programs are routinely implemented in accordance with requirements.
3. Information requests, budget exercises, work insertion requests, etc., will be supported. Develop and submit business cases as requested.
4. Safety will be emphasized for all aspects of the Nuclear Nonproliferation Program ensuring effective integration of safety and security into the design and construction of all nuclear line item projects in accordance with DOE-STD-1189. Project and program meetings will routinely discuss safety for project personnel and will emphasize lessons learned at SRS construction sites and projects at other DOE sites. Management presence in the field is significant and observable.
5. Manage program and projects within established scope, cost, and schedule baselines and budget authority.
6. Project activities and resources are effectively planned and integrated to ensure deliverables are timely, meet requirements, and are of good quality.

**Assumptions:**

Funding will be adequate to support the scope.

**Government Furnished Services / Items:**

None identified.

---

**Contract Output 9:** Assess and maintain infrastructure and facilities common to all projects associated with the NNP Pu Disposition Program. Support facility planning for future program needs.

**6% (\$100,000) of the Nuclear Nonproliferation PBI will be paid for executing assigned work related to the Nuclear Nonproliferation Program (NNP) Pu Disposition Infrastructure and associated work activities.**

WBS: 01.25.60.05

**Completion Criteria:**

- Assess current conditions of NNP and other F Area facilities and recommend improvements to increase logistical efficiency. **(\$5,000)**
- Upon NNSA Authorization, execute F Area improvements **(\$15,000)**
- Develop a plan and cost estimate for the restoration of 720-F to be used as a multi-functional training and support building. **(\$10,000)**

- Upon NNSA authorization, execute restoration of 720-F in a cost effective, timely manner.  
**(\$70,000)**

Feedback on performance for this objective will be provided in writing on a quarterly basis and will be provided verbally during monthly meetings between counterparts.

**Assumptions:**

- Funding will be adequate to support the scope.
- NNSA authorization of scope for F Area improvements and 720-F facility refurbishment will be done in a timely manner.

**Government Furnished Services / Items:**

None identified.



---

## Nuclear Nonproliferation Multi-year PBI

Time Period: October 1, 2009 – September 30, 2013

Allocated Fee: \$TBD (see *Available Fee* below)

Rev. 1

**Performance Outcome:** Provide cost-effective management and technical support to the Nuclear Nonproliferation Program so that the WSB project is completed within the cost and schedule baselines and in accordance with DOE Order 413.3A (or successor) and other applicable DOE directives, regulations, and requirements.

**Contract Output:** Safely execute the construction of the Waste Solidification Building in accordance with the approved project baseline, on a schedule which supports the need date of the Mixed Oxide Fuel Fabrication Facility, and in accordance with the requirements of ASME NQA-1-2000 (or successor as invoked).

**Available Fee:** The fee available for this contract output is structured as an incentive for the sharing of cost under-runs. The fee to be earned will be provided by WSB line-item funds and is in addition to the potential fees earned through the annual award fee pool as delineated in the M&O contract. The fee earned will be 50% of the funds remaining after project closeout. NNSA OPC costs are not included in this determination; therefore, the final actualized TPC will be subtracted from a ceiling of \$341,555,000 for the purpose of calculating fee.

**Contract Measure:** Up to 100% of the allocated incentive fee may be earned by Contract Output as follows:

- Complete the WSB project, through project and contract closeout, at a Total Project Cost of less than \$341,555,000.
- The approval of Critical Decision 4 must be on a schedule to support the need date of the Mixed Oxide Fuel Fabrication Facility and does not result in cost impacts to that project due to WSB schedule delays.

### Completion Criteria:

1. Critical Decision 4 is approved by NNSA.
2. All costs have completed the accrual process.
3. All contracts and subcontracts have been closed out and any required DOE reviews completed.
4. All claims for equitable adjustments and contract disputes have been resolved to a point that no further financial liability would be provided from project funds (see Conditions below).
5. All records documenting the completion of the subject activities in accordance with the applicable requirements are complete.

6. The completion date is currently forecast for 3rd quarter FY13 (see Conditions below).
7. Cost Overruns: In the event that project costs exceed the approved WSB project baseline (currently \$341,555,000), SRNS will be responsible for a portion of the actualized overrun. The overrun will be shared with the government at a ratio of 80% (NNSA) – 20% (SRNS). The maximum amount that SRNS will be liable for is capped at \$6,000,000.

**Assumptions:**

- Funding is available to support the project execution.
- In the event that NNSA directed scope changes result in an increase to the project baseline; i.e., additional funds provided for the line-item, the total available fee will be calculated based on the revised cost ceiling. This provision does not apply to a project baseline increased due to project performance.
- It is anticipated that changes will be experienced. Potential changes have been allocated for in project contingency analyses. These changes will be funded through available management reserve/contingency. SRNS should not assume that additional funds will be added to the line item and should expect that all changes will be provided for by current project funds (see *Scope Changes* below).
- Critical Decision 4 will be approved by NNSA in a timely manner to support the WSB schedule. SRNS is not responsible for delays in CD-4 approval, provided:
  - The request for approval is submitted in accordance with the WSB schedule and provides the necessary time for the NNSA review process.
  - The reason for delay is not attributable to SRNS performance or execution.

**Conditions:**

8. Fee under this incentive will be paid in its entirety upon project completion as delineated above.
9. Completion is based on the Early Finish date, with the overriding goal of not impacting the MFFF schedule. There will be no penalty to SRNS should the MFFF need-date be delayed. In that event, the WSB project may have additional opportunities to save costs by adjusting schedule; e.g., less overtime required. Exceeding the Late Finish date does not necessarily eliminate the ability to earn fee under this incentive provided that Critical Decision 4 is approved prior to the MFFF need-date.
10. Should the MFFF need-date be earlier, but within the baseline WSB schedule contingency window, the WSB project will expend the funds necessary to meet the need-date. See Contract Measure 2 above.
11. Upon payment to SRNS under this incentive, any additional late claims from a subcontractor related to the WSB scope will be paid by SRNS unless specifically accepted by NNSA.
12. Scope Changes: The TPC includes contingency funds to address anticipated events. However, it is expected that the project will be expected to absorb any new scope (including directed scope) using contingency funds. Examples of such scope changes that could impact project cost and/or schedule include, but are not limited to, new or revised DOE

Orders/Standards, DNFSB Recommendations, or new laws issued by Congress. Because the only funds available for this incentive are within the project baseline, the contingency currently available will be used to support project needs and will reduce the fee available as those funds are expended. It is not the intent of NNSA to penalize SRNS potential fee that it could have earned if additional funding had been provided, however fee is available only *as long as a surplus is maintained*. NNSA will make an equitable determination of “new and significant” scope items at the completion of the project for the purposes of identifying those funds available to be earned under this PBI. In this eventuality, costs for these scope increases will be provided first from the NNSA half of any under run to the extent available. If new and significant changes result in cost impacts greater than half of the surplus that would have been available, then NNSA would receive \$0 and the contractor’s fee would be reduced to cover the difference. The potential exists that should project costs rise to the current TPC ceiling, little if any funds may remain available for this incentive. Any adjustment is intended to cover new and significant additions to scope that are driven by external conditions and not addressed by existing risk analyses and will be made at the discretion of NNSA. Finally, if in NNSA’s determination, the WSB project would have been completed within the approved baseline except for such new and significant scope, and the scope resulted in exceeding the TPC, SRNS will not be liable for the cost overrun.

In the event that additional funding is obtained to address new scope, the WSB Performance Measurement Baseline will be revised. Any additional contingency commensurate with the new scope will not necessarily be considered as additional available fee. This PBI will be evaluated at that time to determine if an adjustment to the incentive is warranted.

#### **Government Furnished Services / Items:**

Approval of Critical Decision 4.

### Approvals



Dennis J Donati, Vice President  
NNSA Programs

9/27/11  
Date



William D. Clark, Director  
Site Engineering and Integration Division  
NNSA Office of Fissile Materials Disposition

9/27/11  
Date

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
230		See Block 16C		12EM000734			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No changes in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE							
X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. DEAR 970.5243-1 - cCHANGE (DEC 2000)						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.28 - DEAR 952.215-70 Key Personnel (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the changes in Contractor Salary Approval/Reporting requirements into Section - H paragraph H - 14. Section-H, paragraph H-14 is deleted in it entirety and replaced by paragraph H-14 attached hereto.							
B. In addition, this modification is to revise Section J. Appendix D, Key Personnel. Part III, Section J, Appendix Key Personnel is deleted in it entirety and replaced by Appendix D attached hereto.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/03/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

**H-14 EMPLOYEE COMPENSATION: PAY AND BENEFITS****(a) Human Resources Compensation Plan**

The Contractor shall submit by close of contract transition, a *Human Resources Compensation Plan* demonstrating how the Contractor will comply with the requirements of this Contract. The *Human Resources Compensation Plan* shall describe the Contractor's policies regarding compensation, pensions and other benefits, and how these policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce.

**(b) Total Compensation System**

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system including a compensation system Self-Assessment Plan consistent with FAR 31.205-6 and DEAR 970.3102-05-6; "Compensation for Personal Services" (Total Compensation System"). DOE-approved standards (e.g., set forth in an advance understanding or appendix), if any, shall be applied to the Total Compensation System. The Contractor's Total Compensation System shall meet the tests of allowability established by and in accordance with FAR 31.205-6 and DEAR 970.3102-05-6, be fully documented, consistently applied, and acceptable to the Contracting Officer. Costs incurred in implementing the Total Compensation System shall be consistent with the Contractor's documented Human Resources Compensation Plan as approved by the Contracting Officer.

**(c) Appraisals of Contractor Performance**

DOE will conduct periodic appraisals of Contractor performance with respect to Total Compensation System implementation. Such appraisals will be conducted through either DOE validation of the Contractor's performance self-assessment of its Total Compensation System or third party expert review.

**(d) Reports and Information**

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

- (1) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure

showing actual against approved amounts.

- (2) A list of the top five most highly compensated executives as defined in FAR 31.205-6(p)(2)(ii) and their total cash compensation at the time of Contract award, and at the time of any subsequent change to their total cash compensation.
- (3) An Annual Report of Contractor Expenditures for Employee Supplemental Compensation through the Department Workforce Information System (WFIS) Compensation and Benefits Module no later than March 1 of each year.
- (4) A performance self-assessment of the Total Compensation System implementation and results to include an evaluation of total benefits using the Employee Benefits Value Study and the Employee Benefits Cost Survey Comparison Analysis described in paragraph (f) below.

(e) Pay and Benefit Programs

The Contractor shall establish pay and benefit programs for Incumbent Employees and Non-Incumbent Employees as defined in paragraphs (1) and (2) below; provided, however, that employees scheduled to work fewer than 20 hours per week receive only those benefits required by law. Employees are eligible for benefits, subject to the terms, conditions, and limitations of each benefit program.

- (1) Incumbent Employees are the employees who hold regular appointments, excluding discretionary incumbent management personnel as defined in Section H-57(b), with the Washington Savannah River Company (WSRC) performing entity as of date of award.
  - (A) Pay. Subject to Section H-57 below, the Contractor shall provide equivalent pay to Incumbent Employees as compared to pay provided by WSRC performing entity for at least the first year of the term of the Contract.
  - (B) Pension and Other Benefits. The Contractor shall provide a total package of benefits to Incumbent Employees comparable to that provided by WSRC. Comparability of the total benefit package shall be determined by the CO in his/her sole discretion.

Incumbent Employees shall remain in their existing pension plans (or comparable successor plans if continuation of the existing plans is not practicable) pursuant to pension plan eligibility requirements and applicable law. The Contractor shall become a sponsor of the existing

pension and other benefit plans (or comparable successor plans), including other post-retirement benefit (PRB) plans, as applicable, for Incumbent Employees and retired plan participants, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of those plans. The Contractor shall carry over the length of service credit and leave balances accrued as of the date of the Contractor's assumption of Contract performance.

- (2) Non-Incumbent Employees are new hires, i.e., employees other than Incumbent Employees who are hired by the Contractor after date of award. All Non-Incumbent Employees shall receive a total pay and benefits package that provides for market-based retirement and medical benefit plans that are competitive with the industry from which the Contractor recruits its employees and in accordance with Contract requirements.

(3) Cash Compensation

- (A) The Contractor shall submit the following to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract:

- (i) Any additional compensation system self-assessment data requested by the Contracting Officer that may be needed to validate and approve the total compensation system.
- (ii) Any proposed major compensation program design changes prior to implementation.
- (iii) An Annual Compensation Increase Plan (CIP).
- (iv) Individual compensation actions for the Key Personnel, at initial contract award and when key personnel are replaced during the life of the contract. Information to be provided includes initial base salary and/or payments under an Executive Incentive Compensation Plan.
- (v) Any proposed establishment of an incentive compensation plan (variable pay plan/pay-at-risk).
- (vi) Access to individual salary reimbursements (upon request).

- (B) The Contracting Officer's approval of individual compensation actions will be required only for the chief executive officer.



(C) Severance Pay is not payable to an employee under this Contract if the employee:

- (i) Voluntarily separates, resigns or retires from employment,
- (ii) Is offered employment with a successor/replacement contractor,
- (iii) Is offered employment with a parent or affiliated company, or
- (iv) Is discharged for cause.

(D) Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement contract.

(f) Pension and Other Benefit Programs

- (1) No presumption of allowability will exist when the Contractor implements a new benefit plan or makes changes to existing benefit plans for either Incumbent Employees or Non-Incumbent Employees until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans.
- (2) Cost reimbursement for Incumbent Employee and Non-Incumbent Employee pension and other benefit programs sponsored by the Contractor will be based on the Contracting Officer's approval of Contractor actions pursuant to an approved "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described below.
- (3) Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall submit the studies required in paragraphs (A) and (B) below. The studies shall be used by the Contractor as part of its performance self assessment described in paragraph (d) (4) above and in calculating the cost of benefits under existing benefit plans. In addition, the Contractor shall submit updated studies to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan.
  - (A) An Employee Benefits Value Study (Ben-Val), every two years each for Incumbent and Non-Incumbent Employees benefits, which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to Incumbent and Non-Incumbent Employees measured against the RV of benefit programs offered by comparator companies approved by the

Contracting Officer. To the extent that the value studies do not address post retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources and,

- (B) An Employee Benefits Cost Study Comparison, annually each for Incumbent and Non-Incumbent Employees that analyzes the Contractor's employee benefits cost for Incumbent and Non-Incumbent Employees on a per capita basis per full time equivalent employee and as a percent of payroll and compares it with the cost reported by the U.S. Chamber of Commerce Annual Employee Benefits Cost Survey or other Contracting Officer approved broad based national survey.
- (4) When the net benefit value exceeds the comparator group by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer.
- (5) When the average total benefit per capita cost or total benefit cost as a percent of payroll exceeds the comparator group by more than five percent, when and if required by the Contracting Officer, the Contractor shall submit an analysis of the specific plan costs that are above the per capita cost range or total benefit cost as a percent of payroll and a corrective action plan to achieve conformance with a Contracting Officer directed per capita cost range or total benefit cost as a percent of payroll.
- (6) Within two years of Contracting Officer approval of the Contractor's corrective action plan, the Contractor shall align employee benefit programs with the benefit value and per capita cost range as approved by the Contracting Officer.
- (7) The Contractor shall submit the Report of Contractor Expenditures for Supplementary Compensation for the previous calendar year via the DOE Workforce Information System (WFIS) Compensation and Benefits Module no later than March 1 of the current calendar year.
- (8) The Contractor may not terminate any benefit plan during the term of the Contract without the prior approval of the Contracting Officer in writing.
- (9) Cost reimbursement for PRBs is contingent on DOE approved service eligibility requirements for PRB that shall be based on a minimum period of continuous employment service not less than 5 years under a

DOE cost reimbursement contract(s) immediately prior to retirement. Unless required by Federal or State law, advance funding of PRBs is not allowable.

(g) Establishment and Maintenance of Pension Plans for which DOE Reimburses Costs

- (1) For cost allocability and reimbursement purposes, any defined benefit (DB) or defined contribution (DC) pension plans established and/or implemented by the Contractor shall be maintained consistent with the requirements of the IRC and ERISA.
- (2) Contractor policies, practices, and procedures used in the administration of pension plans shall be consistent with applicable laws and regulations.
- (3) Employees working for the Contractor shall only accrue credit for service under this Contract after the date of Contract award.
- (4) Any pension plan maintained by the Contractor, for which DOE reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan which provides credit for service not performed under a DOE cost-reimbursement contract.
- (5) For each pension plan or portion of a pension plan for which DOE reimburses costs, the Contractor shall provide the Contracting Officer with the following information within nine months of the last day of the current pension plan year.
  - (A) Copies of IRS forms 5500 with schedules; and
  - (B) Copies of all forms in the 5300 series that document the establishment, amendment, termination, spin-off, or merger of a plan.
- (6) Prior to the adoption of any changes to a pension plan, the Contractor shall submit the information required below, as applicable, to the Contracting Officer for approval or disapproval and a determination as to whether the costs to be incurred are consistent with the Contractor's documented Human Resources Compensation Plan and are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.
  - (A) For proposed changes to pension plans and pension plan funding, an analysis of the impact of any proposed changes on actuarial accrued liabilities and an analysis of relative benefit value; and,

- (B) The Contractor shall obtain the advance written approval of the Contracting Officer for any non-statutory pension plan changes that may increase costs or liabilities, and any proposed special programs (including, but not limited to, plan-loan features, employee contribution refunds, or ancillary benefits) and shall provide DOE with an analysis of the impact of special programs on the actuarial accrued liabilities of the pension plan, and on relative benefit value, if applicable.
- (C) The Contractor shall not terminate any pension plan without at least 60 days notice to and the approval of the Contracting Officer prior to the scheduled date of plan termination.

**PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS**

**SECTION J - LIST OF ATTACHMENTS**

**APPENDIX D**

**KEY PERSONNEL**

Pursuant to the clause entitled “Key Personnel,” the following positions are considered to be essential to work being performed.

<u>Name</u>	<u>Title</u>
Dwayne Wilson -----	President and Chief Executive Officer
Dohse, Fred -----	Executive Vice President and Chief Operating Officer
Michalske, Terry A. -----	Executive Vice President & Laboratory Director - Savannah River National Laboratory
Eyler, David E. -----	Senior Vice President & Deputy Laboratory Director – Savannah River National Laboratory
Donati, Dennis -----	Senior Vice President- NNSA Operations & Programs
Hunt, Paul -----	Senior Vice President- Environmental Management Operations
Bilson, Helen E. -----	Senior Vice President – Support Services & Chief Business Officer
Hanna, Jim -----	Senior Vice President - Corporate Services
Curtis, Jennifer -----	Vice President & General Counsel
Doswell, Alice C. -----	Senior Vice President – Environment, Safety, Security & Health

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1      2				
2. AMENDMENT/MODIFICATION NO. 231		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM000972		5. PROJECT NO. (If applicable)			
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.		
							9B. DATED (SEE ITEM 11)		
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470		
							10B. DATED (SEE ITEM 13) 01/10/2008		
CODE 798861048		FACILITY CODE							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>									
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.									
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY12 FINPLAN 6				Net Increase:		\$200,065,469.85			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>									
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)							
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)									
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Funds) in accordance with SRNS FY2012 FINPLAN 6. Funds in the amount of \$200,065,469.85 are hereby obligated to CLIN 00001, thereby increasing it from \$3,171,398,230.20 to \$3,371,463,700.05.									
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from 4,571,424,756.37 to \$4,771,490,226.22.									
Continued ...									
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)					
				James Lovett					
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED			
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		01/30/2012			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1		
2. AMENDMENT/MODIFICATION NO. 232		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM000972		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #6				Net Increase:		\$30,000.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 6. Funds in the amount of \$30,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$\$3,371,463,700.05 to \$3,371,493,700.05.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,771,490,226.22 to \$4,771,520,226.22 .							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		01/31/2012	



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
233		See Block 16C		12EM000972			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,050,000.00	
See SRNS FINPLAN #6							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2012 FINPLAN 6. Funds in the amount of \$1,050,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,371,493,700.05 to \$3,372,543,700.05.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,771,520,226.22 to \$4,772,570,226.22.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/31/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1      2		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
234		See Block 16C		12EM000972			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease: - \$275,388.80			
See SRNS FINPLAN #6							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2012 FINPLAN 6. Funds in the amount of \$-275,388.80.00 are hereby obligated to CLIN 00001, hereby decreasing it from \$3,372,543,700.05 to \$3,371,218,311.25.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,772,570,226.22 to \$4,772,294,837.42.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		01/31/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
235		See Block 16C		12EM000972			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:		-\$44,246.91	
See SRNS FINPLAN #6							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2012 FINPLAN 6. Funds in the amount of \$-44,246.91 are hereby obligated to CLIN 00001, hereby decreasing it from \$3,371,218,311.25 to \$3,371,174,064.34.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,772,294,837.42 to \$4,772,250,590.51.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/01/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
236		See Block 16C		12EM001091			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised Fiscal Year 2012 Performance Evaluation and Measurement Plan (PEMP). This is revision two to the approved PEMP which is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/08/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1			
2. AMENDMENT/MODIFICATION NO. 237		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM001034		5. PROJECT NO. (If applicable)		
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.	
							9B. DATED (SEE ITEM 11)	
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
							10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE						
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>								
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.								
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change in accounting and appropriation data								
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>								
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
x		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Section H, Clause H-28 Performance-Based Incentive						
		D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.								
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)								
A. The purpose of this modification is to delete the American Recovery and Reinvestment Act (ARRA) Performance Evaluation and Measurement Plan (PEMP) Revision 3, incorporated by Modification No. 201, and to add the attached ARRA PEMP Revision 4 for the performance period of August 1, 2010 through December 31, 2012.								
B. All other terms and conditions remain unchanged.								
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.								
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)				
				Charlene Smith				
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED		
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		02/13/2012		

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
238		See Block 16C		12EM001143			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:                      -\$20,452,841.65			
See SRNS FINPLAN #7							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. Administrative Correction: Modification 238 corrects all total obligations to contract DE-AC09-08SR22470.							
B. The purpose of this modification is to de-obligate funding from CLIN 00001 (Environmental Management Funds) in accordance with SRNS FY2012 FINPLAN 7. Funds in the amount of \$-20,452,841.65 are hereby de-obligated from CLIN 00001, thereby decreasing it from \$3,372,224,064.34 to \$3,351,771,222.69.							
C. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,772,250,590.51 to							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/14/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	\$4,751,797,748.86.  D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	13
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
239		See Block 16C		12EM001229			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	The Atomic Energy Act of 1954, Public Law 83-703, 68 Sata. 919, August 30, 1954						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Clause H-66, Non-Federal Agreements for Commercializing Technology (Pilot), into Contract No. DE-AC09-08SR22470 to enable Agreements for Commercialization of Technology (ACT) activities under the Management and Operating contract. Clause H-66 is set forth on pages 2-13 herein.							
B. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
240		02/29/2012		12EM001266			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$73,279,999.61	
See SRNS FY12 FINPLAN #8							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Funds) in accordance with SRNS FY2012 FINPLAN 8. Funds in the amount of \$73,279,999.61 are hereby obligated to CLIN 00001, thereby increasing it from \$3,351,771,222.69 to \$3,425,051,222.30.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,751,797,748.86 to \$4,825,077,748.47.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1		
2. AMENDMENT/MODIFICATION NO. 241		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM001266		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY12 FINPLAN #8				Net Increase:		\$33,946.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 8. Funds in the amount of \$33,946.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,425,051,222.30 to \$3,425,085,168.30.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,825,077,748.47 to \$4,825,111,694.47.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		02/29/2012	
				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
242		See Block 16C		12EM001266			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,820,191.00	
See SRNS FINPLAN #8							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2012 FINPLAN 8. Funds in the amount of \$1,820,191.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,425,085,168.30 to \$3,426,905,359.30.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,825,111,694.47 to \$4,826,931,885.47.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
243		See Block 16C		12EM001266			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$29,410.44	
See SRNS FINPLAN #8							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2012 FINPLAN 8. Funds in the amount of \$29,410.44 are hereby obligated to CLIN 00001, thereby increasing it from \$3,426,905,359.30 to \$3,426,934,769.74 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,826,931,885.47 to \$4,826,961,295.91.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		02/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
244		See Block 16C		12EM001361			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H.28 - Performance Based Incentives,						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised Fiscal Year 2012 Performance Evaluation and Measurement Plan (PEMP). This is revision three to the approved PEMP which is attached hereto.							
B. In addition, this modification correct modification 236 by deleting item 13 D "Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)" and replace it with "Clause H-28 Performance Based Incentives".							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/06/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
245		See Block 16C		12EM001614			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$75,935,168.60	
SEE SRNS FY12 FINPLAN #9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Base Funds) in accordance with SRNS FY2012 FINPLAN 9. Funds in the amount of \$75,935,168.60 are hereby obligated to CLIN 00001, thereby increasing it from \$3,426,934,769.74 to \$3,502,869,938.34 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,826,961,295.91 to \$4,902,896,464.51.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/26/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
246		See Block 16C		12EM001614			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$38,835.00	
See SRNS FY12 FINPLAN #9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 9. Funds in the amount of \$38,835.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,502,869,938.34 to \$3,502,908,773.34 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,902,896,464.51 to \$4,902,935,299.51.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/26/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
247		See Block 16C		12EM001614			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$62,754.98	
See SRNS FY12 FINPLAN #9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2012 FINPLAN 9. Funds in the amount of \$62,754.98 are hereby obligated to CLIN 00001, thereby increasing it from \$3,502,908,773.34 to \$3,502,971,528.32 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,902,935,299.51 to \$4,902,998,054.49.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		03/26/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1				
2. AMENDMENT/MODIFICATION NO. 248		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM001614		5. PROJECT NO. (If applicable)			
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.		
							9B. DATED (SEE ITEM 11)		
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470		
							10B. DATED (SEE ITEM 13) 01/10/2008		
CODE 798861048		FACILITY CODE							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>									
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.									
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY12 FINPLAN # 9				Net Increase:		\$23,301.00			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>									
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)							
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)									
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2012 FINPLAN 9. Funds in the amount of \$23,301.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,502,971,528.32 to \$3,502,994,829.32 .									
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,902,998,054.49 to \$4,903,021,355.49.									
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination									
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)					
				James Lovett					
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED			
(Signature of person authorized to sign)				Signature on File		03/26/2012			
				(Signature of Contracting Officer)					

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
249		See Block 16C		12EM001614			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,393,976.00	
See SRNS FY12 FINPLAN # 9							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2012 FINPLAN 9. Funds in the amount of \$1,393,976.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,502,994,829.32 to \$3,504,388,805.32 .							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,903,021,355.49 to \$4,904,415,331.49.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		03/26/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
250		See Block 16C		12EM001821			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048				FACILITY CODE		10B. DATED (SEE ITEM 13)	
						01/10/2008	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended,    <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H-28 - Performance Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised Fiscal Year 2012 Performance Evaluation and Measurement Plan (PEMP). This is revision four to the approved PEMP which is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
<p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/09/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
251		See Block 16C		12EM001822			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Contract Clause DEAR 970.5243.1 Changes (DEC 2000)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to incorporate the Sustainability Clauses as follows by reference:							
A. Incorporate FAR 52.223-2: Affirmative Procurement of Biobased Products Under Service and Construction Contracts (DEC 2007).							
B. Incorporate FAR 52.223-15: Energy Efficiency in Energy-Consuming Products (DEC 2007).							
C. Incorporate FAR 52.223-16: IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (DEC 2007).							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/31/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
DE-AC09-08SR22470/251	2	2

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NSN 7540-01-152-8067

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
252		04/20/2012		12EM001909			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$81,323,949.95	
See SRNS Finplan #11							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Mangement Base Funds) in accordance with SRNS FY2012 FINPLAN 11. Funds in the amount of \$81,323,949.95 are hereby obligated to CLIN 00001, thereby increasing it from \$3,504,388,805.32 to \$3,585,712,755.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,904,415,331.49 to \$4,985,739,281.44 .							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/20/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1		
2. AMENDMENT/MODIFICATION NO. 253		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM001909		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #11				Net Increase:		\$288,242.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 11. Funds in the amount of \$288,242.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,585,712,755.27 to \$3,586,000,997.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,985,739,281.44 to \$4,986,027,523.44.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		04/20/2012	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
254		See Block 16C		12EM001909			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$2,386,282.00			
See SRNS FINPLAN #11							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Activities Funds) in accordance with SRNS FY2012 FINPLAN 11. Funds in the amount of \$2,386,282.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,586,000,997.27 to \$3,588,387,279.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,986,027,523.44 to \$4,988,413,805.44.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/25/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
255		See Block 16C		12EM002202			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13)			
				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
a. The purpose of this modification is to extend the period of performance for the American Recovery and Reinvestment Act (ARRA) Projects A and D for continuation of existing work scopes.							
b. The period of performance for Project A (P&R Areas) is hereby changed: FROM: 4/8/2009 to 9/30/2012 TO: 4/8/2009 to 6/30/2013							
c. The period of performance for Project D (TRU and Solid Waste) is hereby changed: FROM: 4/8/2009 to 12/30/2012 TO: 4/8/2009 to 7/31/2013							
d. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1      1		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
256		See Block 16C		12EM002196			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$5,825.00	
See SRNS FINPLAN #12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Funds) in accordance with SRNS FY2012 FINPLAN 12. Funds in the amount of \$5,825.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,588,387,279.27 to \$3,588,393,104.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,988,413,805.44 to \$4,988,419,630.44 .							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/17/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
257		See Block 16C		12EM002196			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$2,824,875.00	
See SRNS FY12 FINPLAN #12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Defense Related Funds) in accordance with SRNS FY2012 FINPLAN 12. Funds in the amount of \$2,824,875.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,588,393,104.27 to \$3,591,217,979.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,988,419,630.44 to \$4,991,244,505.44 .							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/17/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
258		See Block 16C		12EM002196			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$820,000.00	
See SRNS FY12 FINPLAN #12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2012 FINPLAN 12. Funds in the amount of \$820,000.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,591,217,979.27 to \$3,952,037,979.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,991,244,505.44 to \$4,992,064,505.44 .							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
259		See Block 16C		12EM002196			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$7,767.00	
See SRNS FY12 FINPLAN # 12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (State Funds) in accordance with SRNS FY2012 FINPLAN 12. Funds in the amount of \$7,767.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,952,037,979.27 to \$3,952,045,746.27.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$4,992,064,505.44 to \$4,992,072,272.44 .							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
260		See Block 16C		12EM002196			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:      -\$373,565.77			
See SRNS FY12 FINPLAN # 12							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to de-obligate funding to CLIN 00001 (Environmental Mangement Base Funds) in accordance with SRNS FY2012 FINPLAN 12. Funds in the amount of -\$373,565.77 are hereby obligated to CLIN 00001, thereby decreasing it from \$3,952,045,746.27 to \$3,591,672,180.50.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,992,072,272.44 to \$4,991,698,706.67 .							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
261		See Block 16C		12EM002257			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to administratively correct Modifications 258, 259, and 260 of this contract. Modification 258 in paragraph A the to amount is corrected to \$3,592,037,979.27 and in modification 259 the from amount is corrected to \$3,592,037,979.27 and the to amount is \$3,592,045,746.27. Modification 260 paragraph A the from amount is \$3,592,045,746.27.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/23/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT D CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 262		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM002267	
5. PROJECT NO. (If applicable)					
6. ISSUED BY CODE Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADM NISTERED BY (If other than Item 6) CODE Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNT NG AND APPROPRIATION DATA (If required)  
No change in accounting and appropriation data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MOD FIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Section C-3.2 and DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT** Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

1. The purpose of this modification is to incorporate the attached Work Authorization No. IN00802, Revision 0, for the Savannah River National Laboratory counterintelligence operation.

2. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Charlene Smith	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA Signature on File (Signature of Contracting Officer)	16C. DATE SIGNED 06/14/2012

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
263		See Block 16C		12EM002273			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$14,918,330.21	
See SRNS FY12 FINPLAN # 13							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Mangement Base Funds) in accordance with SRNS FY2012 FINPLAN 13. Funds in the amount of \$14,918,330.21 are hereby obligated to CLIN 00001, thereby increasing it from \$3,591,672,180.50 to \$3,606,590,510.71.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$4,991,698,706.67 to \$5,006,617,036.88.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/23/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
264		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FY12 FINPLAN # 13				Net Increase:		\$87,873.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (DEC 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY2012 FINPLAN 13. Funds in the amount of \$87,873.21 are hereby obligated to CLIN 00001, thereby increasing it from \$3,606,590,510.71 to \$3,606,678,383.71.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$5,006,617,036.88 to \$5,006,704,909.88.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		05/23/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1      1		
2. AMENDMENT/MODIFICATION NO. 265		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM002347		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause H.28 - Performance Based Incentives					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the revised Fiscal Year 2012 Performance Evaluation and Measurement Plan (PEMP). This is revision five to the approved PEMP which is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
<p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		06/01/2012	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1		
2. AMENDMENT/MODIFICATION NO. 267		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM002486		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
X		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause I.138-DEAR 970.5204-2 Laws, Regulations, and DOE Directives (Dec 2000) (Amendment 003)					
		D. OTHER (Specify type of modification and authority)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to revise and update the list of DOE Directives and Orders applicable to subject contract.							
B. Section J - List of Attachments, Appendix E - List B/Applicable DOE Directives and Order (Amendment 003) is deleted in its entirety and is hereby replaced with Appendix E, attached hereto.							
C. All other terms and conditions of subject contract remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		06/15/2012	
				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
268		See Block 16C		12EM002543			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
X DEAR 970.5243-1 Changes (Dec 2000)							
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Clause H-67, NNSA/EM Strategic Sourcing Partnership, into Contract No. DE-AC09-08SR22470, EM Complex-wide Strategic Sourcing Initiative Special Contract Requirement, effective June 30, 2012. Clause H-67 is set forth on page 2 of 2 herein.							
B. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/21/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
269		See Block 16C		12EM002577			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$82,137,453.70	
See SRNS FY12 FINPLAN #14							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Environmental Management Funds) in accordance with SRNS FY2012 FINPLAN 14. Funds in the amount of \$82,137,453.70 are hereby obligated to CLIN 00001, thereby increasing it from \$3,606,678,383.71 to \$3,688,815,837.41.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$\$5,006,704,909.88 to \$5,088,842,363.58.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/25/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
270		See Block 16C		12EM002577			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$9,708.00	
See SRNS FY12 FINPLAN #14							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (DefenseFunds) in accordance with SRNS FY2012 FINPLAN 14. Funds in the amount of \$9,708.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,688,825,545.41 to \$3,688,815,837.41.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$5,088,842,363.58 to \$5,088,852,071.58. In addition, this modification change the word "decrease" in modification 269 to "increase".							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/26/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
271		See Block 16C		12EM002577			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$86,937.00	
See SRNS FY12 FINPLAN #14							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Defense Related Funds) in accordance with SRNS FY2012 FINPLAN 14, and revised paragraph A, under Modification 270.							
1) Under Modification 270, paragraph A, last line as read "from \$3,688,825,545.41 to \$3,688,815,837.41," is hereby changed to read "from \$3,688,815,837.41 to \$3,688,825,545.41." Numbers were inadvertently transferred.							
2) Defense Related Funds in the amount of \$86,937.00 are hereby obligated to CLIN 00001, thereby increasing it from \$3,688,825,545.41 to \$3,688,912,482.41.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/26/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B . As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to increase the total amount of funds obligated to the contract from \$5,088,852,071.58 to \$5,088,939,008.58.</p> <p>C. The contract estimated value and all other terms and conditons remain unchanged. FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
272		See Block 16C		12EM002577			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:      -\$15,797.94			
See SRNS FY12 FINPLAN #14							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I. 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 00001 (Department of Homeland Security Funds) in accordance with SRNS FY 2012 FINPLAN 14. Funds in the amount of (-\$15,797.94) are hereby obligated to CLIN 0001, thereby decreasing it from \$3,688,912,482.41 to \$3,688,896,684.47.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, Paragraph B-entitled "Obligation of Funds" is hereby revised to decrease the total amount of funds obligated to the contract from \$5,088,939,008.58 to \$5,088,923,210.64.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		06/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
DE-AC09-08SR22470/272	2	2

PAGE	OF
2	2

2

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES									
						1 1									
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)									
273		See Block 16C		12EM002748											
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE									
		00901				00901									
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802											
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.											
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421															
				9B. DATED (SEE ITEM 11)											
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470											
				10B. DATED (SEE ITEM 13)											
CODE 798861048		FACILITY CODE		01/10/2008											
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required)															
No change in accounting and appropriation data															
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td style="text-align: center;">x</td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28 - Performance-Pased Incentives</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28 - Performance-Pased Incentives		D. OTHER (Specify type of modification and authority)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).														
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28 - Performance-Pased Incentives														
	D. OTHER (Specify type of modification and authority)														
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)															
A. The purpose of subject modification is to incorporate the American Recovery and Reinvestment Act (ARRA) Performance Evaluation and Measurement Plan (PEMP), Revision 5, for the performance period of August 1, 2010 through July 31, 2013. Previous editons of the ARRA PEMP are hereby superseded and replaced with Revision 5.															
B. All other terms and conditons remain unchanged.															
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.															
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)											
				Marie A. Garvin											
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED									
				Signature on File		07/19/2012									
(Signature of person authorized to sign)				(Signature of Contracting Officer)											

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
274		See Block 16C		12EM002859			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$35,157,571.65			
See SRNS FY12 FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Environmental Management Funds) in accordance with SRNS FY2012 FINPLAN 16. Funds in the amount of \$35,157,571.65 are hereby obligated to CLIN 0001, thereby increasing it from \$3,688,896,684.47 to \$3,724,054,256.12.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,088,923,210.64 to \$5,124,080,782.29.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-AC09-08SR22470/274

PAGE	OF
2	2

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
275		See Block 16C		12EM002859			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$39,793.00	
See SRNS FY12 FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Department of Homeland Security funds) in accordance with SRNS FINPLAN 16. Funds in the amount of \$39,793.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,724,054,256.12 to \$3,724,094,049.12.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,124,080,782.29 to \$5,124,120,575.29.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1      2		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
276		See Block 16C		12EM002859			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$24,245.00	
See SRNS FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Other Federal Agency-Defense Related Activities) in accordance with SRNS FINPLAN 16. Funds in the amount of \$24,245.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,724,094,049.12 to \$3,724,118,294.12.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,124,120,575.29 to \$5,124,144,820.29.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
277		See Block 16C		12EM002859			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$53,398.00	
See SRNS FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Department of State Activities) in accordance with SRNS FINPLAN 16. Funds in the amount of \$53,398.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,724,118,294.12 to \$3,724,171,692.12.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,124,144,820.29 to \$5,124,198,218.29.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
278		See Block 16C		12EM002886			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See SRNS FINPLAN #16				Net Increase: \$185,000.00			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Environmental Management Funds) in accordance with SRNS FINPLAN 16. Funds in the amount of \$185,000.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,724,171,692.12 to \$3,724,356,692.12.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,124,198,218.29 to \$5,124,383,218.29.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		07/27/2012	
				(Signature of Contracting Officer)			

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/278

PAGE	OF
2	2

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
279		See Block 16C		12EM002886			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$660,207.00	
See SRNS FINPLAN #16							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Department of Homeland Security Funds) in accordance with SRNS FINPLAN 16. Funds in the amount of \$660,207.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,724,356,692.12 to \$3,725,016,899.12.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,124,383,218.29 to \$5,125,043,425.29.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Charlene Smith			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		07/27/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
280		See Block 16C		12EM002926			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting and appropriation data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause H-28, Performance-Based Incentives						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of subject modification is to incorporate Performance Evaluation Measurement Plan (PEMP), Revision 6, for the period October 1, 2011 through September 30, 2012. Previous editions of the FY 2012 PEMP are hereby superseded and replaced with Revision 6.							
B. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/08/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
281		See Block 16C		12EM002932			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE		01/10/2008			
798861048							
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Section G.1 Correspondence Procedures						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to revise Section G - Contract Administration Data, G-1, (a) Technical and Administrative Correspondence as follows:							
A. Add the Office of Project Assessment on the distribution list for Contractor Monthly Progress (Status) Reports. These reports shall be sent to ContractorsMPR@hq.doe.gov.							
B. All other terms and conditions of subject contract remain unchanged.							
C. The Contractor hereby releases the Government from any and all liability under this contract for equitable adjustments attributable to such facts or circumstances giving rise to the modification agreed to herein.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Angela S. Morton			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/14/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
282		See Block 16C		12EM003144			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$52,235,496.17	
See SRNS FINPLAN #17							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Environmental Mangement Funds) in accordance with SRNS FINPLAN 17. Funds in the amount of \$52,235,496.17 are hereby obligated to CLIN 0001, thereby increasing it from \$3,725,016,899.12 to \$3,777,252,395.29.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,125,043,425.29 to \$5,177,278,921.46.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/17/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
283		See Block 16C		12EM003144			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$20,974.86	
See Scheduled SRNS FINPLAN #17							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Defense Funds) in accordance with SRNS FINPLAN 17. Funds in the amount of \$20,974.86 are hereby obligated to CLIN 0001, thereby increasing it from \$3,777,252,395.29 to \$3,777,273,369.15.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,177,278,921.46 to \$5,177,299,896.32.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/17/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
284		See Block 16C		12EM003144			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$3,123,501.00	
See SRNS FINPLAN #17							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Defense Related Activities Funds) in accordance with SRNS FINPLAN 17. Funds in the amount of \$3,123,501.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,777,273,369.15 to 3,780,396,871.15.							
B. As a result of this modification, Part I - The Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,177,299,896.32 to \$5,180,423,397.32.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/21/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1      2		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
285		See Block 16C		12EM003096			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate work authorization numbers RH050601-2-SRNS, 0004337, 0004099, 0004074, McQ/2012, HQ1001-0-SR, HU6-0-SRNS, WW-410003-12, and KC/SR1/2, see attachments 1 thru 9, hereto.							
B. This modification formally incorporates the above reference work authorizations as part of the contract. There is no change to the total amount obligated. Funding allocation associated with the attached work authorizations were provided under separate funding modifications. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), The work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		08/23/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. All other terms and conditions remain unchanged.				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1		
2. AMENDMENT/MODIFICATION NO. 286		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 12EM003392		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470
							10B. DATED (SEE ITEM 13) 01/10/2008
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change in accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) EXERCISE OF OPTION in accordance with FAR 52.217-9					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to exercise the option to extend the term of the Contract for an additional 38 months, thereby extending the period of performance from August 1, 2013 to September 30, 2016.							
B. Funding will continue to be allocated by separate modifications in accordance with monthly FINPLANS.							
C. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		09/07/2012	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
287		See Block 16C		12EM003494			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$39,020,886.05			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Environmental Management) in accordance with SRNS FINPLAN 18, and revised paragraph A, under modifications 283 and 284 for administrative error in rounding numbers.							
1) . Under Modificatin 283, paragraph A, last line as read "to \$3,777,273,369.15," is changed to read "to \$3,777,273,370.15."							
2) . Under Modification 284, paragraph A, last line as read "from \$3,777,273,369.15," is changed to read "from \$3,3777,273,370.15."							
3) . Environmental Management Funds in the amount of \$39,020,886.05 are hereby obligated to Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	CLIN 0001, thereby increasing it from \$3,780,396,871.15 to \$3,819,417,757.20.  B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,180,423,397.32 to \$5,219,444,283.37.  C. The contract estimate value and all other terms and conditions remain uncanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
288		See Block 16C		12EM003494			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) <span style="float: right;">Net Increase: \$448,028.00</span>							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 0001, Defense) in accordance with SRNS FINPLAN 18. Funds in the amount of \$448,028.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,819,417,757.20 to \$3,819,865,785.20.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,219,444,283.37 to \$5,219,892,311.37.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		09/18/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimate value and all other terms and conditions remain uncanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
289		See Block 16C		12EM003494			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$44,660.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (State) in accordance with SRNS FINPLAN 18. Funds in the amount of \$44,660.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,819,865,785.20 to \$3,819,910,445.20.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,219,892,311.37 to \$5,219,936,971.37.							
C. The contract estimate value and all other terms and conditions remain uncanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
290		09/18/2012		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$1,503,000.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Department of Homeland Security (DHS)) in accordance with SRNS FINPLAN 18. Funds in the amount of \$1,503,000.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,819,910,445.20 to \$3,821,413,445.20.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,219,936,971.37 to \$5,221,439,971.37.							
C. The contract estimate value and all other terms and conditions remain unchanged.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
291		See Block 16C		12EM003566			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate work authorization numbers WW-410003-12, 0004033, 12/CJ000/12/01/00, and OSSES Lab-FY12, see attachments 1 through 5, hereto.							
B. This modification formally incorporates the above reference work authorizations as part of the contract. There is no change to the total amount obligated. Funding allocations were provided under separate funding modifications. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), The work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
292		See Block 16C		12EM003643			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H-28, Performance-Base Incentives						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of subject modification is to incorporate Performance Evaluation Measurement Plan (PEMP), for the period October 1, 2012 through September 30, 2013, which is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/28/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
293		See Block 16C		12EM003643	
6. ISSUED BY		CODE		5. PROJECT NO. (If applicable)	
		00901		7. ADMINISTERED BY (If other than Item 6)	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				CODE 00901	
				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x)		9A. AMENDMENT OF SOLICITATION NO.	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13)	
CODE 798861048		FACILITY CODE		01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)  
No change in the accounting data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Clause H-28, Performance-Base Incentives

**E. IMPORTANT:** Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

A. The purpose of this modification is to replace Fiscal Year 2013 Performance Evaluation and Measurement Plan (PEMP) under Modification No. 292 in it's entirety.

B. The contract estimated value and all other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Angela S. Morton	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		Signature on File	09/28/2012
		(Signature of Contracting Officer)	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
294		See Block 16C		12EM003643			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause DEAR 970.5243.1 Changes (DEC 2000) and SRNS Ltr SRNS-H500-6012-00166, CAN to DOE O 436.1						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Contract Administrator Notice for SRNS-DOE0436.1-IP-2, Site Sustainability Plan (SSP) for compliance with DOE (O) 436.1 Department Sustainability. The SSP implement a long-term graded approach for compliance without additional cost to the Contract. This modification hereby definitize Mod 251.							
B. The contract estimated value and all other terms and conditins remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
295		See Block 16C		12EM003643			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No change in the accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate contract work authorization numbers 14C-FY13 Support, 12-FY13, 13-FY13, 20-FY13, 30-FY13, AND 11C-FY13, see attachments 1 through 6, hereto.							
B. This modification formally incorporates the above reference contract work authorizations as part of the contract. There is no change to the total amount obligated. Funds authorization will continue to be allocated by separate modifications in accordance with the DOE-SR FIN PLANS. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), The work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. All other terms and conditions remain unchanged.				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
296		See Block 16C		12EM003733			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$1,346,211.25			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Environmental Management (EM)) in accordance with SRNS FINPLAN 20. Funds in the amount of \$1,346,211.25 are hereby obligated to CLIN 0001, thereby increasing it from \$3,821,413,445.20 to \$3,822,759,656.45.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,221,439,971.37 to \$5,222,786,182.62.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Angela S. Morton			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		09/29/2012	
				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
297		09/29/2012		12EM003733			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13)			
				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$30,500.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Defense Funds) in accordance with SRNS FINPLAN 20. Funds in the amount of \$30,500.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,822,759,656.45 to \$3,822,790,156.45.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,222,786,182.62 to \$5,222,816,682.62.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Angela S. Morton			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
298		09/29/2012		12EM003733			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$100,000.00	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
Tax ID Number: 26-0240191							
DUNS Number: 798861048							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Department of Homeland Security (DHS)) in accordance with SRNS FINPLAN 20. Funds in the amount of \$100,000.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,822,790,156.45 to \$3,822,890,156.45.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,222,816,682.62 to \$5,222,916,682.62.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Angela S. Morton			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
299		09/29/2012		12EM003733			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13)			
				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$24,272.00	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (State) in accordance with SRNS FINPLAN 20. Funds in the amount of \$24,272.00 are hereby obligated to CLIN 0001, thereby increasing it from \$3,822,890,156.45 to \$3,822,914,428.45.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,222,916,682.62 to \$5,222,940,954.62.							
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Angela S. Morton			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		09/29/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
300		See Block 16C		13EM000033			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause H-28, Performance-Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Performance Evaluation Measurement Plan (PEMP), Revision 1, for the period October 1, 2012 through September 30, 2013. Previous edition of the FY 2013 PEMP is hereby superseded and replaced with Revision 1.							
B. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Angela S. Morton			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		10/03/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
301		See Block 16C		13EM000059			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Revision 1 to Contract Work Authorization No. 12/0J000/12/01/00, incorporated under Modification 291, dated 09/28/2012. Revision 1, Project Title: Covellent and Metal-Organic Framework High-Capacity, is attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		10/12/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2 AMENDMENT/MODIFICATION NO. 302		3 EFFECTIVE DATE 10/22/2012		4 REQUISITION/PURCHASE REQ NO. 13EM000145	
5 PROJECT NO. (If applicable)		7 ADMINISTERED BY (If other than Item 6)		CODE 00901	
6 ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7 ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified					
12. ACCOUNTING AND APPROPRIATION DATA (If required)		Net Increase:		\$235,427,739.80	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to obligate funding to CLIN 0001, (Department of Energy (DOE)) in accordance with SRNS FINPLAN 1. Funds in the amount of \$235,427,739.80 are hereby obligated to CLIN 0001, thereby increasing it from \$3,822,914,428.45 to \$4,058,342,168.25.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,222,940,954.62 to \$5,458,368,694.42.					
C. The contract estimated value and all other terms and conditions remain unchanged.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				Signature on File	
				(Signature of Contracting Officer)	
				16C. DATE SIGNED 10/22/2012	





<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
303		10/22/2012		13EM000145	
<b>5. PROJECT NO. (If applicable)</b>					
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		00901		<b>CODE</b>	
				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b>		<b>FACILITY CODE</b>			
798861048					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
Net Increase:                      \$29,500.00					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X      Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
<p>A. The purpose of this modification is to obligate funding to CLIN 0001, (Department of Homeland Security (DHS)) in accordance with SRNS FINPLAN 1. Funds in the amount of \$29,500.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,058,342,168.25 to \$4,058,371,668.25.</p> <p>B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,458,368,694.42 to \$5,458,398,194.42.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>Continued ...</p> <p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			James Lovett		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
				Signature on File	
(Signature of person authorized to sign)				(Signature of Contracting Officer)	
				10/22/2012	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/303	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
304		10/22/2012		13EM000145	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		x			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment. (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)** Net Increase: \$51,761.83

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

A. The purpose of this modification is to obligate funding to CLIN 0001, (Reimbursable Work Commercial) in accordance with SRNS FINPLAN 1. Funds in the amount of \$51,761.83 are hereby obligated to CLIN 0001, thereby increasing it from \$4,058,371,668.25 to \$4,058,423,430.08.

B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,458,398,194.42 to \$5,458,449,956.25.

C. The contract estimated value and all other terms and conditions remain unchanged.  
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		Signature on File	10/22/2012
		(Signature of Contracting Officer)	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/304	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/304	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/304	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/304	2	2



<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/304	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/304	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      1	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
305		See Block 16C		13EM000218	
<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>		<b>5. PROJECT NO. (If applicable)</b>	
CODE 00901		CODE 00901			
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
				<b>9B. DATED (SEE ITEM 11)</b>	
		x		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>				
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>				
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>				
	<b>D. OTHER (Specify type of modification and authority)</b>				
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)				
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
<b>A.</b> The purpose of this modification is to incorporate Contract Work Authorization numbers APO #2013, HQ10001-0-SR, SR071801, and HO091101, see attachments 1 through 4, hereto (See pin and ink changes attachment 1, APO #2013).					
<b>B.</b> This modification formally incorporates the above referenced contract work authorizations as part of the contract. Funds authorizations will continue to be allocated by separate modifications in accordance with the DOE-SR FIN PLANS. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.					
<b>C.</b> The contract estimated value and all other terms and conditions remain unchanged.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
L.C. Clevinger II Manager, Contracts			Marie A. Garvin		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
		11/6/12			
(Signature of person authorized to sign)				(Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b>	
				11/7/12	
NSN 7540-01-152-8070 Previous edition unusable			STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243		

**Attachment 1**

**Contract Work Authorization**

**AOP #2013**

**Project Title: Solar Energy**

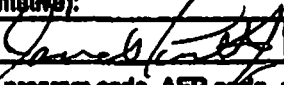
**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Solar Energy		<b>1b. Work Proposal Number</b> AOP #2013	
<b>2. Headquarters Program Point of Contact</b> Name: Minh Le                      Organization Code:                      Telephone No. 202-287-1372			
<b>3. Headquarters Budget Point of Contact</b> Name: Kyra Humphreys                      Organization Code: EE-3B                      Telephone No. 202-586-8138			
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> Savannah River Site Office			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple                      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> SL-410003-12		<b>9. Revision Number</b> 1	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b> <b>NOTE:</b> Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b> EB2101010	<b>Previous = Carry Over</b> \$0	<b>Change = New BA</b> \$1,000,000	<b>Current = TAC</b> \$1,000,000
<b>11. Performance Period Covered by Funds</b> From: 10/1/2012                      To: 9/30/2013		<b>12. Work Start Date</b> 10/1/2012	<b>13. Expected Completion Date</b> 9/30/2013
<b>14. Statement of Work (Includes attachments)</b> This revision provides further clarification to Attachment 1. Funding in the amount of \$1,000,000.00 is authorized by the Solar Energy to perform work in the areas of: The U.S. Department of Energy (DOE) SunShot Initiatives and Solar Energy Technologies Program (SETP) authorizes funding in accordance with the program Annual Operating Plan (AOP). This operating plan authorizes specific funding amounts for each project and agreement, and required detailed performance milestones and deliverable be met or completed within the period of performance. Please refer to Work Proposal Number (1b) to determine which section(s) of the AOP for which this authorization provides funding. This funding will be split (Reference Attachment 2) between proposals titles "Low-Cost Metal Hydride Thermal Energy Storage Systems for Concentrating Solar Power Systems" and "Fundamental Corrosion Studies in High-Temperature Molten Salt Systems for Next Generation Concentrated Solar Power Systems," \$581,725.00 and \$418,275.00 respectively. All work shall be conducted in accordance with this Modification. <i>SLC 11/6/12 SL 11/6/12 JHM 11/6/12</i>			
<b>16. Work Authorization Program Official - Contracting Officer's Representative</b>			
Name (typed): Reference Attachment 1	Signature:	Date:	
<b>17. DOE-SR Budget Official (Field CFO)</b>			
Name (typed): Harold K. Nielsen	Signature: <i>Harold K. Nielsen</i>	Date: 9/14/12	



<b>18. Contractor's Authorized Representative</b>		
Name (typed):	Signature:	Date:
John W. Temple	<i>John W. Temple</i> For JW	10/25/12
<b>19. DOE Contracting Officer (or delegated representative)</b>		
Name (typed):	Signature:	Date:
James Lovett	<i>James Lovett</i>	10-25-2012

U.S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
1a. Program Title: Solar Energy		1b. Work Proposal Number (if applicable): AOP #2013	
2. Headquarters Program Point of Contact:			
Name: Minh Le		Organization Code:	Telephone No: (202) 287-1372
3. Headquarters Budget Point of Contact:			
Name: Kyra Humphreys		Organization Code: EE-3B	Telephone No: (202) 586-8138
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Energy Efficiency and Renewable Energy		David Danielson	
6. Responsible Field Element:			
Savannah River Site Office			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact:	
Savannah River Nuclear Solutions, LLC		Name: Brenda Garcia-Diaz Telephone No: (803) 725-9978	
8. Work Authorization Number:			
SL-410003-12		0	
10. Funds Authorized:			
<u>Congressional Control Point</u>	<u>Previous</u>	<u>Change</u>	<u>Current</u>
EB2100000-05460-1103953 (2011)	\$0.00	\$1,000,000.00	\$1,000,000.00
11. Performance period covered by funds:		12. Work Start Date:	13. Expected Completion Date:
From:10/01/2011 To:09/30/2012		10/01/2011	09/30/2012
14. Statement of Work:			
<p>Funding in the amount of \$1,000,000.00 is authorized by the Solar Energy to perform work in the areas of : The U.S. Department of Energy (DOE) SunShot Initiative and Solar Energy Technologies Program (SETP) authorizes funding in accordance with the program Annual Operating Plan (AOP). This operating plan authorizes specific funding amounts for each project and agreement, and requires detailed performance milestones and deliverable be met or completed within the period of performance.</p> <p>Please refer to the Work Proposal Number (1b) to determine which section(s) of the AOP for which this authorization provides funding.</p>			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
16. Work Authorization Program Official:			
Name (typed): Craig Connolly, Signing on behalf of Ramamoorthy Ramiah		Signature: 99852aef-48d8-49a1-bc28-9b69073c5810	Date: 8/14/2012
17. DOE Field Organization Official:			
Name (typed): Patrick R. Jackson		Signature: Patrick R. Jackson	Date: 9/11/12
18. Contractor's Authorized Representative:			
Name (typed): Lloyd Cleveland		Signature: Lloyd Cleveland	Date: 9/11/12

19. DOE Contracting Officer (or delegated representative):		
Name (typed): James Lovett, Jr.	Signature: 	Date: 9/12/2012
• The work authorization number will consist of the program code, AFP code, and the fiscal year		

**DOE EERE SunShotInitiative**

**SunShot Lab Proposal FY2012-2015  
Concentrating Solar Power Subprogram**

**Lead Organization Submitting Proposal:  
Savannah River National Laboratory  
FFRDC**

# **Low-Cost Metal Hydride Thermal Energy Storage System for Concentrating Solar Power Systems**

**Technical Contact:**

**Ragaiy Zidan  
Advisory Scientist and Principle Investigator  
Savannah River National Laboratory  
Bldg 999-2W  
Aiken SC, 29808  
(803)646-8876  
Ragaiy.Zidan@srnl.doe.gov**

**Business Contact:**

**Robert E. Peters  
Contract Administration  
730-1B Room 3040  
Aiken SC, 29808  
(803)952-8648  
robert02.peters@srs.gov**

**This 3-year project seeks to address the cost and efficiency of thermal energy storage for concentrating solar power systems. It involves the development and evaluation of highly reversible, compact and environmentally safe metal hydride-based systems for thermal energy storage.**

## **1. Project Overview**

### ***a. Background***

Three of the major areas for Thermal Energy Storage(TES) system improvements are in lowering their costs, reducing their full charging time to less than 6 hours and increasing their temperature of operation to improve the CSP overall production efficiency. Metal hydride TES systems have the ability to enable all of these improvements. In addition, many of the high and even the new lower temperature metal hydrides are fairly inexpensive. Preliminary calculations indicate that existing metal hydride TES systems can approach \$15-\$25/kWh. Only 3-4 kg of material would be needed per kWh. Because of their very high thermal capacity (approximately 20 times that of current systems), the size of the overall TES system along with its associated BOP can be substantially reduced leading to additional capital cost savings. Metal hydride TES systems can also be made to be self-regulating, thereby simplifying their design and lowering not only their capital but their operating costs as well. Because of their high energy capacity and reasonable kinetics many metal hydride systems can be charged rapidly. Metal hydrides for vehicle applications have demonstrated charging rates in minutes and tens of minutes as opposed to hours. This coupled with high heat of reaction allows metal hydride TES systems to produce very high thermal power rates (approx. 1kW per 6-8 kg of material). Finally, many new metal hydride materials have recently become available. One of the problems with metal hydride TES systems in the past has been selecting a suitable high capacity low temperature metal hydride material to pair with the high temperature material.

### ***b. Objectives***

The objectives of this research will be to evaluate and demonstrate a metal hydride-based TES system for use with a CSP system. A unique approach will be applied to this proposed project that makes use of the hierarchical modeling methodology developed by the Savannah River National Laboratory(SRNL). This approach combines our modeling experience with the extensive material knowledge and expertise at both SRNL and Curtin University (CU) to screen several promising metal hydride candidate materials and then select the best candidates for more thorough evaluation through experiments and more detailed models. During the second year, material optimization, bench-scale testing and more detailed component and system models will lead to a proof-of-concept demonstration and a preliminary system design. The culmination of this proposed research will be the design, fabrication and evaluation of a prototype metal hydride energy storage system that is aimed at meeting the SunShot cost and performance targets for TES systems allowing CSP systems to further expand their role in the renewable energy marketplace.

### ***c. Novelty***

The main novelty of this research is the use of high capacity metal hydride materials for thermal energy storage. The amount of thermal energy that can be stored per kilogram of metal hydride is typically very large and often 15 to 20 times more than what can be stored in traditional molten-salt systems. The higher energy density provided by the use of metal hydride systems can substantially lower the size and the capital cost of many CSP TES systems. While a few investigations of metal hydride TES systems were undertaken in the past, today because of the recent research in hydrogen energy systems the choices of metal hydride materials are now better than ever. This will strongly increase the probability of these systems becoming successful. Another unique aspect of metal hydride TES systems is that many of these systems

can be located on or near dish/engine collectors due to their high thermal capacity and small size. This will facilitate the use of TES systems on dish collectors where previously they were considered impractical and uneconomical. Many new hydrides have been recently discovered and can be implemented to achieve a cost effective thermal storage system.

## **2. Technical Work Plan**

### **BUDGET PERIOD 1 (12 months)**

#### **Task 1.1: Obtain and Generate Preliminary Material Engineering Data**

Both SRNL and CU will be actively involved in collecting and evaluating existing material property data for various proposed metal hydride candidate materials. This data, which will include physical, thermodynamic and kinetic properties of several candidate materials, will be used initially as input to the screening tool/preliminary system model. Both SRNL and CU have extensive metal hydride and material characterization equipment to perform these analyses. The initial materials to be evaluated will be discussed among the partners and the material property collection and analyses work will be divided so as to make best use of each partner's capabilities and to avoid duplication of effort. SRNL and CU have worked with many of our proposed candidate materials, which include  $\text{MgH}_2$ ,  $\text{MgFeH}_6$ ,  $\text{NaAlH}_4$ ,  $\text{NaMgH}_3$ ,  $\text{TiH}_2$ ,  $\text{CaH}_2$ ,  $\text{NaH}$ ,  $\text{LaNi}_5$ ,  $\text{TiFe}$ ,  $\text{TiCr}_{1.8}$ ,  $\text{CaNi}_5$  and others. Relevant subtasks and milestones include:

- Task 1.1: Complete the generation of preliminary data on at least 10 candidate MH TES material pairs against targets for operating temperature, pressure and hydrogen capacity.
- Milestone 1.1: We will determine and present to DOE the temperature-dependent kinetic rate expression for each individual MH in the 10 MH TES material pairs. We will determine the thermodynamic properties for each MH material and use this value to generate temperature-dependent pressures-curves.

#### **Task 1.2: Refine and Apply Material Screening Tool (Preliminary System Models)**

The use of numerical screening tools based on preliminary system models that evaluate the material properties against SunShot CSP TES targets will allow us to screen various metal hydride materials early on in the project to come up with the best candidate materials for further testing. The screening tool is a one-dimensional model based on steady state energy balance of the storage system considering the hydrogen charging process in a selected time range. The heat released during the charging process causes a temperature increase inside the bed material, which is evaluated by the model considering the balance between the thermal diffusion process inside the bed and the heat produced during the hydrogen up-taking.

The tool will be modified to the operating conditions and environment for TES systems in CSP plants. SRNL has found that this approach not only helps to focus the materials property testing efforts on the most suitable materials but also helps to focus the experimentalist on what key properties are needed to arrive at the best overall solutions. Relevant subtasks and milestones include:

- **Subtask 1.2.1:** Refine material screening tool to apply it to CSP TES applications. The tool will be used by researchers to determine which properties the system needs to have (in terms of heat of reaction, thermal conductivity, hydrogen absorption capacity) to achieve SunShot TES targets (such as charging time, volumetric energy density, expected exergetic efficiency and preliminary material and system costs) and to compare different materials to each other.
- **Subtask 1.2.2:** Screen at least 10 material candidate pairs against targets, as defined in Task 1.2.1.
- **Subtask 1.2.3:** Submit a peer reviewed paper on proposed metal hydride CSP TES system and use of screening tool and criteria.
- **Milestone 1.2:** Screen a minimum of 10 material candidate pairs against targets to arrive at 2 to 3 preliminary candidate material pairs that meet all technical targets defined as: charging time of less than 6h, volumetric energy density  $\geq 25 \text{ kWh}_{\text{th}}/\text{m}^3$ , cycle life demonstrates  $\leq 5\%$  degradation in thermal capacity over 1000 exercises with a plausible, scientifically valid pathway to less than 1% degradation, and exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA). Cost estimation must demonstrate a viable path to TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ .

### **Task 1.3: Design and Fabricate a Bench-Scale MH TES System**

To further evaluate the top 2-3 candidate material pairs, SRNL will develop and fabricate a bench-scale metal hydride TES system suitable for testing 10-20 g of material. The purpose of this system is to provide preliminary materials engineering data on the performance of the selected metal hydride material pair as well as to obtain longer-term performance data for the development of future TES systems. In addition to being able to augment the materials property data in Task 1.1, the bench-scale system will also be able to obtain preliminary operating data from the coupling of two metal hydride materials which will be needed by both system and detailed vessel design models. Based on the previous experience at both SRNL and CU in designing and evaluating metal hydride prototype and full-scale systems, it is believed that the data from this bench-scale system, when combined with the material property data and the engineering models developed in years 1 and 2, will be sufficient to design and fabricate a nominal 30 kWh prototype system (which is described in more detail in section 3.2). Relevant subtasks include:

- **Subtask 1.3.1:** Complete 10-20g bench-scale MH TES design. One of the critical performance issues with a metal hydride TES system is the interaction of the metal hydride material pairs. The bench-scale system will be designed to provide valuable pressure, temperature and material flow data on the best candidate material pairings. The bench-scale system will also be designed to enable normal and accelerated material cycling data later in the program (see Tasks 2.1 and 3.1).
- **Subtask 1.3.2:** Complete bench-scale MH TES fabrication. The fabrication of the bench-scale designed in Task 1.3.1 will include materials of construction similar to the anticipated prototype system as well as advanced heat transfer and media compaction

techniques to ensure that this type of material engineering data is adequately evaluated and tested prior to the design and testing of the prototype system.

- **Milestone 1.3:** The majority of the SRNL MH system engineering team will agree that the design is appropriate for the collection of the relevant technical data for the MH system (i.e. Detailed kinetic data for at least for 3 pressures and temperatures; Additional thermodynamic data (pressure, temperature and composition data) suitable for more detailed transport models, and; Improved thermal conductivity, heat capacity, bulk density and preliminary cycling data for any media enhancement or additions required to better meet the DOE SunShot targets). SRNL in-house pressurized vessel safety operations will review and approve the bench-scale design.

**Go/No-Go Decision Point 1:** Successful completion of all milestones in Budget Period 1. Engineering materials property data evaluation is complete indicating that the performance of the MH TES system can meet the proposed system technical targets. Technical targets are defined as: charging time of less than 6h, volumetric energy density  $\geq 25 \text{ kWh}_{\text{th}}/\text{m}^3$ , cycle life demonstrates  $\leq 5\%$  degradation in thermal capacity over 1000 exercises with a plausible, scientifically valid pathway to less than 1% degradation, and exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA). Cost estimation must demonstrate viable path to TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ . Changes to the target numerical values for any milestone, including those shown to require adjustment based upon modeling results or other learning throughout the course of the phase, must receive DOE concurrence in order to be altered to a value other than listed in this document. Without DOE concurrence, the original target value remains the milestone and therefore will remain the go/no-go criteria by which the project will be evaluated for continuation.

As a result of the go/no-go or stage-gate or continuation reviews, DOE may, at its sole discretion, make any of the following determinations: (1) continue to fund the project, depending on the availability of appropriations; (2) recommend specific direction or redirection of work under the project; (3) place a hold on the project pending further supporting data, funding, or to evaluate other projects concurrently; or (4) stop funding the project due to noncompliance, insufficient progress, inadequate business plan, schedule slip, change in strategic direction, or other factors.

**Patents and Publications:** File patents for relevant intellectual property. Results of research published in high-visibility, high-impact, peer-reviewed journal(s). All publications resulting from the funded research are required to include an acknowledgement that the work was supported by the U.S. Department of Energy, SunShot Initiative, under the specific award number.

## **BUDGET PERIOD 2 (12 months)**

### **Task 2.1: Generate Detailed Engineering Property Data for Most Promising Candidate Materials and Systems**

Both SRNL and CU will be actively involved in evaluating and developing new engineering material property data for the proposed metal hydride candidate materials. This data will be used



as input to the more detailed vessel and system models. While many properties for some of the materials already exist, some of the properties needed for the engineering models such as thermal conductivity and heat capacity do not always exist and if they do they are not always suitable for the conditions (i.e. higher temperatures) or media form (i.e. compacted etc.) needed for this work. Both SRNL and CU have extensive metal hydride and material characterization equipment to perform these analyses. The initial materials to be evaluated will be discussed among the partners and the material property collection and analyses work will be divided so as to make best use of each partner's capabilities and to avoid duplication of effort. Relevant subtasks and milestones include:

- Subtask 2.1.1: Complete the generation of engineering data on best 2-3 candidate material pairs. The engineering data to be collected includes: 1) Detailed kinetic data for at least for 3 pressures and temperatures; 2) Additional thermodynamic data (pressure, temperature and composition data) suitable for more detailed transport models; 3) Improved thermal conductivity, heat capacity, bulk density and preliminary cycling data for any media enhancement or additions required to better meet the DOE SunShot targets. The engineering data obtained in Task 2.1 will be used in Task 2.2 below to develop more detailed models that will be applied to the design and evaluation of the performance and operation of the prototype MH TES system.

#### **Task 2.2: Develop and Evaluate Transport and System MH TES Models**

Following the development and application of the screening models, existing SRNL 3D metal hydride finite element models will be modified and evaluated for the TES application. Heat and mass transfer are critical to the operation and performance of metal hydride systems. Detailed metal hydride models have already been developed by SRNL for other applications and are available for this program. The modifications that need to be made involve coupling two metal hydride vessels together as well as the different operating and boundary conditions.

In addition, a higher level system model will be developed similar to what was done by SRNL on previous projects. These Simulink™ models will evaluate the overall performance of various metal hydride TES configurations along with inputs and outputs from various solar collectors and power generators (turbines, heat engines etc.). SRNL will work with NREL's Solar Advisory Model (SAM) and other SunShot partners to help develop these interfaces. Relevant subtasks and milestones include

- Subtask 2.2.1: Develop preliminary vessel design model. Operation of the metal hydride based thermal energy storage system depends on the temperature and pressure in the high and low temperature beds and the exchange of heat with a heat transfer fluid or heat pipe. A finite element heat and mass transport model will be developed that will predict the transient behavior of these parameters for the small-scale and prototype tests at locations that are critical to system performance.
- Subtask 2.2.2: Develop preliminary MH TES and CSP system model. The system-level MH model is based on suitably simplified transient mass and energy balance equations and will be included in SAM (or other similar programs) to interface the TES system with the other CSP equipment (power generators, solar concentrators, etc). In order to

evaluate the performance of the integrated system, the key parameters from the MH model that will need to be exchanged with the interfaced components will include temperature, pressure and hydrogen concentration during the charging/discharging process. In addition the MH system size and material properties will also be included, to evaluate the costs related to the CSP system.

- Subtask 2.2.3: Submit a peer reviewed paper on the analysis and modeling of a metal hydride CSP TES system.
- Milestone 2.2: Complete detailed analysis of at least 1 MH TES system material pair that is capable of meeting all of the DOE CSP TES targets. These targets include TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25\text{kWh}/\text{m}^3$ , cycle life demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and process efficiency/exergy  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA).

**Go/No-Go Decision Point 2:** Successful completion of all milestones in Budget Period 2. Using the best available engineering materials property data, evaluate the performance of the MH TES system and compare these predicted results to the proposed system targets. These targets include TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25\text{kWh}/\text{m}^3$ , cycle life demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and process efficiency/exergy  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA). If the predicted system is shown that it can meet all of the SunShot CSP targets and DOE SunShot objectives then the program should continue.

Changes to the target numerical values for any milestone, including those found to require modification based upon modeling outputs or other learning throughout the course of the phase, must receive DOE concurrence in order to be altered to a value other than what is listed in this document. Without DOE concurrence, the original target value remains the milestone and therefore remains the go/no-go criteria by which the project will be evaluated for continuation.

As a result of the go/no-go or stage-gate or continuation reviews, DOE may, at its sole discretion, make any of the following determinations: (1) continue to fund the project, depending on the availability of appropriations; (2) recommend specific direction or redirection of work under the project; (3) place a hold on the project pending further supporting data, funding, or to evaluate other projects concurrently; or (4) stop funding the project due to noncompliance, insufficient progress, inadequate business plan, schedule slip, change in strategic direction, or other factors.

**Patents and Publications:** File patents for relevant intellectual property. Results of research published in high-visibility, high-impact, peer-reviewed journal(s). All publications resulting from the funded research are required to include an acknowledgement that the work was supported by the U.S. Department of Energy, SunShot Initiative, under the specific award number.

### **BUDGET PERIOD 3 (12 months)**

### **Task 3.1: Operate the Bench-Scale MH TES System to Obtain Long-Term Operation Data**

SRNL will operate the bench-scale metal hydride TES system during the third year to obtain longer-term performance data for the development of future TES systems. A major objective of this task is to obtain accelerated material cycling data at temperature and pressure conditions representative from both the pilot and future larger scale TES systems. Relevant subtasks and milestones include:

- **Subtask 3.1.1:** Begin long-term bench-scale accelerated thermal cycle testing of at least 1 to 2 MH pairs in order to be able to estimate 10 years of operational performance (i.e. 5,000 cycles). The thermal cycle testing will go from a temperature of  $\leq 250^{\circ}\text{C}$  to  $\geq 650^{\circ}\text{C}$  and use an appropriate ramp rate for the MH system being testing. The system will be held at the minimum and maximum temperature for 15 min before ramping begins again.
- **Milestone 3.1:** Submit a peer reviewed paper on the bench-scale and proof-of-concept operation of a metal hydride CSP TES system. The report will contain data from long-term bench-scale testing of at least 1 metal hydride pair that demonstrates the satisfactory performance for an estimated 10 year of operation (accelerated cycling of 5,000 cycles with no more than 5% loss of performance, with performance defined as the energy storage capacity of the system after 5,000 cycles divided by the original energy storage capacity). The report will also provide long term performance results including operating temperature, pressure, and gas transfer rates for preliminary validation of the vessel and component designs.

### **Task 3.2: Design and Fabricate Prototype MH TES Vessel and Components**

Using the results from the vessel and system models along with the preliminary bench-scale results, CU will design and fabricate a suitable sized MH TES prototype system. The size and scale will be guided by the SRNL modeling results and the resources available at CU. The anticipated scale for the prototype will be on the order of 30kWh for a minimum of 6 hrs. SRNL will assist in the design of the prototype vessels and main components. CU will perform the final design and fabrication. Relevant subtasks and milestones include:

- **Subtask 3.2.1:** Design and fabricate prototype MH TES vessels that are capable of demonstrating all of DOE SunShot MH TES targets. These targets include TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25\text{kWh}/\text{m}^3$ , cycle life demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA). Preliminary estimates show that approximately 2 kg of hydrogen would need to be cycled back and forth for a 30kWh scale prototype. The actual sizes of the prototype vessels will depend on the final metal hydrides selected but a nominal 5% capacity metal hydride material would require approximately 40 kg of metal hydride material to be contained in the vessel.
- **Subtask 3.2.2:** Design and fabricate key as-needed prototype MH TES components (includes heat exchangers, thermocline etc.). In addition to the metal hydride vessels

themselves, SRNL and CU will design internal heat exchangers and/or heat pipes capable of removing or adding sufficient heat to maintain the operation of a nominal 30kWh prototype system for 6 hours.

**Milestone 3.2:** Complete design of a nominal 30kWh prototype metal hydride TES system capable of demonstrating and validating the SunShot CSP TES targets. These targets include TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25\text{kWh}/\text{m}^3$ , cycle life demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and process exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA). The majority of the SRNL MH system engineering team will agree that the design is appropriate to demonstrate the relevant technical milestones (i.e. TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25\text{kWh}/\text{m}^3$ , cycle life demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA)). SRNL in-house pressurized vessel safety operations will review and approve the prototype design.

### **Task 3.3: Test and Evaluate Prototype Components and Vessels**

Using the results from the vessel and system models along with the preliminary bench-scale results, CU will test and evaluate a suitable sized MH TES prototype system. A testing and evaluation plan will be developed between the experimentalists and the modelers to ensure that the right quantity and right quality of data is obtained during the prototype testing. The results need to be adequate to validate the models for later use for full-scale TES systems. Due to the time available for this project, long term material performance data will be obtained from the bench-scale testing where accelerated material cycling should be possible. The operation and data collection will be guided by the SRNL modeling results and the resources available at CU. Relevant subtasks and milestones include:

- **Task 3.3:** Complete 6-12 months of testing and evaluation of prototype components and vessels. Operation of the metal hydride based thermal energy storage system depends on the temperature and pressure in the high and low temperature beds and the exchange of heat with a heat transfer fluid or heat pipe. Transient measurements of these parameters will be made for the prototype tests at locations that are critical to system performance. Transient parameters will be measured and subsequently compared to model predictions. Key parameters that will be measured will include: operating temperatures, pressures, gas transport rates and cycle times. Results for steady-state, startup and shutdown operations will be demonstrated. Additional data measurements to support complete system and component mass and energy balances will also be obtained.
- **Milestone 3.3:** Submit a peer-reviewed journal publication that describes the operation and performance of the nominal 30kWh prototype MH TES system. The results of the testing described in the report will be of sufficient duration and quality so that when combined with the modeling and the bench-scale results they can be used to demonstrate and validate the SunShot CSP targets. These targets include TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25\text{kWh}/\text{m}^3$ , cycle life

demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA).

#### **Task 3.4: Update and Validate Transport and System MH TES Models**

Following the completion and analysis of the bench-scale and prototype performance results both the more detailed vessel transport model as well as the system level Simulink™ models will be updated and validated. Model validation consists of ensuring that the models accurately predict experimentally measured values. This effort requires not only that that experimental data are properly measured, but that experimental conditions are also recorded to be used as input to the models.

Relevant subtasks and milestones include:

- **Subtask 3.4.1: Validate final vessel design model.** Operation of the metal hydride based thermal energy storage system depends on the temperature and pressure in the high and low temperature beds and the exchange of heat with a heat transfer fluid or heat pipe. Transient measurements of these parameters will be made for the small-scale and prototype tests at locations that are critical to system performance. Validation of the detailed model will consist of running a model that simulates the experiments, using appropriate material data together with the boundary and initial conditions that existed for the experiments. Transient parameter values predicted by the model(s) will be compared against measured values. The model will be considered successfully validated if the error between measured and predicted parameter values is less than 10% throughout the transient.
- **Subtask 3.4.2: Validate final MH TES and CSP system model.** Temperatures, pressures and hydrogen concentrations data available from the system-level MH model will be validated against data available from the prototype design and testing the model to experimental validation should be within 10%. MH system cost analysis estimates are expected to be within 20% of the mass produced cost (based on future large-scale, approx. 1000 units/yr. production).
- **Subtask 3.4.3: Submit a peer reviewed paper on the operation and model validation for a 30 kWh prototype metal hydride CSP TES system.**
- **Milestone 3.4: Complete final analysis of a 30kWh MH TES system versus targets and validate that the error between measured and predicted parameter values is less than 10%. Also provide future recommendations and develop a commercial partnership/technology transfer plan for a metal hydride based TES system** At least 2 commercial companies (at least one U.S.) will be identified during the course of this project that will be willing to further develop and test commercial metal hydride based TES systems.

#### **Final Deliverables:**

- **Final Deliverable 1: Publication of an article in a peer-reviewed journal that contains a**

completed and validated vessel model against prototype testing data that demonstrates and validates the model with respect to all DOE CSP TES SunShot targets. The final design package will also include future vessel recommendations, improvements and scale up options.

- Final Deliverable 2: A completed and validated system model, against data from the prototype, that agrees to experimental data to within 10%.
- Final Deliverable 3: A thoroughly tested nominal 30kWh prototype metal hydride TES system that demonstrates a MH system can meet the SunShot CSP TES targets. These targets include TES cost of  $\leq \$15/\text{kWh}_{\text{th}}$ , charging time of less than 6h, volumetric energy density  $\geq 25 \text{ kWh}/\text{m}^3$ , cycle life demonstrates  $\leq 2\%$  degradation over 1000 exercises with a plausible, scientifically valid path towards  $\leq 1\%$  degradation, and process exergetic efficiency  $\geq 95\%$  (as defined in the ARPA-E HEATS FOA).

***Patents and Publications:*** File patents for relevant intellectual property. Results of research published in high-visibility, high-impact, peer-reviewed journal(s). All publications resulting from the funded research are required to include an acknowledgement that the work was supported by the U.S. Department of Energy, SunShot Initiative, under the specific award number.

Changes to the target numerical values for any milestone, including those found to require modification based upon modeling outputs or other learning throughout the course of the phase, must receive DOE concurrence in order to be altered to a value other than what is listed in this document. Without DOE concurrence, the original target value remains the milestone and therefore remains the go/no-go criteria by which the project will be evaluated for continuation.

**DOE EERE SunShot Initiative**

**Concentrating Solar Power Research and Development  
SunShot Lab Proposal Development Process FY2012-2015**

**Lead Organization Submitting Proposal:  
Savannah River National Laboratory  
FFRDC**

# **Fundamental Corrosion Studies in High-Temperature Molten Salt Systems for Next Generation Concentrated Solar Power Systems**

**Technical Contacts:**

**Brenda Garcia-Diaz and Joshua Gray**  
Senior Engineer  
Material Science and Technology Directorate  
773-A Savannah River National Lab  
Aiken, SC 29808  
(803) 725-9978 / (803) 725-8272  
[brenda.garcia-diaz@srnl.doe.gov](mailto:brenda.garcia-diaz@srnl.doe.gov) / [joshua.gray@srnl.doe.gov](mailto:joshua.gray@srnl.doe.gov)

**Business Contact:**

**Bob Peters**  
Contract Administration  
Savannah River Nuclear Solutions  
730-1B/3035  
Aiken, SC 29808  
V: (803) 952-8648  
F: (803) 952-7950  
[robert02.peters@srs.gov](mailto:robert02.peters@srs.gov)

**This project seeks to reduce corrosion at high operating temperature in concentrating solar power systems through the identification of heat transfer fluid systems and corrosion protection strategies to predict and control corrosion rates with common heat transfer materials.**

## **1. Project Overview**

### ***a. Background***

Concentrating solar power (CSP) systems are projected to need to produce energy with a cost of \$0.06 / kWh when implemented on a very large scale. It is generally believed that temperatures of the heat transfer fluids (HTFs) will need to be higher than 800°C to drive an advanced Brayton cycle or Rankine cycle with superheated steam to reach this target. To make this system technically feasible, HTFs need to be developed that can operate at these temperatures for long periods of time without significant degradation of either the HTF or the materials of construction for the system. Increasing the lifetime and operating temperature of HTFs in CSP systems will allow capital costs to be amortized over longer time periods and, hence, reduce the cost of energy generation. Decreasing materials corrosion will lower system maintenance costs due to less frequent component failure and replacement.

### ***b. Objectives***

The objective of this research is to improve materials durability in CSP systems in the presence of high operating temperature (HOT) HTFs that can be used with advanced power production processes. Improvements in materials durability will be achieved by creating an integrated experimental and numerical approach that will allow identification of optimal combinations of HOT HTFs with materials of construction and corrosion protection schemes that maintain the HTFs good heat transfer properties, achieve low corrosion rates, and indicate good performance in CSP system simulations. This objective will be achieved by combining: 1) experimental determination of corrosion rates in model HOT HTF systems and identification of critical parameters of corrosion mechanisms 2) thermodynamic property modeling for HOT HTFs 3) risk mitigation methods for the identified corrosion mechanisms, 3) demonstrating the effectiveness of corrosion mitigation methods and 4) modeling of corrosion and corrosion in heat transfer systems.

### ***c. Novelty***

While materials durability studies have been conducted for lower temperature HTFs that are common in industry, detailed characterizations of molten salt systems capable of high temperature operation at temperatures routinely exceeding 800°C have either not been performed or not been extensive. The corrosion management strategies employed with higher temperature salts is often drastically different when compared to those for the lower temperature nitrate salts that can utilize well known oxide passivation layers for corrosion prevention. Whereas at higher temperatures, activity gradient driven mass transfer and thermal gradient driven mass transfer are often dominant, especially in many chloride and fluoride salt systems that are among the most promising HOT HTFs. This research will characterize corrosion and material degradation at these conditions and compare corrosion rates and mechanisms with state-of-the-art systems. In addition, thermodynamic properties of binary and higher order mixtures will be calculated because data for these more complex systems is not readily available in the literature.



## **2. Technical Work Plan**

### **BUDGET PERIOD 1 (12 months)**

#### **Task 1.1: Measure the Corrosion Properties of State of the Art HOT HTFs in Static and Isothermal Systems**

We will design and refine test equipment for accurate, reproducible measurement of corrosion rates for containment materials in contact with hot molten salts at temperatures up to 1000°C in static environments with no fluid flow. We will determine the corrosion rates of state of the art HTFs with common containment materials including stainless steels, superalloys, refractory alloys, and ceramics, or other advanced materials agreed upon with SunShot Program Management. The testing in Task 1.1 will include electrochemical testing such as linear polarization resistance (LPR) determination, polarization testing, electrochemical impedance spectroscopy (EIS), and cyclic potentiodynamic polarization (CPP) scans to determine susceptibility to localized corrosion. Potentiostatic experiments may also be conducted in specific regions of interest in tests to accelerate corrosion mechanisms. The following subtasks will be performed:

- **Subtask 1.1.1:** Development of an experimental apparatus capable of isothermal and static corrosion testing and temperatures up to 1000°C under varying environments (argon gas, nitrogen, ammonia, etc.). The apparatus will include the capability for a static electrochemical potential hold device for rapid corrosion measurements and long-term static corrosion cells (for testing up to 1000 hours).
- **Subtask 1.1.2:** Perform post testing microscopic, spectroscopic and analytical characterization of corrosion samples with state-of-the art HTF systems. Specific techniques to be used may include: SEM and TEM for surface morphology characterization, EDS for surface elemental analysis and element mapping, Raman, Auger, and XPS for oxidation state characterization, XRD for phase identification, and scanning electrochemical microscopy (SECM) for corrosion inspection and localized surface characterizations including electrochemical impedance spectroscopy (EIS). Salt composition and corrosion product composition may also be analyzed using ICP-AES, ICP-MS, AA or other techniques.
- **Milestone (Subtask 1.1.1):** Commissioning of high temperature isothermal and static corrosion apparatus system capable of measurements at temperatures up to 1000°C and proof of operation by validation with typical corrosion rates in chloride and fluoride salts. The system will be capable of temperature control within 4°C of the set point temperature and will be capable of operation from vacuum up to 15 psig with controlled atmosphere and gas flow rates up to 50 sccm. The reactor will be capable of sustained ramp rates of a minimum of 5°C / minute.
- **Milestone (Subtask 1.1.2):** Measurement of the general corrosion rates and trends for Incoloy-800H, Hastelloy-N (if available, other alloy with Cr level ~10% if not), and Ni-201 in FLiNaK at 850°C will be compared with values of 29 mg/cm<sup>2</sup>, 13 mg/cm<sup>2</sup>, and 0 mg/cm<sup>2</sup>, at 500 hours from Olson (2009) to demonstrate proper operation of the system. Weight-loss will not exceed that seen from Olson (2009) for each particular alloy by more than 25%, and will be correlated to mean alloy Cr content.

### **Task 1.2: Numerical Simulations of Corrosion in State of the Art HOT HTFs**

Corrosion mechanisms will be identified and preliminary models will be developed to predict corrosion rates observed in state of the art molten salt heat transfer systems. These corrosion models will account for the effect of mass transport and will be used to predict corrosion rates in systems with fluid flow. A framework for incorporation of general corrosion reactions with soluble products at a containment surface will be developed later and incorporated into computational fluid dynamics (CFD) models.

- Subtask 1.2.1: Identification of relevant corrosion reactions, reactants, and mechanisms. Development and application of 0-D and/or 1-D corrosion models that are capable of analyzing and predicting the local chemical environment, corrosion rates, and corrosion mechanisms for state of the art systems and advanced HOT HTFs. Validation of predictions requires data from, and will be accomplished in, year 2.
- Subtask 1.2.2: Development of a 3-D CFD-based modeling platform capable of predicting local chemical environment and corrosion rates based on corrosion models developed in Subtask 1.2.1.
- Milestone (Subtask 1.2.1): Identify two corrosion mechanisms that explain prominent localized and general corrosion phenomena and that correlate with electrochemical and physical characterizations of results in Tasks 1.1 and 1.4
- Milestone (Subtask 1.2.2): Demonstration of a CFD-based 3-D numerical modeling platform capable of calculations over a surface area greater than 50 cm<sup>2</sup> that incorporates relevant physiochemical mechanisms to the dominant corrosion mechanisms to allow for the prediction of key system variables such as localized concentration and electrochemical potential. The numerical model will agree with published values from the literature to within +/- 10%.

### **Task 1.3: Prediction solubility and stability of species in advanced molten salt systems**

Use Gibbs energy minimization to calculate thermodynamic solubility of species in molten salts and thermal stability of molten salts in equilibrium with container and heat exchanger materials. Species solubility modeling will be useful for corrosion analysis and modeling to determine whether corrosion products are likely to passivate metal surfaces and reduce corrosion. Solubility data can aid identification of corrosion inhibitors, as well as identify key contaminants that may play an active role in determining corrosion susceptibility in the localized electrochemical environment. Solubility data will feed into models as bounding conditions to approximate the local electrochemical environment, which may be very different from the predicted bulk composition. Understanding corrosion product stability may allow for prediction of likely corrosion species formed for various molten salt combinations with alloys.

- Subtask 1.3.1: Prediction of the solubility of alloy components and corrosion products in molten salts. This work will focus on calculating the solubility of fluorides from alloy or ceramic constituents in all materials proposed for use with high temperature molten salt systems. Of specific interest are metals selectively attacked by dissolution such as Cr or involved in forming passive layers such as Ni. Modeling will identify the most stable corrosion products for the alloys and their solubility in the molten salt mixtures to be studied.

- **Subtask 1.3.2:** Prediction of corrosion potential at the alloy surface. Thermodynamic simulation results will be compared with SRNL experimental data. Specific determined corrosion potential data, and potentially modify the thermodynamic model if necessary. The effect of variables such as temperature and composition of the salt media and containment materials will be assessed.
- **Subtask 1.3.3:** Prediction of thermal stability and decomposition of molten salt in contact with the alloy. Research will be conducted utilizing temperatures and atmospheres in the proposed window of operation and where salts or dissolved species may be unstable.
- **Milestone (Subtask 1.3.1):** The species solubility from the alloys in molten salts will be predicted using a Gibbs energy minimization method. The solubility will be predicted to within a maximum deviation of  $\leq 10\%$  of the values reported in the literature or experimentally determined values. The species composition in molten salt predictions will be carried out at various temperatures ( $>800^{\circ}\text{C}$ ). Molten salt composition and alloy composition will be input variables for the thermodynamic predictions. Equilibrium species concentrations will be predicted using equilibrium constants and activity coefficients.
- **Milestone (Subtask 1.3.2):** The stable solid corrosion products formed at the alloy or ceramic surface in equilibrium with molten salt and alloy will be evaluated using the Gibbs energy minimization method. These products will be evaluated with the species non-ideality in the solution. Subsequently, the Gibbs energy for the reaction in the actual working condition can be determined by using the activity of each substance. The thermodynamic potentials ( $U_{\text{corr}}$ ) for corrosion (which are used with electrochemical kinetics for prediction of  $E_{\text{corr}}$ ) calculated from the Gibbs energy will be compared with the experimentally determined corrosion potential measured in Task 1.1 to illustrate (by subtraction) the extent of kinetics and mass transfer in those measurements. The most stable corrosion products will be suggested from the comparison with  $E_{\text{corr}}$ . The values for  $E_{\text{corr}}$  (calculated) will be compared to  $E_{\text{corr}}$  (experimental, SRNL) and the error will be  $\leq 10\%$
- **Milestone (Subtask 1.3.3):** The composition change for the molten salt at temperatures above  $>800^{\circ}\text{C}$  will be calculated using Gibbs energy minimization method. The vapor pressure of the individual salt components and decomposition to other liquid and solid components will be determined to gauge the stability of the salt mixture. Stability is defined as a weight loss of  $\leq 1\%$ . Interaction among the different species in the molten salt in equilibrium with the alloys or ceramics will be considered in evaluations.

#### **Task 1.4: Isothermal Performance Qualification Testing in Advanced HOT HTFs**

A set of performance qualification tests will be carried out by UTRC on a minimum of six test coupons of each containment material type including stainless steels, superalloys, refractory alloys, and ceramics. For each material, static testing for corrosion will be carried out under isothermal conditions. Pretreated test coupons will be immersed in the HOT molten salt systems (placed in crucibles and under an inert gas environment) and the weight-change due to corrosion will be measured at different intervals of time and up to 10,000 hours total testing time. In these tests, high-purity molten salt will be used to establish a baseline for each material at a pre-specified temperature.

Multiple samples will be tested for extended times to provide statistical information needed to provide quantitative corrosion data required for use of HOT HTF / container material combinations in commercial systems. It should be noted that Task 1.1 focuses on short-term corrosion characterization and aims to determine corrosion mechanisms using electrochemical testing techniques designed to accelerate corrosion and elucidate corrosion mechanisms. Testing under Task 1.4 will mostly focus on flat test coupons submerged into the corrosive environment and held at the desired isothermal temperature for extended times followed by post testing characterization of the test coupons. This will allow for validation of mechanisms determined by Task 1.1 and ensure potential errors are not propagated in other tasks. In this task multiple samples will be tested for at least an order of magnitude longer times to provide statistical information needed to provide quantitative corrosion data required for use of HOT HTF / container material combinations in commercial systems. Comparison of results between Tasks 1.1 and 1.4 will be essential in determining the long-term importance of corrosion mechanisms observed and quantified in short-term electrochemical characterization, and shorter-term static corrosion tests.

- Subtask 1.4.1: Baseline long-term performance qualification testing for HOT HTFs under isothermal and static conditions
- Subtask 1.4.2: Develop physics-probabilistic-based models to predict service lifetime of containment materials. Employed physics-probabilistic-based models will include the Arrhenius model and/or the Eyring model. The constants in either of these two models will be determined empirically based on results from testing in subtask 1.4.1.
- Subtask 1.4.3: Identification of degradation mechanisms and mitigation methods. Examples of potential failure mechanisms that may be uncovered during the execution of the experiments in Subtask 1.4.1 may include: a) Dealloying of metals (such as Cr) from the containment material that contacts the hot molten salt system by direct chemical reactions between the containment material and the salt, b) The products of dealloying may completely dissolve in the molten salt system but at lower temperatures these dealloying products may reprecipitate, and c) Impurity-driven corrosion where the hot molten salt system react with impurities in the containment material. Sometimes, these reaction products deposit as a corrosion-resistant layer on the surface of the containment material. For each identified failure mechanism, risk mitigation methods will be developed. Examples of the proposed risk mitigation methods may include: the addition of corrosion inhibitors and the use of protective surface coating for the containment material.
- Milestone (Task 1.4): By the end of this reporting period, Task 1.4 milestones to be delivered are: 1) Determine long-term weight loss by corrosion due to contact of the molten salt (at temperatures above  $>800^{\circ}\text{C}$ ) with each of the selected containment materials [Task 1.4.1]. 2) Physics-probabilistic models to predict the time-dependent material loss by corrosion [Task 1.4.2]. 3) Demonstration of effectiveness of proposed risk mitigation methods for the identified corrosion mechanisms As shown by a corrosion rate of less than 3mpy. Cost/benefit analysis will also be undertaken.

#### **Go/No-Go Decision Point 1:**

**The GO criterion at the end of this reporting period signifies that all the milestones listed for Budget Period 1 above are fully met.**

Changes to the target numerical values for any milestone, including those indicated to be adjusted based upon modeling outputs or other learning throughout the course of the phase, must receive DOE concurrence in order to be altered to a value other than what is listed in this document. Without DOE concurrence, the original target value remains the milestone and therefore the go/no-go criteria by which the project will be evaluated for continuation.

As a result of the go/no-go, stage-gate, or continuation reviews, DOE may, at its sole discretion, make any of the following determinations: (1) continue to fund the project, depending on the availability of appropriations; (2) recommend specific direction or redirection of work under the project; (3) place a hold on the project pending further supporting data, funding, or to evaluate other projects concurrently; or (4) stop funding the project due to noncompliance, insufficient progress, inadequate business plan, schedule slip, change in strategic direction, or other factors.

**Patents and Publications:** File patents for relevant intellectual property. Results of research published will be directed towards high-visibility, high-impact, peer-reviewed journal(s). All publications resulting from the funded research include an acknowledgement that the work was supported by the U.S. Department of Energy, SunShot Initiative, under the specific award number.

#### **BUDGET PERIOD 2 (12 months)**

##### **Task 2.1: Measure the Corrosion Properties of State of the Art HOT HTFs in Systems with Fluid Flow and Thermal Gradients**

In most fluid heat transfer systems, fluid flow and thermal gradients are intrinsic system design parameters. Non-isothermal systems cause distributions in alloy-salt thermodynamic equilibria that manifest as temperature dependent corrosion rates, temperature dependent equilibrium corrosion product concentrations, and material stresses that can aggravate corrosion mechanism. Fluid flow can enhance corrosion by continually interrupting the formation of temperature dependent thermodynamic equilibria and can cause erosion-corrosion mechanisms. SRNL will design and refine test equipment for accurate, reproducible measurement of corrosion rates in environments with thermal gradients and fluid flow. The testing in Task 2.1 will mirror that performed in Task 1.1. The following subtasks will be performed:

- Subtask 2.1.1: Development of an experimental apparatus capable of corrosion testing with temperature gradients and fluid flow at temperatures up to 1000°C under varying environments (argon gas, etc.). The apparatus may consist of either a natural convection flow loop, or thermosiphon for the study of thermal gradient driven mass transfer measurements.
- Subtask 2.1.2: Perform post testing characterization identical to Subtask 1.1.2 but for samples from Subtask 2.1.1.
- **Milestone (Subtask 2.1.1):** Commissioning of high temperature corrosion apparatus system capable of measurements with fluid flow and thermal gradients at temperatures up to 1000°C. The system will be capable of operation with minimum temperature gradients

of 50°C between the hot and cold legs and will be capable of naturally convective flows generated by these temperatures. The temperatures of the hot leg of the system will be capable of having temperatures varied at a minimum of 5°C / minute. Fluid flow will be verified by direct measurements or a combination of temperature measurement and CFD.

- **Milestone (Subtask 2.1.2):** Observation and quantification of the changes in corrosion mechanisms and corrosion rates in the presence of high, intermediate, and low thermal gradients and fluid flow. Experiments will allow quantification of the average and standard deviation for sample weight-change at specific locations in the natural convection system with the presence of thermal gradients and fluid flow. We will deliver a rank ordered list of the best alloys (at least of those measured) for corrosion resistance with the HTF used at the temperature and flow conditions.

## **Task 2.2: Numerical Simulations of Corrosion in State of the Art HOT HTFs**

Corrosion models that include thermal gradients and fluid flow will be developed to predict corrosion rates and mechanisms observed in state of the art molten salt heat transfer systems. These corrosion models will account for the effect of heat and mass transport and will be used to predict local electrochemical environment and corrosion rates in systems with fluid flow. Coupling of non-isothermal experiments with CFD modeling of systems with thermal gradients and natural convection will allow enhanced evaluation of corrosion on samples. Changes in corrosion mechanisms and rates compared with isothermal cases with no fluid flow will be evaluated. The impact of dimensionless parameters such as Rayleigh number and Grashof number on corrosion in systems with natural convection will be characterized.

- **Subtask 2.2.1:** Extend 0-D and 1-D models of year 1 (Task 1.2) to 2-D and 3-D platforms. Analyze and predict corrosion rates and mechanisms in the presence of thermal gradients, concentration gradients, and fluid flow.
- **Subtask 2.2.2:** Application of CFD modeling to understand heat and mass transport in experiments with thermal gradients and fluid flow. Integration of corrosion modeling with CFD thermal and mass transport modeling to predict corrosion phenomena observed in non-isothermal experiments.
- **Milestone (Subtask 2.2.1):** Prediction of local electrochemical environment for materials at 800°C, 850°C and 900°C based on corrosion potential values, calculation of Tafel and Butler-Volmer kinetic parameters from polarization at 800°C, 850°C and 900°C. Compare of long-term corrosion rates with linear polarization resistance values at 800°C, 850°C and 900°C. Incorporation of CPP experimental results and thermodynamic modeling results at 800°C, 850°C and 900°C for evaluation of localized corrosion susceptibility. The numerical model will agree with published values from the literature or experimentally determined values to within +/- 10%.
- **Milestone (Subtask 2.2.1):** Use models to evaluate local electrochemical environment for cases with high, medium, and low thermal gradients and fluid flow experiments conducted at high temperature. Quantify kinetic parameters using Tafel and Butler Volmer kinetic expressions. Evaluation of CPP experiments to determine significance of localized corrosion mechanisms in systems with thermal gradients and fluid flow.
- **Milestone (Subtask 2.2.2):** CFD-based 3-D numerical model of the flow and thermal gradients in the SRNL experimental apparatus from Task 2.1.1 for non-isothermal

corrosion testing without externally forced electrochemical reactions to support understanding of fluid flow and thermal gradients on corrosion phenomena. The numerical model will agree with published values from the literature or experimentally determined values to within +/- 10%.

### **Task 2.3: Prediction of corrosion products and suggestion of corrosion inhibiting modifications to advanced molten salt systems**

Measurements of corrosion potential at SRNL will be compared to the thermodynamic predictions and the predicted local chemical compositions will then be provided to USC for modeling of corrosion systems. The effect of variables such as temperature, changes to composition of the salt media, and containment materials on corrosion potential will be theoretically predicted. The corrosion potential is related to Gibbs energy of the system and is calculated as a function of temperature and composition. This modeling will be used to predict molten salt mixtures that may bring about superior corrosion resistance through the addition of corrosion inhibitors to proposed HOT HTFs. Corrosion inhibitors such as  $ZF_4$  can be used to react with oxide, moisture, and other impurities [1, 2] or adjust the acidity or basicity of the molten salt to alter the solubility of corrosion products such as  $CrF_3$  [3]. The success of the use of corrosion inhibitors in different molten salt mixture families such as molten fluorides, molten chlorides, has been shown to be broadly applicable by [1-4]. The corrosion properties of these novel HOT HTF mixtures will be tested.

- **Subtask 2.3.1: Prediction of corrosion products from  $U_{corr}$  data.** Using the Gibbs energy model, the  $U_{corr}$  for container and heat exchanger material combinations with different molten salts will be evaluated. These will be compared with the experimentally determined corrosion potentials,  $E_{corr}$ , that are generated from Tasks 1.1 and 2.1. If the plot of calculated  $U_{corr}$  for the molten salt system shows linear dependence with the experimental data, this indicates that the calculated  $U_{corr}$  is proportional to the  $E_{corr}$  value and the kinetics and mass transfer mechanism are similar.
- **Subtask 2.3.2: Prediction of properties of the molten salts with the addition of corrosion inhibitors.** The thermodynamic modeling approach based on Gibbs energy of fusion and interaction among salt components will be used to predict properties such as eutectic compositions and temperatures.
- **Milestone (Subtask 2.3.1):** Predict principle corrosion products for all Year 1 and Year 2 experiments based on corrosion potential data. Compare predicted corrosion products with analytical results to determine corrosion products from the samples. Work with USC researchers to incorporate  $U_{corr}$  predictions into CFD models. The values for  $E_{corr}$  (calculated) will be compared to  $E_{corr}$  (experimental, SRNL) and the error will be  $\leq 10\%$ .
- **Milestone (Subtask 2.3.2):** Calculate the thermodynamic stability of salt/corrosion inhibitor mixtures under a variety of temperatures and pressures to ensure the eutectic liquid is going to be stable. Stability is defined as a weight loss of  $\leq 1\%$ . These calculations will be used to predict salt/corrosion inhibitor mixture heats of fusion, heat capacity, and eutectic points for inclusion in models. The model will have a maximum deviation of  $\leq 10\%$  of the values reported in the literature or experimentally determined values.

#### **Task 2.4: Thermal Cycling Performance Qualification Testing in Advanced HOT HTFs**

Tests for quantifying the corrosion behavior under thermal cycling and thermal gradients with the coupons immersed in the molten salts will be carried out. At a minimum 6 coupons of each material type will be tested at each specified high temperature. The main objective of this series of tests is to identify how thermal cycling and the potential for thermal gradient driven mass transfer affects the corrosion rate compared to isothermal conditions, as well as the effect of thermal cycling on brittle materials such as ceramics or composites. Thermal cycling protocols will determine the effects of repeated heating and cooling of the samples in the molten salt on corrosion rates and corrosion mechanisms. A set of specific performance qualification tests will be carried out by UTRC on test coupons of each containment material type of interest. Weight-change due to corrosion will be measured after specific time intervals and up to 10,000 hours total testing time.

- **Subtask 2.4.1: Cyclic long-term qualification testing for HOT HTFs (pure molten salts).** With respect to identifying the acceptable performance of materials exposed to highly corrosive environments, UTRC performed comprehensive reviews of the industry's operating experience of best-corrosion-resistant materials. UTRC reviewed the requirements of corrosion-resistant materials per applicable industry codes and standards such as ASME, ASTM, API, NACE and EN standards. The insights of these reviews indicate that materials with maximum allowable corrosion rates below 3 mpy (mils per year; where 1 mpy is equivalent to 0.025 mm/yr) are typically recommended and materials with corrosion rates above 20 mpy are not recommended for highly corrosive environments. In our materials qualification testing, our target maximum allowable corrosion rate will be at  $\leq 3$  mpy.
- **Subtask 2.4.2: Develop physics-probabilistic-based models to predict the service lifetime of the containment materials.** Employed physics-probabilistic-based models will include the Arrhenius model and/or the Eyring model. The constants in either of these two models will be determined empirically based on results from testing in subtask 2.4.1.
- **Subtask 2.4.3: Identification of degradation mechanisms and mitigation methods.** Identical to task 1.4.3 but for cyclic long-term qualification tests performed in Subtask 2.4.1.
- **Milestones (Task 2.4):** By the end of this reporting period, the following milestones will be delivered: 1) Results of impact of the long-term cycling tests on corrosion rates for the selected containment materials [Task 2.4.1]. 2) Physics-probabilistic based models for predicting weight loss by corrosion and with parameters empirically estimated from tests performed under Task 2.4.1 [Task 2.4.2]. 3) Demonstration of effectiveness of risk mitigation methods for the corrosion mechanisms identified in Task 2.4.1 [Task 2.4.3] as shown by a corrosion rate of less than 3mpy. Cost/benefit analysis will also be undertaken.

#### **Go/No-Go Decision Point 2:**

**The GO criterion at the end of this reporting period signifies that all the milestones listed for Budget Period 2 above are fully met.**



Changes to the target numerical values for any milestone, including those indicated to be adjusted based upon modeling outputs or other learning throughout the course of the phase, must receive DOE concurrence in order to be altered to a value other than what is listed in this document. Without DOE concurrence, the original target value remains the milestone and therefore the go/no-go criteria by which the project will be evaluated for continuation.

As a result of the go/no-go, stage-gate, or continuation reviews, DOE may, at its sole discretion, make any of the following determinations: (1) continue to fund the project, depending on the availability of appropriations; (2) recommend specific direction or redirection of work under the project; (3) place a hold on the project pending further supporting data, funding, or to evaluate other projects concurrently; or (4) stop funding the project due to noncompliance, insufficient progress, inadequate business plan, schedule slip, change in strategic direction, or other factors.

**Patents and Publications:** File patents for relevant intellectual property. Results of research published in high-visibility, high-impact, peer-reviewed journal(s). All publications resulting from the funded research are required to include an acknowledgement that the work was supported by the U.S. Department of Energy, SunShot Initiative, under the specific award number.

#### **BUDGET PERIOD 3 (12 months)**

##### **Task 3.1: Measure the Corrosion Properties of Advanced HOT HTFs including Corrosion Inhibitors and Protective Surface Coatings**

We will investigate and characterize corrosion and document the impact of more complex molten salt mixtures with corrosion inhibitors in advanced HOT HTFs. For the HOT HTFs, such as binary and ternary systems composed of chlorides or fluorides like  $\text{MgCl}_2\text{-KCl}$  or  $\text{FLiNaK}$ , research will focus on adding trace corrosion inhibitors to the HOT HTF salts that will act to either 1) reduce the solubility of the metallic component of the piping alloys in the salt through the use of redox agents or buffers that will reduce the basicity of the salt and its corrosion potential, 2) reduce active alloy component dissolution by reducing the solubility thermal dependence, 3) react with the alloy to help form or stabilize a passive layer in contact with the salt, making a spontaneously-generated, self-healing corrosion inhibiting layer, and 4) interfere with common corrosion mechanisms. For example, carburizing and nitriding components could potentially address 3) in chloride salts, while 1) could potentially work in chloride and fluorides salts by contacting them with metallic Zr, Na, or K. This project will also incorporate molten salt systems and alloys under study on other programs and in consultation with SunShot program management.

- Subtask 3.1.1: Characterization and determination of bulk, intergranular, and pitting corrosion rates and mechanisms of alloy and ceramic materials of interest at temperatures  $>800^\circ\text{C}$  in HOT HTFs with corrosion inhibitors. Testing will focus on determining the effect of changes in salt composition, corrosion inhibitor additives, cathodic protection, and coatings on reducing corrosion. This testing will integrate corrosion management concepts developed by the project team over prior years of the project. Testing will mix isothermal and non-isothermal testing and will focus on materials and conditions determined to be of the most interest to the SunShot Program and assist in supporting peer reviewed publications.

- Subtask 3.1.2: Perform post testing characterization identical to Subtasks 1.1.2 and 2.1.2 but for samples from Subtask 3.1.1.
- Milestone (Subtask 3.1.1): Submission of an article for publication in a peer reviewed journal detailing corrosion rates and mechanisms in HOT HTFs and the impact of corrosion on high temperature CSP system economics.
- Milestone (Subtask 3.1.1 and Subtask 3.1.2): Develop a detailed evaluation of corrosion mitigation strategies including: changing salt composition, addition of corrosion inhibitors, cathodic protection schemes, and coating of metals. Provide recommendations for the best state-of-the-art corrosion reduction strategies. The corrosion rate for tests with corrosion inhibitors will be quantified and compared with baseline results from Year 1 and Year 2 of the project to determine the overall reduction in the corrosion rate. Corrosion mitigation strategies will be deemed viable if they can deliver corrosion rates of  $\leq 3$  mpy with less than 20% additional cost to the salt or to the heat transfer system materials, or less than or equal to 170 \$/kW<sub>Th</sub> (estimated cost of HTF system divided by heat transport capability) given in the Feb. 2012 SunShot Vision Study as the 2020 Tower Roadmap HTF System cost.

### **Task 3.2: Numerical Simulations of Corrosion in Advanced HOT HTFs**

Corrosion models will be developed to explain corrosion rates and mechanisms observed in advanced HOT heat transfer systems and roles and impact of corrosion inhibitors. These corrosion models will include the effect of mass transfer and will be used to predict corrosion rates in systems with fluid flow. Sensitivity analysis will be used to determine how variation in specific fluid parameters affects corrosion rates. CFD models will be used and subroutines will be developed for cases where corrosion products are not soluble in solution and create passivating and non-passivating coatings.

- Subtask 3.2.1: Perform a sensitivity analysis on HOT HTF fluid properties to determine the properties that most affect corrosion rates. Sensitivity analysis will investigate fluid properties including heat capacity, viscosity, density, fluid velocity, and temperature as well as concentration of impurities including oxide species, chromium, and corrosion inhibitors. Other key parameters to be studied include the equilibrium and kinetic parameters associated with chemical and electrochemical reactivity of the species in solution, and parameters controlling mass transfer such as diffusion coefficients of species.
- Subtask 3.2.2: Perform CFD modeling of CSP systems that include non-soluble corrosion products, cathodic protection schemes, and corrosion inhibitors.
- Design cathodic protection scheme for chosen heat exchanger and container configuration and materials using CFD model which includes relevant corrosion mechanism.
- Milestone (Task 3.2): Sensitivity analysis detailing the impact of system conditions and salt properties on system corrosion. The sensitivity analysis will outline how system conditions can be optimized to reduce corrosion in CSP heat transfer systems while operating in the optimal range for CSP power plants using high temperature power cycles. The sensitivity analysis will be based on the corrosion models developed as part of this project.

- **Milestone (Task 3.2.2):** Submission of an article for publication in a peer reviewed journal detailing modeling of corrosion in HOT HTFs and integration of corrosion modeling with CFD tools.

### **Task 3.3: Prediction of corrosion rates, inhibitors and surface coatings of Advanced Molten Salt Systems**

Use Gibbs energy minimization to evaluate the corrosion rates, corrosion inhibitors and surface coatings of molten salt and container materials systems for the HOT HTFs. The effect of variables such as temperature and composition of the salt media and system (i.e., containment and heat exchanger) materials on corrosion thermodynamics will be theoretically predicted. Team interactions will allow for estimation of corrosion kinetics for these inhibitors and coatings. Calculated corrosion rates will be compared to experimentally determined data. Modeling will predict corrosion rates of materials in molten salts and identify allowable container materials for HOT HTFs. UA will corroborate with SRNL on experimentally determined corrosion rates, CFD model development with USC and UTRC's long term thermal cyclic corrosion rates and corrosion system mechanisms.

- **Subtask 3.3.1:** Predict the corrosion resistance in the molten salts from  $E_{\text{corr}}$  and  $I_{\text{corr}}$  using thermodynamic modeling. The corrosion resistance is evaluated from the  $E_{\text{corr}}$  and  $I_{\text{corr}}$  for the molten salt and alloy system. The resistance value is calculated for each temperature at fixed salt and alloy compositions and for various corrosion environments. The calculated resistance value  $R$  is obtained from the slope of  $E_{\text{corr}}$  vs  $I_{\text{corr}}$  plot. The predicted  $i_{\text{corr}}$  value can be expressed as the equation  $I_{\text{corr}} = -K \cdot (\Delta G^\circ - RT \ln a) / (nF \cdot R)$ .
- **Subtask 3.3.2:** Prediction of suitable corrosion inhibitors and corrosion resistant surface coatings for the container materials and molten salt system. The Gibbs energy minimization approach will be adopted in predicting suitable corrosion inhibitors and corrosion resistant surface coatings for the molten salt system as a function of temperature, composition and static and dynamic corrosion environment.
- **Subtask 3.3.3:** Prediction of corrosion rates. Corrosion rates will be predicted from the predicted  $I_{\text{corr}}$  using Gibbs energy expressions as proposed in sub task 3.3.1. The corrosion rate at a specific temperature is dependent on the corrosion current  $I_{\text{corr}}$ . The predicted corrosion rate at a specific temperature can be determined as a function of Gibbs energy equation:  $r = A \cdot \Delta G_T$ . The  $A$  is derived for specific composition, temperature and corrosion environment. Thus the corrosion rate can be predicted using Gibbs energy minimization method for molten salt systems.
- **Milestone (Task 3.3.1):** Thermodynamic prediction of the corrosion resistance for container materials exposed to various molten salts at temperatures within the window of operation for HOT HTF systems. The predicted values will be in agreement with the experimentally determined values to within +/- 5%.
- **Milestone (Task 3.3.2):** The changes in  $E_{\text{corr}}$  and  $I_{\text{corr}}$  compared with base cases will be evaluated when: corrosion inhibitors are added to the molten salt, reducing agents are added to the salt, or when coatings are applied to alloys.
- **Milestone (Task 3.3.3):** Corrosion rates will be calculated for molten salt and container material systems based on thermodynamic principles. The corrosion rates will be calculated from thermodynamics and will be used to refine CFD modeling of corrosion in

static and flow systems. The predicted values will be in agreement with the experimentally determined values to within +/- 5%.

#### **Task 3.4: Impurity Qualification Testing in Advanced HOT HTFs**

Impurities and corrosion inhibiting additives will be added to baseline high-purity HOT molten salts in coupon immersion tests to determine the impact of impurities on material's corrosion behavior. As a minimum, six coupons of each type will be tested and the statistically relevant data (means, standard deviations, upper and lower bound values) will be reported. Experiments under this task will investigate the long-term stability of corrosion inhibitors undergoing thermal cycling and experiencing thermal gradients. High-purity molten salt will be used to isolate the effect of impurities and prevent coupling with thermal cycling and thermal gradients in the corrosion rate. Industry experiences and codes and standards requirements indicate that materials with maximum corrosion rates below 3 mpy are recommended and materials with corrosion rates above 20 mpy are not recommended. For our qualification testing, our target maximum allowable corrosion rate will be set at  $\leq 3$  mpy.

- Subtask 3.4.1: Impurity long-term qualification testing for HOT HTFs performed under isothermal and thermal cycling conditions. For qualification testing, a target maximum allowable corrosion rate will be set at  $\leq 3$  mpy.
- Subtask 3.4.2: Physics-probabilistic-based model for predicting service lifetime considering the effects of temperature cycling and presence of impurities. The epistemic uncertainties of the Arrhenius parameters (pre-exponential factor and the activation energy) will be propagated in the predictive model using Monte Carlo sampling (MCS) or the Latin Hypercube sampling (LHS) techniques. As a result, the predicted corrosion rate will be generated as a probability distribution (in the form of a probability density function as well as cumulative function) with a mean and a standard deviation. The prediction will be at 95% confidence. The mean, upper bound and lower bound values of the corrosion rate will be compared with the experimentally measured value at a given time (t).
- Subtask 3.4.3: Identification of degradation mechanisms and mitigation methods. Examples of the proposed risk mitigation methods that will be investigated include: the addition of corrosion inhibitors and the use of protective surface coating on the containment material.
- **Milestone (Task 3.4):** By the end of this reporting period, the following milestones will be delivered: 1) Results of tests performed to characterize the impact of impurities on corrosion rates in the selected containment materials [Task 3.4.1]. 2) Physics-probabilistic models to predict weight loss by corrosion. The model parameters will be estimated empirically based on the tests performed under Task 3.4.1. Also, model predictions will account for the parameters' uncertainty [Task 3.4.2]. 3) Demonstration of effectiveness of proposed risk mitigation methods for the identified materials degradation/corrosion mechanisms [Task 3.4.3]. The maximum allowable corrosion rate will be  $\leq 3$  mpy.

#### **Final Project Technical Report:**

**The final deliverables at the end of this project will be documented in a final technical report that documents all the milestones listed under the three Budgetary Periods 1 to 3.**

Changes to the target numerical values for any milestone, including those indicated to be adjusted based upon modeling outputs or other learning throughout the course of the phase, must receive DOE concurrence in order to be altered to a value other than what is listed in this document. Without DOE concurrence, the original target value remains the milestone and therefore the go/no-go criteria by which the project will be evaluated for continuation.

As a result of the go/no-go, stage-gate, or continuation reviews, DOE may, at its sole discretion, make any of the following determinations: (1) continue to fund the project, depending on the availability of appropriations; (2) recommend specific direction or redirection of work under the project; (3) place a hold on the project pending further supporting data, funding, or to evaluate other projects concurrently; or (4) stop funding the project due to noncompliance, insufficient progress, inadequate business plan, schedule slip, change in strategic direction, or other factors.

**Patents and Publications:** File patents for relevant intellectual property. Results of research published in high-visibility, high-impact, peer-reviewed journal(s). All publications resulting from the funded research are required to include an acknowledgement that the work was supported by the U.S. Department of Energy, SunShot Initiative, under the specific award number.

#### References

1. Olson, L.C., et al., *Journal of Fluorine Chemistry*, 2009. 130(1): p. 67-73.
2. Williams, D.F., *Assessment of Candidate Molten Salt Coolants for the NGNP/NHI Heat-Transfer Loop*, D.o. Energy, Editor. 2006. p. 44.
3. MacPherson, ORNL-2626, 1958.
4. Williams, D.F., L. Toth, and K. Clarno, *Assessment of Molten Salt Coolants for the Advanced High-Temperature Reactor*, D.o. Energy, Editor. 2006.

**Contract Work Authorization**

**No. HQ1001-0-SR**

**Project Title: Energy Employees Occupational Illness Compensation  
Program (EEOICPA)**

Project Number: 2013-HS-2001036

WORK AUTHORIZATION

U.S. DEPARTMENT OF ENERGY  
Management and Operating (M & O) Contract Work Authorization

1. INITIATOR(s): Pat Worthington HS-10 301-903-5926  
Name & Signature Organization Code Phone
2. PROJECT TITLE: Energy Employees Occupational Illness Compensation Program (EEOICPA) AC:
3. RESPONSIBLE PROGRAM SECRETARIAL OFFICE: Office of Health, Safety, and Security
4. RESPONSIBLE FIELD OFFICE: Savannah River
5. M & O CONTRACTOR NAME: Savannah River / 410225 / 410225 (SR - SRO)
6. WORK AUTHORIZATION NO: HQ1001 - 0 - SR

7. FUNDS HEREBY AUTHORIZED (WHOLE DOLLARS)

TOTAL BUDGET AUTHORITY: \$125,000.00

TOTAL BUDGET OUTLAY: \$125,000.00

B & R	Program	ORG	Transaction Type	Rev.	Date	Budget Authority	Budget Outlay
HQ1001000	3184701	HS-10	Fund Project from B&R	0	10/1/2012	\$125,000.00	\$125,000.00

8. PERFORMANCE PERIOD COVERED BY FUNDS: FROM: 10/1/2012 TO: 9/30/2013
9. WORK START DATE: 10/1/2012 10. EXPECTED COMPLETION DATE: TBD
11. FUTURE FUNDING PLANNED: To Be Determined

12. WORK AUTHORIZED:  
See attached Statement of Work.

13. WORK AUTHORIZATION OFFICIAL: Stephen Kirchhoff 9/28/12  
NAME AND SIGNATURE DATE
14. OPERATIONS OFFICE OFFICIAL: Flavio K. Nielsen 10/24/12
15. M & O CONTRACTOR OFFICIAL: Debra James 10/12/12
- HEADQUARTERS BUDGET POINT OF CONTACT: Debra James, 301-903-3465 9-24-12
- FIELD/CONTRACTOR POINT OF CONTACT: Marie Hov 10/24/12

**WAS Project No.: 2013-HS-2001036**

**Laboratory/Contractor: The Savannah River Site (CID#: 410225)**

**Laboratory/Contractor Contact: Regina Price**

**Phone: 803-952-6288**

**HS Program Contact: Greg Lewis Org: HS-14 Phone: 202-586-2784**

### **OVERALL PROJECT GOAL/OBJECTIVE:**

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA) establishes a program to provide compensation to current and former employees of the Department of Energy (DOE), its contractors and subcontractors, companies that provided beryllium to DOE, and atomic weapons employers (AWE's). Under EEOICPA, DOE is required to verify employment histories, provide medical records, and provide radiation dose records and other information pertinent to National Institute for Occupational Safety and Health (NIOSH) radiation dose reconstruction and Department of Labor (DOL) Subtitle B and Subtitle E case preparation for anyone who applies for compensation under EEOICPA.

### **FUNDING FOR THE FOLLOWING ACTIVITIES:**

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

**1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.**

- Work with corporate entities or unions to verify employment of former site workers.
- Complete all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

**2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.**

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

**3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.**

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.



**WAS Project No.: 2013-HS-2001036**

- **Complete declassification, as needed, of records required for the processing of claims forms.**
- 4) Perform other necessary EEOICPA related records work as needed.**
- 5) Maintain local records to track the activities conducted under EEOICPA.**

**FY 2013 DELIVERABLES:**

**DATES:**

**Provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:**

**15<sup>th</sup> of the following month**

- **HS-14 (Greg Lewis),**
- **HS-10 Budget Contact (Jeanette Yarrington)**
- **HS-81 Budget Contact (Debra James).**

**FY 2013 FUNDING FOR OCTOBER FINANCIAL PLAN:  
\$125,000**

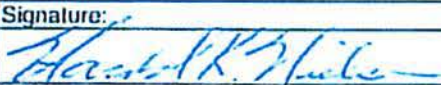
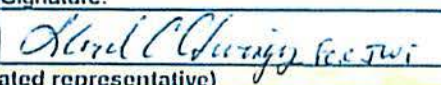
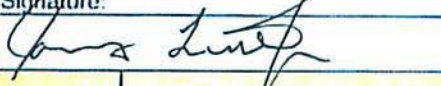
**\*The FY 2013 Annual Financial Plan (AFP) amount of \$500,000 is the amount allocated for a full year of EEOICPA activity. Your site should only obligate \$125,000 that is indicated in this Work Authorization. If your site has already obligated the full AFP amount and a contractor or contractors have exhausted funds, please contact the EEOICPA Program Manager (Gregory Lewis 202-586-2784) and the HS-10 Budget Contact (Jeanette Yarrington 301-903-7030) immediately.**

**Contract Work Authorization**

**No. SR071801**

**Project Title: Center for Sustainable Groundwater and Soil Solutions,  
Attenuation-Based Remedies for the Subsurface Applied Field  
Research Initiative (ABRS AFRI)**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>				<b>1b. Work Proposal Number</b>				
Center for Sustainable Groundwater and Soil Solutions: Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI)				DE-AC09-08SR22470 - SR071801				
<b>2. Headquarters Program Point of Contact</b>								
Name: Mark Gilbertson		Organization Code: EM-10, Office of Site Restoration			Phone: 202-586-5042 E-mail: mark.gilbertson@em.doe.gov			
<b>3. Headquarters Budget Point of Contact</b>								
Name: Jeffrey McMillan		Organization Code: EM-61, Office of Budget			Telephone: 301-903-7701 E-mail: jeffrey.mcmillan@em.doe.gov			
<b>4. Responsible Program</b>				<b>5. Responsible Secretarial Officer</b>				
Office of Environmental Management				Tracy P. Mustlin Phone: 202-586-7709 Routing: EM-1				
<b>6. Responsible Field Organization</b>								
U.S. Department of Energy, Savannah River Operations								
<b>7a. Site and Facility Management Contractor</b>				<b>7b. Contractor Point of Contact</b>				
Savannah River Nuclear Solutions, LLC				Name: John W. Temple      Telephone No. (803) 952- 7210				
<b>8. Work Authorization Number</b>				<b>9. Revision Number</b>				
DE-AC09-08SR22470 - SR071801				0				
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>								
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.								
<b>Budget and Reporting Code:</b>		<b>Previous:</b>		<b>Change:</b>		<b>Current:</b>		
See Table in Statement of Work		S0		S0 140,000		S 140,000.00		
<b>11. Performance Period Covered by Funds</b>				<b>12. Work Start Date</b>		<b>13. Expected Completion Date</b>		
EY4049110		To: September 30, 2013		From: Oct. 1, 2012		To: Sept. 30, 2013		
<b>14. Statement of Work (Includes attachments)</b>								
<b>NEEDS STATEMENT:</b>								
The objective of the Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) at the Savannah River Site is to develop and bring to maturity science based approaches and associated tools to clean up sites contaminated with combinations of metals, radionuclides, and recalcitrant organic compounds. Without these approaches and tools many contaminated sites in the DOE complex will be unable to achieve acceptable end-states.								
	<b>Fund</b>	<b>Year</b>	<b>Reporting Entity</b>	<b>Program</b>	<b>B&amp;R</b>	<b>Project</b>	<b>PBS</b>	<b>Amount (\$k)</b>
	01250	2013	410003	1110676	EY4049110	0003925	SR071801	\$ 140,000.00
<b>15. DOE Budget Official</b>								
Name (typed):			Signature:			Date:		
Harold K. Nielsen						10/22/12		
<b>16. Contractor's Authorized Representative</b>								
Name (typed):			Signature:			Date:		
John Temple						10/24/12		
<b>17. DOE Contracting Officer (or delegated representative)</b>								
Name (typed):			Signature:			Date:		
Jim Lovell						10/25/12		

## Technical Task Plan

### NEEDS STATEMENT:

The objective of the Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) at the Savannah River Site is to develop and bring to maturity science based approaches and associated tools to clean up sites contaminated with combinations of metals, radionuclides, and recalcitrant organic compounds. Without these approaches and tools many contaminated sites in the DOE complex will be unable to achieve acceptable end-states.

### BACKGROUND AND PURPOSE:

Groundwater contamination plumes with toxic metals and/or radionuclides are present at the majority of DOE complex facilities. These plumes have reached up to a mile in length at some sites and discharge to surface water exposure points (e.g., Hanford, Savannah River Site and Oak Ridge). Remediation of these groundwater units to negotiated end-states is required to meet federal and state regulations. The F-Area groundwater contaminant plume at the Savannah River Site is the primary field research site of the ABRS AFRI. Contaminants being addressed at this site are uranium, strontium-90, iodine-129, and tritium. SRNL and SRS are designated as the lead for the EM-12 funded ABRS AFRI because:

- SRNL and the Savannah River Nuclear Solutions Area Completion Projects have a decades long history of working together to develop and deploy innovative technical approaches to achieving desired end-states at contaminated sites
- SRNL was a key collaborator in development of the in situ remediation at the F-Area plume that allowed the abandonment of the pump-and-treat system, moving the site closer to end-state goals in a more cost effective and efficient way
- The desired end-state at F-Area will be met in phases that are specified in the SRS RCRA Permit (2009) that also encourages continued development and deployment of innovative technologies to achieve the end-state
- Successful applied research conducted at this AFRI will provide the means of achieving the end-state specified in the RCRA permit, as well as being widely applicable across the DOE complex

Applied science at the ABRS AFRI is directed at five program areas – Understanding the System, Sampling and Characterization Approaches and Tools, Decision-Making Tools, Enhanced Attenuation Technologies, and Long-Term Monitoring Strategies and Tools.

Advancements achieved at the ABRS AFRI work in conjunction with those achievements realized at the Hanford and Oak Ridge AFRIs as well as the Advanced Simulation Capability for Environmental Management (ASCEM) Initiative to make up the applied science portfolio established within the EM-12 Soil and Groundwater Remediation Program. Specifically, the data-rich and mature nature of the SRS F-Area site provides a great opportunity for testing ASCEM developed concepts.

**ABRS AFRI GOALS**

As stated in the ABRs AFRI Strategic Plan, the Initiatives goals are:

- Develop tools and approaches for attenuation-based remedies and integrate them into the regulatory framework established by the US EPA and ITRC.
- Develop characterization and monitoring tools that focus on the geochemical properties that control contaminant fate and transport, facilitate evaluation on the field-scale, and are inexpensive and easy to use.
- Develop approaches that will optimize the number of locations and the number of samples and measurements required to achieve an acceptable level of uncertainty in decision making.
- Develop remediation technologies that will effectively and efficiently attenuate contaminants and result in their long-term stabilization.
- Through a collaboration of applied and basic research provide the technically defensible underpinnings for approaches, tools and technologies to implement attenuation-based remedies leading to completion of remediation activities for contamination of groundwater by metals and radionuclides.
- Transfer the ABRs AFRI products to site owners, regulators and other members of the communities of practice to foster usage by the DOE community, as well as the national community.

**AFRI COLLABORATORS**

DOE Office of Science funded Sustainable Systems Scientific Focus Area at LBNL is the main collaborator providing funding independent of this AFRI. Other collaborators include:

Interstate Technology & Regulatory Council  
North Carolina State University  
GSI Environmental, LLC  
Oregon State University  
Sandia National Laboratory  
Pacific Northwest National Laboratory  
Technical Assistance Collaborators TBD

**2013 TECHNICAL APPROACH****R&D Area 1: Understanding the System (200K)****Task 1.1: Phase II of Understanding Aquifer Heterogeneity with the Reactive Facies Approach**

Phase I of Understanding Heterogeneity with the Reactive Facies Approach focused on the upper aquifer at the F-Area Applied Field Research Site. Reactive facies proved to be a valuable construct for understanding geochemical heterogeneity in this relatively simple system. The lower aquifer is more complex and the degree of heterogeneity more representative of aquifers across the DOE complex. Phase I was completed in collaboration with the Science Focus Area (SFA) Plume Challenge at LBNL. Phase II began in FY11 but was interrupted by a funding hiatus in FY12. The activities of Phase II will be resumed in collaboration with LBNL to develop the concept of reactive facies into a more general approach to aquifer heterogeneity that can be applied across the DOE complex. The general approach to aquifer heterogeneity, based on reactive facies, will ultimately transfer to ASCEM allowing inclusion of a powerful means of accounting for subsurface heterogeneity in modeling.

***Sub-tasks***

- 1.1.1 Sampling and analysis of existing lower aquifer cores by high vertical resolution x-ray fluorescence and acid-base titrations; providing samples to LBNL for mineralogical and surface chemistry analysis
- 1.1.2 Continued analysis of sample textures by optical microscopic image analysis
- 1.1.3 Borehole flow-meter tests at two wells to obtain a vertical profile of aquifer flow properties



**R&D Area 2: Characterization (100K)**

**Task 2.1: Supporting the development of Risk based end states: Indicators of systemic changes that predict likely changes to mobility of stabilized contaminants (100K).** Seepines are the endpoint of the kinetic source term for metals and radionuclides. They become part of the source term because the relative abundance of organic matter and sudden changes in "master variable" gradients cause sorption or precipitation of contaminants. Even after eliminating contaminant flux into these zones they may continue to release contaminants to the associated stream. Understanding the factors that control this release is critical to establishing a path toward an acceptable end state, developing a timeline to reach that end state, and providing a basis for long-term monitoring. Consistent with the ABRIS AFRI Strategic Plan, this task will provide baseline data for understanding the processes controlling contaminant release from seepines and hyporheic zones and the effects of boundary conditions, such as fluctuations in water table, on these processes. The seepine at the F-Area Field Research Site will be the focus of these initial studies. These studies will advance the capability of ASCM products to incorporate the dynamic processes occurring at seepines and hyporheic zones. This task will leverage support from the SRNS Environmental Compliance & Area Completion Projects division. The results of this activity will support end state monitoring initiatives at SRS as well as the Oak Ridge and Hanford sites, as well as other sites within the larger DOE complex.

***Sub-task***

- 2.1.1** Establish correlations between variation in master variables and contaminant attenuation/release in reactive facies at the seepine

**R&D Area 3: Enhanced Attenuation (300K)****Task 3.1: Enhanced Attenuation of Uranium and <sup>129</sup>I by Humic Acid**

Uranium and <sup>129</sup>I are primary contaminants of concern at the F-Area Applied Field Research Site. Both are also of concern at Hanford and uranium is a concern across the DOE complex. Bench-scale studies by Lawrence Berkeley National Laboratory showed that humic acid strongly binds uranium at mildly acidic pH and potentially binds <sup>129</sup>I. This suggests humic acid would be an ideal enhanced attenuation amendment for use for hot-spot treatment at the F-Area Applied Field Research site where both contaminants are present in acidic groundwater. It would also be applicable to a wide variety of other DOE sites. Field tests and optimization of this technology are required to move it from basic science to deployment.

***Sub-tasks***

- 3.1.1** Column studies to optimize use of humic acid at the F-Area Field Research Site  
**3.1.2** Field test of humic acid technology for uranium and <sup>129</sup>I remediation at the F-Area Field Research Site using single well push-pull type tests deployed by direct push methods

**Task 3.2: Monitoring of the Biostimulation Site for Remediation of Uranium**

In 2010 Arcadis began a small pilot demonstration of uranium and other radionuclide removal from groundwater at the F-Area Applied Field Research site. The project funded by DOE-EM involved injection of molasses into the subsurface to create a zone of reducing conditions designed to force precipitation of uranium and <sup>99</sup>Tc by converting them to their less soluble reduced forms. Funding to Arcadis from DOE-EM ended in FY2012. The purpose of the test was to evaluate whether immobilization of uranium and <sup>99</sup>Tc by creation of a zone of reduced iron minerals is sustainable for long periods in an oxygenated aquifer. The period of funding to Arcadis was long enough to demonstrate that reducing conditions were created by the molasses injection. It was not long enough to determine whether the reducing zone will remain or will quickly become re-oxidized accompanied by remobilization of uranium and <sup>99</sup>Tc. Additional monitoring of the reduced zone is important to ensure the goals of the initial funding are realized.

***Sub-tasks***

- 3.2.1** Sampling and analysis of groundwater from monitoring wells at the injection site  
**3.2.2** Push-pull tests to interrogate the reduced zone for mineralogy and stability of uranium and <sup>99</sup>Tc

**Task 4: Management of the Technical Assistance Program**

For over two decades, SRNL has managed a dynamic and efficient national program sponsored by DOE Office of Environmental Management that provides teams of technical experts with a broad experience base to recommend strategies to address DOE's challenging environmental problems when standard approaches haven't worked. The Technical Assistance program is managed through the Center for Sustainable Soil and Groundwater Solutions at SRNL. The Technical Assistance program organizes and manages small teams of nationally recognized experts in support of both DOE's smaller sites, such as Paducah, Portsmouth, Pinellas, Ashtabula, Fernald, Mound, and Kansas City Plant, and larger sites such as Oak Ridge, Los Alamos, Lawrence Livermore and Savannah River. Typically these teams visit the sites for a week to work with site problem holders to develop efficient and effective solutions to address their complex/difficult technical issues. This task provides funding for administration of the technical assistance program including helping site problem holders to develop technical needs statements, selection of the technical experts, contracting of non-SRNL participants, management of the team meeting, and preparation of the technical assistance team report.

**Contract Work Authorization**

**No. HO091101**

**Project Title: Advanced Simulation Capability for Environmental  
Management**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Advanced Simulation Capability for Environmental Management	<b>1b. Work Proposal Number</b> DE-AC09-08SR22470 - HO091101
---	---

<b>2. Headquarters Program Point of Contact</b>		
Name: Justin Marble	Organization Code: EM-12. Soil and Groundwater Remediation	Phone: 301-903-7210 E-mail: justin.marble@em.doe.gov

<b>3. Headquarters Budget Point of Contact</b>		
Name: Tracey Whipp	Organization Code: EM-61, Office of Budget	Telephone No. 301-903-7157

<b>4. Responsible Program</b> Office of Environmental Management	<b>5. Responsible Secretarial Officer</b> Tracy P. Mustin Phone: 202-586-7709 Routing: EM-1
---	--

<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations
--

<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC	<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952- 7210
---	--

<b>8. Work Authorization Number</b> DE-AC09-08SR22470 - HO091101	<b>9. Revision Number</b> 0
---	--------------------------------

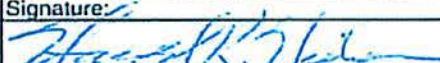
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			


<b>Budget and Reporting Code:</b> EY4049110	<b>Previous:</b> \$0	<b>Change:</b> \$0 <del>59,000.00</del>	<b>Current:</b> \$ 59,000.00
--	-------------------------	--	---------------------------------

<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: October 1, 2012	To: September 30, 2013	From: Oct. 1, 2012	To: Sept. 30, 2013

<b>14. Statement of Work (Includes attachments)</b>							
NEEDS STATEMENT: The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCEM). ASCEM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.							

Fund	Year	Reporting Entity	Program	B&R	Project	PBS	Amount (\$k)
01250	2013	410003	1110676	EY-4049110	0004017	HQ091101	\$ 59,000.00

<b>15. DOE Budget Official</b>	
Name (typed): Harold K. Nielsen	Signature:  Date: 10/23/12

<b>16. Contractor's Authorized Representative</b>	
Name (typed): John Temple	Signature:  Date: 10/24/12

U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title	1b. Work Proposal Number
Advanced Simulation Capability for Environmental Management	DE-AC09-08SR22470 - HO091101

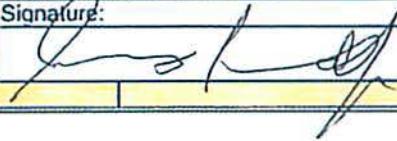
17. DOE Contracting Officer (or delegated representative)

Name (typed):

Signature:

Date:

Jim Lovett



10/25/12



## Technical Task Plan/ASCEM WBS 1-1

### NEEDS STATEMENT:

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCEM). ASCEM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### BACKGROUND AND PURPOSE:

EM-30's Office of Technology and Innovation Development (OTID) mission is to develop technologies that advance the safe and timely cleanup of legacy wastes and facilities from defense nuclear applications. This is the largest cleanup program in the world [1]. Although EM has made great progress toward this goal during the past twenty years, the remaining clean-up challenges are far more complex than those previously addressed. The role of the ASCEM initiative is to develop a transformational modeling approach and toolset to help EM better meet these challenges through improving its long-term risk and performance modeling capabilities and by characterizing and reducing the uncertainty associated with the resulting predictions for the types of EM clean-up sites illustrated in the figure below.



In a review of the EM technology roadmap, the National Research Council (NRC) of the National Academies provided advice to DOE-EM for addressing principal science and technology gaps. The NRC identified the principal technology gaps in the groundwater and soil remediation program and the major recommendation was on the development and use of advanced computational models to better understand subsurface flow and contaminant transport behavior in complex geological systems, and the long-term performance of engineered components and barriers, including cementitious materials in nuclear waste disposal facilities.

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 1	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
306		See Block 16C		13EM000343	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		CODE 00901	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
				<b>9B. DATED (SEE ITEM 11)</b>	
		x		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b>		<b>FACILITY CODE</b>			
798861048					

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to incorporate Contract Work Authorization numbers IN13021, HI-410003-13, and KP/W/SR1/3 (See attachments 1 through 3), hereto.

B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. Funds authorizations will continue to be allocated by separate modifications in accordance with the DOE-SR FIN PLANS. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.

C. The contract estimated value and all other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
John W. Temple, Director Contracts		Marie A. Garvin	
<b>15B. CONTRACTOR/OFFEROR</b>		<b>16B. UNITED STATES OF AMERICA</b>	
John W. Temple (Signature of person authorized to sign)		Marie A. Garvin (Signature of Contracting Officer)	
<b>15C. DATE SIGNED</b>		<b>16C. DATE SIGNED</b>	
11/15/2012		11/15/12	

**Contract Work Authorization**

**No. IN13021**

**Project Entitled: Energy and Threat**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Energy and Threat		<b>1b. Work Proposal Number</b> IN13021	
<b>2. Headquarters Program Point of Contact</b> Name: Sunny Slacum      Organization Code:      Phone: 202-586-8865			
<b>3. Headquarters Budget Point of Contact</b> Name: Debbra Dayton      Organization Code:      Telephone No. 202-586-4370			
<b>4. Responsible Program</b> Analysis, Investigations & Office of the SCIO		<b>5. Responsible Secretarial Officer</b> Office of Energy and Threat	
<b>6. Responsible Field Organization</b> U S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> IN13021		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b> NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b> GD2540980	<b>Previous:</b> \$0	<b>Change:</b> \$0 <i>\$189,468.00</i>	<b>Current:</b> \$189,468.00
<b>11. Performance Period Covered by Funds</b> From: October 1, 2012      To: September 30, 2013		<b>12. Work Start Date</b> <b>13. Expected Completion Date</b> From: Oct. 1, 2012      To: Sept. 30, 2013	
<b>14. Statement of Work (Includes attachments)</b> Statement of Work: Pending enactment of the FY 2,013 Energy and Water Appropriations bill, DOE will be operating under a Continuing Resolution (CR) (HJ. Res. 117). Funding distribution in the Approved Funding Program (AFP) for the CR will be 48.7% of a S* reduction from the FY 2012 enacted. Of that amount 100% will be allotted during the CR. The AFP will be adjusted in the future, as necessary, to reflect the enacted appropriation (or other appropriation legislation). Additional funding restrictions may be forthcoming and will be reflected in future work authorizations as required.			
<b>15. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: <i>Harold K. Nielsen</i>	Date: <i>10/23/12</i>	
<b>16. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: <i>John Temple</i>	Date: <i>10/26/12</i>	
<b>17. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Jim Lovett	Signature: <i>James Lovett</i>	Date: <i>11/6/12</i>	

**Attachment 2**

**Contract Work Authorization**

**No. HI-410003-13**

**Project Entitled: Fuel Cell Technologies Program**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Fuel Cell Technologies Program		<b>1b. Work Proposal Number</b> HI-410003-13	
<b>2. Headquarters Program Point of Contact</b> Name: Sunita Satyapal      Organization Code: EE-2H      Phone: 202-586-2336			
<b>3. Headquarters Budget Point of Contact</b> Name: Dinnis Lin      Organization Code:      Telephone No. 202-586-7285			
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> HI-410003-13		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b> NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b> Congressional Control Point: HT00000000	<b>Previous:</b> \$0	<b>Change:</b> \$1,695,000	<b>Current:</b> \$1,695,000.00
<b>11. Performance Period Covered by Funds</b> From: October 1, 2012      To: September 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012	<b>13. Expected Completion Date</b> To: Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b> Funding in the amount of \$1,695,000.00 is authorized by the Fuel Cell Technologies Program to perform work in the areas of: <ul style="list-style-type: none"> <li>• Production &amp; Delivery: Production of hydrogen from domestic resources with a focus on renewables and low carbon pathways, as well as delivery of hydrogen to meet costs of \$2 to \$4 per gallon gasoline equivalent</li> <li>• Hydrogen Storage: Storage of hydrogen on vehicles with secondary emphasis on early market applications.</li> <li>• Fuel Cells: Conversion of hydrogen and other fuels to electricity with a focus on transportation applications and secondary emphasis on stationary and portable power applications.</li> <li>• Technology Validation: Technical validation of systems in real-world environments.</li> <li>• Safety, Codes &amp; Standards: Safety-related research and facilitation of the development of model codes and standards for widespread domestic and international commercialization of hydrogen and fuel cell technologies.</li> <li>• Systems Analysis: Understanding the complex interactions among components, system costs, energy efficiency, environmental impacts, societal impacts, and system trade-offs.</li> <li>• Manufacturing: Research and development of manufacturing technologies and processes to lower the cost and improve the quality of hydrogen and fuel cell systems and components.</li> <li>• Market Transformation: Accelerates the commercialization and early adoption of hydrogen and fuel cell technologies.</li> </ul>			
<b>15. DOE Budget Official</b> Name (typed): Harold K. Nielsen      Signature: <i>Harold K. Nielsen</i> Date: 10/30/12			
<b>16. Contractor's Authorized Representative</b> Name (typed): John Temple      Signature: <i>John Temple</i> Date: 11/5/12			

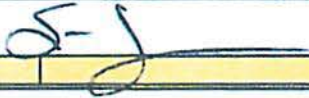


17. DOE Contracting Officer (or delegated representative)

Name (typed):

Jim Lovett

Signature:



Date:

10/31/12

U.S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
1a. Program Title: Fuel Cell Technologies Program		1b. Work Proposed Number (if applicable): AOP #FY12 SRNL PD, AOP #FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #SRNL FY12 SC8	
2. Headquarters Program Point of Contact:			
Name: Sunita Satyapal		Organization Code: EE-2H	Telephone No: (202) 586-2336
3. Headquarters Budget Point of Contact:			
Name: Dennis Lin		Organization Code:	Telephone No: (202) 586-7286
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Energy Efficiency and Renewable Energy		David Danielson	
6. Responsible Field Element:			
Savannah River Site Office			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact:	
Savannah River Nuclear Solutions, LLC		Name: Ted Motyka	Telephone No: (803) 726-3665
8. Work Authorization Number:			
H9-410003-13		0	
10. Funds Authorized:			
<u>Congressional Control Fund</u>	<u>Previous</u>	<u>Change</u>	<u>Current</u>
HT0000000	\$0.00	\$1,665,000.00	\$1,665,000.00
11. Performance period covered by funds:		12. Work Start Date:	13. Expected Completion Date:
From: 10/01/2012 To: 09/30/2013		10/01/2012	09/30/2013
14. Statement of Work:			
<p>Funding in the amount of \$1,665,000.00 is authorized by the Fuel Cell Technologies Program to perform work in the areas of:</p> <ul style="list-style-type: none"> <li>• <b>Production &amp; Delivery:</b> Production of hydrogen from domestic resources with a focus on renewables and low carbon pathways, as well as delivery of hydrogen to meet costs of \$2 to \$4 per gallon gasoline equivalent.</li> <li>• <b>Hydrogen Storage:</b> Storage of hydrogen on vehicles with secondary emphasis on early market applications.</li> <li>• <b>Fuel Cells:</b> Conversion of hydrogen and other fuels to electricity with a focus on transportation applications and secondary emphasis on stationary and portable power applications.</li> <li>• <b>Technology Validation:</b> Technical validation of systems in real-world environments.</li> <li>• <b>Safety, Codes &amp; Standards:</b> Safety-related research and facilitation of the development of model codes and standards for widespread domestic and international commercialization of hydrogen and fuel cell technologies.</li> <li>• <b>Systems Analysis:</b> Understanding the complex interactions among components, system costs, energy efficiency, environmental impacts, societal impacts, and system trade-offs.</li> <li>• <b>Manufacturing:</b> Research and development of manufacturing technologies and processes to lower the cost and improve the quality of hydrogen and fuel cell systems and components.</li> <li>• <b>Market Transformation:</b> Accelerates the commercialization and early adoption of hydrogen and fuel cell technologies.</li> </ul>			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
16. Work Authorization Program Officer:			

Name (typed): <b>Stella Satyapal, Program Manager</b>	Signature: <b>3f3e1cd7-ec3e-4823- 882d-8c2306cd1411</b>	Date: <b>9/22/2012</b>
<b>17. DOE Field Organization Official:</b>		
Name (typed): <b>Petruck Jackson</b>	Signature: <b>[Signature]</b>	Date: <b>10/19/12</b>
<b>18. Contractor's Authorized Representative:</b>		
Name (typed):	Signature: <b>[Signature]</b>	Date: <b>10/12/12</b>
<b>19. DOE Contracting Officer (or delegated representative):</b>		
Name (typed):	Signature:	Date:
* The work authorization number will consist of the program code, AFP code, and the fiscal year		

**FED 13-8012 - Oct**

**Attachment 3**

**Contract Work Authorization**

**No. KP/W/SRI/3**

**Project Entitled: Biological and Environmental Research**

**U.S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

1a. Project Title: <b>Biological and Environmental Research</b>		1b. Work Proposal Number (if applicable): <b>Various</b>	
2. Headquarters Program Point of Contact: Name: <b>Shariene Weatherwax</b>		Organization Code: <b>SC-23</b>	Telephone No.: <b>(301) 903-3251</b>
3. Headquarters Budget Point of Contact: Name: <b>Lisa Yost</b>		Organization Code: <b>SC-41.2</b>	Telephone No.: <b>(301) 903-2310</b>
4. Responsible Program: <b>Biological and Environmental Research</b>		5. Responsible Secretarial Officer: <b>Director, Office of Science</b>	
6. Responsible Field Organization: <b>Savannah River Operations Office</b>			
7a. Site and Facility Management Contractor: <b>Savannah River Nuclear Solutions, LLC</b>		7b. Contractor Point of Contact: Name: _____ Telephone No.: _____	
8. Work Authorization Number: <b>KPFW/ER/1/3</b>		9. Revision Number: <b>00</b>	
10. Funds Authorized (\$ in thousands): DIR Code: <b>KP</b> Previous: <b>\$0</b> Change: <b>+140</b> Current: <b>\$140</b>			
11. Performance Period Covered by Funds: From: <b>10/01/12</b> To: <b>09/30/13</b>		12. Work Start Date: <b>10/01/12</b>	13. Expected Completion Date: <b>09/30/13</b>
<p>14. Statement of Work:  <b>The FY 2013 Approved Funding Program provides funding to support Biological and Environmental Research activities, consistent with the Field Work Proposals (FWPs), as amended, and the monthly program guidance letters.</b></p> <p><b>The Office of Biological and Environmental Research (BER) is committed to conducting research in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public, and the environment is a direct and individual responsibility of all BER managers and BER-supported researchers and their staff. Funds provided by BER for research will be applied as necessary to ensure that all BER research activities are conducted safely and in an environmentally conscientious manner. Only research conducted in this way will be supported.</b></p>			
<p>15. Reporting Requirements (State reports, scientific and technical information or similar):  <b>It is recognized that for BER the research will be reported as publications in the open literature, copies of which will be made available to DOE.</b></p> <p><b>An annual progress report must be included with each FWP including projects which are terminating. Throughout the year each program must receive written documentation of significant accomplishments.</b></p>			
16. Work Authorization Program Official: Name (Type): <b>Shariene Weatherwax</b> Signature: <i>Shariene Weatherwax</i> Date: <b>10/02/2012</b>			
17. DOE Field Organization Official: Name (Type): <b>Patricia Jackson</b> Signature: <i>Patricia Jackson</i> Date: <b>10/09/2012</b>			
18. Contractor's Authorized Representative: Name (Type): <b>Manager, Contracts</b> Signature: <i>[Signature]</i> Date: <b>10/4/12</b>			
19. DOE Contracting Officer (or delegated representative): Name (Type): _____ Signature: <i>[Signature]</i> Date: <b>10/01/12</b>			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
307		11/16/2012		13EM000380	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		00901		<b>CODE</b>	
				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>		Net Increase:		\$49,449,847.28	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>				
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>				
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>				
	<b>D. OTHER (Specify type of modification and authority)</b>				
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)				
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
<b>A.</b> The purpose of this modification is to obligate funding to CLIN 0001, (Department of Energy (DOE)) in accordance with SRNS FINPLAN 2. Funds in the amount of \$49,449,847.28 are hereby obligated to CLIN 0001, thereby increasing it from \$4,058,423,430.08 to \$4,107,873,277.36.					
<b>B.</b> As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,458,449,956.25 to \$5,507,899,803.53.					
<b>C.</b> The contract estimated value and all other terms and conditions remain unchanged.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>			
		James Lovett			
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
				Signature on File	
(Signature of person authorized to sign)				(Signature of Contracting Officer)	
				11/16/2012	

**CONTINUATION SHEET**

 REFERENCE NO. OF DOCUMENT BEING CONTINUED  
 DE-AC09-08SR22470/307

PAGE 2 OF 2

 NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
308		11/16/2012		13EM000380	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		x			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b> <span style="float: right;">Net Increase: \$1,960,034.00</span>					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>				
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>				
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>				
	<b>D. OTHER (Specify type of modification and authority)</b>				
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)				
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
<b>A.</b> The purpose of this modification is to obligate funding to CLIN 0001, (Department of Defense (DOD)) in accordance with SRNS FINPLAN 2. Funds in the amount of \$1,960,034.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,107,873,277.36 to \$4,109,833,311.36.					
<b>B.</b> As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,507,899,803.53 to \$5,509,859,837.53.					
<b>C.</b> The contract estimated value and all other terms and conditions remain unchanged.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			Scott D. Langston		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				Signature on File	
				(Signature of Contracting Officer)	
				11/16/2012	



<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/308	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
					1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>		<b>5. PROJECT NO. (If applicable)</b>
309		11/16/2012		13EM000380		
<b>6. ISSUED BY</b>		<b>CODE</b>	<b>7. ADMINISTERED BY (If other than Item 6)</b>		<b>CODE</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>			<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421			(x)			
			<b>9B. DATED (SEE ITEM 11)</b>			
			x			
			<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
			DE-AC09-08SR22470			
			<b>10B. DATED (SEE ITEM 13)</b>			
			01/10/2008			
<b>CODE</b>		<b>FACILITY CODE</b>				
798861048						
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>						
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.						
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>				Net Increase: \$675,111.49		
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>						
<b>CHECK ONE</b>						
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
	D. OTHER (Specify type of modification and authority)					
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.						
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>						
A. The purpose of this modification is to obligate funding to CLIN 0001, (Reimbursable Work Commercial) in accordance with SRNS FINPLAN 2. Funds in the amount of \$675,111.49 are hereby obligated to CLIN 0001, thereby increasing it from \$4,109,833,311.36 to \$4,110,508,422.85.						
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,509,859,837.53 to \$5,510,534,949.02.						
C. The contract estimated value and all other terms and conditions remain unchanged.						
Continued ...						
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.						
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>			
			Scott D. Langston			
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>		<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)				Signature on File		11/16/2012
				(Signature of Contracting Officer)		

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1 CONTRACT ID CODE		PAGE OF PAGES 1 1	
2 AMENDMENT/MODIFICATION NO 310		3 EFFECTIVE DATE See Block 16C		4 REQUISITION/PURCHASE REQ NO. 13EM000450	
5 PROJECT NO. (If applicable)		7 ADMINISTERED BY (If other than Item 6)		CODE 00901	
6 ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A AMENDMENT OF SOLICITATION NO		9B DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A MODIFICATION OF CONTRACT/ORDER NO DE-AC09-08SR22470	
				10B DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.



**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

A. The purpose of this modification is to incorporate Contract Work Authorization (CWA) No. NE CR for Appropriation 89X0319, Project Title: FY 2013 Program Guidance - Fuel Cycle Technologies, attached hereto.

B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds for CWAs will continue to be allocated by separate modifications in accordance with the DOE-SR FIN PLANS. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.

C. The contract estimated value and all other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A NAME AND TITLE OF SIGNER (Type or print) L.C. Clevinger II Manager, Contracts		16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Marie A. Garvin	
15B CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C DATE SIGNED 11/29/12	16B UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C DATE SIGNED 11/29/12

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>				<b>1b. Work Proposal Number</b>	
FY 2013 Program Guidance - Fuel Cycle Technologies				NE CR for Appropriation 89X0319	
<b>2. Headquarters Program Point of Contact</b>					
Name: Robert Rova		Organization Code: NE-5		Telephone: 301-903-9096	
<b>3. Headquarters Budget Point of Contact</b>					
Name: Daphne M. Lugenbeel		Organization Code: NE-34		Telephone: 301-903-2251	
<b>4. Responsible Program</b>			<b>5. Responsible Secretarial Officer</b>		
Office of Nuclear Energy			John Herczeg		
<b>6. Responsible Field Organization</b>					
U.S. Department of Energy, Savannah River Operations					
<b>7a. Site and Facility Management Contractor</b>			<b>7b. Contractor Point of Contact</b>		
Savannah River Nuclear Solutions, LLC			Name: John W. Temple		Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b>			<b>9. Revision Number</b>		
NE CR for Appropriation 89X0319			1		
<b>10. Funds Authorized (See NOTE below)</b>					
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.					
<b>Budget and Reporting Code:</b>		<b>Previous:</b>		<b>Change:</b>	
See attached		\$0		\$1,755,670	
				<b>Current:</b>	
				\$1,755,670	
<b>11. Performance Period Covered by Funds</b>			<b>12. Work Start Date</b>		<b>13. Expected Completion Date</b>
From: Oct. 1, 2012		To: Mar. 27, 2013		From: Oct. 1, 2012	To: Sept. 30, 2013 <i>gws</i>
<b>14. Statement of Work (Includes attachments)</b>					
(See Attached)					
<b>15. DOE-SR Program Point of Contact</b>					
Name (printed):		Signature:		Date:	
JOHN CHRISTIAN		<i>John Christian</i>		11/14/2012	
<b>16. DOE Budget Official</b>					
Name (typed):		Signature:		Date:	
Harold K. Nielsen		<i>Harold K. Nielsen</i>		11/14/2012	
<b>17. Contractor's Authorized Representative</b>					
Name (typed):		Signature:		Date:	
John Temple		<i>John W Temple</i>		11/14/2012	
<b>18. DOE Contracting Officer (or delegated representative)</b>					
Name (typed):		Signature:		Date:	
Scott Langston		<i>SL</i>		11/29/12	



# memorandum

DATE October 10, 2012  
REPLY TO  
ATTN OF NE-5  
SUBJECT Fiscal Year (FY) 2013 Program Guidance--Fuel Cycle Technologies (FCT)  
TO David C. Moody III, Manager  
Savannah River Operations Office

This memorandum provides Office of Nuclear Energy (NE) guidance regarding FCT activities to be conducted by the Savannah River Site (SRS) and Savannah River National Laboratory (SRNL) in FY 2013. The funding provided for authorized FCT work scope activities performed by SRS/SRNL is \$3,583,000. This guidance is based on funding provided under the FY 2013 Continuing Resolution (CR) for Appropriation 89X0319 and reflected in the AF58 Budget and Reporting codes for the October/Initial Approved Funding Program (AFP). Under this AFP, approximately 49% is available for obligation while under the CR (6-months) ending March 27, 2013.

The FCT work packages defining the authorized work scope are maintained in the Program Information Collection System NE (PICSNE). PICSNE will be used for all monthly performance reporting to Headquarters Management including, but not limited to the status of: Level 2 milestones, deliverables, cost and schedule, Baseline Change Proposals, and carryover projections. The funding allocation by B&R code is shown in the attached table.

Funds covered by this guidance memorandum are not to be used for Headquarters programmatic support services. In addition, these funds are not to be used to hire support service contractors who are then used by Headquarters Federal personnel to perform specific tasks directed by a Federal employee.

Attached is a Work Authorization System form consistent with this program guidance. Please obtain the appropriate signatures and return a copy of the completed authorization to Daphne Miss-Lugenbeel, NE-34.

I appreciate your cooperation and support to ensure that this program is successfully carried out. The Headquarters point of contact for this work is Bob Rova, who can be contacted at (301)903-9096.



John W. Herczeg  
Associate Deputy Assistant Secretary  
for Fuel Cycle Technologies  
Office of Nuclear Energy

cc: M. Gonzalez, SR  
H. Gunter, SR  
William Summers, SRNL  
J. Aljayoushi, ID  
Brad Couch, INL (TIO)  
Sandra Knoll, INL (TIO)  
M. Brainard, PRC  
M. Venhuizen, ASTC

Fuel Cycle Technologies  
Fiscal Year (FY) 2013 Program Guidance  
Savannah River Operations Office  
Savannah River Site/Savannah River National Laboratory  
(S3,583,000)

Funding for FY 2013 is authorized as follows:

Control Account Title	BNR/CAM	SRNL	
<b>Separations Campaign - 1.2.03</b>	<b>AF5805</b>	<b>\$1,503,000</b>	4920 736,470 ✓
.03 - Sigma Teams - Minor Actinides	Bruce Moyer	\$318,000	
.04 - Fundamental S&M / M&S	Leigh Martin	\$140,000	
.05 - Advanced Separations Process Alternatives	Bob Jubin	\$200,000	
.07 - Waste Form Characterization	William Ebert	\$365,000	
.08 - Advanced Waste Form Processing	John Vienna	\$480,000	
<b>Used Fuel Disposition - 1.2.08</b>	<b>AF5865</b>	<b>\$1,225,000</b>	620,250 ✓
.02 - ST Field Demonstration	Ken Sorenson	\$100,000	
.04 - DR Thermal Load Management & Design Concepts	Kevin McMahon	\$65,000	
.05 - ST Storage and Transportation Experiments	Ken Sorenson	\$400,000	
.09 - DR Inventory	Kevin McMahon	\$200,000	
.12 - DR Low Level Radioactive Waste Disposition	Kevin McMahon	\$210,000	
.13 - ST Transportation	Ken Sorenson	\$150,000	
.16 - CX Storage, Transportation and Disposal Interface Analysis	John Wagner	\$100,000	
<b>NFST Planning Project - 1.2.09</b>	<b>AF5865</b>	<b>\$525,000</b>	237,250 ✓
.02 - SX Systems Analysis	John Wagner	\$375,000	
.12 - TR Operational	John Wagner	\$150,000	
<b>Program Assessment &amp; Coordination - 1.2.11</b>	<b>AF583203</b>	<b>\$75,000</b>	36,250 ✓
.02 - Program Support	Brad Couch	\$75,000	
<b>Fuel Cycle Options - 1.2.12</b>	<b>AF583202</b>	<b>\$255,000</b>	124,950 ✓
.02 - Evaluation and Screening	Roald Wigeland	\$75,000	
.03 - Integrated Fuel Cycle Analysis (IFCA)	Temu Taiwo	\$105,000	
.04 - Nuclear Energy Systems Analysis	Temu Taiwo	\$75,000	
<b>Totals</b>		<b>\$3,583,000</b>	\$1,755,670



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1 CONTRACT ID CODE		PAGE OF PAGES 1   2	
2 AMENDMENT/MODIFICATION NO 311		3 EFFECTIVE DATE 12/04/2012		4 REQUISITION/PURCHASE REQ NO 13EM000448	
5 PROJECT NO (If applicable)		7 ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
6 ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7 ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A AMENDMENT OF SOLICITATION NO		9B DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A MODIFICATION OF CONTRACT/ORDER NO DE-AC09-08SR22470	
				10B DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. **FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.** If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

Net Decrease: -\$8,041.34

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF
X	D. OTHER (Specify type of modification and authority) Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to de-obligate American Recovery and Reinvestment Act (ARRA) funds in the amount of \$8,041.34, in accordance with SRNS FINPLAN 4. This de-obligation consists of \$4,020.67 in direct/indirect costs and \$4,020.67 in fee. The de-obligation of fee funding results in the ARRA award fee pool being reduced by \$4,020.67 from \$87,471,189 to \$87,467,168.33.

B. Revised WAs are attached to reflect the de-obligation in each B&R Ceiling Cost for Projects A, B, C, and D.

C. The Contractor hereby releases the Government from any and all liability attributable to such facts or circumstances giving rise to the actions taken by and effected by this  
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

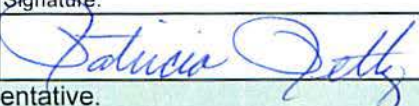
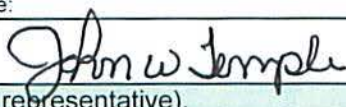

15A NAME AND TITLE OF SIGNER (Type or print) JOHN W TEMPLE DIRECTOR, CONTRACTS		16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Scott D. Langston	
15B CONTRACTOR/OFFEROR John W Temple (Signature of person authorized to sign)	15C DATE SIGNED 12/4/2012	16B UNITED STATES OF AMERICA [Signature] (Signature of Contracting Officer)	16C DATE SIGNED 12/04/2012

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/311	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC


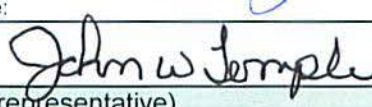

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	modification (modification 311).  D. All other terms and conditions remain unchanged. FOB: Destination				

U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:		1b. Work Proposal Number (if applicable):	
Project A (P&R Areas)		DE-AC-09-08SR22470	
2. Headquarters Program Point of Contact.			
Name:		Organization Code:	Telephone No.
3. Headquarters Budget Point of Contact.			
Name:		Organization Code:	Telephone No.
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Environmental Management			
6. Responsible Field Organization:			
U.S. Department of Energy, Savannah River Operations			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact.	
Savannah River Nuclear Solutions		Name:	Telephone No.
8. Work Authorization Number:		9. Treasury Accounting Symbol:	
ARRA-SRS-3-09-01 Rev. 13		TAS::89-09/10-0253::TAS Recovery Project A	
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.			
Budget and Reporting Code:	Prior	De-Obligation	Revised Ceiling
FD.05.11.00.0	\$ 416,711,472.35	\$ 5,408.00	\$ 416,706,064.35
From:	To:		
4/8/2009	6/30/2013	4/8/2009	6/30/2013
14. Statement of Work:			
No Change to Project Statement of Work			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
No Change to Reporting Requirements			
16. Work Authorization Program Official - Contracting Officer's Representative			
Name (typed):	Signature:	Date:	
17. DOE Budget Official.			
Name (typed):	Signature:	Date:	
Patricia Petty		12/4/2012	
18. Contractor's Authorized Representative.			
Name (typed):	Signature:	Date:	
John W. Temple		12/4/2012	
19. DOE Contracting Officer (or delegated representative).			
Name (typed):	Signature:	Date:	
Scott D. Langston		12-4-12	

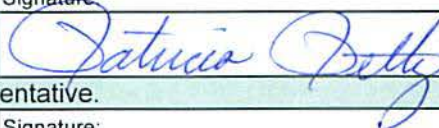
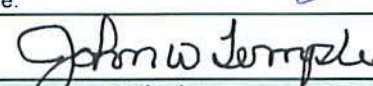



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:		1b. Work Proposal Number (if applicable):	
Project B (M&D Areas)		DE-AC-09-08SR22470	
2. Headquarters Program Point of Contact:			
Name:		Organization Code:	Telephone No.
3. Headquarters Budget Point of Contact:			
Name:		Organization Code:	Telephone No.
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Environmental Management			
6. Responsible Field Organization:			
U.S. Department of Energy, Savannah River Operations			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact:	
Savannah River Nuclear Solutions		Name:	Telephone No.
8. Work Authorization Number:		9. Treasury Accounting Symbol:	
ARRA-SRS-3-09-02 Rev. 10		TAS::89-09/10-0253::TAS Recovery Project B	
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.			
Budget and Reporting Code:	Prior	De-Obligation	Revised Ceiling
FD.05.12.00.0	\$23,530,068.83	\$60.42	\$23,530,008.41
From:	To:		
4/8/2009	9/30/2011	4/8/2009	9/30/2011
14. Statement of Work:			
No Change to Project Statement of Work			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
No Change to Reporting Requirements			
16. Work Authorization Program Official - Contracting Officer's Representative			
Name (typed):	Signature:	Date:	
17. DOE Budget Official.			
Name (typed):	Signature:	Date:	
Patricia Petty		12/4/2012	
18. Contractor's Authorized Representative.			
Name (typed):	Signature:	Date:	
John W. Temple		12/4/2012	
19. DOE Contracting Officer (or delegated representative).			
Name (typed):	Signature:	Date:	
Scott D. Langston		12-4-12	



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:				1b. Work Proposal Number (if applicable):			
Project C (Other Site Areas)				DE-AC-09-08SR22470			
2. Headquarters Program Point of Contact.							
Name:		Organization Code:		Telephone No.			
3. Headquarters Budget Point of Contact.							
Name:		Organization Code:		Telephone No.			
4. Responsible Program:				5. Responsible Secretarial Officer:			
Office of Environmental Management							
6. Responsible Field Organization:							
U.S. Department of Energy, Savannah River Operations							
7a. Site and Facility Management Contractor:				7b. Contractor Point of Contact.			
Savannah River Nuclear Solutions				Name:		Telephone No.	
8. Work Authorization Number:				9. Treasury Accounting Symbol:			
ARRA-SRS-3-09-03 Rev. 9				TAS::89-09/10-0253::TAS Recovery Project C			
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.							
Budget and Reporting Code:		Prior		De-Obligation		Revised Ceiling	
FD.05.13.00.0		\$235,738,869.79		\$454.99		\$235,738,414.80	
From:		To:		4/8/2009		9/30/2011	
4/8/2009		9/30/2011					
14. Statement of Work:							
No Change to Project Statement of Work							
15. Reporting Requirements (Status reports, scientific and technical information or similar):							
No Change to Reporting Requirements							
16. Work Authorization Program Official - Contracting Officer's Representative							
Name (typed):		Signature:			Date:		
17. DOE Budget Official							
Name (typed):		Signature:			Date:		
Patricia Petty					12/4/2012		
18. Contractor's Authorized Representative.							
Name (typed):		Signature:			Date:		
John W. Temple					12/4/2012		
19. DOE Contracting Officer (or delegated representative).							
Name (typed):		Signature:			Date:		
Scott D. Langston					12-4-12		



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:		1b. Work Proposal Number (if applicable):	
Project D (TRU and Solid Waste)		DE-AC-09-08SR22470	
2. Headquarters Program Point of Contact.			
Name:		Organization Code:	Telephone No.
3. Headquarters Budget Point of Contact.			
Name:		Organization Code:	Telephone No.
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Environmental Management			
6. Responsible Field Organization:			
U.S. Department of Energy, Savannah River Operations			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact.	
Savannah River Nuclear Solutions		Name:	Telephone No.
8. Work Authorization Number:		9. Treasury Accounting Symbol:	
ARRA-SRS-3-09-04 Rev. 13		TAS::89-09/10-0253::TAS Recovery Project D	
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.			
Budget and Reporting Code:	Prior	De-Obligation	Revised Ceiling
FD.05.30.00.0	\$720,201,615.20	\$2,117.93	\$720,199,497.27
From:	To:		
4/8/2009	<del>12/31/2013</del> <i>mm</i> 07/31/2013	4/8/2009	<del>12/31/2013</del> <i>mm</i> 07/31/2013
14. Statement of Work:			
No Change to Project Statement of Work			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
No Change to Reporting Requirements			
16. Work Authorization Program Official - Contracting Officer's Representative			
Name (typed):	Signature:	Date:	
17. DOE Budget Official			
Name (typed):	Signature:	Date:	
Patricia Petty	<i>Patricia Petty</i>	12/4/2012	
18. Contractor's Authorized Representative.			
Name (typed):	Signature:	Date:	
John W. Temple	<i>John W. Temple</i>	12/4/2012	
19. DOE Contracting Officer (or delegated representative).			
Name (typed):	Signature:	Date:	
Scott D. Langston	<i>S-D</i>	12-4-12	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
312		12/07/2012		13EM000523			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause H-28, Performance-Base Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the Performance Evaluation Measurement Plan (PEMP), for Savannah River Recovery Act Program, Revision 6, period August 1, 2010 through July 31, 2013, attached hereto.							
B. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/10/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1 CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2 AMENDMENT/MODIFICATION NO</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ. NO</b>	
313		12/10/2012		13EM000538	
<b>5 ISSUED BY</b>		<b>6 PROJECT NO (if applicable)</b>		<b>7 ADMINISTERED BY (if other than item 6)</b>	
CODE 00901		CODE 00901			
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8 NAME AND ADDRESS OF CONTRACTOR (No. , street, county, State and ZIP Code)</b>		<b>9A AMENDMENT OF SOLICITATION NO</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B DATED (SEE ITEM 11)</b>			
		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B DATED (SEE ITEM 13)</b>			
CODE 798861048		FACILITY CODE 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12 ACCOUNTING AND APPROPRIATION DATA (If required)</b>		Net Decrease:		-\$169,400.00	
See Schedule					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>	<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO IN ITEM 10A.</b>				
	<b>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>				
	<b>C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF</b>				
	<b>D OTHER (Specify type of modification and authority)</b>				
X	Clause I.53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)				
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
<b>14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)</b>					
A. The purpose of this modification is to de-obligate American Recovery and Reinvestment Act (ARRA) funds in the amount of (-\$169,400.00), in accordance with SRNS FINPLAN 5, Wind and Hydropower Technologies Program, Project entitled: Wind Turbine Drivetrain Research and Testing. Work Authorization WW-410003-20818-10, Revision 3 is attached, hereto.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$5,510,526,907.68 to \$5,510,357,507.68.					
C. All other terms and conditions remain unchanged. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>			
JOHN W TEMPLE DIRECTOR, CONTRACTS		JAMES LOVETT SAC, Aiken			
<b>15B CONTRACTOR/OFFEROR</b>		<b>15C DATE SIGNED</b>		<b>16B UNITED STATES OF AMERICA</b>	
John W Temple (Signature of person authorized to sign)		12/10/2012		12/10/2012	
				(Signature of Contracting Officer)	



<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/313	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/313	2	2

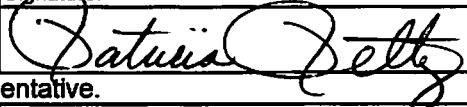
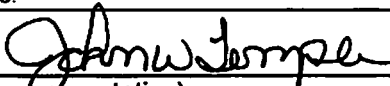
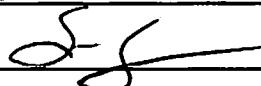
<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/313	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title:</b>		<b>1b. Work Proposal Number (if applicable):</b>	
2004580-Wind Turbine Drivetrain R&D and Testing		DE-AC-09-08SR22470	
<b>2. Headquarters Program Point of Contact.</b>			
Name:		Organization Code:	Telephone No.
<b>3. Headquarters Budget Point of Contact.</b>			
Name:		Organization Code:	Telephone No.
<b>4. Responsible Program:</b>		<b>5. Responsible Secretarial Officer:</b>	
Office of Energy Efficiency and Renewable Energy			
<b>6. Responsible Field Organization:</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor:</b>		<b>7b. Contractor Point of Contact.</b>	
Savannah River Nuclear Solutions		Name:	Telephone No.
<b>8. Work Authorization Number:</b>		<b>9. Treasury Accounting Symbol:</b>	
WW-410003-20818-10 Rev 3		TAS::89-09/10-0331::TAS Recovery Project Wind Turbine Drivetrain Research & Testing	
<b>10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.</b>			
Budget and Reporting Code:	Prior	De-Obligation	Revised Ceiling
EB2501030-05794-1004255	\$1,389,500.00	\$169,400.00	\$1,220,100.00
From:	To:		
5/14/2010	9/30/2012	5/14/2010	9/30/2012
<b>14. Statement of Work:</b>			
No Change to SOW			
<b>15. Reporting Requirements (Status reports, scientific and technical information or similar):</b>			
No Change to Reporting Requirements			
<b>16. Work Authorization Program Official - Contracting Officer's Representative</b>			
Name (typed):	Signature:	Date:	
<b>17. DOE Budget Official</b>			
Name (typed):	Signature:	Date:	
Patricia Petty		12/10/2012	
<b>18. Contractor's Authorized Representative.</b>			
Name (typed):	Signature:	Date:	
John W. Temple		12/10/2012	
<b>19. DOE Contracting Officer (or delegated representative).</b>			
Name (typed):	Signature:	Date:	
Scott D. Langston		12/10/2012	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
314		12/17/2012		13EM000573			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Contract Work Authorization numbers: 1) HQTD1001, for Waste Retrieval and Closure Technologies; 2) 410003, for Packaging and Certification Program and Packaging and Transportation Operations Support; 3) HQTD1000, for Technical Planning, Integration and Risk Management; 4), 11C-FY13, for SR-0011C NM Stabilization and Disposition - 2035; 5) 20-FY13, for SR-0020 Protective Forces - Savannah River; 6) 12-FY13, for SR-0012 SNF Stabilization and Disposition; 7) 14C-FY13, for SR Services & Contract Interface; 8) RH031-2013-SRNS, for Classification Resource; and 9) SR091701, for In Situ Decommissioning Technology Development and Demonstration, attached hereto.							
B. This modification formally incorporates the above referenced contract work Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		12/17/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>authorization as part of the contract. Funds previously allocated under FINPLANS #19, and #20 (FY 12), and FINPLAN #1 (FY 13) by separate modifications. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
				1		2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
315		12/18/2012		13EM000575			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$95,243,853.66	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorpoirate the following:							
(1) Obligate funding to CLIN 0001, (Department of Energy (DOE)) in accordance with SRNS FINPLAN 6.							
(2) Incorporate 14 Work Authorization(s), Attachment 1, hereto (80 pages).							
Funds in the amount of \$95,243,853.66 are hereby obligated to CLIN 0001, thereby increasing it from \$4,109,863,311.36 to \$4,205,107,165.02.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		12/18/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>the total amount of funds obligated to the contract from \$5,510,357,507.68 to %5,605,601,361.34.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
316		12/18/2012		13EM000575			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$4,327,670.00			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Reimbursable Work for Other Federal Agency (Largest Department of Defense (DOD)) in accordance with SRNS FINPLAN 6. Funds in the amount of \$4,327,670.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,205,107,165.02 to \$4,209,344,835.02.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,605,601,361.34 to \$5,609,929,031.34.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
317		12/18/2012		13EM000575			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421							
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$30,000.00	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Reimbursable Work for Commercial) in accordance with SRNS FINPLAN 6. Funds in the amount of \$30,000.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,209,344,835.02 to \$4,209,374,835.02.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,609,929,031.34 to \$5,609,959,031.34.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		12/18/2012	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
				1		2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
318		12/19/2012		13EM000613			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No Change							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to correct clerical error and/or administrative oversight under Modification 315, which recurs in Paragraph 14(A) of modifications 316 and 317. The last line of Paragraph 14(A) of each modification is hereby changed to reflect the correct total amount obligated to CLIN 0001 as cited below (incorrect total amount transferred for calculation of new total amount obligated, from previous funding obligation to CLIN 0001, reference Modification 309):  1) Modification 315, paragraph A, last line is changed to read "Funds in the amount of \$95,243,853.66 are hereby obligated to CLIN 0001, thereby increasing it from \$4,110,508,422.85 to \$4,205,752,276.51."							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		12/19/2012	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>2) Modification 316, pargarph A, last line is changed to read "Funds in the amount of \$4,327,670.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,205,752,276.51 to \$4,210,079,946.51.</p> <p>3) Modification 317, pargarph A, last line is changed to read "Funds in the amount of \$30,000.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,210,079,946.51 to \$4,210,109,946.51.</p> <p>The above changes correct clerical error and/or administrative error for claculation of the total value obligated to CLIN 0001 which caused a ripple effect to modifications 316 and 317. The total obligtion for the contract in Paragraph 14(B) is correct on all three (3) modifications.</p> <p>B. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
319		12/20/2012		13EM000638			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
No Change							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Contract Work Authorization No. HQTD1002 for Alternative Waste Pretreatment, see attachments 1, hereto.							
B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds were allocated by separate modifications in accordance with the DOE-SR FIN PLAN 3. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		12/20/2012	
				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2 AMENDMENT/MODIFICATION NO.</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO.</b>	
320		01/03/2013		13EM000690	
<b>5 PROJECT NO. (If applicable)</b>		<b>6 ISSUED BY</b>		<b>7 ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8 NAME AND ADDRESS OF CONTRACTOR (No. , street, county, State and ZIP Code)</b>		<b>9A AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B DATED (SEE ITEM 11)</b>			
		<b>10A MODIFICATION OF CONTRACT/ORDER NO</b>			
		DE-AC09-08SR22470			
		<b>10B DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12 ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change in accounting data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A</b>
X	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF</b>
X	<b>D. OTHER (Specify type of modification and authority)</b> Clause B-2.3 Total Available Fee (Restated ref Mod 286)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office

**14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

The purpose of this modification is to revise the Fee Table to coincide with the Contract Period of Performance (POP) through September 30, 2016, reference exercise of option, Modification No. 286, dated September 07, 2012. Accordingly, the Fee Table is realigned to reflect the Base Contract Period inclusive of the 38 Month POP, and restates the remaining options.

See page 2, attached hereto.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B CONTRACTOR/OFFEROR</b>	<b>15C DATE SIGNED</b>	<b>16B UNITED STATES OF AMERICA</b>	<b>16C DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	01/03/2013

**1. B-2.3 Total Available Fee**

- (a) The total available fee for the base period of the contract, beginning August 1, 2008, inclusive of the 38 month period of performance, with the remaining option period (if exercised) is shown below. The total available fee shall be made available in accordance with Section I Clause entitled, DEAR 970.5215-1 "Total Available Fee: Base Fee Amount and Performance Fee Amount." Since the total available fee for each period has been established below, there will be no annual negotiation of total available fee at the beginning of each fiscal year as contemplated in paragraph (b) of the above referenced clause.

<b>PERFORMANCE PERIOD</b>	<b>Total Available Fee</b>
<b>Base Contract Period Inclusive of 38 Month POP</b>	
<b>August 1, 2008 – January 31, 2009</b>	<b>\$10,325,707</b>
<b>February 1, 2009 – September 30, 2009</b>	<b>\$22,502,292</b>
<b>October 1, 2009 – September 30, 2010</b>	<b>\$50,354,780</b>
<b>October 1, 2010 – September 30, 2011</b>	<b>\$49,750,000</b>
<b>October 1, 2011 – September 30, 2012</b>	<b>\$48,950,000</b>
<b>October 1, 2012 – September 30, 2013</b>	<b>\$56,035,000</b>
<b>October 1, 2013 – September 30, 2014</b>	<b>\$46,535,000</b>
<b>October 1, 2014 – September 30, 2015</b>	<b>\$45,730,000</b>
<b>October 1, 2015 – September 30, 2016</b>	<b>\$44,930,000</b>
<b>Remaining Option Period</b>	
<b>October 1, 2016 – September 30, 2017</b>	<b>\$44,211,120</b>
<b>October 1, 2017 – July 31, 2018</b>	<b>\$39,363,880</b>
<b>Total Fixed and Available Fee</b>	<b>\$458,687,779</b>

**2. All other terms and conditions remain unchanged.**

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 321		3. EFFECTIVE DATE 01/17/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM000792	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
CODE 00901		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change in accounting data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

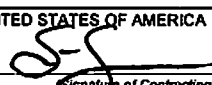
**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to incorporate Contract Work Authorization No. HQTD1000 Rev. 1, attached hereto.

B. The period of performance is extended to March 27, 2013. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.

C. The contract estimated value and all other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Scott D. Langston	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 01/17/2013



## Attachment 1

### Contract Work Authorization(s)

<b><u>Number</u></b>	<b><u>Project Title</u></b>	<b><u>No Pages</u></b>
HQTD1000 Rev. 1	Technical Planning, Integration and Risk Management	6

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Technical Planning, Integration and Risk Management		<b>1b. Work Proposal Number</b> HQTD1000																	
<b>2. Headquarters Program Point of Contact</b> Name: Steven P. Schnelder      Organization Code: EM-21      Telephone: 301-903-4307																			
<b>3. Headquarters Budget Point of Contact</b> Name: Connie Flohr      Organization Code: EM-61      Telephone: 301-903-0393																			
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Tracy P. Muslin Phone: 202-586-7709 Routing: EM-1																	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations																			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210																	
<b>8. Work Authorization Number</b> HQTD1000		<b>9. Revision Number</b> 1																	
<b>10. Funds Authorized</b> This is a Net \$0 revision by the Program Office to continue funding Statement of Work.																			
<b>Budget and Reporting Code:</b> EY4049110	<b>Previous:</b> \$0 B 185,000	<b>Change:</b> \$0	<b>Current:</b> \$185,000																
<b>11. Performance Period Covered by Funds</b> From: Oct. 1, 2012      To: <del>Sep 30, 2013</del> <i>Mar 27, 2013</i> <i>SR</i>		<b>12. Work Start Date</b> <b>13. Expected Completion Date</b> From: Oct. 1, 2012      To: <del>Sep 30, 2013</del> <i>Mar 27, 2013</i> <i>SR</i>																	
<b>14. Statement of Work (Includes attachments)</b> Provide support to EM-21, Office of Tank Waste Management in the development and deployment of technological solutions to EM cleanup problems to include support of the Tank Waste Technical Development and Deployment Program, as well as providing a technical integration function, i.e. providing a rapid response to emergent HQ requests and the issuance of report and technical reviews as needed. (See attached documentation)																			
<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Fund</th> <th>Year</th> <th>Reporting Entity</th> <th>Program</th> <th>B&amp;R</th> <th>Project</th> <th>PBS</th> <th>Amount (\$k)</th> </tr> </thead> <tbody> <tr> <td>01250</td> <td>2013</td> <td>410003</td> <td>1110670</td> <td>EY4049110</td> <td>0004281</td> <td>HQ-TD-1003</td> <td>\$ 185,000.00</td> </tr> </tbody> </table>				Fund	Year	Reporting Entity	Program	B&R	Project	PBS	Amount (\$k)	01250	2013	410003	1110670	EY4049110	0004281	HQ-TD-1003	\$ 185,000.00
Fund	Year	Reporting Entity	Program	B&R	Project	PBS	Amount (\$k)												
01250	2013	410003	1110670	EY4049110	0004281	HQ-TD-1003	\$ 185,000.00												
<b>15. DOE-SR Program Point of Contact</b>																			
Name (printed): <i>Patrick R Jackson</i>		Signature: <i>Patrick R. Jackson</i> Date: <i>1/10/13</i>																	
<b>16. DOE Budget Official</b>																			
Name (typed): Harold K. Nielsen		Signature: <i>Harold K. Nielsen</i> Date: <i>1/11/13</i>																	
<b>17. Contractor's Authorized Representative</b>																			
Name (typed): John Temple		Signature: <i>John W Temple</i> Date: <i>1/14/13</i>																	
<b>18. DOE Contracting Officer (or delegated representative)</b>																			
Name (typed): Scott Langston <i>JEFFREY C. ARMSTRONG</i>		Signature: <i>Jeffrey C. Armstrong</i> Date: <i>1/15/2013</i>																	

*SR 1/17/2013*

**OFFICE OF TANK WASTE & NUCLEAR MATERIALS (EM-20)**  
**WORK AUTHORIZATION / TASK CHANGE REQUEST (TCR)**

Project Number :	HQ/TD1000	Date:	12 Sept. 2012	AFP Change Month:	Oct. 2012
Project Title:	Technical Planning, Integration and Risk Management				
Site /Contractor:	SRNL/PNNL	Waste Processing Area: WP-0			

Contract Number if other than National Laboratory or DOE site contractor:

Name of Principal Investigator: Jeff Griffin, Savannah River National Laboratory, (803) 725-1343, jeff.griffin@srl.doe.gov  
 Bill Wilmarth, Savannah River National Lab, 803-725-1727, bill.wilmarth@srl.doe.gov  
 Reid Peterson, Pacific Northwest National Laboratory, 509-376-5340, reid.peterson@pnl.gov

Name of Budget Analyst at site: Leza Roberson, SRS, (803)952-9196, leza.roberson@srs.gov  
 Kathy Harris, PNNL (509) 375-6340, kathy.harris@pnl.gov

New BA (\$K) Requested	Prior Funding (\$K) in this FY	Total Uncosted (\$K) as of Beginning of this FY	Total Available Funding (\$K) including this request (add first three columns)
\$ 260 K distributed as follows: a. \$185 K to SRNL b. \$75 K to PNNL Subject to final appropriations.	\$ 0 K	\$ 0 K	\$260 K

**Spend Plan for Total Annual Funding (use actual costed funds for previous quarters)**

1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY	3 <sup>rd</sup> Quarter of FY	4 <sup>th</sup> Quarter of FY	Projected uncosted at the end of this FY
\$ 260 K	\$ 0 K	\$ 0 K	\$ 0 K	\$ 0 K

**Funding Codes (To be Completed by Budget Office)**

Fund	Year	Allottee	Reporting Entity	SQL	Object Class	Program	Project	Amount
See attached								

Short Description of Work Scope Authorized /Changed for input in AFP:

To accomplish its mission, DOE-EM Office of Tank Waste Management (EM-21) relies on support from the various national laboratories such as SRNL and PNNL. These labs assist EM-21 in the development and deployment of technological solutions to EM cleanup problems to include support of the Tank Waste Technical Development and Deployment (TTDD) Program as well as providing a technical integration function, i.e. providing a rapid response to emergent HQ requests and the issuance of reports and technical reviews as needed.

Transfer \$ 260 K as follows: \$ 185 K to SRNL and \$ 75 K to PNNL subject to final appropriations.

Submitted by:	Gary R. Osterman	Date:	12 Sept 12
Headquarters Project Manager (Please Print & Sign)			
Approved by:	[Signature]	Date:	9/12/12
Office Director (Please Print & Sign)			
Approved by:		Date:	
Deputy Assistant Secretary, EM-20			
Submitted to:	Kenneth D. Pahl	Date:	9/12/12
EM-HQ Budget Analyst for TDD to complete AFP change			

[Signature]  
Jeffrey L. McMillen

9/13/2012

## Funding Codes

[illegible]

## Technical Task Plan – Technical Planning, Integration and Risk Management (WP-0)

### EDS STATEMENT:

EM Office of Tank Waste Management manages the EM Tank Waste Technology Development and Deployment (TDD) program that conducts applied research and technology development, demonstration and deployment. This office is chartered to manage the radioactive tank waste that is stored at the three major EM sites (Hanford, SRS, and Idaho). The objective of the program is to reduce the technical risk and uncertainty in the Department's tank waste disposition projects. To reduce those risks and uncertainties, the program will provide technical solutions where none exist, improved solutions that enhance safety and working efficiency, or technical alternatives that reduce programmatic risks (cost, schedule, or effectiveness).

### BACKGROUND AND PURPOSE:

EM will be assisted in carrying out these activities by the Savannah River National Laboratory (SRNL), which will provide programmatic support to DOE-EM and assist in mitigating technical and programmatic risks.

### TECHNICAL APPROACH:

#### Summary of the Approach

Programmatic tasks in support of the Office of Waste Processing include support of the Tank Waste Technical Development and Deployment (TDD) Program. This support includes coordinating teams of National Lab, DOE staff and staff of selected directed institutions to assist the development of the technical scope to be accomplished in each research area, recommending the performing organizations and recommending appropriate funding levels. Assess progress of the performing organizations and make recommendations to EM-21 for project direction. This also includes assuring that the international program is aligned with the Technical Project Area. Furthermore this supports reporting on project costs and schedules, as well as the annual reports and highlights, technical reviews and other reports as needed, e.g. the Report to Congress.

### SCHEDULE / MILESTONES:

Activity	Date
BD	TRD

**ENDING PLAN****Monthly Spending Plan for FY2013 (\$K)**

	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sept 13	Carryover	Total
	37	188	0	0	0	0	0	0	0	0	0	0	260

**Signature and Approvals**

Program Manager:



Deputy Director:

**Budget:**

sk	Budget FY13 (\$K)
Support the EM-21 Tank Waste TDD Program	\$ 260 K

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1   2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
322		01/18/2013		13EM000814	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>		<b>9B. DATED (SEE ITEM 11)</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		X		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change in accounting data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
X	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
X	<b>D. OTHER (Specify type of modification and authority)</b> Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to incorporate the appropriation and funds statement for funds associated with contract work authorization incorporated under modifications 301, 305, 306, 314, and 319. The statement cited below is applicable for all contract work authorization with completion dates beyond March 27, 2013; with the exception of WAs with prior year funds. Reference Appropriation Act for Fiscal Year 2013:

"Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013."  
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		Scott D. Langston	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	01/18/2013



CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/322	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>If by oversight a modification is not noted that incorporated a contract work authorization for FY 2013, and the expected completion date was addressed for the complete period of performance, anticipated for the project the above statement is applicable, with exception to WAs with prior year funds.</p> <p>B. The contract estimated value and all other terms and conditions remain unchanged</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
323		01/24/2013		13EM000831			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				Net Increase: \$33,621,029.29			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Department of Energy) in accordance with SRNS FINPLAN 7. Funds in the amount of \$33,621,029.29 are hereby obligated to CLIN 0001, thereby increasing it from \$4,210,109,946.51 to \$4,243,730,975.80.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,609,959,031.34 to \$5,643,580,060.63.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		01/24/2013	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
324		01/24/2013		13EM000831			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$839,259.54	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Reimbursable Work Commercial) in accordance with SRNS FINPLAN 7. Funds in the amount of \$839,259.54 are hereby obligated to CLIN 0001, thereby increasing it from \$4,243,730,975.80 to \$4,244,570,235.34.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,643,580,060.63 to \$5,644,419,320.17.							
C. The contract estimated value and all other terms and conditions remain unchanged Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		01/24/2013	
				(Signature of Contracting Officer)			

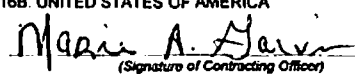
NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
325		01/24/2013		13EM000831			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:		-\$25,388.35	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001, (Reimbursable Work for Other Federal Agency) in accordance with SRNS FINPLAN 7. Funds in the amount of (-\$25,388.35) are hereby obligated to CLIN 0001, thereby decreasing it from \$4,244,570,235.34 to \$4,244,544,846.99.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$5,644,419,320.17 to \$5,644,393,931.82.							
C. The contract estimated value and all other terms and conditions remain unchanged Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		01/24/2013	

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      1	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
326		01/30/2013			
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>			
		CODE 00901			
		<b>7. ADMINISTERED BY (If other than Item 6)</b>			
		CODE 00901			
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		x			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
No Change in accounting data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Clause B-2.3 Total Available Fee (Correct Mod 320 ref M015)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
A. The purpose of this modification is to revised the Fee Table under Modification No. 320. The Fee Table do not reflect changes mandated by Mod M015 which added a month to the original contract period. The first entry in the Fee Table under Performance Period should read "August 1, 2008 - February 28, 2009," and the second entry should read "March 1, 2009-September 30, 2009."					
B. Page 2 of Modification No. 320, is revised to reflect the correct period of performance based on the extension, under Modification No. M015 see Page 2, attached hereto.					
C. All other terms and conditions remain unchanged.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			Marie A. Garvin		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b>	
				01/30/2013	



**1. B-2.3 Total Available Fee**

- (a) The total available fee for the base period of the contract, beginning August 1, 2008, inclusive of the 38 month period of performance, with the remaining option period (if exercised) is shown below. The total available fee shall be made available in accordance with Section I Clause entitled, DEAR 970.5215-1 "Total Available Fee: Base Fee Amount and Performance Fee Amount." Since the total available fee for each period has been established below, there will be no annual negotiation of total available fee at the beginning of each fiscal year as contemplated in paragraph (b) of the above referenced clause.

<b>PERFORMANCE PERIOD</b>	<b>Total Available Fee</b>
<b>Base Contract Period Inclusive of 38 Month POP</b>	
<b>August 1, 2008 – February 28, 2009</b>	<b>\$10,325,707</b>
<b>March 1, 2009 – September 30, 2009</b>	<b>\$22,502,292</b>
<b>October 1, 2009 – September 30, 2010</b>	<b>\$50,354,780</b>
<b>October 1, 2010 – September 30, 2011</b>	<b>\$49,750,000</b>
<b>October 1, 2011 – September 30, 2012</b>	<b>\$48,950,000</b>
<b>October 1, 2012 – September 30, 2013</b>	<b>\$56,035,000</b>
<b>October 1, 2013 – September 30, 2014</b>	<b>\$46,535,000</b>
<b>October 1, 2014 – September 30, 2015</b>	<b>\$45,730,000</b>
<b>October 1, 2015 – September 30, 2016</b>	<b>\$44,930,000</b>
<b>Remaining Option Period</b>	
<b>October 1, 2016 – September 30, 2017</b>	<b>\$44,211,120</b>
<b>October 1, 2017 – July 31, 2018</b>	<b>\$39,363,880</b>
<b>Total Fixed and Available Fee</b>	<b>\$458,687,779</b>

**2. All other terms and conditions remain unchanged.**

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 327		3. EFFECTIVE DATE 02/11/2013		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No changes in Accounting Data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause H-28, Performance-Based Incentives						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Performance Evaluation Measurement Plan (PEMP), Revision 2, for the period October 1, 2012 through September 30, 2013. Previous edition of the FY 2013 PEMP is hereby superseded and replaced with Revision 2, effective February 11, 2013.							
B. All other terms and conditions remain unchanged.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		02/14/2013	
				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 328		3. EFFECTIVE DATE 02/14/2013		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470  10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) No Change in accounting data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) X Section I, DEAR 970.5211-1 Work Authorization (May 2007)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to incorporate Contract Work Authorization numbers 110003-TechSupt for SRNL Technical Support; and AOP #WWPP-FY12, for Wind and Hydropower Technologies Program, Agreement #25716 (See attachments 1 and 2), hereto.					
B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. Fund authorizations were provided under separate modifications under FINPLAN #7, FY 2013, and FINPLAN #18, FY 2012. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.					
C. The contract estimated value and all other terms and conditions remain unchanged.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				16C. DATE SIGNED 02/14/2013 (Signature of Contracting Officer)	

## Contract Work Authorizations

<u>Attachment</u>	<u>Work Proposal Number</u>	<u>Project Title</u>
1	110003-TechSup	SRNL Technical Support (1 page)
2	AOP #WWPP-FY12	Wind and Hydropower Technical Program, Agreement #25716 (2 pages)

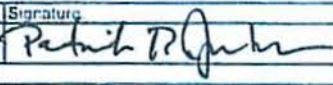
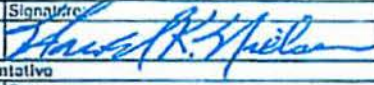
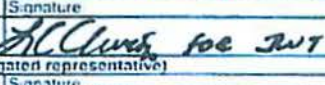

## Attachment 1

No. 110003-TechSupp

Project Title: SRNL Technical Support



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> SRNL Technical Support		<b>1b. Work Proposal Number</b> 110003-TechSupt	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b> Maureen O'Dell	<b>Organizational Code</b> EM-11	<b>Telephone</b> 301-903-4638	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b> Tracey Whipp	<b>Organizational Code</b> EM-61	<b>Telephone</b> 301-903-7157	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Tracy Mustin	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		<b>Name</b> John W Temple	<b>Telephone No.</b> (803) 952- 7210
<b>8. Work Authorization Number</b> 410003-TechSupt		<b>9. Revision Number</b>	
<b>10. Funds Authorized (See Note below)</b> NOTE: Reference Appropriation Act for Fiscal Year 2013. Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution, (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity, or (3) March 27, 2013. This is a distribution by the Program Office funds to continue funding Statement of Work			
<b>Date</b>	<b>Budget and Reporting Code</b>	<b>Project Value</b>	<b>Previous:    Change:    Current:</b>
Nov. 8	EY804910K	4074	\$ 35,000.00
Nov. 8	EY804910K	4202	\$ 50,000.00
Dec. 7	EY804910K	4074	\$ 70,000.00
Jan. 4	EY804910K	4074	\$ 45,000.00
Jan. 4	EY804910K	4202	\$ 15,000.00    \$ 165,000.00
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/2012    To: <del>9/30/2013</del> 3/27/13		From: 10/1/2012	To: <del>9/30/2013</del> 3/27/13
<b>14. Statement of Work (Includes attachments)</b> The Office of Environmental Compliance authorizes the Savannah River National Laboratory to provide support comment resolution and updates to the technical standards, guides, and order in preparation for final issuance, follow NRC, IAEA, and other external developments that could impact the order; and develop text to address new information from external developments for the technical standards, guides, and order. Additionally, the Office of Environmental Compliance authorizes the Savannah River National Laboratory to provide technical support as needed to address waste management issues around the complex, review and provide comments on regulatory activities and follow LFRG related developments from external organizations, support new activities in preparation for implementation of the update to DOE Order 435.1, and participate in and provide briefings for LFRG meetings.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b> Patrick R. Jackson	<b>Signature:</b> 	<b>Date:</b> 01/29/13	
<b>16. DOE-SR Field Budget Official</b>			
<b>Name (typed):</b> Harold K. Nielsen	<b>Signature:</b> 	<b>Date:</b> 1/31/13	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b> John Temple	<b>Signature:</b> 	<b>Date:</b> 2/11/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b> Scott Langston	<b>Signature:</b> 	<b>Date:</b> 2/11/13	

## Attachment 2

No. AOP #WWPP-FY12

Project Title: Wind and Hydropower Technologies,  
Program Agreement #25716

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Wind and Hydropower Technologies Program Agreement 026716		<b>1b. Work Proposal Number</b> AOP BWPP-FY12	
<b>2. Headquarters Program Point of Contact</b> Name: Joe Zayas      Organization Code: EE-20      Telephone: 202-287-8201			
<b>3. Headquarters Budget Point of Contact</b> Name: Timothy Murphy      Organization Code: EE-38      Telephone: (202) 586-7125			
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 852-7210	
<b>8. Work Authorization Number</b> WW-410003-13		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: No additional funds are required to complete the Statement of Work. This program is already funded. Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2015."			
<b>Budget and Reporting Code:</b> 022501010	<b>Previous:</b> \$250,000 \$0	<b>Change:</b> \$0	<b>Current:</b> \$250,000 \$0
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> From: Oct. 1, 2012      To: Sep 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012      To: Sep 30, 2013	
<b>13. Expected Completion Date</b> From: Oct. 1, 2012      To: Sep 30, 2013			
<b>14. Statement of Work (includes attachments)</b> Funding in the amount of \$0.00 is authorized by the Wind and Hydropower Technologies Program to perform work in the area of WE 1.1.1 Clemson Grid Simulator Development Support SRNL will provide technical support to the Clemson DTTP/EGSL to (1) complete the data system for the 15 MW dynamometer at the DTTP, and (2) preparation of the design and purchase specifications of the control system for the EGSL.			
<b>15. DOE-ER Program Point of Contact</b>			
Name (typed): Patrick R. Jackson	Signature: <i>Patrick R. Jackson</i>	Date: 01/29/13	
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nilsen	Signature: <i>Harold K. Nilsen</i>	Date: 1/31/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: <i>John Temple</i>	Date: 2/1/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: <i>Scott Langston</i>	Date: 2/11/13	



Electronically signed by Jose Zayas  
 fdc52c39-909e-4866-b377-d5754ccb29aa  
 Program Manager: Zayas, Jose  
 Site Officer:  
 Laboratory/Contractor:  
 Contracting Officer:

**MEMORANDUM FOR:** Terry Michalske, Savannah River Nuclear Solutions  
 Savannah River National Laboratory (SRNL)

**SUBJECT:** FY 2012 Wind and Hydropower Technologies Program Funding for Savannah River National Laboratory (SRNL)

In accordance with the approved Energy Efficiency and Renewable Energy Wind and Hydropower Technologies Program FY 2012 spend plan, funding has been planned for obligation and expenditure in accordance with program guidance as indicated below. Required changes can be completed via an Agreement Funds Transfer coordinated in the Corporate Planning System (CPS). The laboratory receiving the funds detailed in this letter will be responsible for reporting all funding obligations and cost to headquarters. The laboratory recipient must maintain obligations and cost data at the agreement level, and the data must be made available to Energy Efficiency and Renewable Energy.

**PROGRAM GUIDANCE:**

**Funding Summary**

B&R code	BA (\$)
EB2501010-05450-1004253	\$413,000.00


*Funding Action # 40538 (Regular, Operating), HQ POC: Derby, Michael R. , Field POC: Nichols, Ralph*

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #25716 - WE 1.1 Wind Turbine Testing Facilities (SRNL)	EB2501010-05450-1004253	\$250,000.00

**Description of Work:** Agreement: 25716; WE 1.1 Wind Turbine Testing Facilities (SRNL)

SRNL will support Clemson University in the development of the 15MW Hardware in the Loop Grid Simulator project by assisting with the control system and data acquisition architecture and real time digital simulator specification and design:

- Control system architecture, specification (SRNL and Clemson)
- Real Time Digital Simulator specification and manufacturer interface (SRNL and Clemson)
- Data acquisition system design and specification (SRNL)
- Control system mockup and programming (SRNL)
- IT technical support to ensure cyber and data security (SRNL)
- Software/Hardware design of the interface between the RTDS and the Power Amplification System (SRNL)

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1 1									
2 AMENDMENT/MODIFICATION NO. 329		3 EFFECTIVE DATE 02/15/2013		4 REQUISITION/PURCHASE REQ. NO. 13EM001024		5 PROJECT NO. (If applicable)								
6 ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7 ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901								
8 NAME AND ADDRESS OF CONTRACTOR (No. , street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x) 9A AMENDMENT OF SOLICITATION NO										
				9B DATED (SEE ITEM 11)										
				X 10A MODIFICATION OF CONTRACT/ORDER NO DE-AC09-08SR22470										
				10B DATED (SEE ITEM 13) 01/10/2008										
CODE 798861048		FACILITY CODE												
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>														
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.														
12 ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$960,248.22														
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;"><b>CHECK ONE</b></td> <td>A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A</td> </tr> <tr> <td></td> <td>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</td> </tr> <tr> <td></td> <td>C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF</td> </tr> <tr> <td>X</td> <td>D OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)</td> </tr> </table>							<b>CHECK ONE</b>	A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A		B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)		C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF	X	D OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)
<b>CHECK ONE</b>	A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A													
	B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)													
	C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF													
X	D OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)													
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return 0 copies to the issuing office														
14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)														
A. The purpose of this modification is to obligate funding to CLIN 0001 (Department of Energy), in accordance with SRNS FINPLAN 8. Funds in the amount of \$960,248.22 are hereby obligated to CLIN 0001, thereby increasing it from \$4,244,544,846.99 to \$4,245,505,095.21.														
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,644,393,931.82 to \$5,645,354,180.04.														
C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination														
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect														
15A NAME AND TITLE OF SIGNER (Type or print)				16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)										
				Angela S. Morton										
15B CONTRACTOR/OFFEROR		15C DATE SIGNED		16B UNITED STATES OF AMERICA		16C DATE SIGNED								
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		02/15/2013								

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2 AMENDMENT/MODIFICATION NO</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO</b>	
330		02/15/2013		13EM001024	
<b>6 ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		CODE 00901	
<b>8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421					
				<b>9B DATED (SEE ITEM 11)</b>	
		<b>x</b>		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12 ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
				Net Increase: \$3,115,977.68	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>					
<b>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43 103(b)</b>					
<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>					
<b>D OTHER (Specify type of modification and authority)</b>					
X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office					
<b>14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
A. The purpose of this modification is to obligate funding to CLIN 0001 (Reimbursable Work Commercial), in accordance with SRNS FINPLAN 8. Funds in the amount of \$3,115,977.68 are hereby obligated to CLIN 0001, thereby increasing it from \$4,245,505,095.21 to \$4,248,621,072.89.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,645,354,180.04 to \$5,648,470,157.72.					
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			Angela S. Morton		
<b>15B CONTRACTOR/OFFEROR</b>		<b>15C DATE SIGNED</b>		<b>16B UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				<b>16C DATE SIGNED</b>	
				02/15/2013	



## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/330PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO 331		3. EFFECTIVE DATE 02/19/2013		4. REQUISITION/PURCHASE REQ NO 13EM001024	
5. PROJECT NO (If applicable)		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$212,007.10					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to incorporate a net de-obligate of funds to CLIN 0001, in the amount of (-\$212,007.10), in accordance with SRNS FINPLAN 8 as cited below:					
1) Department of Defense \$38,883.97					
2) Department of Home Land Security (-\$188,678.62)					
3) Departement of Justice (-\$62,212.45)					
Funds in the amount of (-\$212,007.10) are hereby de-obligated from CLIN 0001, thereby decreasing it from \$4,248,621,072.89 to \$4,248,409,065.79.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print) John W. Temple, Director Contracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) James Lovett			
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED 2/19/2013		16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	
				16C. DATE SIGNED 02/19/2013	
NSN 7540-01-152-8070 Previous edition unusable					
STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243					

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/331PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$5,648,470,157.72 to \$5,648,258,150.62.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 332		3. EFFECTIVE DATE 02/19/2013		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change to accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to revised Modification 322. Paragraph A, second line as read, "The statement cited below is applicable for all contract work authorizations with completion dates beyond March 27, 2013; with the exception of WAs with prior year funds," is hereby changed to read "The statement cited below is applicable for all contract work authorizations with completion dates beyond March 27, 2013, with the exception of WAs issued by NNSA and/or with prior year funds.							
B. The contract estimated value and all other terms and condition remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		02/19/2013	
				(Signature of Contracting Officer)			

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 333		3. EFFECTIVE DATE 02/19/2013		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
CODE 00901		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No change in the accounting and appropriation data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) DEAR 970.5243-1 Changes (Dec 2000)

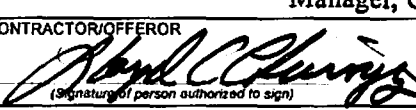
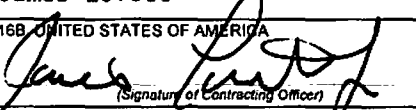
**E. IMPORTANT:** Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to incorporate Clause H-68, Report and Approval Requirements for Conference Related Activities, into Contract No. DE-AC09-08SR22470, as prescribed in the Department of Energy Memorandum "Updated Guidance on Conference-Related Activities and Spending." Clause H-68 is set forth on page 2 of 2 herein.

B. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) L.C. Clevinger II Manager, Contracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) James Lovett	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 2/28/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 3-28-13



**H-68 REPORT AND APPROVAL REQUIREMENTS FOR CONFERENCE RELATED ACTIVITIES**

The contractor is required to report and obtain approval from the contracting officer before incurring any costs associated with conference related activities. Conference expenses are defined as follows:

Conference expenses are defined as all direct and indirect conferences cost paid by the Government, whether paid directly by agencies or reimbursed by agencies to contractors, travelers or others associated with the conference, but do not include funds paid under Federal grants to grantees. Conference expenses include any associated authorized travel and per diem expenses, rental of rooms for official business, audiovisual use, light refreshments, registration fees, ground transportation, and other expenses as defined by the Federal Travel Regulations (FTR). All outlays for conference preparation and planning should be included, but employee time for conference preparation should not be included. The FTR provides some examples of direct and indirect conference costs included within conference expenses. See 41 CFR 301-74.2. Conference expenses should be net of any fees or revenue received by the agency or contractor through the conference.

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 334		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
X		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate Contract Work Authorization number 89X0319 - FY 2013 Program Guidance - Fuel Cycle Technologies (See attachment 1), hereto.							
B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. Fund authorizations were provided under separate modification under FINPLAN #1, FY 2013. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.							
C. The contract estimated value and all other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		02/25/2013	
				(Signature of Contracting Officer)			

## AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1 CONTRACT ID CODE

PAGE OF PAGES

1

2

2. AMENDMENT/MODIFICATION NO.

335

3. EFFECTIVE DATE

02/26/2013

4. REQUISITION/PURCHASE REQ. NO.

5. PROJECT NO. (If applicable)

6. ISSUED BY

CODE

00901

Savannah River Operations  
U.S. Department of Energy  
Savannah River Operations  
P.O. Box A  
Aiken SC 29802

7. ADMINISTERED BY (If other than Item 6)

CODE

00901

Savannah River Operations  
U.S. Department of Energy  
Savannah River Operations  
P.O. Box A  
Aiken SC 29802

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC  
Attn: LLOYD CLEVINGER  
203 LAURENS ST SW  
AIKEN SC 298012421

(X) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MODIFICATION OF CONTRACT/ORDER NO.  
DE-AC09-08SR22470

10B. DATED (SEE ITEM 13)

01/10/2008

CODE 798861048

FACILITY CODE

## 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

No Change to accounting data

## 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

X Section I, DEAR 970.5211-1 Work Authorization (May 2007)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

A. The purpose of this modification is to incorporate Contract Work Authorization numbers:  
1) SR071103, for Risk Management Review & Assessment-D&D Design Guidance; 2) SCW-0052, for Collaborative Research: The Importance of Organo-lodate & lodate in Iodine-127, 129 Speciation, Mobility, & Microbial Activity in Groundwater at DOE Sites; 3) HQ1001-0-SR, for Energy Employees Occupational Illness Compensation Program (EEOICPA); 4) SCW-0091, for Fate of Uranium During Transport Across the Groundwater-Surface Water Interface; and 5) SR071801-2-13, for Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at SR, attached hereto.

B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds were previously allocated under FINPLANS #2, Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

James Lovett

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

02/26/2013

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/335PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>#7 and #8 (FY 13) by separate modifications. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				



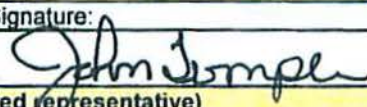
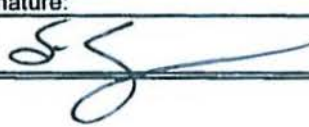
## Contract Work Authorizations

<u>Project Title</u>	<u>Number</u>	<u>Pages</u>
1) Risk Management Review & Assessment-D&D Design Guidance	SR071103	1
2) Collaborate Research: The Importance Of Organo-Iodate & Iodate in Iodine-127, 129 Speciation, Mobility & Microbial Activity in Groundwater at DOE Sites	SCW-0052	2
3) Energy Employees Occupational Illness Compensation Program (EEOICPA)	HQ1001-0-SR	5
4) Fate of Uranium During Transport Across The Groundwater-Surface Water Interface	SCW-0091	1
5) Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at SR	SR0718012-13 <i>cor 02/27/13</i>	4

## **Attachment 1**

**Project Title: Risk Management Review & Assessment-D&D Design Guidance**

FIN PLAN #2

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Risk Management Review & Assessment-D&D Design Guidance		SR071103	
<b>2. Headquarters Program Point of Contact</b>			
Name: Gary Peterson		Organization Code: EM-21	Phone: 301-903-1619 E-mail: gary.peterson@em.doe.gov
<b>3. Headquarters Budget Point of Contact</b>			
Name: Jeffrey McMillan		Organization Code: EM-61	Telephone: 301-903-7701 E-mail: jeffrey.mcmillan@em.doe.gov
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Tracy P. Mustin	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
SR071103		0	
<b>10. Funds Authorized</b>			
Transfer of funds is between to projects; but within the same Budget & Reporting code EY4049130.			
<b>TCR:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
SR071203	\$ 310.00	\$ (310.00)	\$ -
SR071103	\$ -	\$ 310.00	\$ 310.00
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	
From: Oct 1, 2012      To: September 30, 2013		From: Oct. 1, 2012      To: Sept. 30, 2013	
<b>13. Expected Completion Date</b>			
Complete development of D&D design guidance.			
<b>14. Statement of Work (Includes attachments)</b>			
Complete development of D&D design guidance.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed):		Signature:	Date:
Patrick R. Jackson		 <small>APPROVED By Patrick R. Jackson at 12:00 pm, Feb 20, 2013</small>	February 20, 2013
<b>16. DOE Budget Official</b>			
Name (typed):		Signature:	Date:
Harold K. Nielsen			2/21/13
<b>17. Contractor's Authorized Representative</b>			
Name (typed):		Signature:	Date:
John Temple			2/21/13
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (printed):		Signature:	Date:
Scott Langston			2/24/13

## Attachment 2

**Project Title: Collaborate Research: The Importance of Organo -Iodate & Iodate in Iodine-127, 129 Speciation, Mobility & Microbial Activity in Groundwater at DOE Sites**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Collaborative Research: The Importance of Organo-Iodate & Iodate in Iodine-127, 129 Speciation, Mobility, & Microbial Activity in Groundwater at DOE Sites		<b>1b. Work Proposal Number</b> SCW-0052																									
<b>2. Headquarters Program Point of Contact</b> Name: Shariene Weatherwax      Organization Code: SC-23      Telephone: 301-903-3251																											
<b>3. Headquarters Budget Point of Contact</b> Name: Lisa Yost      Organization Code: SC-41.2      Telephone: 301-903-2310																											
<b>4. Responsible Program</b> Office of Science		<b>5. Responsible Secretarial Officer</b> Patricia Dehmer, Deputy Director for Science Programs																									
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations																											
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210																									
<b>8. Work Authorization Number</b> SCW-0052		<b>9. Revision Number</b> 0																									
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013. This is a distribution by the Program Office funds to continue funding Statement of Work. The attached budget detail and program comments relate to the January AFP recently submitted to the Chief Financial Officer by the Biological and Environmental Research program. In accordance with DOE Order 412.1a, the current FY 2013 Work Authorization for the Management and Operating (M&O) contract with the Savannah River Nuclear Solutions, LLC, continues to cover funding through the February AFP.																											
<b>Budget and Reporting Code:</b> KP170203	<b>Previous:</b> \$15,639	<b>Change:</b> \$49,639	<b>Current:</b> \$18,639																								
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> From: Oct. 1, 2012      To: Sep 30, 2013		<b>12. Work Start Date</b> From: Oct 1, 2012	<b>13. Expected Completion Date</b> To: Sep 30, 2013																								
<b>14. Statement of Work (Includes attachments)</b> Funds redirected from prior year uncosted balances within Environmental Remediation to support project SCW-0052 to continue funding Statement of Work.																											
<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Year</th> <th>B&amp;R</th> <th>Project</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>FY2007</td> <td>KP1302</td> <td>SCW-0044</td> <td>(8376)</td> </tr> <tr> <td>FY2009</td> <td>KP160401</td> <td>SCW-0091</td> <td>(4787)</td> </tr> <tr> <td>FY2009</td> <td>KP160401</td> <td>SCW-0044</td> <td>(6476)</td> </tr> <tr> <td>FY2007</td> <td>KP170203</td> <td>SCW-0091</td> <td>8376</td> </tr> <tr> <td>FY2009</td> <td>KP170203</td> <td>SCW-0091</td> <td>10263</td> </tr> </tbody> </table>				Year	B&R	Project	Amount	FY2007	KP1302	SCW-0044	(8376)	FY2009	KP160401	SCW-0091	(4787)	FY2009	KP160401	SCW-0044	(6476)	FY2007	KP170203	SCW-0091	8376	FY2009	KP170203	SCW-0091	10263
Year	B&R	Project	Amount																								
FY2007	KP1302	SCW-0044	(8376)																								
FY2009	KP160401	SCW-0091	(4787)																								
FY2009	KP160401	SCW-0044	(6476)																								
FY2007	KP170203	SCW-0091	8376																								
FY2009	KP170203	SCW-0091	10263																								

<b>15. DOE-SR Program Point of Contact</b>		
Name (printed):	Signature	Date
Patrick R. Jackson		February 14, 2013
<b>16. DOE Budget Official</b>		
Name (typed):	Signature:	Date:
Harold K. Nielsen		2/21/13
<b>17. Contractor's Authorized Representative</b>		
Name (typed):	Signature:	Date:
John Temple		2/21/13
<b>18. DOE Contracting Officer (or delegated representative)</b>		
Name (typed):	Signature:	Date:
Scott Langston		2/21/13

**Attachment 3**

**Project Title: Energy Employees Occupational Illness Compensation Program  
(EEOICPA)**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Energy Employees Occupational Illness Compensation Program (EEOICPA)		<b>1b. Work Proposal Number</b> HQ1001-0-SR		
<b>2. Headquarters Program Point of Contact</b>				
Name: Greg Lewis	Organization Code: HS-14	Phone: 202-586-2784		
<b>3. Headquarters Budget Point of Contact</b>				
Name: Debra James	Organization Code: HS-10	Telephone No. 301-983-3465		
<b>4. Responsible Program</b> Office of Health, Safety, and Security		<b>5. Responsible Secretarial Officer</b> Stephen Kirchhoff		
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations				
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>		
		Name: John W. Temple	Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> HQ1001-0-SR		<b>9. Revision Number</b> 1		
<b>10. Funds Authorized (See NOTE below)</b>				
NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013. This is a distribution by the Program Office to continue funding Statement of Work.				
Date	Budget and Reporting Code:	Previous:	Change:	Current:
Oct	HQ1001000	\$ 125,000.00	\$ -	
Jan	HQ1001000		\$ 100,000.00	\$ 225,000.00
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>	
From: October 1, 2012 To: September 30, 2013		From: Oct. 1, 2012	To: Sept. 30, 2013	
<b>14. Statement of Work (Includes attachments)</b>				
The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include: 1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program. 2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program. 3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program. 4) Perform other necessary EEOICPA related records work as needed. 5) Maintain local records to track the activities conducted under EEOICPA.				
<b>FY 2013 DELIVERABLES:</b> By the 15th of each month provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to: • HS-14 (Greg Lewis), • HS-10 Budget Contact (Jeanette Yarrington) • HS-81 Budget Contact (Debra James)				



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title

Energy Employees Occupational Illness Compensation  
Program (EEOICPA)

1b. Work Proposal Number

HQ1001-0-SR

15. DOE-SR Program Point of Contact

Name (printed):

Brenda Mills

Signature:

*Brenda Mills*

Date:

1/29/13

16. DOE Budget Official

Name (typed):

Harold K. Nielsen

Signature:

*Harold K. Nielsen*

Date:

1/31/13

17. Contractor's Authorized Representative

Name (typed):

John Temple

Signature:

*AC Clavin for JTW*

Date:

2/11/13

18. DOE Contracting Officer (or delegated representative)

Name (typed):

Jim Lovett

Signature:

*James Lovett*

Date:

2/21/13



**Department of Energy**  
Washington, DC 20585

January 2, 2013

**MEMORANDUM FOR** DR. DAVE MOODY  
MANAGER  
SAVANNAH RIVER OPERATIONS OFFICE

**FROM:** STEPHEN A. KIRCHHOFF *SA Kirchhoff*  
DIRECTOR  
OFFICE OF RESOURCE MANAGEMENT  
OFFICE OF HEALTH, SAFETY AND SECURITY

**SUBJECT:** January FY 2013 Approved Funding Program

The attached work authorization is consistent with changes made in the January 2013 financial plans. As stated in DOE Order 412.1, work authorizations are to be issued/revised when there is a change in funding or program guidance.

Please return a copy of the signed work authorization to the appropriate Headquarters budget point-of-contact listed on the work authorization. The signed (and returned) work authorization is written documentation that provides the Headquarters program manager with confirmation that transferred funds were received, work accepted, and the effort will proceed as stated.

We appreciate your assistance and support in carrying out the Work Authorization System. Please contact me if you have any questions on 202-586-3373. If your staff has any questions or problems, please contact the appropriate budget point-of-contact listed on the work authorization.

Attachment:  
2013-HS-2001036, Rev. 1

cc w/attachment:  
Eliberto Seguinot, SR  
Rachel Zoss, SR  
H. Kriss Nielsen, SR  
Patricia Petty, SR



## WORK AUTHORIZATION

U.S. DEPARTMENT OF ENERGY  
Management and Operating (M & O) Contract Work Authorization

1. INITIATOR(s): Pat Worthington HS-10 301-603-6926  
Name & Signature Organization Code Phone
2. PROJECT TITLE: Energy Employees Occupational Illness Compensation Program (EEOICPA) AC: \_\_\_\_\_
3. RESPONSIBLE PROGRAM SECRETARIAL OFFICE: Office of Health, Safety, and Security
4. RESPONSIBLE FIELD OFFICE: Savannah River
5. M & O CONTRACTOR NAME: Savannah River / 410225 / 410225 (SR - SRO)
6. WORK AUTHORIZATION NO: HQ1001 - 0 - SR

## 7. FUNDS HEREBY AUTHORIZED (WHOLE DOLLARS)

TOTAL BUDGET AUTHORITY: \$225,000.00

TOTAL BUDGET OUTLAY: \$225,000.00

B & R	Program	ORG	Transaction Type	Rev.	Date	Budget Authority	Budget Outlay
HQ1001000	3184701	HS-10	Fund Project from B&R	0	10/1/2012	\$125,000.00	\$125,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	1	1/1/2013	\$100,000.00	\$100,000.00

## 8. PERFORMANCE PERIOD COVERED BY FUNDS:

FROM: 10/1/2012TO: 9/30/20139. WORK START DATE: 10/1/201210. EXPECTED COMPLETION DATE: TBD11. FUTURE FUNDING PLANNED: To Be Determined

## 12. WORK AUTHORIZED:

See attached Statement of Work.

## NAME AND SIGNATURE

## DATE

## 13. WORK AUTHORIZATION OFFICIAL:

Stephen A. Kirchhoff  
Stephen Kirchhoff11/2/2013

## 14. OPERATIONS OFFICE OFFICIAL:

## 15. M &amp; O CONTRACTOR OFFICIAL:

## HEADQUARTERS BUDGET POINT OF CONTACT:

Debra A. James  
Debra James, 301-603-348612-18-12

## FIELD/CONTRACTOR POINT OF CONTACT:

Laboratory/Contractor: The Savannah River Site (CID#: 410225)

Laboratory/Contractor Contact: Regina Price

Phone: 803-952-6288

HS Program Contact: Greg Lewis Org: HS-14 Phone: 202-586-2784

#### **OVERALL PROJECT GOAL/OBJECTIVE:**

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA) establishes a program to provide compensation to current and former employees of the Department of Energy (DOE), its contractors and subcontractors, companies that provided beryllium to DOE, and atomic weapons employers (AWE's). Under EEOICPA, DOE is required to verify employment histories, provide medical records, and provide radiation dose records and other information pertinent to National Institute for Occupational Safety and Health (NIOSH) radiation dose reconstruction and Department of Labor (DOL) Subtitle B and Subtitle E case preparation for anyone who applies for compensation under EEOICPA.

#### **FUNDING FOR THE FOLLOWING ACTIVITIES:**

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.

- Work with corporate entities or unions to verify employment of former site workers.
- Complete all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.



**WAS Project No.: 2013-HS-2001036**

- Complete declassification, as needed, of records required for the processing of claims forms.
- 4) Perform other necessary EEOICPA related records work as needed.
- 5) Maintain local records to track the activities conducted under EEOICPA.

**FY 2013 DELIVERABLES:**

**DATES:**

Provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:

15<sup>th</sup> of the following month

- HS-14 (Greg Lewis),
- HS-10 Budget Contact (Jeanette Yarrington)
- HS-81 Budget Contact (Debra James).

**FY 2013 FUNDING FOR JANUARY FINANCIAL PLAN:  
\$100,000**

## Attachment 4

**Project Title: Fate of Uranium During Transport Across the Groundwater-Surface  
Water Interface**

#7

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Fate of Uranium During Transport Across the Groundwater-Surface Water Interface		SCW-0091	
<b>2. Headquarters Program Point of Contact</b>			
Name: Sharlene Weatherwax		Organization Code: SC-23	Telephone: 301-903-3251
<b>3. Headquarters Budget Point of Contact</b>			
Name: Lisa Yost		Organization Code: SC-41.2	Telephone: 301-903-2310
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Science		Patricia Dehmer, Deputy Director for Science Programs	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
SCW-0091		0	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013. This is a distribution by the Program Office funds to continue funding Statement of Work. The attached budget detail and program comments relate to the January AFP recently submitted to the Chief Financial Officer by the Biological and Environmental Research program. In accordance with DOE Order 412.1a, the current FY 2013 Work Authorization for the Management and Operating (M&O) contract with the Savannah River Nuclear Solutions, LLC, continues to cover funding through the January AFP.			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
KP170203	\$0	\$18,639	\$18,639
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: Oct. 1, 2012 To: Sep 30, 2013		From: Oct. 1, 2012	To: Sep 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
Funds redirected from prior year uncosted balances within Environmental Remediation to support project SCW-0091 to continue funding Statement of Work.			
Year	B&R	Project	Amount
FY2007	KP1302	SCW-0044	(8376)
FY2009	KP150401	SCW-0052	(4787)
FY2009	KP150401	SCW-0044	(5476)
FY2007	KP170203	SCW-0091	8376
FY2009	KP170203	SCW-0091	10263
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed):	Signature:	Date:	
Patrick R. Jackson	<i>Patrick R. Jackson</i>	01/29/13	
<b>16. DOE Budget Official</b>			
Name (typed):	Signature:	Date:	
Harold K. Nielsen	<i>Harold K. Nielsen</i>	1/31/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed):	Signature:	Date:	
John Temple	<i>John Temple</i>	2/21/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed):	Signature:	Date:	
Scott Langston	<i>Scott Langston</i>	2/22/13	

**Attachment 5**

**Project Title: Attenuation-Based Remedies for the Subsurface Applied Field  
Research Initiative at SR**


**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River		<b>1b. Work Proposal Number</b>	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b> Grover Chamberlain	<b>Organizational Code</b> EM-12	<b>Telephone</b> 301.803.7248	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b> Jeffrey McMillan	<b>Organizational Code</b> EM-61	<b>Telephone</b> 301.803.7701	
<b>4. Responsible Program</b> Environmental Management		<b>5. Responsible Secretarial Officer</b> M. Gilbertson	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 852- 7210	
<b>8. Work Authorization Number</b> SRO71801-2-13		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013.			
<b>Budget and Reporting Code:</b> EY4049110	<b>Previous:</b> \$ 115,062.37	<b>Change:</b> \$0.00	<b>Current:</b> \$ 115,062.37
<b>11. Performance Period Covered by Funds</b> 10/1/2012 3/27/2013		<b>12. Work Start Date</b> 10/1/2012	<b>13. Expected Completion Date</b> 3/27/2013
<b>14. Statement of Work (Includes attachments)</b> Task 1: Enhanced Attenuation of Uranium and <sup>139</sup> I by Humic Acid Pilot field-scale tests and optimization of this technology to move this technical approach from basic science to actual field deployment and regulatory acceptance. Task 2: Develop Strategy from SOMERS w/PNNL SRNL participation on the Scientific Opportunities for Monitoring Environmental Remediation Sites (SOMERS) team to develop improved strategies for monitoring subsurface groundwater contamination. Task 3: Road map for End Points w/PNNL SRNL participation on the DOE-EM Roadmap team that is tasked with defining technically defensible end states, systems-based remediation approaches and systems-based monitoring strategies that include closure solutions that are cost-effective, sustainable, and protective of public health and natural resources at DOE sites. Task 4: Management of the Technical Assistance Program Management of the technical assistance program including helping site problem holders to develop technical needs statements, selection of the technical experts, contracting of non-SRNL participants, management of the team meeting, and preparation of the technical assistance team report. Note: Period of performance for this work scope ends September 30, 2013.			

Year	B&R Code	Project	Amount
2006	EY4049110	0003925	\$ 2,984.79
2007	EY4049110	0003925	\$ 2,871.76
2009	EY4049110	0003925	\$ 89,437.70
2011	EY4049110	0003925	\$ 19,768.12
2006	EY4049110	0001774	\$ (2,984.79)
2007	EY4049110	0003945	\$ (2,871.76)
2009	EY4049110	0003962	\$ (77,205.53)
2011	EY4049110	0003958	\$ (19,768.12)
2009	EY4049110	0003970	\$ (12,232.17)


  

**15. DOE-SR Program Point of Contact**

Name (printed):	Signature:	Date:
Patrick R. Jackson		February 20, 2013

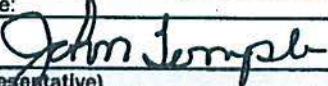
  

**16. DOE-SR Field Budget Official**

Name (typed):	Signature:	Date:
Harold K. Nielsen		2/21/13


  

**17. Contractor's Authorized Representative**

Name (typed):	Signature:	Date:
John Temple		2/21/13

**18. DOE Contracting Officer (or delegated representative)**

Name (typed):	Signature:	Date:
Scott Langston		2/21/13



**Block 10**

B&R Code	Previous	Change=	New BA	Current=TAC
EY4049110	\$ 115,062.37		\$0.00	\$115,062.37

**Block 14 Statement of Work**

Appr Year	B&R Code	Project	Amount
2006	EY4049110	0003925	\$2,984.79
2007	EY4049110	0003925	\$2,871.76
2009	EY4049110	0003925	\$89,437.70
2011	EY4049110	0003925	\$19,768.12
2006	EY4049110	0001774	(\$2,984.79)
2007	EY4049110	0003945	(\$2,871.76)
2009	EY4049110	0003962	(\$77,205.53)
2011	EY4049110	0003958	(\$19,768.12)
2009	EY4049110	0003970	(\$12,232.17)

Funds redirected from prior year uncosted balances within B&R EY4049110 to support project 0003925 to continue funding Statement of Work.

## 1

*[Signature]*



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2 AMENDMENT/MODIFICATION NO.</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO</b>	
336		03/07/2013			
<b>6 ISSUED BY</b>		<b>CODE</b>		<b>5 PROJECT NO (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802					
<b>8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A AMENDMENT OF SOLICITATION NO</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421					
				<b>9B DATED (SEE ITEM 11)</b>	
		<b>x</b>		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12 ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change to accounting data.

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43 103(b).</b>
	<b>C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D OTHER (Specify type of modification and authority)</b>
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

A. The purpose of this modification is to incorporate the following:

1) Contract Work Authorization No. SR071801, Project Title: Center for Sustainable Groundwater & Soil Remediation at SRS (incl Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River, attachment 1, hereto.

2) Reference Modification 335, the revisions cited below are incorporated:

(a) Replace Contract Work Authorization SCW-0052, with attachment 2, hereto. Block 14, project number pin and ink change to reflect project No. as read "SCW-0091," changed to read "SCW-0052," and

(b) Replace the cover sheet/index page for contract work authorizations to correct

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B CONTRACTOR/OFFEROR</b>		<b>15C DATE SIGNED</b>	
<b>16B UNITED STATES OF AMERICA</b>		<b>16C DATE SIGNED</b>	
(Signature of person authorized to sign)		03/07/2013	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/336	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC


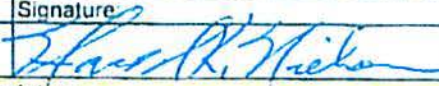
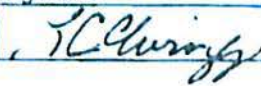
ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>clerical errors, attachment 3, hereto.</p> <p>B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds were previously allocated under FINPLANS #7, FY 13 by separate modification. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

## **Attachment 1**

**Contract Work Authorization No. SR071801**

**Project Title: Center for Sustainable Groundwater & Soil Remediation at SRS  
(incl Attenuation-Base Remedies for the Subsurface Applied  
Field Research Initiative at Savannah River)**

Flw #7

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Center for Sustainable Groundwater & Soil Remediation at SRS (incl Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River)		SR071801	
<b>2. Headquarters Program Point of Contact</b>			
Grover Chamberlain	EM-12	301.903.7248	
<b>3. Headquarters Budget Point of Contact</b>			
Jeffrey McMillan	EM-61	301.903.7701	
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Mark Glibertson, DAS Site Restoration	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name John W Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
SR071801-R2		2	
<b>10. Funds Authorized (\$ in thousands) (See NOTE below)</b>			
NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity, or (3) March 27, 2013			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
EY4049110	\$115,062.37	\$0	\$115,062.37
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From October 1, 2012 To March 27, 2013		From Oct 1, 2012	To Sept 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
Task 5: A S C E M Support Provide support and funding to ASCEM project including but not limited to F-Area field site data for model validation. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs. The alignment of the AFRI work and the data needs for ASCEM model development and validation ensure an integrated approach to decisions necessary to accomplish the DOE EM clean up mission. Note: Period of performance for this work scope ends September 30, 2013			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed)</b>	<b>Signature</b>	<b>Date</b>	
Patrick R. Jackson	 APPROVED By Patrick R. Jackson at 1:23 pm, Mar 05, 2013	March 5, 2013	
<b>17. DOE Budget Official</b>			
<b>Name (typed):</b>	<b>Signature</b>	<b>Date</b>	
Harold K. Nielsen		3/5/13	
<b>18. Contractor's Authorized Representative</b>			
<b>Name (typed):</b>	<b>Signature</b>	<b>Date</b>	
John Temple		3-6-13	

Fol



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>
Center for Sustainable Groundwater & Soil Remediation at SRS (incl Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River)		SR071801
<b>19. DOE Contracting Officer (or delegated representative)</b>		
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>
Jim Lovett		3/6/13

## Attachment 2



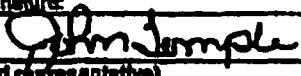

Contract Work Authorization No. SCW-0052

Project Title: Collaborate Research: The Importance of Organo -Iodate & Iodate in Iodine-127, 129 Speciation, Mobility & Microbial Activity in Groundwater at DOE Sites (Replacement copy with pin and ink Changes to project number, SCW-0091 changed to read SCW-0052).

#7

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION																											
<b>1a. Project Title</b> Collaborative Research: The Importance of Organo-Iodide & Iodide in Iodine-127, 129 Speciation, Mobility, & Microbial Activity in Groundwater at DOE Sites		<b>1b. Work Proposal Number</b> SCW-0052																									
<b>2. Headquarters Program Point of Contact</b> Name: Sherlene Weatherwax		Organization Code: SC-23	Telephone: 301-903-3281																								
<b>3. Headquarters Budget Point of Contact</b> Name: Lee Yoon		Organization Code: SC-41.2	Telephone: 301-903-2310																								
<b>4. Responsible Program</b> Office of Science		<b>5. Responsible Secretarial Officer</b> Patricia Dahmer, Deputy Director for Science Programs																									
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations																											
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 982-7210																									
<b>8. Work Authorization Number</b> SCW-0052		<b>9. Revision Number</b> 0																									
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013. This is a distribution by the Program Office funds to continue funding Statement of Work. The attached budget detail and program comments relate to the January APP recently submitted to the Chief Financial Officer by the Biological and Environmental Research program. In accordance with DOE Order 412.1a, the current FY 2013 Work Authorization for the Management and Operating (M&O) contract with the Savannah River Nuclear Solutions, LLC, continue to cover funding through the February APP.																											
<b>Budget and Reporting Codes</b> KP170203	<b>Previous:</b> 15,639	<b>Change:</b> 24,639	<b>Current:</b> \$18,639																								
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> From: Oct. 1, 2012 To: Sep 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012	<b>13. Expected Completion Date</b> To: Sep 30, 2013																								
<b>14. Statement of Work (Include attachments)</b> Funds redirected from prior year unexpended balances within Environmental Remediation to support project SCW-0052 to continue funding Statement of Work.																											
<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Year</th> <th>BLR</th> <th>Project</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>FY2007</td> <td>KP1502</td> <td>SCW-0044</td> <td>(8378)</td> </tr> <tr> <td>FY2008</td> <td>KP160401</td> <td>SCW-0081</td> <td>(4787)</td> </tr> <tr> <td>FY2008</td> <td>KP160401</td> <td>SCW-0044</td> <td>(8478)</td> </tr> <tr> <td>FY2007</td> <td>KP170203</td> <td>SCW-0051</td> <td>8378</td> </tr> <tr> <td>FY2008</td> <td>KP170203</td> <td>SCW-0051</td> <td>10283</td> </tr> </tbody> </table>				Year	BLR	Project	Amount	FY2007	KP1502	SCW-0044	(8378)	FY2008	KP160401	SCW-0081	(4787)	FY2008	KP160401	SCW-0044	(8478)	FY2007	KP170203	SCW-0051	8378	FY2008	KP170203	SCW-0051	10283
Year	BLR	Project	Amount																								
FY2007	KP1502	SCW-0044	(8378)																								
FY2008	KP160401	SCW-0081	(4787)																								
FY2008	KP160401	SCW-0044	(8478)																								
FY2007	KP170203	SCW-0051	8378																								
FY2008	KP170203	SCW-0051	10283																								

0052 0052 2/27/13

<b>16. DOE-SR Program Point of Contact</b>		
Name (printed):	Signature:	Date:
Patrick R. Jackson		February 14, 2013
<b>18. DOE Budget Official</b>		
Name (typed):	Signature:	Date:
Harold K. Nelson		2/21/13
<b>17. Contractor's Authorized Representative</b>		
Name (typed):	Signature:	Date:
John Temple		2/21/13
<b>18. DOE Contracting Officer (or delegated representative)</b>		
Name (typed):	Signature:	Date:
Scott Langston		2/21/13



## Attachment 3

**Revised Cover/Index Page (reference Mod 335)**

**Contract Work Authorizations**

<b><u>Project Title</u></b>	<b><u>Number</u></b>	<b><u>Pages</u></b>
1) Risk Management Review & Assessment-D&D Design Guidance	SR071103	1
2)Collaborate Research: The Importance Of Organo-Iodate & Iodate in Iodine-127, 129 Speciation, Mobility & Microbial Activity in Groundwater at DOE Sites	SCW-0052	2
3) Energy Employees Occupational Illness Compensation Program (EEOICPA)	HQ1001-0-SR	6
4) Fate of Uranium During Transport Across The Groundwater-Surface Water Interface	SCW-0091	1
5) Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at SR	SR071801-2-13	4

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2 AMENDMENT/MODIFICATION NO.</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO</b>	
336		03/07/2013			
<b>6 ISSUED BY</b>		<b>CODE</b>		<b>5 PROJECT NO (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802					
<b>8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A AMENDMENT OF SOLICITATION NO</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVERING 203 LAURENS ST SW AIKEN SC 298012421					
				<b>9B DATED (SEE ITEM 11)</b>	
		<b>x</b>		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12 ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change to accounting data.

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43 103(b).</b>
	<b>C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D OTHER (Specify type of modification and authority)</b>
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

A. The purpose of this modification is to incorporate the following:

1) Contract Work Authorization No. SR071801, Project Title: Center for Sustainable Groundwater & Soil Remediation at SRS (incl Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River, attachment 1, hereto.

2) Reference Modification 335, the revisions cited below are incorporated:

(a) Replace Contract Work Authorization SCW-0052, with attachment 2, hereto. Block 14, project number pin and ink change to reflect project No. as read "SCW-0091," changed to read "SCW-0052," and

(b) Replace the cover sheet/index page for contract work authorizations to correct

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B CONTRACTOR/OFFEROR</b>		<b>15C DATE SIGNED</b>	
<b>16B UNITED STATES OF AMERICA</b>		<b>16C DATE SIGNED</b>	
(Signature of person authorized to sign)		03/07/2013	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/336	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC


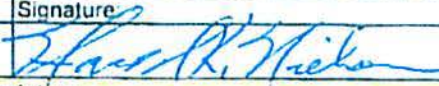
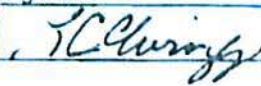
ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>clerical errors, attachment 3, hereto.</p> <p>B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds were previously allocated under FINPLANS #7, FY 13 by separate modification. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

## **Attachment 1**

**Contract Work Authorization No. SR071801**

**Project Title: Center for Sustainable Groundwater & Soil Remediation at SRS  
(incl Attenuation-Base Remedies for the Subsurface Applied  
Field Research Initiative at Savannah River)**

Flw #7

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Center for Sustainable Groundwater & Soil Remediation at SRS (incl Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River)		SR071801	
<b>2. Headquarters Program Point of Contact</b>			
Grover Chamberlain	EM-12	301.903.7248	
<b>3. Headquarters Budget Point of Contact</b>			
Jeffrey McMillan	EM-61	301.903.7701	
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Mark Glibertson, DAS Site Restoration	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name John W Temple Telephone No (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
SR071801-R2		2	
<b>10. Funds Authorized (\$ in thousands) (See NOTE below)</b>			
NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity, or (3) March 27, 2013			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
EY4049110	\$115,062.37	\$0	\$115,062.37
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From October 1, 2012 To March 27, 2013		From Oct 1, 2012	To Sept 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
Task 5: A S C E M Support Provide support and funding to ASCEM project including but not limited to F-Area field site data for model validation. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs. The alignment of the AFRI work and the data needs for ASCEM model development and validation ensure an integrated approach to decisions necessary to accomplish the DOE EM clean up mission. Note: Period of performance for this work scope ends September 30, 2013			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed)</b>	<b>Signature</b>	<b>Date</b>	
Patrick R. Jackson	 APPROVED By Patrick R. Jackson at 1:23 pm, Mar 05, 2013	March 5, 2013	
<b>17. DOE Budget Official</b>			
<b>Name (typed):</b>	<b>Signature</b>	<b>Date</b>	
Harold K. Nielsen		3/5/13	
<b>18. Contractor's Authorized Representative</b>			
<b>Name (typed):</b>	<b>Signature</b>	<b>Date</b>	
John Temple		3-6-13	

Fol



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>
Center for Sustainable Groundwater & Soil Remediation at SRS (incl Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River)		SR071801
<b>19. DOE Contracting Officer (or delegated representative)</b>		
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>
Jim Lovett		3/6/13

## Attachment 2

Contract Work Authorization No. SCW-0052




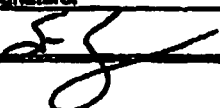
Project Title: Collaborate Research: The Importance of Organo -Iodate & Iodate in Iodine-127, 129 Speciation, Mobility & Microbial Activity in Groundwater at DOE Sites (Replacement copy with pin and ink Changes to project number, SCW-0091 changed to read SCW-0052).



#7

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION																											
<b>1a. Project Title</b> Collaborative Research: The Importance of Organo-Iodide & Iodide in Iodine-127, 129 Speciation, Mobility, & Microbial Activity in Groundwater at DOE Sites		<b>1b. Work Proposal Number</b> SCW-0052																									
<b>2. Headquarters Program Point of Contact</b> Name: Sherlene Weatherwax		Organization Code: SC-23	Telephone: 301-903-3281																								
<b>3. Headquarters Budget Point of Contact</b> Name: Lee Yoon		Organization Code: SC-41.2	Telephone: 301-903-2310																								
<b>4. Responsible Program</b> Office of Science		<b>5. Responsible Secretarial Officer</b> Patricia Dahmer, Deputy Director for Science Programs																									
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations																											
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 982-7210																									
<b>8. Work Authorization Number</b> SCW-0052		<b>9. Revision Number</b> 0																									
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013. This is a distribution by the Program Office funds to continue funding Statement of Work. The attached budget detail and program comments relate to the January APP recently submitted to the Chief Financial Officer by the Biological and Environmental Research program. In accordance with DOE Order 412.1a, the current FY 2013 Work Authorization for the Management and Operating (M&O) contract with the Savannah River Nuclear Solutions, LLC, continue to cover funding through the February APP.																											
<b>Budget and Reporting Codes</b> KP170203	<b>Previous:</b> 15,639	<b>Change:</b> 0	<b>Current:</b> \$15,639																								
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> From: Oct. 1, 2012 To: Sep 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012	<b>13. Expected Completion Date</b> To: Sep 30, 2013																								
<b>14. Statement of Work (Include attachments)</b> Funds redirected from prior year unexpended balances within Environmental Remediation to support project SCW-0052 to continue funding Statement of Work.																											
<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Year</th> <th>BLR</th> <th>Project</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>FY2007</td> <td>KP1502</td> <td>SCW-0044</td> <td>(8378)</td> </tr> <tr> <td>FY2008</td> <td>KP160401</td> <td>SCW-0081</td> <td>(4787)</td> </tr> <tr> <td>FY2008</td> <td>KP160401</td> <td>SCW-0044</td> <td>(8478)</td> </tr> <tr> <td>FY2007</td> <td>KP170203</td> <td>SCW-0051</td> <td>8378</td> </tr> <tr> <td>FY2008</td> <td>KP170203</td> <td>SCW-0051</td> <td>10283</td> </tr> </tbody> </table>				Year	BLR	Project	Amount	FY2007	KP1502	SCW-0044	(8378)	FY2008	KP160401	SCW-0081	(4787)	FY2008	KP160401	SCW-0044	(8478)	FY2007	KP170203	SCW-0051	8378	FY2008	KP170203	SCW-0051	10283
Year	BLR	Project	Amount																								
FY2007	KP1502	SCW-0044	(8378)																								
FY2008	KP160401	SCW-0081	(4787)																								
FY2008	KP160401	SCW-0044	(8478)																								
FY2007	KP170203	SCW-0051	8378																								
FY2008	KP170203	SCW-0051	10283																								

0052 0052 2/27/13

<b>16. DOE-SR Program Point of Contact</b>		
Name (printed):	Signature:	Date:
Patrick R. Jackson		February 14, 2013
<b>18. DOE Budget Official</b>		
Name (typed):	Signature:	Date:
Harold K. Nelson		2/21/13
<b>17. Contractor's Authorized Representative</b>		
Name (typed):	Signature:	Date:
John Temple		2/21/13
<b>18. DOE Contracting Officer (or delegated representative)</b>		
Name (typed):	Signature:	Date:
Scott Langston		2/21/13

## Attachment 3

**Revised Cover/Index Page (reference Mod 335)**

**Contract Work Authorizations**

<u>Project Title</u>	<u>Number</u>	<u>Pages</u>
1) Risk Management Review & Assessment-D&D Design Guidance	SR071103	1
2)Collaborate Research: The Importance Of Organo-Iodate & Iodate in Iodine-127, 129 Speciation, Mobility & Microbial Activity in Groundwater at DOE Sites	SCW-0052	2
3) Energy Employees Occupational Illness Compensation Program (EEOICPA)	HQ1001-0-SR	6
4) Fate of Uranium During Transport Across The Groundwater-Surface Water Interface	SCW-0091	1
5) Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at SR	SR071801-2-13	4

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>											
				1		2											
<b>2. AMENDMENT/MODIFICATION NO</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>		<b>5. PROJECT NO. (If applicable)</b>											
337		03/15/2013		13EM001277													
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>		<b>CODE</b>											
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901											
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>													
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)													
				9B. DATED (SEE ITEM 11)													
				X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470													
CODE 798861048 FACILITY CODE				10B. DATED (SEE ITEM 13) 01/10/2008													
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>																	
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.																	
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>				Net Increase: \$1,466,796.98													
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;"><b>CHECK ONE</b></td> <td><b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b></td> </tr> <tr> <td></td> <td><b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b></td> </tr> <tr> <td></td> <td><b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b></td> </tr> <tr> <td></td> <td><b>D. OTHER (Specify type of modification and authority)</b></td> </tr> <tr> <td style="text-align: center;">X</td> <td>Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)</td> </tr> </table>								<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>		<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>		<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>		<b>D. OTHER (Specify type of modification and authority)</b>	X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)
<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>																
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>																
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>																
	<b>D. OTHER (Specify type of modification and authority)</b>																
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)																
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.																	
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>																	
<p>A. The purpose of this modification is to obligate funding to CLIN 0001 (Department of Energy), in accordance with SRNS FINPLAN 11. Funds in the amount of \$1,466,796.98 are hereby obligated to CLIN 0001, thereby increasing it from \$4,248,409,065.69 to \$4,249,875,862.67.</p> <p>B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,648,258,150.62 to \$5,649,724,947.60.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>																	
Continued ...																	
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect																	
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>				<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>													
				Marie A. Garvin													
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>		<b>16C. DATE SIGNED</b>											
(Signature of person authorized to sign)				Marie A. Garvin (Signature of Contracting Officer)		03/15/2013											

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/337	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/337	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/337	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1   2	
2. AMENDMENT/MODIFICATION NO. 338		3. EFFECTIVE DATE 03/15/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM001277	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
CODE 00901		CODE 00901			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$372,531.68

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

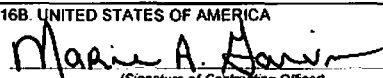
A. The purpose of this modification is to obligate funding to CLIN 0001 (Reimbursable Work Commercial), in accordance with SRNS FINPLAN 11. Funds in the amount of \$372,531.68 are hereby obligated to CLIN 0001, thereby increasing it from \$4,249,875,862.67 to \$4,250,248,394.35.

B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,649,724,947.60 to \$5,650,097,479.28.

C. The contract estimated value and all other terms and conditions remain unchanged.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Marie A. Garvin	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 03/15/2013

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/338	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/338	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/338	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1 CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2 AMENDMENT/MODIFICATION NO</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ. NO.</b>	
339		03/15/2013		13EM001277	
<b>6 ISSUED BY</b>		<b>CODE</b>		<b>5 PROJECT NO (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7 ADMINISTERED BY (If other than Item 6) CODE 00901	
				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B DATED (SEE ITEM 11)	
		<b>X</b>		<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12 ACCOUNTING AND APPROPRIATION DATA (If required)** Net Increase: \$1,953,553.74

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</b>
	<b>C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF</b>
<b>X</b>	<b>D OTHER (Specify type of modification and authority)</b> Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office

**14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to obligate funds to CLIN 0001, in the amount of \$1,953,553.74, in accordance with SRNS FINPLAN 11; and incorporate Contract Work Authorization numbers: SL-410003-13, IN13012, Rev. 1, and KL/W/SR1/13, as cited below:

- 1) Department of Defense \$97,406.35
- 2) Department of Homeland Security \$1,855,893.87
- 3) Department of Justice \$253.52

Funds in the amount of \$1,953,553.74 are hereby obligated to CLIN 0001, thereby increasing it from \$4,250,248,394.35 to \$4,252,201,948.09.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B CONTRACTOR/OFFEROR</b>	<b>15C DATE SIGNED</b>	<b>16B UNITED STATES OF AMERICA</b>	<b>16C DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	03/19/2013

## Contract Work Authorizations

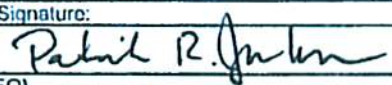
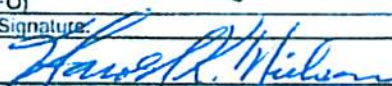
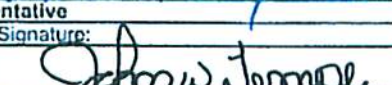
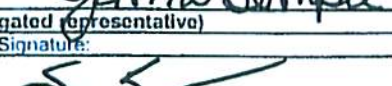
<u>Number</u>	<u>Description</u>	<u>Number of Pages (excluding cover page)</u>
SL-410003-13	Solar Energy	1
IN13012, Rev 1	Energy and Threat	1
KL/W/SR1/13	Workforce Development for Teachers and Scientists	1

**Mod 339**  
**Attachment 1**

**Contract Work Authorization No. SL-410003-13 (1 page)**

**Project Title: Solar Energy**

U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

<b>1a. Project Title</b> Solar Energy		<b>1b. Work Proposal Number</b> AOP #2013	
<b>2. Headquarters Program Point of Contact</b>			
Name: Minh Le	Organization Code:	Telephone No. 202-287-1372	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Kyra Humphreys	Organization Code: EE-3B	Telephone No. 202-586-8138	
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> Savannah River Site Office			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b> SL-410003-13		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: The statement cited below is applicable for all contract work authorization with completion dates beyond March 27, 2013: with the exception of WAs with prior year funds. Reference Appropriation Act for Fiscal Year 2013. "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution, (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013."			
<b>Budget and Reporting Code:</b> E024030485 SL01000300	<b>Previous = Carry Over</b> \$0	<b>Change = New BA</b> \$691,087	<b>Current = TAC</b> \$691,087
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/2012	To: <del>03/30/2013</del> 3-27-2013	10/1/2012	9/30/2013 3-27-2013
<b>14. Statement of Work (Includes attachments)</b>			
Funding in the amount of \$691,087.00 is authorized by the Solar Energy to perform work in the areas of : The U.S. Department of Energy (DOE) SunShot Initiative and Solar Energy Technologies Program (SETP) authorizes funding in accordance with the program Annual Operating Plan (AOP). This operating plan authorizes specific funding amounts for each project and agreement, and requires detailed performance milestones and deliverable be met or completed within the period of performance. Please refer to the Work Proposal Number (1b) to determine which section(s) of the AOP for which this authorization provides funding. Under this approved work authorization, SRNL will partner with universities and industry to perform corrosion tests on a wide variety of alloys at temperatures up to 800 °C			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patrick R. Jackson	Signature: 	Date: 01/29/13	
<b>16. DOE-SR Budget Official (Field CFO)</b>			
Name (typed): Harold K. Nielsen	Signature: 	Date: 2/12/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John W. Temple	Signature: 	Date: 2/21/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: 	Date: 2/21/13	



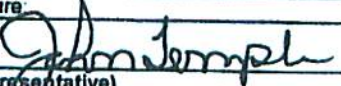

**Mod 339**  
**Attachment 2**

**Contract Work Authorization No. IN13012, Rev 1 (1 page)**

**Project Title: Energy and Threat**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Energy and Threat				<b>1b. Work Proposal Number</b>			
<b>2. Headquarters Program Point of Contact</b>							
<b>Name</b> Sandra Willis		<b>Organizational Code</b> IN-10			<b>Telephone</b> 202.287.6562		
<b>3. Headquarters Budget Point of Contact</b>							
<b>Name</b> Debbra Dayton		<b>Organizational Code</b> IN-30			<b>Telephone</b> 202 586.4370		
<b>4. Responsible Program</b> Office of Energy and Threat				<b>5. Responsible Secretarial Officer</b> Office of Energy and Threat			
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations							
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC				<b>7b. Contractor Point of Contact</b>			
				<b>Name:</b> John W. Temple		<b>Telephone No.:</b> (803) 952- 7210	
<b>8. Work Authorization Number</b> IN13012				<b>9. Revision Number</b> 1			
<b>10. Funds Authorized (See NOTE below)</b>							
<p><b>NOTE:</b> Reference Appropriation Act for Fiscal Year 2013. "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution, (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013.</p>							
<b>Budget and Reporting Code:</b> GD3009000		<b>Previous:</b> \$0		<b>Change:</b> \$60,000		<b>Current:</b> \$60,000	
<b>11. Performance Period Covered by Funds</b>				<b>12. Work Start Date</b>		<b>13. Expected Completion Date</b>	
10/1/2012		9/30/2013 <i>3-27-2013</i>		10/1/2012		9/30/2013 <i>3-27-2013</i>	
<b>14. Statement of Work (Includes attachments)</b>							
Funds are provided to M&O for support to FNP. Requires monthly cost status reports to program managers. Further detail of scope is considered classified, and as such is managed under DOE M 470 1-1, Identifying Classified Information.							
<b>15. DOE-SR Program Point of Contact</b>							
<b>Name (printed)</b> Patrick R. Jackson		<b>Signature</b> 			<b>Date:</b> February 13, 2013		
<b>16. DOE-SR Field Budget Official</b>							
<b>Name (typed):</b> Harold K. Nielsen		<b>Signature:</b> 			<b>Date:</b> 2/21/13		
<b>17. Contractor's Authorized Representative</b>							
<b>Name (typed):</b> John Temple		<b>Signature:</b> 			<b>Date:</b> 2/21/13		
<b>18. DOE Contracting Officer (or delegated representative)</b>							
<b>Name (typed):</b> Scott Langston		<b>Signature:</b> 			<b>Date:</b> 2/21/13		

**Mod 339**  
**Attachment 3**

**Contract Work Authorization No. KL/W/SRI/13 (1 pages)**

**Project Title: Workforce Development for Teachers and  
Scientists**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Workforce Development for Teachers and Scientists		<b>1b. Work Proposal Number</b> Various	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b> Patricia M. Dehmer	<b>Organizational Code</b> SC-27	<b>Telephone</b> 202 267 6460	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b> Andrea Conrad	<b>Organizational Code</b> SC-41	<b>Telephone</b> 301 903 3310	
<b>4. Responsible Program</b> Workforce Development for Teachers and Scientists		<b>5. Responsible Secretarial Officer</b> Under Secretary for Science	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		<b>Name</b> John W Temple	<b>Telephone No</b> (803) 952-7210
<b>8. Work Authorization Number</b> KLAV/SR1/13		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: Reference Appropriation Act for Fiscal Year 2013. Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013.			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
KL1001000	\$	\$ 10,000.00	\$ 10,000.00
KL1002000	\$	\$ 10,000.00	\$ 10,000.00
KL Total	\$	\$ 20,000.00	\$ 20,000.00
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
10/1/2012 to 3/27-2013		10/1/2012	9/30/2013 <i>2/26/13</i>
<b>14. Statement of Work (Includes attachments)</b>			
The FY 2013 Approved Funding Program provides funding to accomplish Workforce Development for Teachers and Scientists activities, generally consistent with the Field Work Proposal submissions and modifications and specific guidance provided by the enclosed memorandum. The Office of Workforce Development for Teachers and Scientists (WDTS) is committed to conducting work in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public and the environment is a direct and individual responsibility of all WDTS managers and WDTS supported staff. Funds provided by WDTS will be applied as necessary to ensure that all WDTS activities are conducted safely and in an environmentally conscientious manner. Only work conducted in this way will be supported. The following are required for the Workforce Development for Teachers and Scientists program analysis reports as produced: a fiscal year end report and a final report.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed)</b> Patrick R. Jackson	<b>Signature</b> <i>[Signature]</i>	<b>Date</b> February 21, 2013	
<b>16. DOE-SR Field Budget Official</b>			
<b>Name (typed)</b> Harold S. Nielsen	<b>Signature</b> <i>[Signature]</i>	<b>Date</b> 2/21/2013	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed)</b> John Temple	<b>Signature</b> <i>[Signature]</i>	<b>Date</b> 3/11/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed)</b> Scott Langston	<b>Signature</b> <i>[Signature]</i>	<b>Date</b> 3/17/13	



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 1	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
340		04/02/2013		13EM001329	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		x <b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
CODE 798861048		FACILITY CODE		01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change in Accounting Data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause H-28, Performance-Based Incentives

**E. IMPORTANT:** Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to incorporate Performance Evaluation Measurement Plan (PEMP), Revision 3, for the period October 1, 2012 through September 30, 2013. Previous edition of the FY 2013 PEMP is hereby superseded and replaced with Revision 3, effective April 2, 2013.

B. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	04/03/2013

NSN 7540-01-152-8070  
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 341		3. EFFECTIVE DATE 03/22/2013		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change to accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to incorporate the following:							
A. Modification 322 is hereby superseded by Mod 341, hereto. FY 2013 Contract Work Authorization(s) referenced in the attached list are extended through September 30, 2013 (See Attachment A). This extension allows for the continuation of work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."							
B. This modification further formally incorporates Contract Work Authorization listed below:							
1) 89X0319, Rev 3, for FY 2013 Program Guidance - Fuel Cycle Technologies (See Attachment B) Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		03/22/2013	
				(Signature of Contracting Officer)			

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/341	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR


SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>2) HQ-PS-4012, for Low Level Waste (LLW) Disposal Facility Federal Review Group (LFRG) (See Attachment C)</p> <p>3) HQ1001-0-SR, for Energy Employees Occupational Illness Compensation Program (EEOICPA) (See Attachment D)</p> <p>In additionally, Contract Work Authorization No. IN13012, for Energy and Threat, is hereby formally incorporates (See Attachment E), hereto. Funds were allocated under FINPLAN 1, for FY 2013. In oversight the work authorization was not formally incorporated under the Contract. A separate modification will be issued to revised the work authorization to reflect funding allocated under IN13012, Rev. 1, inclusive of the basic, IN13012.</p> <p>As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 342		3. EFFECTIVE DATE 03/22/2013		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change to accounting data							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. Modification 322 is hereby superseded by Mod 342, reference baseline contract work authorizations listed below (See Attachment 1 through 6, hereto.							
1) 11C-FY13, Rev 3, for SR-0011C NM Stabilization and Disposition - 2035 2) 12-FY 13, Rev 3, for SR-0012 SNF Stabilization and Disposition 3) 13-FY13, Rev 3, for SR-0013 Solid Waste Disposition 4) 14C-FY13 Support, Rev 3, for SR Services and Contract Interface 5) 20-FY13, Rev 3, for SR-0020 Protective Forces - Savannah River 6) 30-FY13, Rev 3, for SR-0030 Environmental Compliance							
FY 2013 Contract Work Authorization(s) listed above are extended through September 30, Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		03/22/2013	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>2013. This extension allows for the continuation of work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."</p> <p>B. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ NO</b>	
343		03/26/2013			
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified. <div style="text-align: right;"> <input type="checkbox"/> is extended.    <input type="checkbox"/> is not extended         </div>					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
No change to accounting data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO. (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Section I, DEAR 970.5211-1 Work Authorization (May 2007)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)</b>					
Tax ID Number: 26-0240191					
DUNS Number: 798861048					
A. The purpose of this modification is to provide replacement pages for attachment 1 through 6, under Modification 342, dated 03/22/2013. Revision 3 for contract work authorizations numbers 11C-FY13, Rev 3, for SR-0011C NM Stabilization and Disposition - 2035; 12-FY 13, Rev 3, for SR-0012 SNF Stabilization and Disposition; 13-FY13, Rev 3, for SR-0013 Solid Waste Disposition; 14C-FY13 Support, Rev 3, for SR Services and Contract Interface; 20-FY13, Rev 3, for SR-0020 Protective Forces - Savannah River; and 30-FY13, Rev 3, for SR-0030 Environmental Compliance were corrected to reflect no change to current funding. The intent of Modification 342 was to extend the FY2013 Contract Work Authorizations date through September 30, 2013. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			Scott D. Langston		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b>	
				03/26/2013	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/343	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

**Contract Work Authorization(s)**

<b>Attachment</b>	<b>CWA No.</b>	<b>Project Title</b>	<b>No Pages</b>
1	11C-FY13, Rev 3	SR-0011C NM Stabilization and Disposition -2035	3
2	12-FY13, Rev 3	SR-0012 SNF Stabilization and Disposition	3
3	13-FY13, Rev 3	SR-0013 Solid Waste Disposition	3
4	14C-FY13 Supt, Rev 3	SR Services and Contract Interface	3
5	20-FY13, Rev 3	SR-0020 Protective Forces – Savannah River	3
6	30-FY13, Rev 3	SR-0030 Environmental Compliance	3



## **Attachment 1**

**Work Authorization No. 11C-FY13, Rev 3**

**Project Title: SR-0011C NM Stabilization and Disposition - 2035**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
SR-0011C NM Stabilization and Disposition - 2035		DE-AC-09-08SR22470-11C-FY13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Deleon Jr, Edgardo C. (Gary)		Organization Code: EM-22, Director Nuclear Materials Disposition	Telephone No. 301-903-7668 Fax: 301-903-7165 E-mail: (edgardo.deleon@em.doe.gov)
<b>3. Headquarters Budget Point of Contact</b>			
Name: Tracey Whipp		Organization Code: EM-61, Office of Budget	Telephone No. 301-903-7157
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Collazo, Yvette T. (Yvette) Phone: (202-586-5280) Fax: (202-586-0449) Routing: (EM-1) E-mail: (yvette.collazo@hq.doe.gov)	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
DE-AC-09-08SR22470-11C-FY13		3	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b>	<b>Previous = Carry Over</b>	<b>Change = New BA</b>	<b>Current = TAC</b>
EY.86.48.11.0	\$5,903,800	\$110,180,680	\$116,083,680
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
Oct. 1, 2012	To: Sept. 30, 2013	Oct. 1, 2012	Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
<p>PBS 11C current period activities include the operations of H Canyon, HB Line, Analytical Labs (buildings. 772-F and 772 1F) and K Area; the surveillance and maintenance of F Area Complex (FB Line and F Area Materials Storage [FAMS] facilities) and Receiving Basin for Offsite Fuels (RBOF) pending transfer to PBS 30 for decommissioning.</p> <p>Sublevel B&amp;R (non-control point) scopes of work include H Canyon operations, Plutonium Preparation Project operations FAMS operations, K area operations and the balance of the Nuclear Materials program. Funds authorization is in accordance with the DOE-SR Fin Plan. A more detailed description of the work scope can be reviewed in the SRNS FY 13-17 CPB once change requests are approved by DOE-SR.</p> <p>All work shall be conducted in accordance with this Modification.</p>			

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

**1a. Project Title**

SR-0011C NM Stabilization and Disposition - 2035

**1b. Work Proposal Number**

DE-AC-09-08SR22470-11C-FY13

**16. Work Authorization Program Official - Contracting Officer's Representative**

Name (typed):

Doug Hintze

Signature:

Date:

**17. DOE-SR Budget Official (Field CFO)**

Name (typed):

Harold K. Nielsen  
*for*

Signature:

*Patricia Kelly*

Date:

*3/26/2013***18. Contractor's Authorized Representative**

Name (typed):

John W. Temple

Signature:

Date:

**19. DOE Contracting Officer (or delegated representative)**

Name (typed):

~~James Lovett~~  
*SCOTT LANGSTON*

Signature:

*SL*

Date:

*3/26/13*

**Attachment 2**

**Work Authorization No. 12-FY13, Rev 3**

**Project Title: SR-0012 SNF Stabilization and Disposition**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
SR-0012 SNF Stabilization and Disposition		DE-AC-09-08SR22470-12-FY13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Deleon Jr, Edgardo C. (Gary)	Organization Code: EM-22, Director Nuclear Materials Disposition	Telephone No. 301-903-7668 Fax: 301-903-7165 E-mail: (edgardo.deleon@em.doe.gov)	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Tracey Whipp	Organization Code: EM-61, Office of Budget	Telephone No. 301-903-7157	
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Collazo, Yvette T. (Yvette) Phone: (202-586-5280) Fax: (202-586-0449) Routing: (EM-1) E-mail: (yvette.collazo@hq.doe.gov)	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
DE-AC-09-08SR22470-12-FY13		3	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b>	<b>Previous = Carry Over</b>	<b>Change = New BA</b>	<b>Current = TAC</b>
EY.86.48.12.1	\$345,116	\$18,164,250	\$18,509,366
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
Oct. 1, 2012	To: Sept. 30, 2013	Oct. 1, 2012	Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
PBS 12 work scope in the current baseline includes the operation of L area facilities, continued receipt and storage of Used Nuclear Fuel (UNF) and management of Heavy Water at SRS. Funds authorization is in accordance with the DOE-SR Fin Plan. A more detailed description of the work scope can be reviewed in the SRNS FY 13-17 CPB once change requests are approved by DOE-SR.			
All work shall be conducted in accordance with this Modification.			

U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title

SR-0012 SNF Stabilization and Disposition

1b. Work Proposal Number

DE-AC-09-08SR22470-12-FY13

16. Work Authorization Program Official - Contracting Officer's Representative

Name (typed):

Doug Hintze

Signature:

Date:

17. DOE Budget Official

Name (typed):

Harold K. Nielsen

Signature:

Date:

18. Contractor's Authorized Representative

Name (typed):

John W. Temple

Signature:

Date:

19. DOE Contracting Officer (or delegated representative)

Name (typed):

James Lovett

SCOTT LANGSTON

Signature:

Date:

3-26-13

**Attachment 3**

**Work Authorization No. 13-FY13, Rev 3**

**Project Title: SR-0013 Solid Waste Disposition**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
SR-0013 Solid Waste Disposition		DE-AC-09-08SR22470-13-FY13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Marcinowski, Frank N.	Organization Code: EM-30, Deputy Assistant Secretary for Waste Mgmt	Telephone No. 202-586-0370 Email: (frank.marcinowski@em.doe.gov)	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Tracey Whipp	Organization Code: EM-61, Office of Budget	Telephone No. 301-903-7157	
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Collazo, Yvette T. (Yvette) Phone:(202-586-5280) Fax:(202-586-0449) Routing:(EM-1) E-mail:(yvette.collazo@hq.doe.gov)	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
DE-AC-09-08SR22470-13-FY13		3	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b>	<b>Previous = Carry Over</b>	<b>Change = New BA</b>	<b>Current = TAC</b>
EY.86.48.13.0	\$11,522,083	\$7,392,562	\$18,914,645
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
Oct. 1, 2012	To: Sept. 30, 2013	Oct. 1, 2012	Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
<p>Current period work scope includes the receipt, storage and disposal of legacy and newly generated Low Level Waste (LLW), Low Level Mixed Waste (LLMW), Transuranic (TRU) waste, HW, Pipe Overpack Containers (POCs) from HB-Line, and sanitary waste. The DOE-SR Pollution Prevention (P2) Program employs the EM's preference of source reduction and recycling over treatment, storage and disposal and the preferred use of energy-efficient and resource-conservative practices and operations. Surveillance and maintenance activities for the Consolidated Incineration Facility will continue through FY 2013, at which point decommissioning will commence.</p> <p>This current period work scope also includes capital type projects (capital equipment and general plant projects) executed by Infrastructure Services to support facilities and activities, and support for the Historic Preservation program. Funds authorization is in accordance with the DOE-SR Fin Plan. A more detailed description of the work scope can be reviewed in the SRNS FY 13-17 CPB once change requests are approved by DOE-SR.</p>			
All work shall be conducted in accordance with this Modification.			



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title

SR-0013 Solid Waste Disposition

1b. Work Proposal Number

DE-AC-09-08SR22470-13-FY13

16. Work Authorization Program Official - Contracting Officer's Representative

Name (typed):

Doug Hintze

Signature:

Date:

17. DOE Budget Official

Name (typed):

Harold K. Nielsen  
*for*

Signature:

*Saturnia Betty*

Date:

*3/26/2013*

18. Contractor's Authorized Representative

Name (typed):

John W. Temple

Signature:

Date:

19. DOE Contracting Officer (or delegated representative)

Name (typed):

~~James Robert~~  
Scott Langston

Signature:

*S-J*

Date:

*3/26/13*

**Attachment 4**

**Work Authorization No. 14C-FY13 Support, Rev 3**

**Project Title: SR Services and Contract Interface**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> SR Services & Contract Interface		<b>1b. Work Proposal Number</b> DE-AC-09-08SR22470-14C-FY13 Support	
<b>2. Headquarters Program Point of Contact</b>			
Name:	Organization Code:	Telephone No.	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Tracey Whipp	Organization Code: EM-61, Office of Budget	Telephone No. 301-903-7157	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Collazo, Yvette T. (Yvette) Phone:(202-586-5280) Fax:(202-586-0449) Routing:(EM-1) E-mail:(yvette.collazo@hq.doe.gov)	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> DE-AC-09-08SR22470-14C-FY13 Support		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b> EY8748141	<b>Previous = Carry Over</b> \$1,973,613	<b>Change = New BA</b> \$74,425,500	<b>Current = TAC</b> \$76,399,113
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
Oct. 1, 2012	To: Sept. 30, 2013	Oct. 1, 2012	Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
Current period work scope includes services provided to the Liquid Waste (LW) contractor per current modification of Contract No. DE-AC09-08SR22470, Section PART I - THE SCHEDULE SECTION C DESCRIPTION/SPECIFICATION/WORK STATEMENT DESCRIPTION OF WORK AND SERVICES, C-3.4 Landlord Services and Site Support (Amendment 003), and C-4 INTERFACES WITH OTHER SITE USERS, and in conjunction with Contract No. DE-AC09-09SR22505 PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS SECTION J - LIST OF ATTACHMENTS APPENDIX N - SR SERVICES & CONTRACT INTERFACE REQUIREMENTS MATRIX. SR contractors retain the responsibility to reach agreement on interfaces and for the appropriate delivery of services. The SR Management and Operating (M&O) Contractor shall maintain an Interface Management Plan (IMP) and its portion of controlling agreements (i.e., MOAs/MOUs). The IMP is an interface management tool only and does not take precedence over the requirements identified herein. Costs for material, labor and subcontracts used for acquisition and installation of real property as defined by DOE O 430.1B Chg 2, Real Property and Asset Management, will be charged to this funding, up to and including cost of replacing deficient materials or rework.			
All work shall be conducted in accordance with this Modification.			



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title

SR Services & Contract Interface

1b. Work Proposal Number

DE-AC-09-08SR22470-14C-FY13 Support

16. Work Authorization Program Official - Contracting Officer's Representative

Name (typed):

Doug Hintze

Signature:

Date:

17. DOE Budget Official

Name (typed):

Harold K. Nielsen

Signature:

Date:

18. Contracting Officer Representative

Name (typed):

Jack Hart

Signature:

Date:

19. DOE Contracting Officer (or delegated representative)

Name (typed):

~~James Lovett~~  
SCOTT LANGSTON

Signature:

Date:

3-28-13

**Attachment 5**

**Work Authorization No. 20-FY13, Rev 3**

**Project Title: SR-0020 Protective Forces – Savannah River**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> SR-0020 Protective Forces - Savannah River		<b>1b. Work Proposal Number</b> DE-AC-09-08SR22470-20-FY13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Moury, Matthew B.		Organization Code: EM-40, Deputy Assistant Secretary for Safety, Security and Quality Telephone No. 202-586-5151 Email: (matthew.moury@em.doe.gov)	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Tracey Whipp		Organization Code: EM-61, Office of Budget Telephone No. 301-803-7157	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Collazo, Yvette T. (Yvette) Phone:(202-586-5280) Fax:(202-586-0449) Routing:(EM-1) E-mail:(yvette.collazo@hq.doe.gov)	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> DE-AC-09-08SR22470-20-FY13		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b> FS.50.48.01.0	<b>Previous = Carry Over</b> \$12,183,756	<b>Change = New BA</b> \$13,393,000	<b>Current = TAC</b> \$25,576,756
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
Oct. 1, 2012 To: Sept. 30, 2013		Oct. 1, 2012	Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
<p>The S&amp;S Program provides technical support and documentation to manage an integrated system for the protection of nuclear materials, classified information, Site property and personnel. The Nuclear Material, Control and Accountability (MC&amp;A) Program ensures SNM accounting in accordance with DOE requirements and supports ongoing and new risk reduction, material consolidation and nuclear material hold up removal activities (e.g., residual materials in process equipment). These activities provide assurance that SNM is properly controlled and accounted for at all times. The Information Security Program ensures that material and documents that may contain sensitive or classified information are identified, reviewed, appropriately marked and protected from unauthorized disclosure and ultimately destroyed in a timely manner. The Personnel Security Program encompasses those activities necessary to ensure only authorized personnel access the Site and ensure adequate control for areas within the Site. The Cyber Security Program ensures the protection of sensitive or classified information that is electronically transmitted.</p> <p>Funds authorization is in accordance with the DOE-SR Fin Plan. A more detailed description of the work scope can be reviewed in the SRNS FY 13-17 CPB once change requests are approved by DOE-SR.</p> <p>All work shall be conducted in accordance with this Modification.</p>			

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

**1a. Project Title**

SR-0020 Protective Forces - Savannah River

**1b. Work Proposal Number**

DE-AC-09-08SR22470-20-FY13

**16. Work Authorization Program Official - Contracting Officer's Representative**

Name (typed):

Doug Hintze

Signature:

Date:

**17. DOE Budget Official**

Name (typed):

Harold K. Nielsen  
*H.K.*

Signature:

*Darcia Betty*

Date:

*3/20/2013***18. Contractor's Authorized Representative**

Name (typed):

John W. Temple

Signature:

Date:

**19. DOE Contracting Officer (or delegated representative)**

Name (typed):

~~James Lovett~~  
*SCOTT LONGSTON*

Signature:

*S. J.*

Date:

*3-28-13*

**Attachment 6**

**Work Authorization No. 30-FY13, Rev 3**

**Project Title: SR-0030 Environmental Compliance**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> SR-0030 Environmental Compliance		<b>1b. Work Proposal Number</b> DE-AC-09-08SR22470-30-FY13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Levitan, William M. (Bill)	Organization Code: EM-10, Associate Deputy Assistant Secretary for Site	Telephone No. 301-903-3339 Fax: 301-903-4303 E-mail: william.levitan@em.doe.gov	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Tracey Whipp	Organization Code: EM-61, Office of Budget	Telephone No. 301-903-7157	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Collazo, Yvette T. (Yvette) Phone: (202-586-5280) Fax: (202-586-0449) Routing: (EM-1) E-mail: (yvette.collazo@hq.doe.gov)	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> DE-AC-09-08SR22470-30-FY13		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (\$ in thousands) (See NOTE below)</b>			
NOTE: Funding obligated under most current contract modification and related approved financial plan executed under contract clauses B-4, Obligation of Funds, and I.53, DEAR 970.5232-4 Obligation of Funds (Dec 2000) applies.			
<b>Budget and Reporting Code:</b> EY.86.48.30.0	<b>Previous = Carry Over</b> \$868,926	<b>Change = New BA</b> \$22,278,064	<b>Current = TAC</b> \$23,146,990
<b>11. Performance Period Covered by Funds</b> Oct. 1, 2012 To: Sept. 30, 2013		<b>12. Work Start Date</b> Oct. 1, 2012	<b>13. Expected Completion Date</b> Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b> The current period scope for PBS 30 includes Area Completion activities while maintaining RCRA and FFA compliance and required surveillance and maintenance of inactive facilities.  Funds authorization is in accordance with the DOE-SR Fin Plan. A more detailed description of the work scope can be reviewed in the SRNS FY 13-17 CPB once change requests are approved by DOE-SR.  All work shall be conducted in accordance with this Modification.			
<b>16. Work Authorization Program Official - Contracting Officer's Representative</b>			
Name (typed): Doug Hintze	Signature:	Date:	
<b>17. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature:	Date:	
<b>18. Contractor's Authorized Representative</b>			
Name (typed):	Signature:	Date:	

U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title

SR-0030 Environmental Compliance

1b. Work Proposal Number

DE-AC-09-08SR22470-30-FY13

John W. Temple

19. DOE Contracting Officer (or delegated representative)

Name (typed):

~~James Lovett~~  
SCOTT LANGSTON

Signature:



Date:

3-26-13

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b> 1   2	
<b>2. AMENDMENT/MODIFICATION NO.</b> 344		<b>3. EFFECTIVE DATE</b> 04/10/2013		<b>4. REQUISITION/PURCHASE REQ. NO.</b> 13EM001521		<b>5. PROJECT NO. (If applicable)</b>
<b>6. ISSUED BY</b> Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		<b>CODE</b> 00901		<b>7. ADMINISTERED BY (If other than Item 6)</b> Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		<b>CODE</b> 00901
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b> SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				<b>9A. AMENDMENT OF SOLICITATION NO.</b> (x)		
				<b>9B. DATED (SEE ITEM 11)</b>		
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470		
				<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008		
<b>CODE</b> 798861048		<b>FACILITY CODE</b>				

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)** Net Increase: \$84,138,470.00

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority)</b> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office

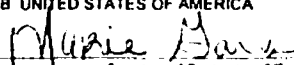
**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)**

The purpose of this modification is to incrementally fund CLIN 0001, and correct clerical error and/or administrative oversight under Modification 337, which recurs in Paragraph 14(a) of modification 338, and 339. Accordingly, the following applies:

A. Funds in the amount of \$84,138,470.00 is obligate to CLIN 0001 (Department of Energy), in accordance with SRNS FINPLAN 12, thereby increasing it from \$4,252,201,948.19 to \$4,336,340,418.19.

As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,652,051,033.02 to \$5,736,189,503.02.  
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b> Marie A. Garvin	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b> 	<b>16C. DATE SIGNED</b> 04/10/2013
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

DE-AC09-08SR22470/344

PAGE

OF

2

2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B. Clerical error and/or administrative oversight under Modification 337, which recurs in Paragraph 14(A) of modification 338 and 339, the revisions as cited below are hereby incorporated:</p> <p>1) Modification 337, paragraph 14(A), last sentence should read "from \$4,248,409,065.79 to \$4,249,875,862.77."</p> <p>2) Modification 338, paragraph 14(A), last sentence should read "from \$4,249,875,862.77 to \$4,250,248,394.45."</p> <p>3) Modification 339, paragraph 14(A), last sentence should read "from \$4,250,248,394.45 to \$4,252,201,948.19."</p> <p>The total obligation for the contract in Paragraph 14(B) of modifications 337, 338 and 339 is correct, no changes required.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>FOB: Destination</p>				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1   2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
345		04/11/2013		13EM001521	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		CODE 00901	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		x <b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)** Net Decrease: -\$3,912.40

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
X	<b>D. OTHER (Specify type of modification and authority)</b> Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☐ is not. ☒ is required to sign this document and return \_\_\_\_\_ 1 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

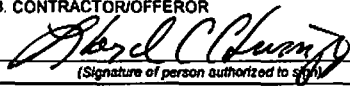
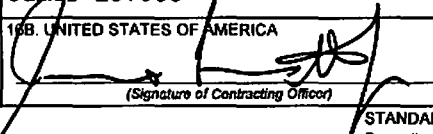
The purpose of this modification is to incorporate Contract Work Authorization No. SL-410003, Rev. 1; and obligate FY 2013 funding to CLIN 0001. In according to the following:

A. Contract Work Authorization No. SL-410003-13, Rev. 1, for Solar Eenergy, is hereby incorporated, see Attachment 1, hereto.

As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b> L.C. Clevinger II Manager, Contracts		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b> James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>  (Signature of person authorized to sign)	<b>15C. DATE SIGNED</b> 4/11/13	<b>16B. UNITED STATES OF AMERICA</b>  (Signature of Contracting Officer)	<b>16C. DATE SIGNED</b> 04/11/2013

NSN 7540-01-152-8070  
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

## CONTINUATION SHEET

REFERENCE NO. OF JMENT BEING CONTINUED  
DE-AC09-08SR22470/345PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B. In accordance with SRNS FINPLAN 12, Reimbursable Work Commercial funds in the amount of (-\$3,912.40) are hereby obligated to CLIN 0001, thereby decreasing it from \$4,336,340,418.19 to \$4,336,336,505.79.</p> <p>C. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$5,736,189,503.02 to \$5,736,185,590.62.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination</p>				

**Attachment 1**

**Contract Work Authorization No. SL-410003-13, Rev 1**

**Project Title: Solar Energy**

**Note: Three (3) pages, inclusive of Cost and Obligation Report  
Year-To-Date Values (supporting documentation)**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Solar Energy		<b>1b. Work Proposal Number</b> AOP #2013; Agreement No. 25835	
<b>2. Headquarters Program Point of Contact</b>			
Name: Minh Le	Organization Code:	Telephone No. 202-287-1372	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Kyra Humphreys	Organization Code: EE-3B	Telephone No. 202-585-8138	
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> Savannah River Site Office			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b> SL-410003-13		<b>9. Revision Number</b> 1	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b> SL0100000	<b>Previous</b> \$691,087	<b>Change</b> \$209,138	<b>Current</b> \$900,225
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/2012	To: 9/30/2013	10/1/2012	9/30/2013
<b>14. Statement of Work (Includes attachments)</b> Funding in the amount of \$209,138.00 is authorized by the Solar Energy to perform work in the areas of : The U.S. Department of Energy (DOE) SunShot Initiative and Solar Energy Technologies Program (SETP) authorizes funding in accordance with the program Annual Operating Plan (AOP). This operating plan authorizes specific funding amounts for each project and agreement, and requires detailed performance milestones and deliverable be met or completed within the period of performance. Please refer to the Work Proposal Number (1b) to determine which section(s) of the AOP for which this authorization provides funding.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): PATRICK R. JACKSON	Signature: <i>Patrick R. Jackson</i>	Date: 3/27/13	
<b>16. DOE-SR Budget Official (Field CFO)</b>			
Name (typed): Harold K. Nielsen	Signature: <i>Harold K. Nielsen</i>	Date: 4/1/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John W. Temple	Signature: <i>John W. Temple</i>	Date: 4/2/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: <i>Scott Langston</i>	Date: 4/2/13	



U.S.DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM

03/20/2013  
PAGE: 6

89X0321 - ENERGY EFFICIENCY AND RENEWABLE ENERGY  
FISCAL YEAR:2013

36 - MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO. 3

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0321.91 (05450)									
O BM01	BIOMASS/BIOFUELS ENERGY SYSTEMS								
			2013	NEW OA	187,500.00		0.00		187,500.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	187,500.00		0.00		187,500.00
O BM01 TOTAL, BIOMASS/BIOFUELS ENERGY SYSTEMS				NEW OA	187,500.00		0.00		187,500.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	187,500.00		0.00		187,500.00
O EL17	FEDERAL ENERGY MANAGEMENT PROGRAM								
			2013	NEW OA	12,000.00		0.00		12,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	12,000.00		0.00		12,000.00
O EL17 TOTAL, FEDERAL ENERGY MANAGEMENT PROGRAM				NEW OA	12,000.00		0.00		12,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	12,000.00		0.00		12,000.00
O HT	HYDROGEN AND FUEL CELLS TECHNOLOGIES								
			2013	NEW OA	1,695,000.00		0.00		1,695,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,695,000.00		0.00		1,695,000.00
O HT TOTAL, HYDROGEN AND FUEL CELLS TECHNOLOGIES				NEW OA	1,695,000.00		0.00		1,695,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,695,000.00		0.00		1,695,000.00
O SL	SOLAR ENERGY								
			2013	NEW OA	691,087.00		209,138.00		900,225.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	691,087.00		209,138.00		900,225.00

# Cost and Obligation Report

## YTD Values

Funding Source: All

Appr Year	Fund Code	Legacy FT	Program	Legacy B&R	Project	WFO	Object Class	Local Use	Purchase Order	BEARS			STARS			
										BA Committed	BA Obligated	Curr Yr Obligated	Curr Yr Costs	Ending Uncosted		
Legacy Program Parent: SL0100000																
2013	05450	ZA	1005615	SL0100000	0000000	0000000	25102	0000000	9999999	0.00	209,138.00	0.00	0.00	0.00	0.00	
2013	05450	ZA	1005615	SL0100000	0000000	0000000	25400	0000000	SR22470	0.00	691,087.00	691,087.00	691,087.00	0.00	691,087.00	
Total for Legacy Program Parent: SL0100000											0.00	900,225.00	691,087.00	691,087.00	0.00	691,087.00
Report Total											0.00	900,225.00	691,087.00	691,087.00	0.00	691,087.00

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
346		04/11/2013		13EM001521	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421					
				<b>9B. DATED (SEE ITEM 11)</b>	
		<b>x</b>		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>		01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)** Net Decrease: -\$143,534.87

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)
<b>E. IMPORTANT:</b>	Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**


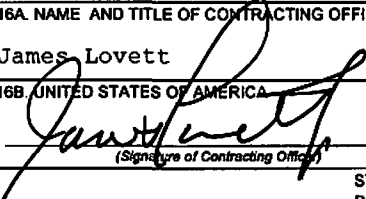
A. The purpose of this modification is to obligate FY 2013 funding to CLIN 0001, in the amount of (-\$143,534.87), in accordance with SRNS FINPLAN 12, as cited below:

- 1) Department of Defense (-\$146,267.87)
- 2) Department of Homeland Security, \$22,150.00
- 3) Executive Office of the President (-\$19,417.00)

The amount of (-\$143,534.87) are hereby obligated to CLIN 0001, thereby decreasing it from \$4,336,336,505.79 to \$4,336,192,970.92.

C. As a result of this modification, Part I - Schedule, Section B, Supplies or Services Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
L.C. Clevinger II Manager, Contracts		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
 (Signature of person authorized to sign)	4/11/13	 (Signature of Contracting Officer)	04/11/2013

NSN 7540-01-152-8070  
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$5,736,185,590.62 to \$5,736,042,055.75.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1   2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
347		04/16/2013		13EM001532	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
				<b>9B. DATED (SEE ITEM 11)</b>	
		<b>X</b>		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)
<b>E. IMPORTANT:</b>	Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. Reference Modification 035, the purpose of this modification is to incorporate Contract Work Authorization for Project Code 2005000, Project Title: Basic Energy Sciences - Energy Frontier Research Centers, see attachments 1, hereto. The original performance period under Mod 035 was changed in error. The attached Work Authorization restates the project period as intended prior to changed, as cited below:

Work Start Date: From: Aug 2009

Expected Completion Date: To: Jul 2014

B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds were allocated previously under Mod 035, in Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	04/16/2013

NSN 7540-01-152-8070  
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/347	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>accordance with the DOE-SR FIN PLAN 19, Fiscal Year 2009, dated August 7, 2009. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

## Attachment 1

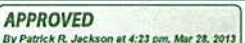
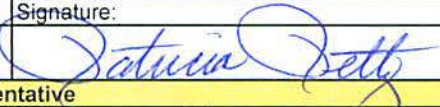


**Contract Work Authorization No. Project Code 2005000**

**Project Title: Basic Energy Sciences – Energy Frontier Research  
Centers**

**Note: Three (7) pages, inclusive original WA, Funding  
Document, copy of page 1 of FINPLAN 19, reference funds  
previously allocated under Mod 035**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Basic Energy Sciences - Energy Frontier Research Centers		Various; Project Code 2005000	
<b>2. Headquarters Program Point of Contact</b>			
Name: Harriet Kung		Organization Code: SC-22	Telephone: 301-903-3081
<b>3. Headquarters Budget Point of Contact</b>			
Name: Mike Osinski/Donna Gilbert		Organization Code: SC-41.2	Telephone: 301-903-3590
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Science: Basic Energy Sciences		Patricia Dehmer, Deputy Director for Science Programs	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
Various; Project Code 2005000		0	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
KC0307010	\$1,100,000	\$0	\$1,100,000
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 2/17/09	To: Sep 30, 2014	From: Aug 2009	To: July 2014
<b>14. Statement of Work (Includes attachments)</b>			
Funds in the amount of \$1,100,000 are provided under KC030701 for FWP #SCW0056, entitled "Materials Sciences of Actinides (Lead Institute - University of Notre Dame)." EFRD Director: Burns, Peter. The project period for this FWP is August 7, 2009 through July 31, 2014.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed):	Signature:	Date:	
Patrick R. Jackson	 <small>APPROVED By Patrick R. Jackson at 4:23 pm, Mar 28, 2013</small>	3/28/2013	
<b>16. DOE Budget Official</b>			
Name (typed):	Signature:	Date:	
Harold K. Nielsen		3/9/2013	
<b>17. Contractor's Authorized Representative</b>			
Name (typed):	Signature:	Date:	
John Temple		4/10/2013	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed):	Signature:	Date:	
Scott Langston		3/9/2013	



**U.S. DEPARTMENT OF ENERGY  
CONTACT WORK AUTHORIZATION**

1a. Project Title: Basic Energy Sciences - Energy Frontier Research Centers (Project code 2005000)		1b. Work Proposal Number (if applicable): Various	
2. Headquarters Program Point of Contact. Name: Harriet H. Kung Organization Code: SC-22 Telephone No.: (301) 903-3081			
3. Headquarters Budget Point of Contact. Name: Mike Osinski/Donna Gilbert (ext 4815) Organization Code: SC-41 Telephone No.: (301) 903-3590			
4. Responsible Program: Basic Energy Sciences		5. Responsible Secretarial Officer: Under Secretary for Science	
6. Responsible Field Organization: Savannah River Operations Office			
7a. Site and Facility Management Contractor: Savannah River Nuclear Solutions, LLC		7b. Contractor Point of Contact. Name: Telephone No.:	
8. Work Authorization Number: KC/SR1/9/ARRA-1		9. Revision Number: 00	
10. Funds Authorized (\$ in thousands). B&R Code: KC030701 Previous: \$0 Change: \$+1,100 Current: \$1,100			
11. Performance Period Covered by Funds. From: 02/17/09 To: 09/30/10		12. Work Start Date: Aug 2009	13. Expected Completion Date: July 2013
14. Statement of Work:  This Work Authorization is issued for the sole purpose of authorizing work in support of the American Recovery and Reinvestment Act of 2009, (Pub. L. 111-5) (Recovery Act). All contract terms and conditions apply to the work identified herein, in particular contract provision H-999 applies. The work described in this work authorization shall be performed using funds obligated under the contract, appropriated under the Recovery Act and as such is subject to special statutory conditions.  The Office of Science (SC) is committed to conducting all work authorized herein, in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public, and the environment is a direct and individual responsibility of all SC managers and SC-supported contractors. Funds provided by SC will be applied as necessary to ensure that all supported activities are conducted safely and in an environmentally conscientious manner. Only work conducted in this manner will be supported.  <u>Specific Recovery Act Statement of Work:</u>  Funds in the amount of \$1,100,000 are provided under KC030701 for FWP # SCW0056, entitled "Materials Sciences of Actinides (Lead Institute -University of Notre Dame)." EFRD Director; Burns, Peter. The project period for this FWP is August 7, 2009 through July 31, 2013.  Attachment A, Contractor Recovery Act Performance Requirements, identifies the Contractor Recovery Act Schedule Milestones, Performance Measures and Outcomes and Deliverables for this Work Authorization. The contractor's performance against the identified requirements in Attachment A will be evaluated under the Office of Science laboratory appraisal process.			
15. Reporting Requirements (Status reports, scientific and technical information or similar):  The recipient of funding in this Work Authorization is responsible for meeting all reporting requirements established by the Department of Energy for activities funded by the American Recovery and Reinvestment Act of 2009.			
16. Work Authorization Program Official. Name (typed): Harriet H. Kung Signature: <i>[Signature]</i> Date: 6/30/09			
17. DOE Field Organization Official. Name (typed): KAREN L HOOKER Signature: <i>[Signature]</i> Date: 9/15/09			
18. Contractor's Authorized Representative. Name (typed): L. FRELIN Signature: <i>[Signature]</i> Date: 9/2/09			
19. DOE Contracting Officer (or delegated representative). Name (typed): SCOTT LANGSON Signature: <i>[Signature]</i> Date: 9/23/09			

SC

SL

DOE-SR SANL/ARRA COR: S.A. Thomas 9/15/09

Officer: Basic Energy Sciences, Office of Science  
 Recovery Project Name: Energy Frontier Research Centers (Project code 2005000)

### Major Milestones

For Grants, Contracts, and Hiring Actions associated with implementing Recovery Act, provide dates for the major milestones. For NEPA reviews, provide the type of review expected and the associated major milestones with dates. Include dollar amounts where appropriate. Add duplicate lines as needed. Provide comments as needed to highlight and clarify milestones.


Weekly/Monthly Milestones Provide weekly milestones through May 8th and Monthly milestones thereafter through Sept. 2011 (add lines as necessary)				DATE	Amount (\$M)	Comments
1	Completing merit review process of 261 applications			3/6/2009		
2	Completing merit review process of 261 applications			3/13/2009		
3	Completing merit review process of 261 applications			3/20/2009		
4	Completing merit review process of 261 applications			3/27/2009		
5	BES selects awards, pending SC-1 approval			4/3/2009		
6	SC-1 approval			4/10/2009		
7	Press Release Announcing Awards			4/17/2009		
8				4/24/2009		
9	Process Award Packages			5/1/2009		
10	Process Award Packages			5/8/2009		
11	Process Award Packages			M-09		
12	Chicago Operations Office Receives Packages			J-09		
13	Chicago Operations Office Processes Packages			J-09		
14	Chicago Operations Office Processes Packages/Obligate Funds			A-09		Beginning in August 2009 EFRC research begins. Post Docs, Grad. Students, and Under Grads will begin to be hired. Number will not be known until awards are made. Equipment purchases will be made, but again no specifics until awards are made.
15				S-09		
16				O-09		
17				N-09		
18				D-09		
19				J-10		
20				F-10		
21				M-10		
22				A-10		
23				M-10		
24				J-10		
25				J-10		
26				A-10		
27				S-10		
28				O-10		
29				N-10		
30				D-10		
31				J-11		
32				F-11		
33				M-11		
34				A-11		
35				M-11		
36				J-11		
37				J-11		
38				A-11		
39				S-11		

57  
 9/23/09

**ATTACHMENT A – CONTRACTOR RECOVERY ACT PERFORMANCE REQUIREMENTS**  
**Energy Frontier Research Centers (2005000)**

<b>Section A:</b>	<b><u>Contractor Recovery Act Schedule or Milestone Requirements</u></b>
4Q FY09:	Initiate research as a portion of the Energy Frontier Research Center (EFRC) led by the appropriate university, which is funded separately under a financial assistance award (grant). If the Contractor is a participant in more than one EFRC, the Attachment pertains to the Contractor's portion of all those EFRCs.
1Q FY10:	First quarterly progress report due.
Progress report due each quarter through 4 <sup>th</sup> Q FY 2014.	
<b>Section B:</b>	<b><u>Contractor Recovery Act Performance Outcomes and Measures</u></b>
<ul style="list-style-type: none"><li>▪ Perform the contractor's portion of the research proposed for the EFRC(s). Federal program managers will verify the research performance of the whole EFRC through conference calls, site visits, regular EFRC directors' meetings, topical conference meetings attended by EFRC investigators, and annual research progress reports.</li></ul>	
<b>Section C:</b>	<b><u>Contractor Recovery Act Deliverables</u></b>
<ul style="list-style-type: none"><li>▪ Quarterly progress reports on the contractor's activities within the EFRC(s).</li></ul>	

  
9/23/09

1. Awarding Office U.S. Department of Energy - Office of Contracts Management		2. Initiating Office Budget Division - Office of the Chief Financial Officer	
3. PRA Number DE-AC09-09SR22470.19		4. Change Correction in Process? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Description of Work/Purpose of Assistance AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) OF 2009. To provide ARRA funding to Savannah River Nuclear Solutions, for the accomplishment of the ARRA related workscope			
Has List of Sources Been Attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
6. Awardee Name Savannah River Nuclear Solutions (SRNS)		7. Address 6160 Woodside Executive Court Aiken, SC 29803	
6a Division			
8. Government Share \$1,155,500.00	9. Awardee Share \$0	10. Total \$1,155,500.00	
11. Total Funds This PRA: \$1,155,500.00			
12. Name-Project Manager/Initiator Gary Little Budget Analyst	13. Signature 	14. Date 5/21/09	15. Office Code CFO BD
			16. Telephone Number 803-952-9319

<b>17. Acquisition</b> <input type="checkbox"/> Advisory & Assistance Services <input type="checkbox"/> Research & Development <input type="checkbox"/> Support Services <input type="checkbox"/> A/E Services <input type="checkbox"/> Supplies <input type="checkbox"/> Other <input type="checkbox"/> Construction		<b>18. Financial Assistance</b> <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Grant
<b>19. Product/Service Code (Applies to Acquisition only)</b>		<b>20. CFDA (Applies to Assistance Only)</b>
<b>21. Master BIN</b>		<b>22. Desired Award Date</b> August 6, 2009
<b>23. Unsolicited Proposal Number</b>		<b>24. Project Number</b>

[illegible]

28. From Contribution Sheet		29. Project Period <b>TOTAL FIN PLAN \$1,155,500.00</b>	
30. Total Funds This PRA Are These Annual Funds? <input type="checkbox"/> Yes <input type="checkbox"/> No		31. Budget Period (Applies to Assistance Awards Only)	
CERTIFYING OFFICIAL: I hereby Certify That the Funds Cited in Item 60 Are Available.			
32. Name and Title H. Kriss Nielsen, Budget Director		33. Signature <i>H. Kriss Nielsen</i>	
		34. Date 8/6/07	
PROGRAM REVIEWING OFFICIAL			
35. Name and Title <i>Dr. J. J. Perillo, N.M.P.D.</i>		36. Signature <i>J. J. Perillo</i>	
37. For Initiating Office Local Office Use		38. Date 8/6/07	
39. Type of Procurement Action (TPA) Code		40. Negotiator Code	
41. Security Will employees require security clearances for performance of this procurement? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, attach DOE F 5634.2, (05-94) "Contract Security Classification Specification"			
42. Energy policy Act Is this procurement subject to the Energy Policy Act of 1992 (EPACT)? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, does it involve either a research and development program or a demonstration of a commercial application? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, see the notice related to this item. Amount of EPACT funding			
Note: We hereby Certify That Funds Cited Are Proper For This Procurement And In Compliance With Applicable Appropriations Acts and Fiscal Law			

Financial Plan Number: 19

Fiscal Year: 2009

Contract Modification Number: A035

Fiscal Month: 11

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

Site: SR

Page: 1 of 1

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: August 5, 2009 at 04:12:48 PM

Rpt Entity	Fund Code	Leg FI	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	Previous	BA Change	Revised	Total Available
410003	06099	AQ	3166012	CJ0100000	25400	0000000	2010000	0000000		0.00	0.00	8,000.00	8,000.00	8,000.00
Total for Program Parent/Control Point: CJ0100000										0.00	0.00	8,000.00	8,000.00	8,000.00
Total for Fund Type: AQ										0.00	0.00	8,000.00	8,000.00	8,000.00
410003	06199	WO	2924193	KC0307010	25400	0000000	2005000	0000000		0.00	0.00	1,100,000.00	1,100,000.00	1,100,000.00
Total for Program Parent/Control Point: KC0300000										0.00	0.00	1,100,000.00	1,100,000.00	1,100,000.00
Total for Fund Type: WO										0.00	0.00	1,100,000.00	1,100,000.00	1,100,000.00
410003	05794	ZT	1005098	EB5100000	25400	0000000	2004040	0000000		0.00	50,000.00	47,500.00	97,500.00	97,500.00
Total for Program Parent/Control Point: EB5100000										0.00	50,000.00	47,500.00	97,500.00	97,500.00
Total for Fund Type: ZT										0.00	50,000.00	47,500.00	97,500.00	97,500.00
Total for Recipient Code: SR										0.00	50,000.00	1,155,500.00	1,205,500.00	1,205,500.00
Total for Reporting Entity: 410003										0.00	50,000.00	1,155,500.00	1,205,500.00	1,205,500.00
Total for SR22470 - Savannah River Nuclear Solutions (SRNS)										0.00	50,000.00	1,155,500.00	1,205,500.00	1,205,500.00



3/28/2013

Fiscal Year: 2013

4:08:51PM

Fiscal Month: 6 (March - GL Open)

## Cost and Obligation Report

### YTD Values

Allottee: 36



Site: SR

Page 1 of 1

Report: REX0006

Funding Source: All

Appr Year	Fund Code	Legacy FT	Program	Legacy B&R	Project	WFO	Object Class	Local Use	Purchase Order	BEARS			STARS			
										BUO	BA Committed	BA Obligated	Curr Yr Obligated	Curr Yr Costs	Ending Uncosted	
Legacy Program Parent: KC0200000																
2009	06199	WO	2924193	KC0307010	2005000	0000000	25400	0000000	SR22470		390,870.18	0.00	0.00	0.00	215,322.86	175,547.32
Total for Legacy Program Parent: KC0200000											390,870.18	0.00	0.00	0.00	215,322.86	175,547.32
Report Total											390,870.18	0.00	0.00	0.00	215,322.86	175,547.32

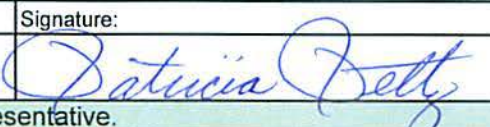
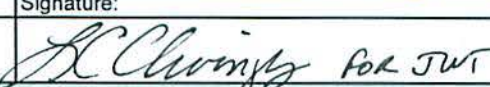
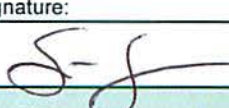
<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 348		3. EFFECTIVE DATE 04/16/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM001552	
5. PROJECT NO. (If applicable)		7. ADMINISTERED BY (If other than Item 6)		CODE 00901	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: - \$120,741.00					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority) X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to de-obligate American Recovery and Reinvestment Act (ARRA) funds in the amount of (-\$120,741.00). This de-obligation is for certain costs incurred by the Contractor for items cited below:					
1) The commemoration event for P&R reactor area completions (-\$94,800.00)					
2) Billboards (-\$25,941)					
Revised contract work authorizations for Project A (P&R Areas), Project B (M&D Areas), Project C (Other Site Areas), and Project D (TRU and Solid Waste), are attached to reflect the de-obligation and revised ceiling amounts.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print) L.C. Clevinger II Manager, Contracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Scott D. Langston			
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED 4/17/13		16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	
				16C. DATE SIGNED 4/16/13	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/348	PAGE 2 OF 2
---------------------------	--	-------------

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC


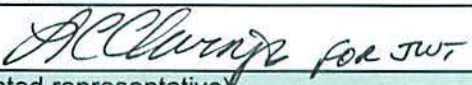
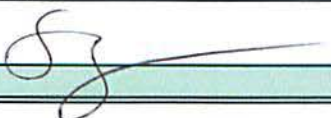
ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised. The total amount of funds obligated to the contract is changed from \$5,736,042,055.75 to \$5,735,921,314.75.</p> <p>C. This modification reflects the parties agreement to full and final resoulution of all matters associated with the matters addressed in paragraph A above.</p> <p>D. All other terms and conditions remain unchanged. FOB: Destination</p>				



U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
1a. Project Title:		1b. Work Proposal Number (if applicable):	
Project A (P&R Areas)		DE-AC-09-08SR22470	
2. Headquarters Program Point of Contact.			
Name:		Organization Code:	Telephone No.
3. Headquarters Budget Point of Contact.			
Name:		Organization Code:	Telephone No.
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Environmental Management			
6. Responsible Field Organization:			
U.S. Department of Energy, Savannah River Operations			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact.	
Savannah River Nuclear Solutions		Name:	Telephone No.
8. Work Authorization Number:		9. Treasury Accounting Symbol:	
ARRA-SRS-3-09-01 Rev. 14		TAS::89-09/10-0253::TAS Recovery Project A	
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.			
Budget and Reporting Code:	Prior	De-Obligation	Revised Ceiling
FD.05.11.00.0	\$ 416,706,064.35	\$42,874.28	\$416,663,190.07
From:	To:		
4/8/2009	6/30/2013	4/8/2009	6/30/2013
14. Statement of Work:			
No Change to Project Statement of Work			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
No Change to Reporting Requirements			
16. Work Authorization Program Official - Contracting Officer's Representative			
Name (typed):	Signature:	Date:	
17. DOE Budget Official.			
Name (typed):	Signature:	Date:	
Patricia Petty		4/16/2013	
18. Contractor's Authorized Representative.			
Name (typed):	Signature:	Date:	
John W. Temple		4/17/13	
19. DOE Contracting Officer (or delegated representative).			
Name (typed):	Signature:	Date:	
Scott D. Langston		4/16/13	



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:				1b. Work Proposal Number (if applicable):			
Project B (M&D Areas)				DE-AC-09-08SR22470			
2. Headquarters Program Point of Contact:							
Name:		Organization Code:		Telephone No.			
3. Headquarters Budget Point of Contact:							
Name:		Organization Code:		Telephone No.			
4. Responsible Program:				5. Responsible Secretarial Officer:			
Office of Environmental Management							
6. Responsible Field Organization:							
U.S. Department of Energy, Savannah River Operations							
7a. Site and Facility Management Contractor:				7b. Contractor Point of Contact:			
Savannah River Nuclear Solutions				Name:		Telephone No.	
8. Work Authorization Number:				9. Treasury Accounting Symbol:			
ARRA-SRS-3-09-02 Rev. 11				TAS::89-09/10-0253::TAS Recovery Project B			
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.							
Budget and Reporting Code:		Prior		De-Obligation		Revised Ceiling	
FD.05.12.00.0		\$23,530,008.41		\$1,541.69		\$23,528,466.72	
From:		To:		4/8/2009		9/30/2011	
4/8/2009		9/30/2011					
14. Statement of Work:							
No Change to Project Statement of Work							
15. Reporting Requirements (Status reports, scientific and technical information or similar):							
No Change to Reporting Requirements							
16. Work Authorization Program Official - Contracting Officer's Representative							
Name (typed):		Signature:			Date:		
17. DOE Budget Official.							
Name (typed):		Signature:			Date:		
Patricia Petty					4/16/2013		
18. Contractor's Authorized Representative.							
Name (typed):		Signature:			Date:		
John W. Temple					4/17/13		
19. DOE Contracting Officer (or delegated representative).							
Name (typed):		Signature:			Date:		
Scott D. Langston					4/16/13		



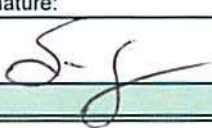


U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:				1b. Work Proposal Number (if applicable):			
Project C (Other Site Areas)				DE-AC-09-08SR22470			
2. Headquarters Program Point of Contact.							
Name:		Organization Code:		Telephone No.			
3. Headquarters Budget Point of Contact.							
Name:		Organization Code:		Telephone No.			
4. Responsible Program:				5. Responsible Secretarial Officer:			
Office of Environmental Management							
6. Responsible Field Organization:							
U.S. Department of Energy, Savannah River Operations							
7a. Site and Facility Management Contractor:				7b. Contractor Point of Contact.			
Savannah River Nuclear Solutions				Name:		Telephone No.	
8. Work Authorization Number:				9. Treasury Accounting Symbol:			
ARRA-SRS-3-09-03 Rev. 10				TAS::89-09/10-0253::TAS Recovery Project C			
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.							
Budget and Reporting Code:		Prior		De-Obligation		Revised Ceiling	
FD.05.13.00.0		\$235,738,414.80		\$13,491.26		\$235,724,923.54	
From:		To:		4/8/2009		9/30/2011	
4/8/2009		9/30/2011					
14. Statement of Work:							
No Change to Project Statement of Work							
15. Reporting Requirements (Status reports, scientific and technical information or similar):							
No Change to Reporting Requirements							
16. Work Authorization Program Official - Contracting Officer's Representative							
Name (typed):		Signature:			Date:		
17. DOE Budget Official							
Name (typed):		Signature:			Date:		
Patricia Petty		<i>Patricia Petty</i>			4/16/2013		
18. Contractor's Authorized Representative.							
Name (typed):		Signature:			Date:		
John W. Temple		<i>AC Cluring for JWT</i>			4/17/13		
19. DOE Contracting Officer (or delegated representative).							
Name (typed):		Signature:			Date:		
Scott D. Langston		<i>SL</i>			4/16/13		



U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION

1a. Project Title:		1b. Work Proposal Number (if applicable):	
Project D (TRU and Solid Waste)		DE-AC-09-08SR22470	
2. Headquarters Program Point of Contact.			
Name:		Organization Code:	Telephone No.
3. Headquarters Budget Point of Contact.			
Name:		Organization Code:	Telephone No.
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Environmental Management			
6. Responsible Field Organization:			
U.S. Department of Energy, Savannah River Operations			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact.	
Savannah River Nuclear Solutions		Name:	Telephone No.
8. Work Authorization Number:		9. Treasury Accounting Symbol:	
ARRA-SRS-3-09-04 Rev. 14		TAS::89-09/10-0253::TAS Recovery Project D	
10. Funds Authorized (\$ in millions). Shall not exceed ceilings w/o prior written approval of the Contracting Officer.			
Budget and Reporting Code:	Prior	De-Obligation	Revised Ceiling
FD.05.30.00.0	\$720,199,497.27	\$62,833.77	\$720,136,663.50
From:	To:		
4/8/2009	12/31/2013	4/8/2009	12/31/2013
14. Statement of Work:			
No Change to Project Statement of Work			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
No Change to Reporting Requirements			
16. Work Authorization Program Official - Contracting Officer's Representative			
Name (typed):	Signature:	Date:	
17. DOE Budget Official			
Name (typed):	Signature:	Date:	
Patricia Petty		4/16/2013	
18. Contractor's Authorized Representative.			
Name (typed):	Signature:	Date:	
John W. Temple		4/17/13	
19. DOE Contracting Officer (or delegated representative).			
Name (typed):	Signature:	Date:	
Scott D. Langston		4/16/13	



## Financial Plan Report - Detail

Contract Modification Number: 348

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: April 17, 2013 at 10:58:46 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	06049	EZ	1111379	FD0511000	25400	0000000	2002150	0000000		335,932.05	-5,408.00	-42,874.28	-48,282.28	287,649.77
AY 2009 - Per direction from Scott Langston per an email dated 3.11.13, the revised de-obligation for the P&R Celebration and Enterprise SRS Billboards is \$120,741. The breakout of the de-obligation by B&R was provided by SRNS Accounting via an email dated 3.15.13. The total amount to be de-obligated from the P&R ARRA B&R is \$42,874.28 which is comprised of: \$33,938.40 for the P&R Celebration and \$8,935.88 for the Billboards.														
Total for Program Parent/Control Point: FD0511000											335,932.05	-5,408.00	-42,874.28	287,649.77
410003	06049	EZ	1111380	FD0512000	25400	0000000	2002151	0000000		998.10	-60.42	-1,541.69	-1,602.11	-604.01
AY 2009 - Per direction from Scott Langston per an email dated 3.11.13, the revised de-obligation for the P&R Celebration and Enterprise SRS Billboards is \$120,741. The breakout of the de-obligation by B&R was provided by SRNS Accounting via an email dated 3.15.13. The total de-ob for the M&D ARRA B&R for this action is \$1,541.69 which is comprised of \$1,516.80 for the PR& Celebration and \$24.89 for the banners.														
Total for Program Parent/Control Point: FD0512000											998.10	-60.42	-1,541.69	-604.01
410003	06049	EZ	1111381	FD0513000	25400	0000000	2002152	0000000		454.99	-454.99	-13,491.26	-13,946.25	-13,491.26
AY 2009 - Per direction from Scott Langston per an email dated 3.11.13, the revised de-obligation for the P&R Celebration and Enterprise SRS Billboards is \$120,741. The breakout of the de-obligation by B&R was provided by SRNS Accounting via an email dated 3.15.13. The total de-ob for the Soil & Groundwater ARRA B&R for this action is \$13,491.26 which is comprised of \$13,366.80 for the P&R Celebration and \$124.46 for the banners.														
Total for Program Parent/Control Point: FD0513000											454.99	-454.99	-13,491.26	-13,491.26
410003	06049	EZ	1111347	FD0530000	25400	0000000	2002153	0000000		26,724,611.21	-2,117.93	-62,833.77	-64,951.70	26,659,659.51
AY 2009 - Per direction from Scott Langston per an email dated 3.11.13, the revised de-obligation for the P&R Celebration and Enterprise SRS Billboards is \$120,741. The breakout of the de-obligation by B&R was provided by SRNS Accounting via an email dated 3.15.13. The total amount to be de-obligated from the TRU & SW ARRA B&R for this action is \$62,833.77 which is comprised of \$45,978.00 for the P&R Celebration and \$16,855.77 for the Billboards.														
Total for Program Parent/Control Point: FD0530000											26,724,611.21	-2,117.93	-62,833.77	26,659,659.51
Total for Fund: 06049											27,061,996.35	-8,041.34	-120,741.00	26,933,214.01
Total for Recipient Code: SR											27,061,996.35	-8,041.34	-120,741.00	26,933,214.01
Total for Reporting Entity: 410003											27,061,996.35	-8,041.34	-120,741.00	26,933,214.01
Total for SR22470 - Savannah River Nuclear Solutions (SRNS)											27,061,996.35	-8,041.34	-120,741.00	26,933,214.01

Financial Plan Number: 13

Fiscal Year: 2013

Fiscal Month: 07

Contract Modification Number: 348

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

Site: SR

Page 2 of 2

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: April 17, 2013 at 10:58:46 AM

---

### *Agency Sub-Report*

<u>Agency</u>	<u>Obligation Change Amount</u>
Total Appropriated Funds (Programs 40 or 55):	0.00
Total DOE Funds:	-120,741.00
Total Non-Appropriated Funds:	0.00
Grand Total:	-120,741.00

---

### *TAS Sub-Report*

DOE Funding: 8909/100253

Reimbursable Funding:

No Reimbursable Funding Exists

This financial plan was generated for the following options: All Transactions

---

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 1	
2. AMENDMENT/MODIFICATION NO. 349		3. EFFECTIVE DATE 04/17/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM001577	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
CODE 00901		CODE 00901		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change accounting data.

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office.

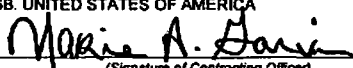
**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to incorporate Contract Work Authorization No. HQ1001-0-SR, Revision 1, for Energy Employees Occupational Illness Compensation Program (EEOICPA) (See attachments 1), hereto.

B. This modification formally incorporates the above referenced contract work authorization as part of the contract, and authorizes continuation of work. The FINPLAN for Funds authorization will be issued by separate modification. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.

C. The contract estimated value and all other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Marie A. Garvin	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 04/17/2013



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Energy Employees Occupational Illness Compensation Program (EEOICPA)		<b>1b. Work Proposal Number</b> HQ1001-0-SR	
<b>2. Headquarters Program Point of Contact</b>			
Name: Greg Lewis		Organization Code: HS-14      Phone: 202-586-2784	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Debra James		Organization Code: HS-10      Telephone No. 301-983-3465	
<b>4. Responsible Program</b> Office of Health, Safety, and Security		<b>5. Responsible Secretarial Officer</b> Stephen Kirchhoff	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> HQ1001-0-SR		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Date</b>	<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>
Oct	HQ1001000	\$ 125,000.00	
Jan	HQ1001000	\$ 100,000.00	
Mar	HQ1001000	\$ 65,000.00	
Apr	HQ1001000		\$ 45,000.00      \$ 335,000.00
<b>11. Performance Period Covered by Funds (See NOTE in)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: October 1, 2012      To: <del>March 27, 2013</del> <i>September 30 AM</i>		From: Oct. 1, 2012	To: Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
<p>The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:</p> <ol style="list-style-type: none"> <li>1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.</li> <li>2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.</li> <li>3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.</li> <li>4) Perform other necessary EEOICPA related records work as needed.</li> <li>5) Maintain local records to track the activities conducted under EEOICPA.</li> </ol> <p><b>FY 2013 DELIVERABLES:</b> By the 15th of each month provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:</p> <ul style="list-style-type: none"> <li>• HS-14 (Greg Lewis),</li> <li>• HS-10 Budget Contact (Jeanette Yarrington)</li> <li>• HS-81 Budget Contact (Debra James)</li> </ul>			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Brenda Mills		Signature: <i>Brenda Mills</i>	Date: 4/17/13
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen		Signature: <i>Harold K. Nielsen</i>	Date: 4/17/13
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple		Signature:	Date:
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Marie Garvin		Signature: <i>Marie Garvin</i>	Date: 4/17/13



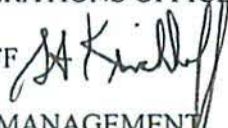


## Department of Energy

Washington, DC 20585

April 12, 2013

MEMORANDUM FOR DR. DAVE MOODY  
MANAGER  
SAVANNAH RIVER OPERATIONS OFFICE

FROM: STEPHEN A. KIRCHHOFF   
DIRECTOR  
OFFICE OF RESOURCE MANAGEMENT  
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: April FY 2013 Approved Funding Program

The attached work authorization is consistent with changes made in the April 2013 financial plans. As stated in DOE Order 412.1, work authorizations are to be issued/revised when there is a change in funding or program guidance.

Please return a copy of the signed work authorization to the appropriate Headquarters budget point-of-contact listed on the work authorization. The signed (and returned) work authorization is written documentation that provides the Headquarters program manager with confirmation that transferred funds were received, work accepted, and the effort will proceed as stated.

We appreciate your assistance and support in carrying out the Work Authorization System. Please contact me if you have any questions on 202-586-3373. If your staff has any questions or problems, please contact the appropriate budget point-of-contact listed on the work authorization.

Attachment:  
2013-HS-2001036, Rev. 3

cc w/attachment:  
Eliberto Seguinot, SR  
Rachel Zoss, SR  
H. Kriss Nielsen, SR  
Patricia Petty, SR



## WORK AUTHORIZATION

U.S. DEPARTMENT OF ENERGY  
Management and Operating (M & O) Contract Work Authorization

1. INITIATOR(s): Pat Worthington HS-10 301-903-5926  
Name & Signature Organization Code Phone
2. PROJECT TITLE: Energy Employees Occupational Illness Compensation Program (EEOICPA) AC: \_\_\_\_\_
3. RESPONSIBLE PROGRAM SECRETARIAL OFFICE: Office of Health, Safety, and Security
4. RESPONSIBLE FIELD OFFICE: Savannah River
5. M & O CONTRACTOR NAME: Savannah River / 410225 / 410225 (SR - SRO)
6. WORK AUTHORIZATION NO: HQ1001 - 0 - SR

## 7. FUNDS HEREBY AUTHORIZED (WHOLE DOLLARS)

TOTAL BUDGET AUTHORITY: \$335,000.00

TOTAL BUDGET OUTLAY: \$335,000.00

B & R	Program	ORG	Transaction Type	Rev.	Date	Budget Authority	Budget Outlay
HQ1001000	3184701	HS-10	Fund Project from B&R	0	10/1/2012	\$125,000.00	\$125,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	1	1/1/2013	\$100,000.00	\$100,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	2	3/1/2013	\$65,000.00	\$65,000.00

Please see next page.

## 8. PERFORMANCE PERIOD COVERED BY FUNDS:

FROM: 10/1/2012TO: 9/30/20139. WORK START DATE: 10/1/201210. EXPECTED COMPLETION DATE: TBD11. FUTURE FUNDING PLANNED: To Be Determined

## 12. WORK AUTHORIZED:

See attached Statement of Work.

NAME AND SIGNATURE

DATE

## 13. WORK AUTHORIZATION OFFICIAL:

  
 Stephen Kirchhoff

4/9/13

## 14. OPERATIONS OFFICE OFFICIAL:

## 15. M &amp; O CONTRACTOR OFFICIAL:

## HEADQUARTERS BUDGET POINT OF CONTACT:

  
 Debra James, 301-903-3485

4-4-13

## FIELD/CONTRACTOR POINT OF CONTACT:

**U.S. Department of Energy  
Work Authorization  
Funding Data Continuation Sheet**

[illegible]

**Note: \*\* We hereby certify that funds cited are proper for this authorization and in compliance with Appropriation Acts and Fiscal Law**

**Distribute 5 copies to: Contracting Office (white), Date Entry Point (blue), Controller (pink), Initiating Office (green) and Office of Small and Disadvantaged Business Utilization (goldenrod).**

Laboratory/Contractor: The Savannah River Site (CID#: 410225)

Laboratory/Contractor Contact: Regina Price

Phone: 803-952-6288

HS Program Contact: Greg Lewis Org: HS-14 Phone: 202-586-2784

#### **OVERALL PROJECT GOAL/OBJECTIVE:**

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA) establishes a program to provide compensation to current and former employees of the Department of Energy (DOE), its contractors and subcontractors, companies that provided beryllium to DOE, and atomic weapons employers (AWE's). Under EEOICPA, DOE is required to verify employment histories, provide medical records, and provide radiation dose records and other information pertinent to National Institute for Occupational Safety and Health (NIOSH) radiation dose reconstruction and Department of Labor (DOL) Subtitle B and Subtitle E case preparation for anyone who applies for compensation under EEOICPA.

#### **FUNDING FOR THE FOLLOWING ACTIVITIES:**

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.

- Work with corporate entities or unions to verify employment of former site workers.
- Complete all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.

WAS Project No.: 2013-HS-2001036

- Complete declassification, as needed, of records required for the processing of claims forms.
- 4) Perform other necessary EEOICPA related records work as needed.
  - 5) Maintain local records to track the activities conducted under EEOICPA.
  - 6) EEOICPA funding should not be used for any Freedom of Information Act (FOIA) or Privacy Act (PA) requests from the public, even if the individual making the FOIA and/or PA request has also applied to the EEOICPA program.

**FY 2013 DELIVERABLES:**

**DATES:**

Provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:

15<sup>th</sup> of the following month

- HS-14 (Greg Lewis),
- HS-10 Budget Contact (Jeanette Yarrington)
- HS-81 Budget Contact (Debra James).

**FY 2013 FUNDING FOR APRIL FINANCIAL PLAN:**  
**\$45,000**

U.S.DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89130243 - OTHER DEFENSE ACTIVITIES  
FISCAL YEAR:2013

04/15/2013  
PAGE: 6

410225-SAVANNAH RIVER OPERATIONS OFFICE

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

4

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89130243.91 (01091)									
O HQ	EMPLOYEE COMPENSATION INITIATIVE								
HQ1001	WORKER ADVOCACY								
			2013	NEW OA	290,000.00		45,000.00		335,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	290,000.00		45,000.00		335,000.00
O HQ TOTAL, EMPLOYEE COMPENSATION INITIATIVE				NEW OA	290,000.00		45,000.00		335,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	290,000.00		45,000.00		335,000.00
O LM01	LEGACY MANAGEMENT ACTIVITIES - DEFENSE								
LM010510	ENVIRONMENTAL JUSTICE								
			2013	NEW OA	150,000.00		0.00		150,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	150,000.00		0.00		150,000.00
O LM01 TOTAL, LEGACY MANAGEMENT ACTIVITIES - DEFENSE				NEW OA	150,000.00		0.00		150,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	150,000.00		0.00		150,000.00
TOTAL, OPERATING EXPENSES (01091) .....				NEW OA	440,000.00		45,000.00		485,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	440,000.00		45,000.00		485,000.00
COMBINED TOTAL, OPERATING EXPENSES .....				NEW OA	441,000.00		45,000.00		486,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	441,000.00		45,000.00		486,000.00
TOTAL, DIRECT FUNDING.....				NEW OA	441,000.00		45,000.00		486,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	441,000.00		45,000.00		486,000.00
TOTAL, OBLIGATIONAL AUTHORITY .....				NEW OA	441,000.00		45,000.00		486,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	441,000.00		45,000.00		486,000.00



## Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411152	11152	0.00	0.00	47,204.75	47,204.75	47,204.75
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0410858	DOD-J4	343,763.18	500,000.00	250,000.00	750,000.00	1,093,763.18
AY 2013 - WFO# SRDOD-J4 LR-809844														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0410956	FBI-O4	1,000.27	0.00	-1,000.27	-1,000.27	0.00
AY 2009 - WFO SRFBI-O4 A91902900														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411028	FBI-S8	45,950.96	0.00	-45,950.96	-45,950.96	0.00
AY 2010 - WFO: SRFBI-S8 A01004842 de-obligate per email from Terry Meeks dated 3-04-2013														
Total for Program Parent/Control Point: 400000000										390,714.41	500,000.00	250,253.52	750,253.52	1,140,967.93
Total for Fund: 01055										390,714.41	500,000.00	250,253.52	750,253.52	1,140,967.93
410003	01090		1714217	GD3009000	25400	0000000	0000000	0000000		0.00	0.00	60,000.00	60,000.00	60,000.00
Total for Program Parent/Control Point: GD3001000										0.00	0.00	60,000.00	60,000.00	60,000.00
Total for Fund: 01090										0.00	0.00	60,000.00	60,000.00	60,000.00
410003	01091		3184701	HQ1001000	25400	0000000	0000000	0000000		0.00	225,000.00	65,000.00	290,000.00	290,000.00
Total for Program Parent/Control Point: HQ1001000										0.00	225,000.00	65,000.00	290,000.00	290,000.00
Total for Fund: 01091										0.00	225,000.00	65,000.00	290,000.00	290,000.00
410003	01250	TP	1110676	EY4049110	25400	0000000	0003925	0000000		15,138.97	253,061.49	-117,999.88	135,061.61	150,200.58
410003	01250	TP	1110676	EY4049110	25400	0000000	0003958	0000000		19,768.12	-17,768.00	-2,000.12	-19,768.12	0.00
410003	01250	TP	1110676	EY4049110	25400	0000000	0004026	0000000		48,059.23	-22,059.00	-26,000.23	-48,059.23	0.00
410003	01250	TP	1110676	EY4049110	25400	0000000	0004030	0000000		383,020.52	175,000.00	-25,000.00	150,000.00	533,020.52
410003	01250	TP	1110676	EY4049110	25400	0000000	0004261	0000000		112,756.20	569,851.93	26,000.23	595,852.16	708,608.36
Total for Program Parent/Control Point: EY4000000										578,743.04	958,086.42	-145,000.00	813,086.42	1,391,829.46
410003	01250	TP	1110925	EY804910K	25400	0000000	0004074	0000000		0.00	100,000.00	24,194.85	124,194.85	124,194.85
Total for Program Parent/Control Point: EY804910A										0.00	100,000.00	24,194.85	124,194.85	124,194.85
410003	01250	TP	1110947	EY8648110	25400	0000000	0001761	0000000		500,000.00	0.00	-500,000.00	-500,000.00	0.00
AY 2010 - Transfer \$500,000 from FY10 EY8648110 to FY10 EY864811F per Lynn Horney email 031313.MG031413														
410003	01250	TP	1111499	EY864811F	25400	0000000	0004366	0000000		110,373.09	9,006,985.00	500,000.00	9,506,985.00	9,617,358.09
AY 2010 - Transfer \$500,000 from FY10 EY864811D to EY864811F per Lynn Horney email 031313.MG031413														
Total for Program Parent/Control Point: EY8648020										610,373.09	9,006,985.00	0.00	9,006,985.00	9,617,358.09
Total for Fund: 01250										1,189,116.13	10,065,071.42	-120,805.15	9,944,266.27	11,133,382.40
410003	01296		1110462	EW1001206	25400	0000000	0000712	0000000		0.00	500,000.00	-210,000.00	290,000.00	290,000.00
AY 2013 - 3.12.2013 - Reduced by \$210K moved to salaries/benefits - mat														
Total for Program Parent/Control Point: EW1000000										0.00	500,000.00	-210,000.00	290,000.00	290,000.00
Total for Fund: 01296										0.00	500,000.00	-210,000.00	290,000.00	290,000.00

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
350		04/19/2013		13EM001585			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$8,823,690.53			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Department of Energy), in accordance with SRNS FINPLAN 14. Funds in the amount of \$8,823,690.53 are hereby obligated to CLIN 0001, thereby increasing it from \$4,336,192,970.92 to \$4,345,016,661.45.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,735,921,314.75 to \$5,744,745,005.28.							
D. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		04/19/2013	
				(Signature of Contracting Officer)			



NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
351		04/19/2013		13EM001585			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE 798861048				FACILITY CODE			
				10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
Net Increase: \$32,494.80							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funding to CLIN 0001 (Reimbursable Work Commercial), in accordance with SRNS FINPLAN 14. Funds in the amount of \$32,494.80 are hereby obligated to CLIN 0001, thereby increasing it from \$4,345,016,661.45 to \$4,345,049,156.25.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,744,745,005.28 to \$5,744,777,500.08.							
D. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		04/19/2013	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

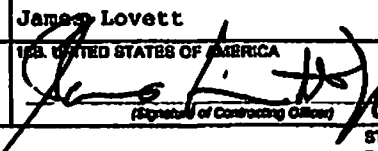
NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 352		3. EFFECTIVE DATE 04/19/2013		4. REQUISITION/PURCHASE REQ. NO. See Schedule		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE    798861048		FACILITY CODE		10B. DATED (SEE ITEM 13) 01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended,    <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) <span style="float: right;">Net Increase:                      \$42,718.45</span>							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to obligate funds to CLIN 0001 and correct clerical error under MOD 349, 350, and 351. Accordingly the following applies:							
A. Funds in the amount of \$42,718.45 (Department of Defense) are obligated to CLIN 0001, in accordance with SRNS FINPLAN 14. CLIN 0001 total is thereby increased from \$4,345,049,156.25 to \$4,345,091,874.70.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,744,777,500.08 to \$5,744,820,218.53.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		04/19/2013	
				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>C. Under Modification 349, paragraph 14.A, as read "Contract Work Authorization No. HQ1001-0-SR, Revision 1," is changed to read "Contract Work Authorization No. HQ1001-0-SR, Revision 3. In addition, modification 350 and 351, last paragraph as read "D," is changed to read "C," clerical error.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. <b>353</b>		3. EFFECTIVE DATE <b>04/25/2013</b>		4. REQUISITION/PURCHASE REQ. NO. <b>13EN001637</b>	
5. PROJECT NO. (if applicable)		6. PROJECT NO. (if applicable)		7. PROJECT NO. (if applicable)	
8. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE <b>00901</b>		7. ADMINISTERED BY (if other than item 8) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (f/b, street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(b) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
		X 10A. MODIFICATION OF CONTRACT/ORDER NO. <b>DE-AC09-08SR22470</b>		10B. DATED (SEE ITEM 13) <b>01/10/2008</b>	
CODE <b>798861048</b>		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (if required) No change to accounting data					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) <b>X Section I, DEAR 970.5211-1 Work Authorization (May 2007)</b>				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to incorporate the contract work authorizations listed below (See attachments 1 through 6, hereto):  1) No. KC/SR1/3, Rev. 1 for Basic Energy Sciences - Energy Frontier Research Center 2) No. KP/W/SR1/3, Rev. 2 for Biological and Environmental Research 3) No. 410003-TechSupt, Rev. 3, for SRNL Technical Support 4) No. HQ091101, Rev 1, for Advanced Simulation Capability for Environmental Management 5) No. HQTD1005-4-13, Rev 1, for Increased Wasted Loadings 6) No. IN13012, Rev 2, for Energy and Threat  B. This modification formally incorporates the above referenced contract work Continued ... Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <b>James Lovett</b>			
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED		15B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	
				15C. DATE SIGNED <b>04/25/2013</b>	
NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 63.243					

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/353PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>authorizations as part of the contract. Fund authorizations were provided under separate modifications under FINPLAN 12, FY 2013, and FINPLAN #14, FY 2013. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

**Attachment 1**

**Contract Work Authorization No. KC/SR1/3, Rev 1**

**Project Title: Basic Energy Sciences – Energy Frontier Research  
Center**

**Note: Eight (8) pages, inclusive of Headquarters transmittal  
Memorandum, Cost and Obligation Report Year-To-Date  
Values (supporting documentation)**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Basic Energy Sciences - Energy Frontier Research Centers		<b>1b. Work Proposal Number</b> Various; Project Code 2005000	
<b>2. Headquarters Program Point of Contact</b> Name: Harriet Kung      Organization Code: SC-22      Telephone: 301-903-3081			
<b>3. Headquarters Budget Point of Contact</b> Name: Kristy Shriver      Organization Code: SC-41.2      Telephone: 301-903-3129			
<b>4. Responsible Program</b> Office of Science: Basic Energy Sciences		<b>5. Responsible Secretarial Officer</b> Patricia Dehmer, Deputy Director for Science Programs	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> KC/SR1/3		<b>9. Revision Number</b> 1	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b> KC0202050	<b>Previous:</b> \$204,000	<b>Change:</b> \$76,000	<b>Current:</b> \$280,000
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> From: 10/1/12      To: Sep 30, 2013		<b>12. Work Start Date</b> From: 10/1/12	
		<b>13. Expected Completion Date</b> To: 9/30/13	
<b>14. Statement of Work (Includes attachments)</b> Materials Sciences and Engineering: Funds in the amount of \$76,000, under KC020205, are provided for project #SCW-0090 entitled "Elucidation of Hydride Interaction Mechanisms with Carbon Nanostructures and the Formation of Novel Nanocomposites," Zidan, principal investigator.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patricia R. Jackson	Signature: <i>Patricia R. Jackson</i>	Date: 4/19/13	
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: <i>Harold K. Nielsen</i>	Date: 4/19/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: <i>John W. Temple</i>	Date: 4/23/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: <i>Scott Langston</i>	Date: 4/18/13	



**Department of Energy  
Office of Science  
Washington, DC 20585**

**APR 17 2013**

**MEMORANDUM FOR DOUGLAS J. DEAROLPH  
MANAGER  
SAVANNAH RIVER SITE OFFICE**

**FROM:**

*Robert J. Cuthbert*  
**HARRIET KUNG  
ASSOCIATE DIRECTOR OF SCIENCE  
FOR BASIC ENERGY SCIENCES**

**SUBJECT:**

**FY 2013 Office of Science Approved Funding Program -  
Savannah River National Laboratory**

The attached budget detail and program guidance relate to the funding amounts in the FY 2013 April Approved Funding Program (AFP) recently submitted to the Chief Financial Officer by the Office of Basic Energy Sciences. Also attached, in accordance with DOE Order 412.1A, is the FY 2013 Work Authorization for the M&O contract with Savannah River National Laboratory. This authorization covers funding through the April AFP.

If you have any questions regarding the attached, please call Kristy Shriver on 301-903-3129 or Mike Osinski on 301-903-3590.

**Attachment**

**cc: D. Donati, SR ([dennis.donati@srs.gov](mailto:dennis.donati@srs.gov))  
P. Jackson, SR ([patrick.jackson@srs.gov](mailto:patrick.jackson@srs.gov))  
R. Jump, SR ([roxanne.jump@nnsa.srs.gov](mailto:roxanne.jump@nnsa.srs.gov))  
L. Roberson, SR ([leza.roberson@srs.gov](mailto:leza.roberson@srs.gov))**



**U.S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

1a. Project Title: <b>Basic Energy Sciences</b>		1b. Work Proposal Number (if applicable): <b>Various</b>	
2. Headquarters Program Point of Contact. Name: <b>Harriet Kung</b> Organization Code: <b>SC-22</b> Telephone No.: <b>(301) 803-3081</b>			
3. Headquarters Budget Point of Contact. Name: <b>Kristy Shriver</b> Organization Code: <b>SC-41</b> Telephone No.: <b>(301) 803-3129</b>			
4. Responsible Program: <b>Basic Energy Sciences</b>		5. Responsible Secretarial Officer: <b>Director, Office of Science</b>	
6. Responsible Field Organization: <b>Savannah River Operations Office</b>			
7a. Site and Facility Management Contractor: <b>Savannah River Nuclear Solutions, LLC</b>		7b. Contractor Point of Contact. Name: Telephone No.:	
8. Work Authorization Number: <b>KC/SR1/3</b>		9. Revision Number: <b>01</b>	
10. Funds Authorized (\$ in thousands). B&R Code: <b>KC</b> Previous: <b>\$204</b> Change: <b>\$+76</b> Current: <b>\$280</b>			
11. Performance Period Covered by Funds. From: <b>10/01/12</b> To: <b>09/30/13</b>		12. Work Start Date: <b>10/01/12</b>	13. Expected Completion Date: <b>09/30/13</b>
14. Statement of Work: This FY 2013 Approved Funding Program provides funding to support Basic Energy Sciences activities, consistent with the Field Work Proposals, as amended, and the monthly program guidance letters. The Office of Basic Energy Sciences (BES) is committed to conducting research in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public, and the environment is a direct and individual responsibility of all BES managers and BES-supported researchers and their staff. Funds provided by BES for research will be applied as necessary to ensure that all BES research activities are conducted safely and in an environmentally conscientious manner. Only research conducted in this way will be supported.			
15. Reporting Requirements (Status reports, scientific and technical information or similar): It is recognized that for BES the research will be reported as publications in the open literature, copies of which will be made available to DOE. An annual progress report must be included with each FWP including projects which are terminating. Throughout the year each program must receive written documentation of significant accomplishments.			
16. Work Authorization Program Official. Name (typed): <b>Harriet Kung</b>		Signature: <i>Robert Cistham</i> Date: <b>4/17/13</b>	
17. DOE Field Organization Official. Name (typed):		Signature: Date:	
18. Contractor's Authorized Representative. Name (typed):		Signature: Date:	
19. DOE Contracting Officer (or delegated representative). Name (typed):		Signature: Date:	

**Savannah River National Laboratory**

**Materials Sciences and Engineering**

Funds in the amount of \$76,000, under KC020205, are provided for project #SCW-0090 entitled "Elucidation of Hydride Interaction Mechanisms with Carbon Nanostructures and the Formation of Novel Nanocomposites," Zidan, principal investigator.

**Basic Energy Sciences  
FY 2013 April Program Guidance Attachment**

		Approved Obligations			Approved Costs		
		Current	Change	Proposed	Current	Change	Proposed
<b>Savannah River Ops Office</b>		<b>SAVANNAH RIVER NATIONAL LABORA</b>					
<b>KC02</b>	<b>Materials Sciences and Engineering</b>						
<b>KC020205</b>	<b>Physical Behavior of Materials</b>						
	<b>OPE</b>	<b>204,000</b>	<b>76,000</b>	<b>280,000</b>	<b>204,000</b>	<b>76,000</b>	<b>280,000</b>
	<b>Total KC02</b>	<b>204,000</b>	<b>76,000</b>	<b>280,000</b>	<b>204,000</b>	<b>76,000</b>	<b>280,000</b>
<b>Total</b>	<b>SAVANNAH RIVER NATIONAL LABORA</b>	<b>204,000</b>	<b>76,000</b>	<b>280,000</b>	<b>204,000</b>	<b>76,000</b>	<b>280,000</b>

4/18/2013  
9:52:30AM

Fiscal Year: 2013  
Fiscal Month: 7 (April - GL Open)

## Cost and Obligation Report YTD Values

Allottee: 36  
Site: SR

Page 1 of 1  
Report: REX0006

Funding Source: All

Appr Year	Fund Code	Legacy FT	Program	Legacy B&R	Project	WFO	Object Class	Local Use	Purchase Order	BEARS			STARS			
										BUO	BA Committed	BA Obligated	Curr Yr Obligated	Curr Yr Costs	Ending Uncosted	
Legacy Program Parent: KC0200000																
2013	00500	WA	2924295	KC0202050	0000000	0000000	25102	0000000	9999999	0.00	76,000.00	0.00	0.00	0.00	0.00	
2013	00500	WA	2924295	KC0202050	0000000	0000000	25400	0000000	SR22470	0.00	204,000.00	204,000.00	204,000.00	132,025.87	71,974.13	
Total for Legacy Program Parent: KC0200000										0.00	280,000.00	204,000.00	204,000.00	132,025.87	71,974.13	
Report Total										0.00	280,000.00	204,000.00	204,000.00	132,025.87	71,974.13	



4/19/2013  
1:56:38PM

Fiscal Year: 2013  
Date Range: 10/1/2012 to 4/19/2013

# Detail Funding Point History

Site: SR

Page 1 of 1  
Report: REX0003

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC
Chg Date / Time		User		Prog. ID		Description												
49781	2013	36	SR	00500	2924295	C002853	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	280,000.00	280,000.00	0.00
4/18/2013 11:55:10		Seguinot, Elberta		UPD0001				Change Amounts:					0.00	0.00	0.00	76,000.00	76,000.00	0.00
49781	2013	36	SR	00500	2924295	C002853	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	204,000.00	204,000.00	0.00
10/17/2012 14:28:01		Seguinot, Elberta		UPD0001				Change Amounts:					0.00	0.00	0.00	204,000.00	204,000.00	0.00
49781	2013	36	SR	00500	2924295	C002853	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	0.00	0.00	0.00
10/17/2012 14:27:49		Seguinot, Elberta		UPD0001				Change Amounts:					0.00	0.00	0.00	0.00	0.00	0.00
50441	2013	36	SR	00500	2924295	C002853	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00
4/18/2013 11:54:10		Seguinot, Elberta		UPD0001		Reserves		Change Amounts:					0.00	0.00	0.00	-76,000.00	0.00	0.00
50441	2013	36	SR	00500	2924295	C002853	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	76,000.00	0.00	0.00
4/11/2013 11:43:59		Seguinot, Elberta		UPD0001		Reserves		Change Amounts:					0.00	0.00	0.00	76,000.00	0.00	0.00
50441	2013	36	SR	00500	2924295	C002853	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00
4/11/2013 11:43:39		Seguinot, Elberta		UPD0001				Change Amounts:					0.00	0.00	0.00	0.00	0.00	0.00

\*\* Draft Finplan \*\*

Contract Modification Number: \*\* No MOD \*\*

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Site: SR

\*\*\* DRAFT \*\*\*

Report: RFP0001

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	00500	WA	2924296	KC0202050	25400	0000000	0000000	0000000		0.00	204,000.00	76,000.00	280,000.00	280,000.00
Total for Program Parent/Control Point: KC0200000											0.00	204,000.00	280,000.00	280,000.00
410003	00500	WA	2924214	KP1702030	25400	0000000	0000000	0000000		84,671.60	158,639.52	138,000.00	296,639.52	381,311.12
Total for Program Parent/Control Point: KP0000000											84,671.60	158,639.52	296,639.52	381,311.12
Total for Fund: 00500											84,671.60	362,639.52	576,639.52	661,311.12
410003	00697	SB	3165133	WN3200000	25400	0000000	0000000	0000000		0.00	0.00	6,600,000.00	6,600,000.00	6,600,000.00
AY 2012 - Transfer \$6,600,000 to support the retention of qualified personnel, receipt, and disposition of enriched uranium solutions from AECL in H Canyon. The WN32 funds being added to the SRNS Finplan require prior authorization for use by Pat McGuire or J.J. Hynes. MG041813														
Total for Program Parent/Control Point: WN0000000											0.00	0.00	6,600,000.00	6,600,000.00
Total for Fund: 00697											0.00	0.00	6,600,000.00	6,600,000.00
410003	00910	3T	1720297	400403209	25400	0000000	0000000	0411154 11154		0.00	0.00	42,718.45	42,718.45	42,718.45
AY 2013 - WFO SRARM-AA6 SRARMY-AA6 MIPR3380840019														
Total for Program Parent/Control Point: 400000000											0.00	0.00	42,718.45	42,718.45
Total for Fund: 00910											0.00	0.00	42,718.45	42,718.45
410003	01050	TF	3184820	RH0501010	25400	0000000	0000000	0000000		1,918.36	0.00	-1,918.36	-1,918.36	0.00
410003	01050	TF	3184849	RH0607010	25400	0000000	0000000	0000000		193.60	0.00	-193.60	-193.60	0.00
Total for Program Parent/Control Point: RH0301000											2,111.96	0.00	-2,111.96	0.00
Total for Fund: 01050											2,111.96	0.00	-2,111.96	0.00
410003	01090		3203735	GD2540560	25400	0000000	0000000	0000000		0.00	189,468.00	-4,000.00	185,468.00	185,468.00
Total for Program Parent/Control Point: GD2540000											0.00	189,468.00	185,468.00	185,468.00
410003	01090		3203740	GD3003010	25400	0000000	0000000	0000000		0.00	885,996.00	260,700.00	1,146,696.00	1,146,696.00
410003	01090		1714209	GD3006000	25400	0000000	0000000	0000000		0.00	10,000.00	10,000.00	20,000.00	20,000.00
410003	01090		3203736	GD3015000	25400	0000000	0000000	0000000		0.00	345,700.00	159,000.00	504,700.00	504,700.00
Total for Program Parent/Control Point: GD3001000											0.00	1,241,696.00	429,700.00	1,671,396.00
Total for Fund: 01090											0.00	1,431,164.00	1,856,864.00	1,856,864.00
410003	01091		3184701	HQ1001000	25400	0000000	0000000	0000000		0.00	290,000.00	45,000.00	335,000.00	335,000.00
Total for Program Parent/Control Point: HQ1001000											0.00	290,000.00	335,000.00	335,000.00
Total for Fund: 01091											0.00	290,000.00	335,000.00	335,000.00
410003	01250	TP	1110925	EY804910K	25400	0000000	0004074	0000000		0.00	124,194.85	50,000.00	174,194.85	174,194.85
410003	01250	TP	1110925	EY804910K	25400	0000000	0004202	0000000		0.00	65,000.00	40,000.00	105,000.00	105,000.00
Total for Program Parent/Control Point: EY804910A											0.00	189,194.85	279,194.85	279,194.85
Total for Fund: 01250											0.00	189,194.85	279,194.85	279,194.85



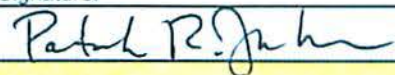

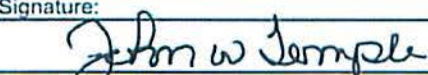
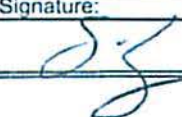
No. KP/W/SR1/3, Rev 2

Project Title: Biological and Environmental Research

**Note: Seven (7) pages, inclusive of Headquarters transmittal Memorandum, Cost and Obligation Report Year-To-Date Values (supporting documentation)**

---

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Biological and Environmental Research		<b>1b. Work Proposal Number</b> Various	
<b>2. Headquarters Program Point of Contact</b> Name: Sharlene Weatherwax      Organization Code: SC-23      Telephone: 301-903-3251			
<b>3. Headquarters Budget Point of Contact</b> Name: Lisa Yost      Organization Code: SC-41.2      Telephone: 301-903-2310			
<b>4. Responsible Program</b> Biological and Environmental Research		<b>5. Responsible Secretarial Officer</b> Patricia Dehmer, Deputy Director for Science Programs	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> KP/W/SR1/3		<b>9. Revision Number</b> 2	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b> KP1702030	<b>Previous:</b> \$ 158,639.52	<b>Change:</b> \$ 138,000.00	<b>Current:</b> \$ 296,639.52
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> From: Oct. 1, 2012      To: Sep 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012      To: Sep 30, 2013	
<b>13. Expected Completion Date</b> To: Sep 30, 2013			
<b>14. Statement of Work (Includes attachments)</b> The FY 2013 Approved Funding Program provides funding to support Biological and Environmental Research activities, consistent with the Field Work Proposals (FWPs), as amended, and the monthly program guidance letters. The Office of Biological and Environmental Research (BER) is committed to conducting research in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public, and the environment is a direct and individual responsibility of all BER managers and BERsupported researchers and their staff. Funds provided by BER for research will be applied as necessary to ensure that all BER research activities are conducted safely and in an environmentally conscientious manner. Only research conducted in this way will be supported. It is recognized that for BER the research will be reported as publications in the open literature, copies of which will be made available to DOE. An annual progress report must be included with each FWP including projects which are terminating. Throughout the year each program must receive written documentation of significant accomplishments.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patrick Jackson	Signature: 	Date: 4/18/13	
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: 	Date: 4/19/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: 	Date: 4/23/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: 	Date: 4/18/13	



**Department of Energy  
Office of Science  
Washington, DC 20585**

**APR 18 2013**

**MEMORANDUM FOR DAVID C. MOODY, III  
MANAGER  
SAVANNAH RIVER OPERATIONS OFFICE**

**FROM: SHARLENE WEATHERWAX, PH.D. *Shh Weatherwax*  
ASSOCIATE DIRECTOR OF SCIENCE  
FOR BIOLOGICAL AND ENVIRONMENTAL RESEARCH**

**SUBJECT: FY 2013 Office of Science Approved Funding Program - Savannah  
River Nuclear Solutions**

The attached budget detail and program comments relate to the April AFP recently submitted to the Chief Financial Officer by the Biological and Environmental Research program. Also attached, in accordance with DOE Order 412.1a, is the FY 2013 Work Authorization for the Management and Operating (M&O) contract with the Savannah River Nuclear Solutions, LLC. This authorization continues to cover funding through the April AFP.

If you should have any questions, please call Lisa Yost on 301-903-2310 or Mike Osinski on 301-903-3590.

**Attachment**

**cc:  
T. Michalske, Director, SRNL  
L. Roberson, SRO  
E. Seguinot, SRO  
P. Jackson, SRO, OLO  
N. Peralta, SRO, OLO**



**U.S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title:</b> Biological and Environmental Research		<b>1b. Work Proposal Number (if applicable):</b> Various	
<b>2. Headquarters Program Point of Contact.</b>			
<b>Name:</b> Sharlene Weatherwax	<b>Organization Code:</b> SC-23	<b>Telephone No.:</b> (301)903-3251	
<b>3. Headquarters Budget Point of Contact.</b>			
<b>Name:</b> Lisa Yost	<b>Organization Code:</b> SC-41.2	<b>Telephone No.:</b> (301) 803-2310	
<b>4. Responsible Program:</b> Biological and Environmental Research		<b>5. Responsible Secretarial Officer:</b> Director, Office of Science	
<b>6. Responsible Field Organization:</b> Savannah River Operations Office			
<b>7a. Site and Facility Management Contractor:</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact.</b>	
		<b>Name:</b>	<b>Telephone No.:</b>
<b>8. Work Authorization Number:</b> KP/W/SR1/3		<b>9. Revision Number:</b> 02	
<b>10. Funds Authorized (\$ in thousands).</b>			
<b>B&amp;R Code:</b> KP	<b>Previous:</b> \$165	<b>Change:</b> +138	<b>Current:</b> \$303
<b>11. Performance Period Covered by Funds.</b>		<b>12. Work Start Date:</b>	<b>13. Expected Completion Date:</b>
<b>From:</b> 10/01/12	<b>To:</b> 09/30/13	10/01/12	09/30/13
<b>14. Statement of Work:</b> <p>The FY 2013 Approved Funding Program provides funding to support Biological and Environmental Research activities, consistent with the Field Work Proposals (FWPs), as amended, and the monthly program guidance letters.</p> <p>The Office of Biological and Environmental Research (BER) is committed to conducting research in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public, and the environment is a direct and individual responsibility of all BER managers and BER-supported researchers and their staff. Funds provided by BER for research will be applied as necessary to ensure that all BER research activities are conducted safely and in an environmentally conscientious manner. Only research conducted in this way will be supported.</p>			
<b>15. Reporting Requirements (Status reports, scientific and technical information or similar):</b> <p>It is recognized that for BER the research will be reported as publications in the open literature, copies of which will be made available to DOE.</p> <p>An annual progress report must be included with each FWP including projects which are terminating. Throughout the year each program must receive written documentation of significant accomplishments.</p>			
<b>16. Work Authorization Program Official.</b>			
<b>Name (typed):</b> Sharlene Weatherwax	<b>Signature:</b> <i>Shel Weatherwax</i>	<b>Date:</b> 04/17/2013	
<b>17. DOE Field Organization Official.</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
<b>18. Contractor's Authorized Representative.</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
<b>19. DOE Contracting Officer (or delegated representative).</b>			
<b>Name (type):</b>	<b>Signature:</b>	<b>Date:</b>	

RPT7.RPT  
B&R: KP 89X0222  
Lab: All

Biological & Environmental Research  
FY 2013 April Program Guidance Attachment

10 Apr 13  
Page 20

SETASIDES: Include All  
Current Stage: 2013-06-43  
Proposed Stage: 2013-07-43  
\$: Whole

----- Approved Obligations -----			----- Approved Costs -----		
Current	Change	Proposed	Current	Change	Proposed

Savannah River Ops Office

SAVANNAH RIVER NATL LAB

Operating Expenses

KP13	Environmental Remediation						
KP1302	Environmental Remediation Sciences Research						
	OPB	-8,376	0	-8,376	-8,376	0	-8,376
	Total KP1302	-8,376	0	-8,376	-8,376	0	-8,376
	Total KP13	-8,376	0	-8,376	-8,376	0	-8,376
KP15	Biological Research						
KP150401	Environmental Remediation Sciences Research Prog						
	OPB	-10,263	0	-10,263	-10,263	0	-10,263
	Total KP150401	-10,263	0	-10,263	-10,263	0	-10,263
	Total KP15	-10,263	0	-10,263	-10,263	0	-10,263
KP17	Climate and Environmental Sciences						
KP170201	Terrestrial Ecosystem Science						
	OPB	25,000	0	25,000	25,000	0	25,000
	Total KP170201	25,000	0	25,000	25,000	0	25,000
KP170203	Subsurface Biogeochemical Research						
	OPB	158,639	138,000	296,639	158,639	138,000	296,639
	Total KP170203	158,639	138,000	296,639	158,639	138,000	296,639
	Total KP17	183,639	138,000	321,639	183,639	138,000	321,639
	Total Operating Expenses	165,000	138,000	303,000	165,000	138,000	303,000
	Total SAVANNAH RIVER NATL LAB	165,000	138,000	303,000	165,000	138,000	303,000

**FY 2013 Initial Guidance – Savannah River National Laboratory**

**KP170203 – Climate and Environmental Sciences/Environmental System  
Science/Subsurface Biogeochemical Research**

**\$28,000 is provided for project SCW-0083, entitled “Self-Consistent Model of Plutonium Sorption,” (Kaplan, PI).**

**\$65,000 is provided for project SCW-0091, entitled “Fate of Uranium During Transport Across the Groundwater-Surface Water Interface,” (Kaplan, PI).**

**\$45,000 is provided for project SCW-0052, entitled “Collaborative Research; The Importance of Organo-Iodine and Iodate in Iodine-127,129 Speciation, Mobility, and Microbial Activity in Groundwater at DOE Sites,” (Kaplan, PI).**



4/18/2013  
12:56:15PM

Fiscal Year: 2013  
Date Range: 4/1/2013 to 4/18/2013

# Detail Funding Point History

Site: SR

Page 1 of 1  
Report: REX0003

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC	
Chg Date / Time			User		Prog. ID	Description													
47854	2013	36	SR	00500	2924214	C001024	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	278,000.00	278,000.00	0.00	
4/18/2013 11:59:57			Segunot, Elberta		UPD0001	Climate and Environmental Sciences/Environmental System Science/Subsurface Biogeochemical Research						Change Amounts:		0.00	0.00	0.00	138,000.00	138,000.00	0.00
48071	2013	36	SR	00500	2924214	C001024	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/2013 11:56:59			Segunot, Elberta		UPD0001	RESERVES						Change Amounts:		0.00	0.00	0.00	138,000.00	0.00	0.00
48071	2013	36	SR	00500	2924214	C001024	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	138,000.00	0.00	0.00	
4/11/2013 11:38:42			Segunot, Elberta		UPD0001	RESERVES						Change Amounts:		0.00	0.00	0.00	138,000.00	0.00	0.00

## Financial Plan Report - Detail

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	00500	WA	2924295	KC0202050	25400	0000000	0000000	0000000		0.00	204,000.00	76,000.00	280,000.00	280,000.00
Total for Program Parent/Control Point: KC0200000											0.00	204,000.00	76,000.00	280,000.00
410003	00500	WA	2924214	KP1702030	25400	0000000	0000000	0000000		84,671.60	158,639.52	138,000.00	296,639.52	381,311.12
Total for Program Parent/Control Point: KP0000000											84,671.60	158,639.52	296,639.52	381,311.12
Total for Fund: 00500											84,671.60	362,639.52	576,639.52	661,311.12
410003	00697	SB	3165133	WN3200000	25400	0000000	0000000	0000000		0.00	0.00	6,600,000.00	6,600,000.00	6,600,000.00
AY 2012 - Transfer \$6,600,000 to support the retention of qualified personnel, receipt, and disposition of enriched uranium solutions from AECL in H Canyon. The WN32 funds being added to the SRNS Finplan require prior authorization for use by Pat McGuire or J.J. Hynes. MG041813														
Total for Program Parent/Control Point: WN0000000											0.00	0.00	6,600,000.00	6,600,000.00
Total for Fund: 00697											0.00	0.00	6,600,000.00	6,600,000.00
410003	00910	3T	1720297	400403209	25400	0000000	0000000	0411154 11154		0.00	0.00	42,718.45	42,718.45	42,718.45
AY 2013 - WFO SRARM-AA6 SRARMY-AA6 MIPR3380840019														
Total for Program Parent/Control Point: 400000000											0.00	0.00	42,718.45	42,718.45
Total for Fund: 00910											0.00	0.00	42,718.45	42,718.45
410003	01050	TF	3184820	RH0501010	25400	0000000	0000000	0000000		1,918.36	0.00	-1,918.36	-1,918.36	0.00
410003	01050	TF	3184849	RH0607010	25400	0000000	0000000	0000000		193.60	0.00	-193.60	-193.60	0.00
Total for Program Parent/Control Point: RH0301000											2,111.96	0.00	-2,111.96	0.00
Total for Fund: 01050											2,111.96	0.00	-2,111.96	0.00
410003	01090		3203735	GD2540580	25400	0000000	0000000	0000000		0.00	189,468.00	-4,000.00	185,468.00	185,468.00
Total for Program Parent/Control Point: GD2540000											0.00	189,468.00	-4,000.00	185,468.00
410003	01090		3203740	GD3003010	25400	0000000	0000000	0000000		0.00	685,956.00	250,700.00	1,146,656.00	1,146,656.00
410003	01090		1714209	GD3006000	25400	0000000	0000000	0000000		0.00	10,000.00	10,000.00	20,000.00	20,000.00
410003	01090		3203736	GD3015000	25400	0000000	0000000	0000000		0.00	345,700.00	159,000.00	504,700.00	504,700.00
Total for Program Parent/Control Point: GD3001000											0.00	1,241,656.00	429,700.00	1,671,356.00
Total for Fund: 01090											0.00	1,431,164.00	425,700.00	1,856,864.00
410003	01091		3184701	HQ1001000	25400	0000000	0000000	0000000		0.00	290,000.00	45,000.00	335,000.00	335,000.00
Total for Program Parent/Control Point: HQ1001000											0.00	290,000.00	45,000.00	335,000.00
Total for Fund: 01091											0.00	290,000.00	45,000.00	335,000.00
410003	01250	TP	1110925	EY804910K	25400	0000000	0004074	0000000		0.00	124,194.85	50,000.00	174,194.85	174,194.85
410003	01250	TP	1110925	EY804910K	25400	0000000	0004202	0000000		0.00	65,000.00	40,000.00	105,000.00	105,000.00
Total for Program Parent/Control Point: EY804910A											0.00	189,194.85	90,000.00	279,194.85
Total for Fund: 01250											0.00	189,194.85	90,000.00	279,194.85



**No. 410003-TechSupt**

**Project Title: SRNL Technical Support**

**Note: Seven (7) pages, inclusive of Headquarters transmittal Memorandum, Cost and Obligation Report Year-To-Date values (supporting documentation)**

---

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> SRNL Technical Support		<b>1b. Work Proposal Number</b> 410003-TechSupt	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b> Maureen O'Dell	<b>Organizational Code</b> EM-11	<b>Telephone</b> 301-903-4638	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b> Tracey Whipp	<b>Organizational Code</b> EM-61	<b>Telephone</b> 301-903-7157	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Tracy Mustin	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> 410003-TechSupt		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (See Note below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Date</b>	<b>Budget and Reporting Code:</b>	<b>Project Value</b>	<b>Previous:      Change:      Current:</b>
Nov. 8	EY804910K	4074	\$ 35,000.00
Nov. 8	EY804910K	4202	\$ 50,000.00
Dec. 7	EY804910K	4074	\$ 20,000.00
Jan. 4	EY804910K	4074	\$ 45,000.00
Jan. 4	EY804910K	4202	\$ 15,000.00
Apr. 15	EY804910K	4012-14 <i>S/Am</i>	\$ 50,000.00
Apr. 15	EY804910K	<del>4033</del> 4202 <i>S/Am</i>	\$ 40,000.00      \$ 255,000.00
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/2012      To: 9/30/2013		From: 10/1/2012	To: 9/30/2013
<b>14. Statement of Work (Includes attachments)</b> The Office of Environmental Compliance authorizes the Savannah River National Laboratory to provide support comment resolution and updates to the technical standards, guides, and order in preparation for final issuance; follow NRC, IAEA, and other external developments that could impact the order; and develop text to address new information from external developments for the technical standards, guides, and order. Additionally, the Office of Environmental Compliance authorizes the Savannah River National Laboratory to provide technical support as needed to address waste management issues around the complex, review and provide comments on regulatory activities and follow LFRG related developments from external organizations, support new activities in preparation for implementation of the update to DOE Order 435.1 , and participate in and provide briefings for LFRG meetings.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b> Patrick R. Jansal	<b>Signature:</b> <i>Patrick R. Jansal</i>	<b>Date:</b> 4/18/13	
<b>16. DOE-SR Field Budget Official</b>			
<b>Name (typed):</b> Harold K. Nielsen	<b>Signature:</b> <i>Harold K. Nielsen</i>	<b>Date:</b> 4/19/13	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b> John Temple	<b>Signature:</b> <i>John W. Temple</i>	<b>Date:</b> 4/23/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b> Scott Langston	<b>Signature:</b> <i>SL</i>	<b>Date:</b> 4/18/13	





## Department of Energy

Washington, DC 20585

APR 18 2013

**MEMORANDUM FOR PATRICIA PETTY**  
**LEAD BUDGET ANALYST**  
**SAVANNAH RIVER OPERATIONS OFFICE**

**FROM:**

TRACEY A. WHIPP  
OFFICE OF BUDGET  
OFFICE OF ENVIRONMENTAL MANAGEMENT

**SUBJECT:** Fiscal Year 2013 Approved Funding Program

The Office of Environmental Compliance authorizes the Savannah River National Laboratory to provide technical support as needed to address waste management issues around the complex, review and provide comments on regulatory activities and follow LFRG related developments from external organizations, support new activities in preparation for implementation of the update to DOE Order 435.1, and participate in and provide briefings for LFRG meetings. (POC, Maureen O'Dell, 301-903-4638).

The funding has been provided in the FY 2013 April AFP under the following codes:

Fund	Year	Reporting Entity	Program Value	B&R	Project Value	PBS	Amount
01250	2013	410003	1110925	EY804910K	0004074	HQ-PS-4012	50,000.00

The Office of Environmental Compliance authorizes the Savannah River National Laboratory to provide support for comment resolution updates to the technical standards, guides, and order in preparation for final issuance; follow NRC, IAEA, and other external developments that could impact the order; and develop text to address new information from external developments for the technical standards, guides, and order. (POC, Maureen O'Dell, 301-903-4638).

The funding has been provided in the FY 2013 April AFP under the following codes:

Fund	Year	Reporting Entity	Program Value	B&R	Project Value	PBS	Amount
01250	2013	410003	1110925	EY804910K	0004202	HQ-PS-4033	40,000.00

If you require additional information, please contact Maureen O'Dell, 301-903-4638.

cc:

L. Roberson, SR

M. O'Dell, EM-11

**EXPLANATION OF CHANGES  
FY 2013 MARCH AFP  
(WHOLE DOLLARS)**

B&R CODE / PBSM	OPS OFFICE	AFP RECIPIENT CONTRACTOR	REPORTING ENTITY	BA CHANGE	EXPLANATION
<b>01250 (TP) / EM3</b>					
<b>DEFENSE PROGRAM SUPPORT</b>					
<b>OPERATING EXPENSES</b>					
<b>EY804910T</b>					
	CC	CBC	490815	250,000.00	Funding is provided to CBC to support the New Mexico Community Foundation Grant. (POC: Michelle Hudson, 202-586-0846).
<b>EY804910A</b>					
HQ-PS-TBD	CC	CBC	490815	5,000,000.00	Funding is provided to CBC for Historical Black Colleges and Universities G31 (POC: Karen Skubel 301-803-6524).
<b>EY804910K</b>					
HQ-PS-4280	CC	CBC	490815	146,310.00	Real Property Management and TEAM Initiative for FUTRE NNSA PBA-Based task Order. (POC, Maureen O'Dell, 301-903-4638).
<b>EY804910K</b>					
					Funding is provided to CBC from Headquarters to be placed on Aspen contract Number DE-EM0002034, Provide support to get revised 435.1 submitted to REVCOM. This will include the following deliverables: complete and resolve new GC edits, management issues resolution, support GC review of guides, post-GC review processing, assist in CRD edits, QA ripple effects to HLW and LLW guides, QA ripple effects to DAS Tech STD, preparation and review of FRIN, assist in web posting verbiage, assist in webinar planning, assist in MA justification memo, submission for publication, public comment period, webinar, response to public comments, final edits, and submission to REVCOM. (POC, Maureen O'Dell, 301-903-4638)
HQ-PS-4202	CC	CBC	490815	205,000.00	
<b>EY804910A</b>					
					Link Technologies, Inc. Contract Work Area #1 task: Multiple Oddant Leaching Technology Development -- Comprehensive Design Basis Completion. POC: James Poppitt, 301-803-1733.
HQ-PS-TBD	CC	CBC	490815	25,000.00	

**EXPLANATION OF CHANGES  
FY 2013 MARCH AFP  
(WHOLE DOLLARS)**

<b>B&amp;R CODE / PBS#</b>	<b>OPS OFFICE</b>	<b>AFP RECIPIENT CONTRACTOR</b>	<b>REPORTING ENTITY</b>	<b>BA CHANGE</b>	<b>EXPLANATION</b>
----------------------------	-----------------------	-------------------------------------	-----------------------------	----------------------	--------------------

**01250 (TP) / EM3**

**DEFENSE PROGRAM SUPPORT**

**EY804910A**

<b>HQ-PS-4515</b>	<b>CC</b>	<b>CBC</b>	<b>480815</b>	<b>150,000.00</b>	Funds are provided to the CBC from Headquarters for U.S. Army Corps of Engineers (listed as Hanford Waste Treatment and Immobilization Plant and Tank Farms - contract #0001223)
-------------------	-----------	------------	---------------	-------------------	--

**EY804910A**

<b>HQ-PS-TBD</b>	<b>CC</b>	<b>CBC</b>	<b>480815</b>	<b>31,000.00</b>	Funding is provided to the CBC from Headquarters for Aspen Task order # DE-EM0004097, Task 3
------------------	-----------	------------	---------------	------------------	--

**EY804910K**

<b>HQ-PS-4012</b>	<b>SR</b>	<b>SRNL</b>	<b>410003</b>	<b>50,000.00</b>	Funding is provided to Savannah River from Headquarters to provide technical support as needed to address waste management issues around the complex, review and provide comments on regulatory activities and follow LFRG related developments from external organizations, support new activities in preparation for implementation of the update to DOE Order 435.1, and participate in and provide briefings for LFRG meetings. (POC, Maureen O'Dell, 301-903-4638).
-------------------	-----------	-------------	---------------	------------------	--

**EY804910K**

<b>HQ-PS-4033</b>	<b>SR</b>	<b>SRNL</b>	<b>410003</b>	<b>40,000.00</b>	Funding is provided to Savannah River from Headquarters to provide support for comment resolution updates to the technical standards, guides, and order in preparation for final issuance; follow NRC, IAEA, and other external developments that could impact the order; and develop text to address new information from external developments for the technical standards, guides, and order. (POC: Maureen O'Dell, 301-903-4638)
-------------------	-----------	-------------	---------------	------------------	--

**EY804910N**

**EXPLANATION OF CHANGES  
FY 2013 MARCH AFP  
(WHOLE DOLLARS)**

B&R CODE / PBS	OPS OFFICE	AFP RECIPIENT CONTRACTOR	REPORTING ENTITY	BA CHANGE	EXPLANATION
----------------	---------------	-----------------------------	---------------------	--------------	-------------

01250 (TP) / EM3

**DEFENSE PROGRAM SUPPORT**

HQ-PS-2001	OR	ORNL	470002	40,000	The funding authority is to support the continuation of tasks directed at supporting EM project needs relative to criticality safety, including follow-on activities that might arise from updated surveys on EM Criticality Safety Needs, which are being conducted on a continuing basis. Dr. Robert E. Wilson is serving as the ongoing Task Manager for this work.
TOTAL, PROGRAM SUPPORT				<u>5,937,310.00</u>	

4/18/2013  
9:14:26AM

Fiscal Year: 2013  
Date Range: 3/28/2013 to 4/18/2013

### Detail Funding Point History

Site: SR

Page 1 of 1  
Report: REX0003

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC
Chg Date / Time		User		Prog. ID		Description												
49923	2013	35	SR	01250	1110925	C002130	410225	0004074	0000000	25102	9999999	0000000	0.00	0.00	0.00	50,000.00	0.00	0.00
4/8/2013 14:42:49		Segunot, Elberta		UPD0001		RESERVES		Change Amounts:					0.00	0.00	0.00	50,000.00	0.00	0.00



## Financial Plan Report - Detail

\*\*\* DRAFT \*\*\*

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	00500	WA	2924295	KC0202050	25400	0000000	0000000	0000000		0.00	204,000.00	76,000.00	280,000.00	280,000.00
Total for Program Parent/Control Point: KC0200000										0.00	204,000.00	76,000.00	280,000.00	280,000.00
410003	00500	WA	2924214	KP1702030	25400	0000000	0000000	0000000		84,671.60	158,639.52	138,000.00	296,639.52	381,311.12
Total for Program Parent/Control Point: KP0000000										84,671.60	158,639.52	138,000.00	296,639.52	381,311.12
Total for Fund: 00500										84,671.60	362,639.52	214,000.00	576,639.52	661,311.12
410003	00697	SB	3165133	WN3200000	25400	0000000	0000000	0000000		0.00	0.00	6,600,000.00	6,600,000.00	6,600,000.00
AY 2012 - Transfer \$6,600,000 to support the retention of qualified personnel, receipt, and disposition of enriched uranium solutions from AECL in H Canyon. The WN32 funds being added to the SRNS Finplan require prior authorization for use by Pat McGuire or J.J. Hynes. MG041813														
Total for Program Parent/Control Point: WN0000000										0.00	0.00	6,600,000.00	6,600,000.00	6,600,000.00
Total for Fund: 00697										0.00	0.00	6,600,000.00	6,600,000.00	6,600,000.00
410003	00910	3T	1720297	400403209	25400	0000000	0000000	0411154 11154		0.00	0.00	42,718.45	42,718.45	42,718.45
AY 2013 - WFO: SRARM-AA6 SRARMY-AA6 MIPR3380840019														
Total for Program Parent/Control Point: 400000000										0.00	0.00	42,718.45	42,718.45	42,718.45
Total for Fund: 00910										0.00	0.00	42,718.45	42,718.45	42,718.45
410003	01050	TF	3184520	RH0501010	25400	0000000	0000000	0000000		1,918.36	0.00	-1,918.36	-1,918.36	0.00
410003	01050	TF	3184849	RH0607010	25400	0000000	0000000	0000000		193.60	0.00	-193.60	-193.60	0.00
Total for Program Parent/Control Point: RH0301000										2,111.96	0.00	-2,111.96	-2,111.96	0.00
Total for Fund: 01050										2,111.96	0.00	-2,111.96	-2,111.96	0.00
410003	01090		3203735	GD2540980	25400	0000000	0000000	0000000		0.00	189,468.00	-4,000.00	185,468.00	185,468.00
Total for Program Parent/Control Point: GD2540000										0.00	189,468.00	-4,000.00	185,468.00	185,468.00
410003	01090		3203740	GD3003010	25400	0000000	0000000	0000000		0.00	885,996.00	260,700.00	1,146,696.00	1,146,696.00
410003	01090		1714209	GD3006000	25400	0000000	0000000	0000000		0.00	10,000.00	10,000.00	20,000.00	20,000.00
410003	01090		3203736	GD3015000	25400	0000000	0000000	0000000		0.00	345,700.00	159,000.00	504,700.00	504,700.00
Total for Program Parent/Control Point: GD3001000										0.00	1,241,696.00	429,700.00	1,671,396.00	1,671,396.00
Total for Fund: 01090										0.00	1,431,164.00	425,700.00	1,856,864.00	1,856,864.00
410003	01091		3184701	HQ1001000	25400	0000000	0000000	0000000		0.00	290,000.00	45,000.00	335,000.00	335,000.00
Total for Program Parent/Control Point: HQ1001000										0.00	290,000.00	45,000.00	335,000.00	335,000.00
Total for Fund: 01091										0.00	290,000.00	45,000.00	335,000.00	335,000.00
410003	01250	TP	1110925	EY804910K	25400	0000000	0004074	0000000		0.00	124,194.85	50,000.00	174,194.85	174,194.85
410003	01250	TP	1110925	EY804910K	25400	0000000	0004202	0000000		0.00	65,000.00	40,000.00	105,000.00	105,000.00
Total for Program Parent/Control Point: EY804910A										0.00	189,194.85	90,000.00	279,194.85	279,194.85
Total for Fund: 01250										0.00	189,194.85	90,000.00	279,194.85	279,194.85



**Attachment 4**

**No. HQ091101-1**

**Project Title: Advanced Simulation Capability for  
Environmental Management**

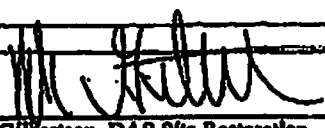
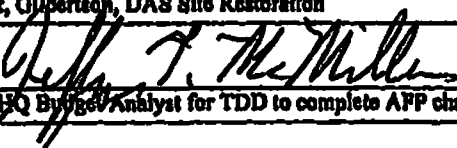
**Note: Nineteen (19) pages, inclusive of Cost and Obligation  
Report Year-To-Date values (supporting documentation)**

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Advanced Simulation Capability for Environmental Management		<b>1b. Work Proposal Number</b> HQ091101	
<b>2. Headquarters Program Point of Contact</b>			
Kurt Gerdes	EM-12	301.903.7248	
<b>3. Headquarters Budget Point of Contact</b>			
Jeffrey McMillan	EM-61	301.903.7701	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Mark Gilbertson, DAS Site Restoration	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b> HQ091101 SR071801-R2		<b>9. Revision Number</b> 1	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b> EY4049110	<b>Previous:</b> \$59,000	<b>Change:</b> \$40,000	<b>Current:</b> \$99,000
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: October 1, 2012	To: Sept. 30, 2013	From: Oct. 1, 2012	To: Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b> Task 5: A S C E M Support Provide support and funding to ASCEM project including but not limited to F-Area field site data for model validation. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs. The alignment of the AFRI work and the data needs for ASCEM model development and validation ensure an integrated approach to decisions necessary to accomplish the DOE EM clean up mission. Note: Period of performance for this work scope ends September 30,2013.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patrick Jackson	Signature: <i>Patrick Jackson</i>	Date: 4/18/13	
<b>17. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: <i>Harold K. Nielsen</i>	Date: 4/19/13	
<b>18. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: <i>John W. Temple</i>	Date: 4/23/13	
<b>19. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): <del>James Lovett</del> James Lovett	Signature: <i>James Lovett</i>	Date: 4/18/13	

Start Value  
0004017

SITE RESTORATION (RM-10) WORK AUTHORIZATION / TASK CHANGE REQUEST (TCR)								
Project Number:	HQ021101		Date:	March 11, 2013		APP Change Month:	April 2013	
Project Title:	Advanced Simulation Capability for Environmental Management							
Site / Contractor:	LANL/LBNL/PNNL/ ORNL/SRNL/ANL		Project Area from Roadmap:	Self & OW		Work Proposal Attached:	No	
Contract Number if other than National Laboratory or DOE site contractor: Justin Marble -- 301.903.7210								
Name of Principal Investigator: Paul Dixon (LANL)								
Name of Budget Analyst at the site where the contract is held: Valerie Kaatz (LBNL), Steven Romero (LANL), Deline Atwater (ORNL-PNNL)								
New BA (\$K) Requested	Prior Funding (\$K) In this FY		Total Uncosted (\$K) as of Beginning of this FY			Total Available Funding (\$K) including this request (add first three columns)		
LANL = \$435 320k	\$383.5		\$60			81105.5		
LBNL = \$375 320k	\$344.5		\$85			8919.5		
PNNL = \$775 515k	\$434.75		\$68			31869.75		
ORNL = \$0	\$1.25		\$35			91.25		
SRNL = \$180 40k	\$39		\$0			3299		
Spend Plan for Total Available Funding (use actual costed funds for previous quarters)								
1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY		3 <sup>rd</sup> Quarter of FY		4 <sup>th</sup> Quarter of FY		Projected uncosted at the end of this FY	
1125k								
Funding Codes (To be Completed by Budget Office)								
Fund	Year	Allottee	Reporting Entity	SQL	Object Class	Program	Project	Amount
LANL	01250	3b	4100B	610000	2540	110676	0004017	
LBNL								
PNNL								
LLNL								
ORNL								
SRNL								
ANL								
Short Description of Work Scope Authorized /Changed for Input in APP:	The ASCEM program is a multi-year multi-laboratory program developing Advanced Simulation Capability for Environmental Management. LANL → \$25k for High Performance Computing and Field Application (NNS) LBNL → \$75k for Platform Thrust and High Performance Computing PNNL → \$775k for Platform Thrust SRNL → \$180k for Field Application (SR tanks)							
Submitted by:	Justin Marble <i>Justin Marble</i>					Date: 2/3/13/2013		
Justin Marble, Headquarters Project Manager (Please Print & Sign)								
Field:	Russell Patterson <i>Russell P.</i>					Date: 3/10/2013		
Russell Patterson, Field DOE Representative (Please Print & Sign)								
Approved by:	Kurt Gerdes <i>Kurt Gerdes</i>					Date: 3/12/13		
Kurt Gerdes, Office Director (Please Print & Sign)								

Approved by:		Date:
Mark, Gilbertson, DAS Site Restoration		
Submitted to:		4/3/2013
EM-HQ Budget Analyst for TDD to complete AFP change		Date:

### Funding Codes

[illegible]

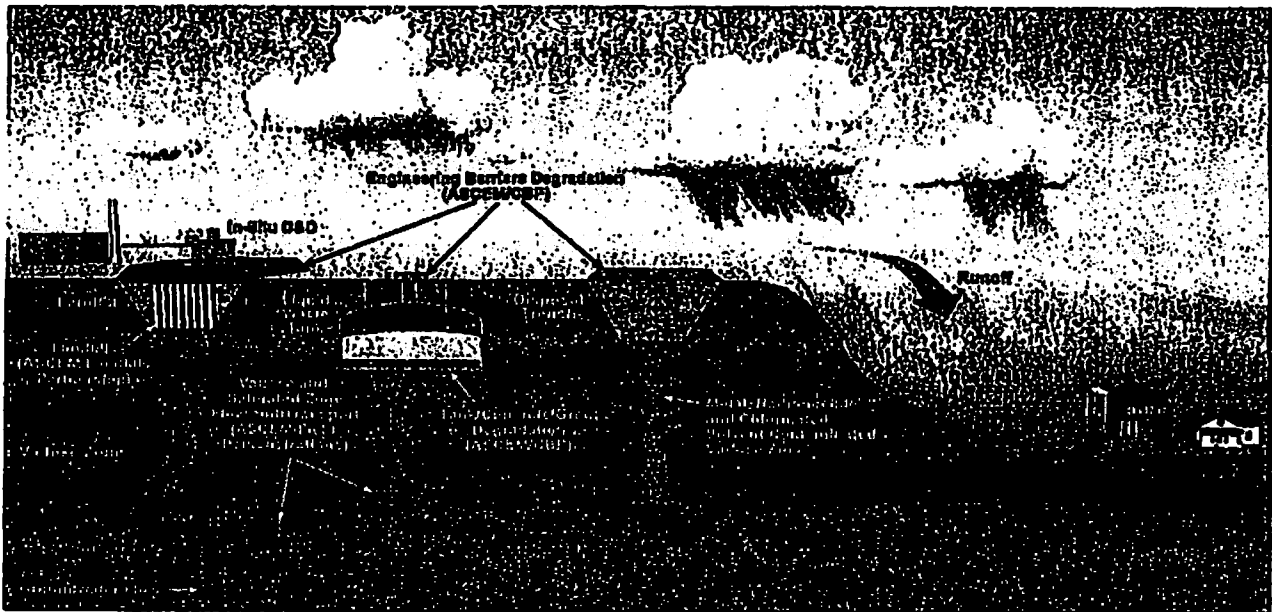
## Technical Task Plan ASCEM WBS 1.1

**NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCEM). ASCEM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### BACKGROUND AND PURPOSE:

The Site Restoration's mission is to develop technologies that advance the safe and timely cleanup of legacy wastes and facilities from defense nuclear applications. This is the largest cleanup program in the world [1]. Although EM has made great progress toward this goal during the past twenty years, the remaining clean-up challenges are far more complex than those previously addressed. The role of the ASCEM initiative is to develop a transformational modeling approach and toolset to help EM better meet these challenges through improving its long-term risk and performance modeling capabilities and by characterizing and reducing the uncertainty associated with the resulting predictions for the types of EM clean-up sites illustrated in the figure below.



In a review of the EM technology roadmap, the National Research Council (NRC) of the National Academies provided advice to DOE-EM for addressing principal science and technology gaps. The NRC identified the principal technology gaps in the groundwater and soil remediation program and the major recommendation was on the development and use of advanced computational models to better understand subsurface flow and contaminant transport behavior in complex geological systems, and the long-term performance of engineered components and barriers, including cementitious materials in nuclear waste disposal facilities.

In response to the NAS and Internal DOE review recommendations, and to address key NRC challenge areas DOE-EM has launched the ASCEM initiative along with other complementary and synergistic initiatives with other DOE offices. The DOE Offices of Science, Nuclear Energy, and Fossil Energy have made significant investments in developing advanced, high performance computing models for evaluating groundwater flow and transport, source term degradation and release, and mechanical degradation of structures and barriers. ASCEM leverages these investments. In doing so, ASCEM is improving the timeliness and cost effectiveness of its modeling approach and toolset, which is not only to the benefit of DOE-EM, but the greater DOE community as well (e.g., in the areas of geologic sequestration of carbon and high level waste repository performance).

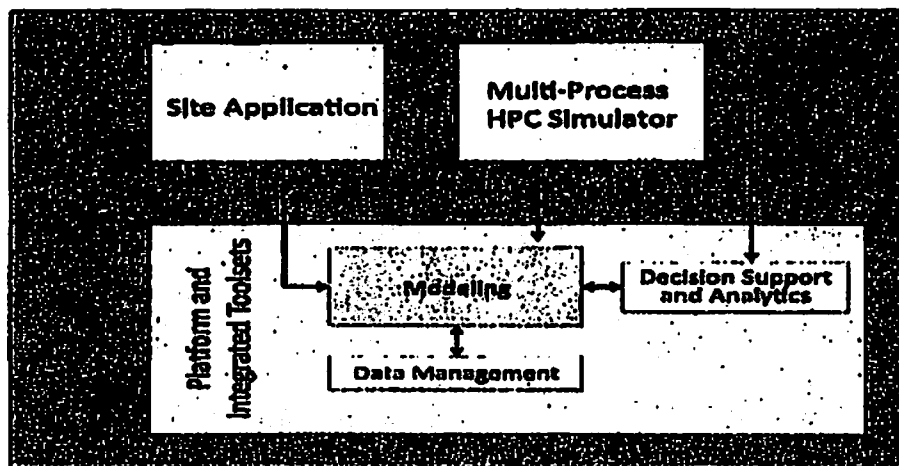
A major ASCEM goal is to provide a community code for DOE-EM and the greater scientific and engineering communities. To that end, the ASCEM HPC modeling tools is being developed using an open source model, with involvement from the DOE-SC community. This method is allowing ASCEM to leverage the considerable scientific investment that has already been made both within and outside of DOE-EM in the areas of subsurface geosciences, modeling and simulation, and environmental remediation.

The ASCEM model will be deployed at the EM sites through a phased process. The phased deployment of ASCEM will be done in close collaboration with the site end-users who have the ultimate ownership of this process. Initially the ASCEM platform and high performance computing toolsets will be used to provide additional technical underpinning to the existing risk and performance assessments. Eventually ASCEM will become the regulatory assessment tool used for updates and new risk and performance assessments at all EM sites.

#### **TECHNICAL APPROACH:**

##### **Summary of the Approach**

The ASCEM project is organized into three technical thrust areas: the Multi-Process High Performance Computing Simulator (HPC Simulator), which constitutes the computational engine; the Platform and Integrated Toolsets, which provide the user interfaces; and Site Applications (see Figure below). Detailed descriptions of the three thrust areas are contained in the ASCEM FY10-FY15 Integrated Modeling Implementation Plan.



The ASCEM project will be led by a management and integration team represented by senior representatives from the participating laboratories, Thrust areas leaders, and a Technical Systems Integration lead. A dedicated Project Manager (PM), will provide the single point of contact and overall interface responsibility to the DOE program manager.

This Task Plan describes the overall ASCEM Program with detailed budgets, tasks and milestone descriptions for all the ASCEM Thrust and management areas. Detailed budgets, tasks and milestone descriptions for each of the three thrusts and the ASCEM program management areas are contained in the following task plans:

- 1) ASCEM Task Plan WBS 1.1.1 Platform and Integrated Toolsets
- 2) ASCEM Task Plan WBS 1.1.2 Multi-Process HPC Simulator
- 3) ASCEM Task Plan WBS 1.1.3 Site Applications
- 4) ASCEM Task Plan WBS 1.1.4 ASCEM Program Management



**SCHEDULE / MILESTONES:**

WBS	Milestone Title	Date*
<b>Platform and HPC Development</b>		
1.1.1	Release Workshop Version of Code	TBD
1.1.1	Alpha Code Integration Complete	-33d, 3/12/2013
1.1.1	Beta Code Integration Complete	-23d, 7/15/2013
1.1.1	Release Candidate 2 Complete	-30d, 9/27/2013
<b>Platform and HPC Documentation</b>		
1.1.1 & 1.1.2	ASCEM User Guide Documents Complete	9/27/2013
1.1.2	ASCEM Developer Guide Document Complete (Amanzi Only)	7/29/2013
<b>Site Applications</b>		
1.1.3	Phase III Demonstration Plan	TBD
1.1.3	Demonstration Workshops	-22d, 3/29/2013
1.1.3	Phase III Demonstration Report	-23d, 9/30/2013
<b>Program Management</b>		
1.1.4.3	User steering committee meeting	Quarterly
1.1.4.4	ASCEM website maintenance	On going
1.1.4.5	Monthly status reports	Submitted by the 15th of each month
1.1.4.5	Integrated schedule	Due yearly in August
1.1.4.6	FY13 Basic Phase QA Plan Rolled-Out	3/1/2013
1.1.4.6	Applied Phase QA Plan Complete	9/30/2013

**\*NUMBER OF DAYS DELAYED DUE TO FUNDING AS OF MARCH 11, 2013****SPENDING PLAN****Monthly Spending Plan for FY2013**

Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Total
365	338	261	436	210	0	342	342	342	342	342	342	3455

\*Funded with \$60K carryover at project level

Signature and Approvals

HQ Program Manager: \_\_\_\_\_

Office Director: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

Site Representative: \_\_\_\_\_

3-12-13



**BUDGET:****Thrust Budgets (\$K)**

Thrust	Budget FY13
1.1.1 – Platform and Integrated Toolsets	\$1,113
1.1.2 – Multi-Process HPC Simulator	\$1,193
1.1.3 – Site Applications	\$698
1.1.4 – Project Management	\$450
<b>Total</b>	<b>\$3,455</b>

**Laboratory FY13 Budgets (\$K)**

Thrust	LANL	LBNL	PNNL	ANL	LJNL	ORNL	SRNL
1.1.1 – Platform and Integrated Toolsets	211	406	496	0	0	0	0
1.1.2 – Multi-Process HPC Simulator	566	339	288	0	2	0	0
1.1.3 – Site Applications	17	236	262	0	0	1.6	180.8
1.1.4 – ASCEM Program Management	271	21	114	7	0	0	44.5
<b>Total</b>	<b>1,065.3</b>	<b>1,002.9</b>	<b>1,160.0</b>	<b>0</b>	<b>0</b>	<b>1.6</b>	<b>225.3</b>

## Technical Task Plan ASCEM WBS 1.1.1

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components, including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The purpose of the Platform and Integrated Toolset is to make available the use of the ASCeM HPC simulation capabilities for the solution of environmental management tasks, and to provide support for the related model development and analysis tasks. Application of high-fidelity computational simulation to EM problems requires not only a well-designed multiphysics simulator, but also a computational environment that facilitates the complex process of code application to a given site and problem. The Platform and Integrated Toolset ("Platform") will build a set of tools incorporated into a powerful user interface to support a modeling workflow that is flexible, maintains quality assurance procedures and data integrity, and significantly enhances user efficiency. Tasks within this thrust area include the core platform development with user interfaces, information and data management tools, model setup tools, parameter estimation approaches, uncertainty quantification, decision support and risk assessment tools, and advanced visualizations.

### **TECHNICAL APPROACH:**

#### **Summary of the Approach**

The Platform development effort is structured as a set of tasks, as described below. The activities in these tasks are closely coordinated to ensure commonalities are addressed appropriately and the Platform software architecture and data management support a broad set of capabilities for the toolsets.

This Task Plan describes the overall ASCeM Platform thrust WBS 1.1.1 with detailed budgets, tasks and milestone descriptions for all the Platform activities.

#### **Platform Thrust Management WBS 1.1.1.1:**

The Thrust Area Lead (TAL) and the deputy are responsible for the overall technical leadership, planning and execution of the scope within the thrusts. The TAL and the deputy will work closely with the Technical Systems Integration Lead to develop technical and design requirements for the ASCeM HPC Core and Platform Toolsets based on needs identified from the EM site end users. The TAL and the deputy will select key project staff and technical performers from best available resources from the participating National Laboratories to execute the ASCeM work scope. The TAL will report monthly status and progress, and identify and communicate technical or programmatic issues. They will use the ASCeM baseline change control process to recommend changes to the technical program. Finally the TAL will assure the thrust area delivers products that meet project requirements for quality, cost, and schedule. Review thrust areas reports and products and transmit to the core management team for review, as needed prior to submittal to DOE.

#### **Data Management WBS 1.1.1.3:**

This task will further enhance the existing Platform data management infrastructure to support modeling and analysis activities, and provide more sophisticated integration with visualization tools. The task will work with identified DOE

sites to ingest site data into the ASCEM database, capturing a consistent set of metadata that is associated with the site data files. This data will then be made available to Platform users for incorporation in modeling activities. A key focus will be the creation of programming interfaces to enable the data in the data management system to be easily queried and extracted, resulting in a seamless integration with the other Platform toolsets. We will also, as identified by initial Platform users, extend the data management system to incorporate new data types such as bioremediation and treatment histories.

#### **Model Setup and Analysis WBS 1.1.1.4:**

This task will enhance the Initial Model Setup Toolset with new capabilities to support conceptual/numerical model creation. The effort will extend the collection of mesh types that a user can create, and incorporate new capabilities to specify geochemical parameters required by specific Amanzi models. Working closely with the Core Platform and HPC Thrust, this task will help specify and refine the Amanzi input file format, and extend existing capabilities available for importing/generating the computational grid. Improvements to usability, robustness and performance will also be made based on testing by the initial user community.

#### **Requirement Document, Design Document, and Reviews WBS 1.1.1.10**

This task will work with the task teams, HPC Thrust and Site Applications Thrust, as well as key ASCEM demonstration sites to revise, refine and update the Platform Requirements and Design documents.

#### **Akuna WBS 1.1.1.11**

Akuna is the core Platform user environment. We will continue to build upon the initial Akuna release to improve user workflows, model management and incorporate new plotting and visualizations. Working with the Toolsets and Model Setup tasks, we will continue to create and improve capabilities for users to exploit the new algorithms that are available in the toolsets. This requires extensive work to create appropriate user interfaces and extensions to the Akuna internal data model. Attention will also be given to performance and usability of the environment, as well as supporting initial users with documentation, case studies and workshops.

#### **Toolsets SA, PE, DS, UQ WBS 1.1.1.12**

We will work to add new capabilities for Parameter Estimation, Uncertainty Quantification and Sensitivity Analysis into the Platform. These will provide users with a broader range of capabilities that can be used in conjunction with Amanzi and Akuna to execute models and analyze results. Working closely with the Akuna task, we will ensure that powerful visualization and data provenance features are built to support each toolset. We will also exploit commonalities in the toolsets to more efficiently implement these features. In addition, we will start to design and implement an initial version of the Decision Support toolset. This will provide users with model-based decision analyses (i.e. based on model predictions), along with support for users to perform these analyses through Akuna.

#### **Agni WBS 1.1.1.13**

Agni provides a scalable and extensible coupling between the Akuna user interface and Amanzi by managing model input and output to the simulators. In addition to executing a single simulation run, Agni executes a series of model analysis tools, including parameter estimation, geostatistical simulation, and uncertainty quantification. We will continue to incorporate the new Toolset algorithms into Agni, and improve its robustness and performance. A key focus will be to ensure a seamless integration with Akuna, extending existing features to provide powerful and flexible tools for simulation execution and analysis.

## **Technical Task Plan ASCEM WBS 1.1.2**

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The Multi-Process High Performance Computing (HPC) Simulator, Amanzi, will provide a flexible and extensible computational engine that will simulate the coupled processes and flow scenarios described by the conceptual models developed using the ASCeM Platform. These conceptual models span a range of process complexity, potentially coupling hydrological, bio-geochemical, geo-mechanical, and thermal processes and will be used to quantify the associated uncertainty, sensitivity, and risk. Early in the development of this thrust we focused on documenting the mathematical description of these processes as a means to define the modeling requirements for the Multi-Process HPC Simulator. Building on these established requirements for process models, the HPC thrust has three tasks: the HPC Toolsets, the HPC Core Framework, and Verification and Validation. The HPC Toolsets task provides the essential building blocks (modules) for the process models, including grids, advanced discretizations, multiscale techniques, and nonlinear/linear equation solvers. In addition, this task supports development of the Multi-Process Coordinator (MPC). The HPC Core Framework task provides the underlying low-level services, such as parallel I/O, and data structures. The last task focuses on code and algorithm verification and model validation, and is an important bridge between The Process Models and the HPC Simulator, as well as the Site Applications Thrust (WBS 1.1.3).

### **TECHNICAL APPROACH:**

#### **HPC Thrust Management WBS 1.1.2.1**

The Thrust Area Lead (TAL) and the deputy are responsible for the overall technical leadership, planning and execution of the scope within the thrusts. The TAL and the deputy will work closely with the other thrust leads and the HPC Thrust team to continue to evolve the technical and design requirements for the ASCeM HPC Toolsets, HPC Core Framework, and their interface with the Platform (WBS 1.1.1) based on needs identified from the EM site end users. The TAL and the deputy will select key project staff and technical performers from best available resources from the participating National Laboratories, industry and universities to execute the ASCeM work scope. The TAL will report monthly status and progress, and identify and communicate technical or programmatic issues. They will use the ASCeM baseline change control process to recommend changes to the technical program. Finally the TAL will assure the thrust area delivers products that meet project requirements for quality, cost, and schedule. Review thrust areas reports and products and transmit to the core management team for review, as needed prior to submittal to DOE.

#### **HPC Toolsets WBS 1.1.2.2**

The HPC Toolsets provide the building blocks that transform the mathematical description of the process models into a discrete form suitable for simulation on a computer. The activities in this task are aligned with the three toolsets:

meshing, discretization, and solvers. In each toolset, we will leverage existing algorithms, techniques, and implementations, where appropriate.

The mesh provides an essential and fundamental data structure that bridges the conceptual site model and the numerical methods, and is ultimately the building block that connects the resulting simulation with the computing hardware. The Meshing Toolset provides mesh data structures and services for both structured meshes, which may be adapted to fit to the stratigraphy or features of the solution, and fully unstructured meshes. The Discretization Toolset is composed of several modules, including spatial and temporal discretization, geochemical reactions, and multiscale techniques. Using these modules as fundamental building blocks we create process kernels to simulate the various process models. The Multi-Process Coordinator (MPC) manages the coupling of these processes and is at the heart of providing a flexible and extensible simulation capability. Activities in this area will significantly enhance the flexibility of the MPC, and provide more robust and accurate discrete models. In addition, features that enhance integration with the Platform thrust (WBS 1.1.1), such as model gradients for optimization, and augmented systems for direct evolution of parameter sensitivities, will be considered.

In the Solvers Toolset we treat the nonlinear systems of equations that arise throughout Environmental Management applications, from the time evolution of discretizations and geochemical reaction networks, to optimization and assimilation. Through the first two ASCEM demonstrations we have established high-level requirements for the Solver Toolset, and established a baseline capability that leveraged existing tools for steady state and time evolution problems. In this activity, we will further enhance the design and implementation of preconditioners to fully support the flexibility, robustness and scalability required by the graded and iterative approach to site assessments.

#### **HPC Core Framework WBS 1.1.2.3**

This task focuses on the key infrastructure that facilitates the modular design of the HPC Simulator, as well as its portability and its graded Quality Assurance program. This task has two key activities, the HPC Core Infrastructure, and Portability and Performance Tuning. The HPC Core Infrastructure activity provides a number of low-level services for the HPC Toolsets (WBS 1.1.2.2), which provide the building blocks for the process models. These include data structures, input file specification and utilities, parallel input/output capabilities, application programming interfaces, and HPC related visualization support. Existing HPC Frameworks will be investigated to identify tools, algorithms, and techniques that may be leveraged in each of these activities.

The portability and performance tuning activities will ensure that the HPC Simulator runs well on a wide range of platforms, from laptops to supercomputers. This activity will leverage an automated build process in conjunction with automated testing and reporting to ensure a reliable capability is available on all required platforms. Together with the Verification and Validation task (WBS 1.1.2.4) this provides critical support for the graded QA program planned for ASCBM.

#### **Verification and Validation WBS 1.1.2.4**

The Verification and Validation (V&V) task will provide a unified hierarchical approach to testing, verification and validation, and benchmarking in order to ensure the reliability and robustness of the HPC Simulator. At the lowest level of the hierarchy, unit tests of individual models will be used to verify the correctness of specific sub-modules. At higher levels various integrated tests will be designed to span multiple coupled processes and detailed conceptual model descriptions with data requirements will be developed. Finally, at the highest level, benchmarks will be developed or gathered from the community that captures realistic site-application scenarios. These test suites will be developed in collaboration with the Site Applications thrust, particularly the Site Working Groups, and hence, this element provides a critical bridge between these thrusts. In addition, this element enhances communication between the HPC Toolsets and HPC Core Framework tasks (WBS 1.1.2.2 and 1.1.2.3, respectively).

## **Technical Task Plan ASCEM WBS 1.1.3**

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The Site Applications Thrust provides expertise and site data for model development and testing and a linkage between the computational capabilities and specific DOE EM sites where cleaning up legacy wastes and managing disposal activities will require advanced modeling. The thrust will establish and maintain linkages with end users. A key aspect of the Site Applications Thrust Area will be to provide testing and feedback for developing the HPC and Platform components based on user experience, to disseminate information, and provide training.

The Site Applications Thrust includes tasks to maintain an interface with end users; establish demonstrations; develop, expand, and coordinate working groups formed to perform demonstrations; and disseminate working group progress to the environmental community and, DOE management. Tasks focused on development of application protocols for the ASCeM toolset and training as well as a plan for long-term maintenance of the capability are also part of the Site Applications Thrust.

### **TECHNICAL APPROACH:**

#### **Site Applications Thrust Area Management WBS 1.1.3.1**

This task encompasses three key items: (1) coordination and oversight of the Site Applications Thrust activities, ultimately leading to effective completion of deliverables within allotted budget and timeframe; (2) participation with other ASCeM leads in guiding the evolution, cross-thrust linkages, and implementation of ASCeM; and (3) representation of the Site Application Thrust activities to the environmental community and, where appropriate, DOE management. The task is staffed by the Thrust Area Lead and a Deputy Thrust Lead

#### **User Interface WBS 1.1.3.2**

This task focuses on outreach to DOE EM performance assessment and risk assessment users and to scientists involved in other modeling and research activities at DOE Sites. Efforts will continue with on-going interactions with the LFRG, PA Community of Practice, and the Cementitious Barriers Partnership. This task will provide a means for continuous feedback regarding ASCeM as the project moves forward. Key tasks in FY13 will be developing a report on end user interactions and leading a demonstration workshop with the User Steering Committee.

#### **Site Working Groups WBS 1.1.3.6:**

Working groups have been formed around each of the identified demonstration problems. The working groups are responsible for (a) refining the working group scope; (b) assembling the necessary input (conceptual models, data, process models, and other expert input) and (c) working closely with the developers to advance and test ASCeM using

realistic and relevant datasets; and (d) engage end-users in the development and use of ASCEM. The current working groups are formed around the SRS F Area Attenuation of Metals and Radionuclides Applied Field Research Initiative (AFRI), the Hanford Deep Vadose Zone AFRI, Waste Tank Performance Assessment, and the Oak Ridge Mercury problem. During FY13, efforts will be focused on demonstration workshops using the Phase II results, interactions with the developers on testing advancements and refinements in the capabilities, and completing a Phase III demonstration.

#### **SRS F-Area Seepage Basin Working Group WBS 1.1.3.6.1:**

The goal of the Attenuation-Based Remedies for the Subsurface Demonstration is to demonstrate how ASCEM capabilities can be used to evaluate and guide remediation strategies in heterogeneous subsurface environments at the Savannah F-Area. Building on previous demonstrations as well as AFRI and LBNL SPA advances, we will extend and implement ASCEM capabilities to simulate the effect of the pH manipulation barrier and recirculation on plume mobility in 3D. The developed capabilities will then be used to evaluate: 1) the duration required for the base injection treatment to meet clean-up goals; 2) the possibility of replacing active groundwater remediation by attenuation-based remedies, including natural and enhanced attenuation. The demonstration will take advantage of multi-scale reactive facies characterization approach used to develop model parameterization input for the F-Area (Sassen et al., WRR in press; Walnwright et al., in development and will engage end users (site personnel and others) in capability testing. Many ASCEM components will be refined and utilized in this demonstration: Data Management will be extended to archive and serve up datasets associated with the engineering treatments; HPC toolsets will be used to develop reaction networks associated with the base injection treatments; Model setup will be used to define the coupled physiochemical heterogeneity (or reactive facies); Amanzi will be used to simulate 3D plume responses to various remediation strategies over a minimum 100 year timeframe; visualization will be used to simulate model output, and UQ will be used to assess key controls on plume remediation. The F Area Seepage Basin working group efforts will be the focus of the Phase III demonstration report and this will be the final year of significant effort for this working group. The working group members will participate in the demonstration workshops.

#### **Hanford Deep Vadose Zone Working Group WBS 1.1.3.6.2:**

The Hanford Deep Vadose Zone (DVZ) Applied Field Research Initiative has provided an opportunity to demonstrate ASCEM capabilities needed to help DOE EM evaluate innovative treatment technologies for recalcitrant contaminants in the deep vadose zone. The current technology under evaluation at the BC Cribs site is soil desiccation, an approach that minimizes  $^{238}\text{Pu}$  movement in the vadose zone by removing pore water via the injection of dry air and extraction of vapor. During the Phase II Demonstration, the working groups illustrated integration of Platform and HPC components. During FY 2013, efforts will focus on making the Phase II demonstration more robust in preparation for the demonstration workshops. The working group members will participate in the demonstration workshops and continue interacting with the development teams to test and debug refined ASCEM components. Future demonstration phases will include explicit representation of soil desiccation as well as other remediation approaches, such as foam delivery or  $\text{NH}_3$  gas treatment of uranium as well as exploring the concepts of end states for remediation. The remediation technologies will be developed as part of the Deep Vadose Zone AFRI or by CH2M Hill Plateau Remediation Contract and evaluated with ASCEM.

#### **Waste Tank PA Working Group WBS 1.1.3.6.3:**

Waste tank closures and comparable disposals of residual waste in engineered containment systems are a prominent component of the DOE EM complex. Engineered barriers also present unique process and requirements in comparison to purely geologic systems in the form of geometries, materials and associated properties, and physical and chemical processes. The Waste Tank PA Working Group will continue to develop ASCEM demonstrations that are representative of tank closures at Hanford and Savannah River and similar engineered barrier scenarios, using data from existing Performance Assessment (PA) studies for efficiency and relevance. Increased emphasis will be placed on working with real site data relevant to tank closure rather than representative sites. Working group activities in FY12 focused on ASCEM advancements in the areas of Adaptive Mesh Refinement (AMR) on structured grids, radioactive decay and progeny ingrowth, and collaboration with the Cementitious Barriers Partnership (CBP) on a joint demonstration. FY13 activity will be focus on making the Phase II demonstration more robust and participating in the demonstration workshops. In addition, the working group will complete the ASCEM-CBP joint demonstration, and expand the waste tank demonstration using site data from Savannah River and Hanford (as appropriate) commensurate with ongoing Amanzi code development. Interactions with the development teams on testing the Amanzi code will continue. The working group will begin to engage end users in the PA community related to modeling of cementitious waste forms (e.g., Saltstone) and other waste tank closure issues.

## **Management Task Plan ASCEM WBS 1.1.4**

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCEM). ASCEM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The ASCEM project will be led by a management and integration team represented by senior representatives from the participating laboratories, Thrust areas leaders, and a Technical Systems Integration lead. A dedicated Project Manager (PM), selected from one of the core laboratories, provides the single point of contact and overall interface responsibility to the DOE program manager. This Task Plan describes the ASCEM Project Management WBS 1.1.4 detailed budgets, tasks and milestone descriptions.

### **TECHNICAL APPROACH:**

#### **Program Management WBS 1.1.4.1**

##### **ASCEM Multi-Lab Program Manager:**

The ASCEM Program Manager (PM) serves as primary programmatic point of contact for the project and with DOE Program Manager. The ASCEM Multi-Lab PM leads the preparation, maintenance, and execution a life-cycle Program Plan, which includes quality assurance plan, schedule and milestone management, budgeting and financial control, and records maintenance. Through weekly management and integration meetings the PM will oversee project execution activities, ensure the project fulfills the clients' requirements, and assure that the ASCEM project products meet customers' requirements based on approved scope, schedule and budget. On a yearly basis, the PM will work with the ASCEM Management and Integration Team to prepare and approve the annual technical scope, staffing, and budget plans for the DOE annual budgeting process. The ASCEM multi-lab PM will oversee execution activities, including drafting and submitting to DOE program execution guidance for project performers and establish and implement a reporting and communication mechanism among ASCEM project staff. The ASCEM Multi-Lab PM will chair the project baseline change control board composed of the Management and Integration Team and submit requests to DOE for change approvals. This position is also supported by a part time admin.

##### **Laboratory Representatives:**

Each of the core laboratories supporting the ASCEM Program will be represented by a "Lab Lead". The Lab Lead will provide non-parochial senior-level technical and programmatic expertise to assure project planning and execution is defensible, achievable, and has the full commitment of the participating laboratory. The Lab Leads will assure the ASCEM Program has the needed laboratory resources for program execution by providing technical expertise to address technical gaps and emerging issues. The Lab Leads will assist the ASCEM Multi-Lab PM in assuring the program meets quality, cost, and schedule performance, and address performance issues within their represented laboratory.



**User Steering Committee WBS 1.1.4.3:**

This member of the ASCEM management team serves as the primary project interface with the PA User Community (e.g., EM Office of Regulatory Compliance, Low-Level Waste Disposal Facility Federal Review Group (LFRG) Members, site contractors, US NRC, and others as applicable). In addition, the user steering committee lead will communicate EM user needs and requirements to the ASCEM Management and Integration Team. This member of the ASCEM management team will serve as coordinator for the User Steering Committee, including development of its Charter, organizing the Steering Committee meetings, and reporting to the Management and Integration Team on the User Steering Committee Meeting results. This person will also serve as the primary interface with EM Office of Compliance to coordinate ASCEM with future updates of DOE Order 435.1.

**Communications and Website Team WBS 1.1.4.4:**

The Communication and Website management team has three roles: 1) oversight and maintenance of the ASCEM internal communication tool for sharing of project information, 2) oversight and maintenance of the external ASCEM website, and 3) preparation of presentations and document production oversight for internal and external ASCEM project reports. This team is experienced in marketing, technical editing, website design, and communications. The communications function will support regular communication products, including input to EM weekly reports, EM highlights, and annual reports. The lead for this area will provide direct support to the Thrust Area Teams as well as the Core Management Team. Web-based communication resources will be established to maximize ease of access by all team members including DOE-EM management and advisory group members, and site user collaborators. These tools will provide for real-time sharing of project information through tools such as a share point sites or other internet-based networking products to support multi-lab, university, and industry collaboration.

**Project Controls & Business Mgmt WBS 1.1.4.5:**

The project controls function will provide the overall business, finance, and schedule tracking and reporting support to the PM and management core team, including Thrust Area leaders and task managers. This function will work with individual laboratory finance and project controls staff to assure the overall project is tracking and managing deliverables at an appropriate level. The project is employing an Earned Value Management System (BVMS) process and provide DOE monthly reporting on project performance. Internally, the project will track critical path activities on a more frequent basis.

**Quality Assurance WBS 1.1.4.6:**

The ASCEM platform and HPC framework will ultimately be deployed to support EM regulatory decisions (e.g., PA, risk assessments, composite analyses). Therefore, NQA-1 software quality requirements will be met for the final products of the project. To assure NQA-1 compliance, a graded approach will be employed to allow for early development and testing of prototype components and systems without unnecessary burden on the research and development effort. Other software quality standards such as the 1996/1997 EPA Guidance on "Ground-Water Model Testing: Systematic Evaluation and Testing of Code Functionality and Performance" and ASTM D 6025 (reapproved 2008) "Standard guide for developing and evaluating Ground-water modeling codes" will be considered for application, depending on regulatory requirements. As components and systems mature to deployment status, enhanced QA requirements and corresponding procedures will be applied. The QA function is responsible for developing and instituting an overall QA project plan and QA requirements that will flow down to project participants. The QA function will work across the Thrust Areas and laboratories to assure task level QA requirements are appropriately and consistently applied, and minimize the QA burden on individual task leaders.

**SCHEDULE / MILESTONES:**

WBS	Milestone Title	Date*
<b>Platform and HPC Development</b>		
1.1.1	Release Workshop Version of Code	TBD
1.1.1	Alpha Code Integration Complete	-33d, 3/12/2013
1.1.1	Beta Code Integration Complete	-23d, 7/15/2013
1.1.1	Release Candidate 2 Complete	-30d, 9/27/2013
<b>Platform and HPC Documentation</b>		
1.1.1 & 1.1.2	ASCEM User Guide Documents Complete	9/27/2013
1.1.2	ASCEM Developer Guide Document Complete (Amanzi Only)	7/29/2013
<b>Site Applications</b>		
1.1.3	Phase III Demonstration Plan	TBD
1.1.3	Demonstration Workshops	-22d, 3/29/2013
1.1.3	Phase III Demonstration Report	-23d, 9/30/2013
<b>Program Management</b>		
1.1.4.3	User steering committee meeting	Quarterly
1.1.4.4	ASCEM website maintenance	On going
1.1.4.5	Monthly status reports	Submitted by the 15th of each month
1.1.4.5	Integrated schedule	Due yearly in August
1.1.4.6	FY13 Basic Phase QA Plan Rolled-Out	3/1/2013
1.1.4.6	Applied Phase QA Plan Complete	9/30/2013

**\*NUMBER OF DAYS DELAYED DUE TO FUNDING AS OF MARCH 11, 2013****SPENDING PLAN****Monthly Spending Plan for FY2013**

Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Total
365	338	261	436	210	0	342	342	342	342	342	342	3455

\*Funded with \$60K carryover at project level

Signature and Approvals

HQ Program Manager:

Office Director:

Principal Investigator

Site Representative

# Detail Funding Point History

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC
Chg Date / Time		User		Prog. ID		Description												
47650	2013	36	SR	01250	1110676	C000977	410003	0004266	0000000	25400	SR22470	0000000	0.00	0.00	0.00	113,000.00	113,000.00	0.00
4/9/2013 16:29:31		Segunot, Elberto		UPD0001		JOINT INTERNAT STUDY OF GLASS												
Change Amounts:													0.00	0.00	0.00	15,000.00	15,000.00	0.00
47650	2013	36	SR	01250	1110676	C000977	410003	0004266	0000000	25400	SR22470	0000000	0.00	0.00	0.00	98,000.00	98,000.00	0.00
12/11/2012 15:20:40		Segunot, Elberto		UPD0001		JOINT INTERNAT STUDY OF GLASS												
Change Amounts:													0.00	0.00	0.00	98,000.00	98,000.00	0.00
47652	2013	36	SR	01250	1110676	C000977	410003	0004265	0000000	25400	SR22470	0000000	0.00	0.00	0.00	25,000.00	25,000.00	0.00
12/11/2012 15:16:25		Segunot, Elberto		UPD0001		IMPROVED VITRIFICATION CAPACIT												
Change Amounts:													0.00	0.00	0.00	25,000.00	25,000.00	0.00
47654	2013	36	SR	01250	1110676	C000977	410003	0004263	0000000	25400	SR22470	0000000	0.00	0.00	0.00	130,000.00	130,000.00	0.00
11/27/2012 15:00:44		Segunot, Elberto		UPD0001														
Change Amounts:													0.00	0.00	0.00	130,000.00	130,000.00	0.00
47656	2013	36	SR	01250	1110676	C000977	410003	0004262	0000000	25400	SR22470	0000000	0.00	0.00	0.00	250,000.00	250,000.00	0.00
10/17/2012 16:20:25		Segunot, Elberto		UPD0001		CEMENTITIOUS BARRIERS PARTNERS												
Change Amounts:													0.00	0.00	0.00	250,000.00	250,000.00	0.00
47658	2013	36	SR	01250	1110676	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	0.00	557,000.00	557,000.00	0.00
12/11/2012 15:11:30		Segunot, Elberto		UPD0001		Technical Planning, Integration and Risk Management (HQTD1000)												
Change Amounts:													0.00	0.00	0.00	372,000.00	372,000.00	0.00
47658	2013	36	SR	01250	1110676	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	0.00	185,000.00	185,000.00	0.00
10/17/2012 16:12:57		Segunot, Elberto		UPD0001		Technical Planning, Integration and Risk Management (HQTD1000)												
Change Amounts:													0.00	0.00	0.00	185,000.00	185,000.00	0.00
47660	2013	36	SR	01250	1110676	C000977	410003	0004017	0000000	25400	SR22470	0000000	0.00	0.00	0.00	99,000.00	99,000.00	0.00
4/9/2013 16:20:34		Segunot, Elberto		UPD0001		Advanced Subsurface Computing for Environmental Management (ASCEM)												
Change Amounts:													0.00	0.00	0.00	40,000.00	40,000.00	0.00
47660	2013	36	SR	01250	1110676	C000977	410003	0004017	0000000	25400	SR22470	0000000	0.00	0.00	0.00	59,000.00	59,000.00	0.00
10/17/2012 16:14:52		Segunot, Elberto		UPD0001		Advanced Subsurface Computing for Environmental Management (ASCEM)												
Change Amounts:													0.00	0.00	0.00	59,000.00	59,000.00	0.00
49787	2013	36	SR	01250	1110676	C000977	410003	0004030	0000000	25400	SR22470	0000000	0.00	0.00	0.00	150,000.00	150,000.00	0.00
3/13/2013 17:00:10		Segunot, Elberto		UPD0001														
Change Amounts:													0.00	0.00	0.00	25,000.00	25,000.00	0.00



## Financial Plan Report - Detail

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01250	TP	1110676	EY4049110	25400	0000000	0003925	0000000		15,138.97	135,061.61	200,000.00	335,061.61	350,200.58
410003	01250	TP	1110676	EY4049110	25400	0000000	0004017	0000000		26,037.10	59,000.00	40,000.00	99,000.00	125,037.10
410003	01250	TP	1110676	EY4049110	25400	0000000	0004266	0000000		76,614.28	147,098.00	15,000.00	162,098.00	238,712.28
Total for Program Parent/Control Point: EY4000000										117,790.35	341,159.61	255,000.00	596,159.61	713,949.96
410003	01250	TP	1111525	EY8648111	25400	0000000	0001761	0000000		119,672.95	18,977,600.00	7,007,417.00	25,985,217.00	26,104,889.95
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1111461	EY864811B	25400	0000000	0004363	0000000		1,312,929.09	-918,475.00	500,000.00	-418,475.00	894,454.09
AY 2013 - \$500K of funds are specifically to support the PAV project activities per H. Gunter. rz														
410003	01250	TP	1111497	EY864811D	25400	0000000	0004364	0000000		2,676,304.39	60,235,629.92	16,286,919.00	76,522,548.92	79,198,853.31
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1111498	EY864811E	25400	0000000	0004365	0000000		1,184,520.19	22,878,741.00	5,416,399.00	28,295,140.00	29,479,660.19
AY 2013 - \$1.2M specifically for: *\$700K these funds are specifically to support (\$400k for SRNS efforts for a pre-conceptual for vulnerability assessment for the Waste Isolation Pilot Plant and \$300k for SRNS efforts to develop an application package for submittal to the Nuclear Regulatory Commission for the 2013 9975 shipping package). \$500K for DSA 10 & 11 preparations and Operations support to PAV" per H. Gunter. rz														
410003	01250	TP	1111499	EY864811F	25400	0000000	0004366	0000000		110,373.09	9,505,985.00	2,902,431.00	12,409,416.00	12,519,789.09
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1111526	EY8648121	25400	0000000	0001762	0000000		344,221.52	18,164,250.00	5,874,696.00	24,039,146.00	24,383,367.52
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1110949	EY8648130	25400	0000000	0001763	0000000		11,288,054.07	7,392,562.00	3,778,782.00	11,171,344.00	22,459,398.07
AY 2013 - 4.9.2012 - Increased by \$3,778,782 per RMOP Petty - mat														
410003	01250	TP	1110950	EY8648300	25400	0000000	0001766	0000000		868,926.39	22,278,054.00	8,187,882.00	30,465,946.00	31,334,872.39
AY 2013 - 4.9.2013 - Increased by \$8,187,882 - Per RMO email P. Petty - mat														
Total for Program Parent/Control Point: EY8648020										17,905,001.69	158,515,556.92	49,954,726.00	208,470,282.92	226,375,284.61
410003	01250	TP	1111528	EY8748141	25400	0000000	0001764	0000000		1,358,284.88	41,016,000.00	7,000,000.00	48,016,000.00	49,374,284.88
410003	01250	TP	1111528	EY8748141	25400	0411107	0001764	0000000		0.00	18,062,500.00	4,000,000.00	22,062,500.00	22,062,500.00
410003	01250	TP	1111528	EY8748141	25400	0411108	0001764	0000000		121,214.20	7,741,000.00	2,000,000.00	9,741,000.00	9,862,214.20
410003	01250	TP	1111528	EY8748141	25400	0411130	0001764	0000000		0.00	7,606,000.00	2,000,000.00	9,606,000.00	9,606,000.00
Total for Program Parent/Control Point: EY8748140										1,479,499.08	74,425,500.00	15,000,000.00	89,425,500.00	90,904,999.08
410003	01250	TP	1111166	FS5048010	25400	0000000	0001765	0000000		185,186.65	1,950,000.00	200,000.00	2,150,000.00	2,335,186.65
410003	01250	TP	1111167	FS5048020	25400	0000000	0001765	0000000		191,501.97	5,407,000.00	2,000,000.00	7,407,000.00	7,598,501.97
410003	01250	TP	1111172	FS5048070	25400	0000000	0001765	0000000		820,190.84	565,000.00	300,000.00	865,000.00	1,685,190.84
Total for Program Parent/Control Point: FS5010010										1,196,879.46	7,922,000.00	2,500,000.00	10,422,000.00	11,618,879.46
Total for Fund: 01250										20,699,170.58	241,204,216.53	67,709,726.00	308,913,942.53	329,613,113.11

No. HQTD1005-4-13, Rev 1

Project Title: Increased Waste Loadings

**Note: Six (6) pages, inclusive of Cost and Obligation Report  
Year-To-Date values (supporting documentation)**

---



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Increased Waste Loadings		<b>1b. Work Proposal Number</b> HQTD1005-4-13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Gary Smith		Organization Code: EM-21 509-430-8830(c)/ 509-376-0922(0), gary_smith@em.doe.gov	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Connie Flohr		Organization Code: EM-61 Telephone: 301-903-0393	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Tracy P. Mustin Phone: 202-586-7709 Routing: EM-1	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> HQTD1005-4-13		<b>9. Revision Number</b> 1	
<b>10. Funds Authorized (Pending resolution of CR)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>B&amp;R Code:</b> EY4049110 <i>Program ID = 1110676</i>	<b>Previous:</b> \$98,000	<b>Change:</b> \$15,000	<b>Current:</b> \$113,000
<b>11. Performance Period Covered by Funds</b> 10/1/2012      9/30/2013		<b>12. Work Start Date</b> 10/1/2012	
		<b>13. Expected Completion Date</b> 9/30/2013	
<b>14. Statement of Work (Includes attachments)</b> Task WP-5.2.2: Joint EM-NE-SC-International Study of Glass Behavior Over Geologic Time Scales  The U.S. team has established several target areas for experimental and simulation-based investigations. These specific areas, when combined with the efforts of our international partners, are expected to provide the greatest improvement in understanding in the long-term behavior of glass and have the largest impact on the development of a more robust and universal glass performance model. SRNL will support EM-21 in FY2013 to complete the following milestones:  FY 13 Milestones: 1. Publish corrosion experiment database for international access: SRNL, 7/15/2013 2. Issue report on forward rate variability (pH, temperature, composition, etc.): SRNL, 9/13/2013			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patrick Jackson	Signature: <i>Patrick Jackson</i>	Date: 4/18/13	
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: <i>Harold K. Nielsen</i>	Date: 4/19/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: <i>John W. Temple</i>	Date: 4/23/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: <i>5-2</i>	Date: 4/18/13	

<b>OFFICE OF TANK WASTE &amp; NOCULAR MATERIAL (RM-20)</b> <b>WORK AUTHORIZATION/TASK CHANGE REQUEST (TCR)</b>		<b>Project Number:</b> HQTD1005 <b>Date:</b> March 2013 <b>APP Change Month:</b> April 2013		<b>Project Title:</b> Increased Waste Loadings		<b>Site/Contractor:</b> FNNL/BRNL <b>Project Area Room:</b> WP-5 <b>Technical Task Plan:</b> (TTP) Attached: Yes		<b>Contract Number:</b> (If other than National Laboratory or DOB also contractor) <b>Project Area Manager (WP Lead or PI):</b> RM-21: Nick Machuga, (301) 903-3327, nicholas.machuga@nsl.gov <b>Technical Point(s) of Contact:</b> FNNL: Joe Ryan, (309) 372-4809, joeryan@fnnl.gov <b>SRNL:</b> James Harris, (803) 725-5838, james.harris@nsl.gov <b>ORNL:</b> Eric Pierce, (865) 574-9968, pierceem@ornl.gov <b>LBNL:</b> Glenn Wegmann, (510) 495-2224, GWegmann@lbl.gov <b>Names of Budget Analysts at the site(s):</b> FNNL: Teresa Jenkins, (509) 375-2768, teresa.jenkins@fnnl.gov <b>SRNL:</b> Leza Robertson, (803) 952-9196, leza.robertson@nsl.gov <b>ORNL:</b> Pat Rader, (865) 574-0360, raderpm@ornl.gov <b>LBNL:</b> Angela Gill, (510) 495-2276, AGill@lbl.gov		<b>New BA (SR) Requested:</b> 135K <b>Prior Funding (\$K):</b> 322K distributed as follows: a. \$150K FNNL; b. \$98K SRNL; c. \$50K LBNL; d. \$75K ORNL. <b>Total Unneeded (\$K) as of Beginning of this FY:</b> 57K distributed as follows: a. \$27K SRNL; b. \$50K LBNL. <b>Total Available Funding (\$K) including requested (add first three columns):</b> 366K distributed as follows: a. \$225K FNNL; b. \$113K SRNL; c. \$100K LBNL; d. \$95K ORNL.		<b>Grand Plan for Total Available Funding (Use actual) (see previous quarters):</b> 1 <sup>st</sup> Quarter of FY: 337K 2 <sup>nd</sup> Qtr of FY: 327K 3 <sup>rd</sup> Quarter of FY: 323K 4 <sup>th</sup> Quarter of FY: 324K Projected unneeded at the end of this FY: 50K		<b>Funding Codes (To be Completed by Budget Office)</b> <table border="1"> <thead> <tr> <th>Fund</th> <th>Year</th> <th>Allotee</th> <th>Reporting</th> <th>SQL</th> <th>Class</th> <th>Program</th> <th>Project</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td colspan="9">See attached work</td> </tr> </tbody> </table>		Fund	Year	Allotee	Reporting	SQL	Class	Program	Project	Amount	See attached work									<b>Short Description of Work Scope Authorized for Input in APP:</b> The primary objective is to develop data to evaluate the impacts of advanced methods of silicic glass formation and molten operations for step function increases in loading of Hanford and SRB wastes in glass as part of a synergistic approach with pretreatment to simultaneously optimize separations and immobilization. A secondary objective is the development of predictive tools to use in systems planning which in turn are used to determine the relative benefits of different formulations and guide research priorities. Data will be generated in the activity at a sufficient quality assurance level to allow for use in waste form implementation in the vitrification plant and waste form qualification activities. FY13 Milestones: 1. Submit draft journal article on loss restrictive neobolus model for HLW glass FNNL, (TBI), pending funding)	
Fund	Year	Allotee	Reporting	SQL	Class	Program	Project	Amount																											
See attached work																																			

Value 0004266

<p>2. Complete fabrication of test matrix glasses (from FY11 plan): SRNL, (TBD, pending funding)</p> <p>3. Complete testing of test matrix glasses: SRNL, (TBD, pending funding)</p> <p>Transfer \$0K as follows: \$0K to PNNL and \$0K to SRNL</p> <p><b>Task IV-5.2.2: Joint ERM-NE-SC-International Study of Glass Behavior Over Geologic Time Scales:</b></p> <p>The U.S. team has established several target areas for experimental and simulation-based investigations. These specific areas, when combined with the efforts of our international partners, are expected to provide the greatest improvement in understanding in the long-term behavior of glass and have the largest impact on the development of a more robust and universal glass performance model. Each of these topics is either the source of international scientific disagreement or general scientific uncertainty while being significant to understanding and modeling glass dissolution. The four general classes of rate limiting mechanisms are:</p> <ol style="list-style-type: none"> <li>Reaction kinetics at the glass-solution interface</li> <li>Transport kinetics of species to and from the glass-solution interface</li> <li>Ion exchange processes within the glass that may impact effective surface area</li> <li>Kinetics of alteration product precipitation/dissolution</li> </ol> <p>A detailed draft technical program plan has been developed jointly with DOE-NE and DOE-SC for the U.S. research program which is being conducted in collaboration with international researchers with complementary studies/approaches. The FY13 ERM research focus includes:</p> <ol style="list-style-type: none"> <li>Evaluation of the alteration product structure including the amorphous gel and crystalline alteration products.</li> <li>Completion of joint DOE-CRA study on CRA 26y old glass sample with advanced characterization methods.</li> <li>Begin composition, temperature, pH, impacts on forward rate testing.</li> </ol> <p><b>FY13 Milestones:</b></p> <ol style="list-style-type: none"> <li>Submit joint CRA/DOE paper to peer reviewed journal: PNNL, 1/16/2013</li> <li>Issue plan on the study of composition-induced "tipping-points": PNNL, 3/29/2013</li> <li>Draft paper on the evolution of corrosion layers: ORNL, 6/14/2013</li> <li>Publish corrosion experiment database for international access: SRNL, 7/15/2013</li> <li>Submit report on <i>in situ</i> corrosion studies: LBNL, 8/23/2013</li> <li>Issue report on forward rate variability (pH, temperature, composition, etc.): SRNL, 9/13/2013</li> </ol> <p>Transfer \$400K as follows: \$100K to SRNL, \$175K to PNNL, \$75K to ORNL, and \$50K to LBNL subject to final appropriations</p>
---

Submitted by:	Matthew Zinkovich <i>[Signature]</i> <sup>for W. Machida</sup>	Date:	3/14/13
Headquarters Project Manager (Please Print & Sign)			
Approved by:	Steve Schneider <i>[Signature]</i>	Date:	3/14/13
Office Director (Please Print & Sign)			
Approved by:	W.D. Park <i>[Signature]</i>	Date:	3/15/13
Deputy Assistant Secretary, ERM-20			
Approved by:		Date:	
Associate Principal Deputy Assistant Secretary, ERM-2.1			
Submitted to:	Jeff T. McMillan <i>[Signature]</i>	Date:	4/13/2013
ERM-20 Budget Analyst for TDD to complete AFP change			



### Funding Codes

[illegible]

4/11/2013  
10:15:36AM

Fiscal Year: 2013  
Date Range: 10/1/2012 to 4/11/2013

## Detail Funding Point History

Site: SR

Page 1 of 2  
Report: REX0003

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC
Chg Date / Time		User		Prog. ID		Description												
47650	2013	36	SR	01250	1110576	C000977	410003	0004266	0000000	25400	SR22470	0000000	0.00	0.00	0.00	113,000.00	113,000.00	0.00
4/9/2013 16:29:31		Seguinot, Eliberto		UPD0001		JOINT INTERNAT STUDY OF GLASS		Change Amounts:										
													0.00	0.00	0.00	15,000.00	15,000.00	0.00
47650	2013	36	SR	01250	1110576	C000977	410003	0004266	0000000	25400	SR22470	0000000	0.00	0.00	0.00	98,000.00	98,000.00	0.00
12/11/2012 15:20:40		Seguinot, Eliberto		UPD0001		JOINT INTERNAT STUDY OF GLASS		Change Amounts:										
													0.00	0.00	0.00	98,000.00	98,000.00	0.00
47652	2013	36	SR	01250	1110576	C000977	410003	0004265	0000000	25400	SR22470	0000000	0.00	0.00	0.00	25,000.00	25,000.00	0.00
12/11/2012 15:16:25		Seguinot, Eliberto		UPD0001		IMPROVED VITRIFICATION CAPACIT		Change Amounts:										
													0.00	0.00	0.00	25,000.00	25,000.00	0.00
47654	2013	36	SR	01250	1110576	C000977	410003	0004263	0000000	25400	SR22470	0000000	0.00	0.00	0.00	130,000.00	130,000.00	0.00
11/27/2012 15:00:44		Seguinot, Eliberto		UPD0001				Change Amounts:										
													0.00	0.00	0.00	130,000.00	130,000.00	0.00
47656	2013	36	SR	01250	1110576	C000977	410003	0004262	0000000	25400	SR22470	0000000	0.00	0.00	0.00	250,000.00	250,000.00	0.00
10/17/2012 16:20:25		Seguinot, Eliberto		UPD0001		CEMENTITIOUS BARRIERS PARTNERS		Change Amounts:										
													0.00	0.00	0.00	250,000.00	250,000.00	0.00
47658	2013	36	SR	01250	1110576	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	0.00	557,000.00	557,000.00	0.00
12/11/2012 15:11:30		Seguinot, Eliberto		UPD0001		Technical Planning, Integration and Risk Management (HQTD1000)		Change Amounts:										
													0.00	0.00	0.00	372,000.00	372,000.00	0.00
47658	2013	36	SR	01250	1110576	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	0.00	185,000.00	185,000.00	0.00
10/17/2012 16:12:57		Seguinot, Eliberto		UPD0001		Technical Planning, Integration and Risk Management (HQTD1000)		Change Amounts:										
													0.00	0.00	0.00	185,000.00	185,000.00	0.00
47660	2013	36	SR	01250	1110576	C000977	410003	0004017	0000000	25400	SR22470	0000000	0.00	0.00	0.00	99,000.00	99,000.00	0.00
4/9/2013 16:20:34		Seguinot, Eliberto		UPD0001		Advanced Subsurface Computing for Environmental Management (ASCEM)		Change Amounts:										
													0.00	0.00	0.00	40,000.00	40,000.00	0.00
47660	2013	36	SR	01250	1110576	C000977	410003	0004017	0000000	25400	SR22470	0000000	0.00	0.00	0.00	59,000.00	59,000.00	0.00
10/17/2012 16:14:52		Seguinot, Eliberto		UPD0001		Advanced Subsurface Computing for Environmental Management (ASCEM)		Change Amounts:										
													0.00	0.00	0.00	59,000.00	59,000.00	0.00
49787	2013	36	SR	01250	1110576	C000977	410003	0004030	0000000	25400	SR22470	0000000	0.00	0.00	0.00	150,000.00	150,000.00	0.00
3/13/2013 17:00:10		Seguinot, Eliberto		UPD0001				Change Amounts:										
													0.00	0.00	0.00	-25,000.00	-25,000.00	0.00

## Financial Plan Report - Detail

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: April 11, 2013 at 02:32:55 PM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01250	TP	1110676	EY4049110	25400	0000000	0003925	0000000		15,138.97	135,061.61	200,000.00	335,061.61	350,200.58
410003	01250	TP	1110676	EY4049110	25400	0000000	0004017	0000000		26,037.10	59,000.00	40,000.00	99,000.00	125,037.10
410003	01250	TP	1110676	EY4049110	25400	0000000	0004266	0000000		76,614.28	147,098.00	15,000.00	162,098.00	238,712.28
Total for Program Parent/Control Point: EY4000000										117,790.35	341,159.61	255,000.00	596,159.61	713,949.96
410003	01250	TP	1111525	EY8648111	25400	0000000	0001761	0000000		119,672.95	18,977,800.00	7,007,417.00	25,985,217.00	26,104,889.95
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1111461	EY864811B	25400	0000000	0004363	0000000		1,312,929.09	918,475.00	500,000.00	418,475.00	894,454.09
AY 2013 - \$500K of funds are specifically to support the PAV project activities per H. Gunter rz														
410003	01250	TP	1111497	EY864811D	25400	0000000	0004364	0000000		2,676,304.39	60,235,629.92	16,286,919.00	76,522,548.92	79,198,853.31
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1111498	EY864811E	25400	0000000	0004365	0000000		1,184,520.19	22,878,741.00	5,416,399.00	28,295,140.00	29,479,660.19
AY 2013 - \$1.2M specifically for: \$700K these funds are specifically to support (\$400k for SRNS efforts for a pre-conceptual for vulnerability assessment for the Waste Isolation Pilot Plant and \$300k for SRNS efforts to develop an application package for submittal to the Nuclear Regulatory Commission for the 3013 9975 shipping package); \$500K for DSA 10 & 11 preparations and Operations support to PAV per H. Gunter rz														
410003	01250	TP	1111499	EY864811F	25400	0000000	0004366	0000000		110,373.09	9,506,965.00	2,902,431.00	12,409,416.00	12,519,789.09
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1111526	EY8648121	25400	0000000	0001762	0000000		344,221.52	18,164,250.00	5,874,896.00	24,039,146.00	24,383,367.52
AY 2013 - Transfer to SRNS per MG/PP rz														
410003	01250	TP	1110949	EY8648130	25400	0000000	0001763	0000000		11,288,054.07	7,392,562.00	3,778,782.00	11,171,344.00	22,459,398.07
AY 2013 - 4.9.2012 - Increased by \$3,778,782 per RMO P. Petty -mat														
410003	01250	TP	1110950	EY8648300	25400	0000000	0001766	0000000		868,926.39	22,278,064.00	8,187,882.00	30,465,946.00	31,334,872.39
AY 2013 - 4.9.2013 - Increased by \$8,187,882 - Per RMO email P. Petty -mat														
Total for Program Parent/Control Point: EY8648020										17,905,001.69	158,515,556.92	49,954,726.00	208,470,282.92	226,375,284.61
410003	01250	TP	1111528	EY8748141	25400	0000000	0001764	0000000		1,358,284.88	41,016,000.00	7,000,000.00	48,016,000.00	49,374,284.88
410003	01250	TP	1111528	EY8748141	25400	0411107	0001764	0000000		0.00	18,062,500.00	4,000,000.00	22,062,500.00	22,062,500.00
410003	01250	TP	1111528	EY8748141	25400	0411108	0001764	0000000		121,214.20	7,741,000.00	2,000,000.00	9,741,000.00	9,862,214.20
410003	01250	TP	1111528	EY8748141	25400	0411130	0001764	0000000		0.00	7,606,000.00	2,000,000.00	9,606,000.00	9,606,000.00
Total for Program Parent/Control Point: EY8748140										1,479,499.08	74,425,500.00	15,000,000.00	89,425,500.00	90,904,999.08
410003	01250	TP	1111166	FS5048010	25400	0000000	0001765	0000000		185,186.65	1,950,000.00	200,000.00	2,150,000.00	2,335,186.65
410003	01250	TP	1111167	FS5048020	25400	0000000	0001765	0000000		191,501.97	5,407,000.00	2,000,000.00	7,407,000.00	7,598,501.97
410003	01250	TP	1111172	FS5048070	25400	0000000	0001765	0000000		820,190.84	565,000.00	300,000.00	865,000.00	1,685,190.84
Total for Program Parent/Control Point: FS5010010										1,196,879.46	7,922,000.00	2,500,000.00	10,422,000.00	11,618,879.46
Total for Fund: 01250										20,699,170.58	241,204,216.53	67,709,726.00	308,913,942.53	329,613,113.11

**Attachment 6**



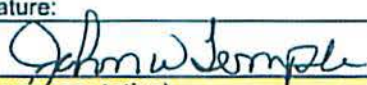

**No. IN13012, Rev 2**

**Project Title: Energy and Threat**

**Note: Six (6) pages, inclusive of Cost and Obligation Report  
Year-To-Date values (supporting documentation)**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Energy and Threat		<b>1b. Work Proposal Number</b> IN13012	
<b>2. Headquarters Program Point of Contact</b> Name: Kevin Kremer      Organization Code:      Phone: 202-586-8865			
<b>3. Headquarters Budget Point of Contact</b> Name: Debbra Dayton      Organization Code:      Telephone No. 202-586-4370			
<b>4. Responsible Program</b> Office of Energy and Threat		<b>5. Responsible Secretarial Officer</b> Office of Energy and Threat	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> IN13012		<b>9. Revision Number</b> 2	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
GD3003010/3203740	\$ 885,996.00	\$ 260,700.00	\$ 1,146,696.00
GD3015000/3203736	\$ 345,700.00	\$ 159,000.00	\$ 504,700.00
GD3006000/1714209	\$ 10,000.00	\$ 10,000.00	\$ 20,000.00
<b>Total Funds</b>			\$ 1,671,396.00
<b>11. Performance Period Covered by Funds</b> From: October 1, 2012      To: September 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012	
		<b>13. Expected Completion Date</b> To: Sept. 30, 2013	
<b>14. Statement of Work (Includes attachments)</b> Statement of Work: Support of ASD, such as Analytical Transformation WG, Analytic Integrity and Standards Evaluation Program, Analytic Tools Forums, and Intelligence Collection Requirement activities. Reporting requirements: Provide monthly cost status reports to program managers.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patrick R. Jackson	Signature:  <small>APPROVED By Patrick R. Jackson at 4:52 pm, Apr 18, 2013</small>	Date: April 18, 2013	
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: 	Date: 4/19/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: 	Date: 4/23/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: 	Date: 4/18/13	




**U.S. DEPARTMENT OF ENERGY  
Work Authorization**

DOE O 412.1A, 4-21-05

1a. Project Title: Energy and Threat

1b. Work Proposal Number:

2. HQ Program Point of Contact:  
Name: Sandra Willis Kevin Kremer Terry Creque  
Stockton Butler Telephone #

3. HQ Budget Point of Contact:  
Name: Debbra Dayton  Telephone # 202-586-4370

4. Responsible Program Office: Office of Energy and Threat

5. Responsible Program Secretarial Officer: Office of Energy and Threat





6. Responsible Ops/Site Office: Savannah River Operations Office

7a. Major Operating Contractor: Savannah River Nuclear Solutions, LLC (410003)

7b. Contractor Point of Contact: Anthony Burris Telephone # 803-725-3471

8. Work Authorization Number: IN13012 Month: Apr 9. Revision: 2

10. Funds Hereby Authorized:


Director Initials	B&R Code/STARS Value Code	FY 2013 Initial Amount	Prior Changes to Date	YTD Amount	Current Month Change	FY 2013 Revised Amount
	GD3003010 / 3203740 - Analysis	885,996	-	885,996.00	260,700.00	1,146,696.00
	GD3003020 / 3203741 - Foreign Nucle	-	-	-	-	-
	GD3004010 / 3203745 - Nuclear Terror	-	-	-	-	-
---	GD3006000 / 1714209 - Analytic Supp	10,000	-	10,000.00	10,000.00	20,000.00
---	GD3009000 / 1714217 - M&O Contract	-	60,000	60,000.00	-	60,000.00
---	GD3012000 / 1714286 - Science & Tec	-	-	-	-	-
	GD3015000 / 3203736 - NMIP	345,700	-	345,700.00	159,000.00	504,700.00
---	GD3016000 / 3203748 - Integrated Exe	-	-	-	-	-
	<b>Totals:</b>	<b>1,241,696</b>	<b>60,000</b>	<b>1,301,696.00</b>	<b>429,700.00</b>	<b>1,731,396.00</b>

11. Performance Period: 10/1/2012 to 9/30/2013 12. Work Start Date: 10/1/2012

13. Expected Completion Date: Continuing

14. Statement of Work: GD 3003, & GD3015, Incremental funding to cover site costs till full year CR funds are allocated.  
GD3006, +\$10,000 to be used in support of ASD, such as Analytical Transformation WG, Analytic Integrity and Standards Evaluation Program, Analytic Tools Forums, and Intelligence Collection Requirement activities.

15. Reporting Requirements: Provide monthly cost status reports to program managers.

16. Work Authorization Program Official:  
Name: John Gerrard  Date: 9/11/13

17. DOE Field Org/Site Office Official:  
Name: \_\_\_\_\_ Date: \_\_\_\_\_

18. Contractor's Authorized Rep.  
Name: \_\_\_\_\_ Date: \_\_\_\_\_

19. DOE Contracting Officer (or delegated representative)  
Name: \_\_\_\_\_ Date: \_\_\_\_\_

Please return signed WORK AUTHORIZATION STATEMENTS (WAS) to the centralized WAS email box at was@doe.gov and penny.lamb@doe.gov within 4 weeks of start time.

# Detail Funding Point History

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC								
Chg Date / Time		User		Prog. ID		Description																				
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00								
4/18/2013 11:07:03													Seguinot, Elberto		UPD0001	Reserves	Change Amounts:				0.00	0.00	0.00	-260,700.00	0.00	0.00
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	260,700.00	0.00	0.00								
4/17/2013 16:38:35													Seguinot, Elberto		UPD0001	Reserves	Change Amounts:				0.00	0.00	0.00	260,700.00	0.00	0.00
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00								
10/17/2012 15:16:13													Seguinot, Elberto		UPD0001	Reserves	Change Amounts:				0.00	0.00	0.00	-1,241,696.00	0.00	0.00
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	1,241,696.00	0.00	0.00								
10/9/2012 10:44:22													Seguinot, Elberto		UPD0001	Reserves	Change Amounts:				0.00	0.00	0.00	1,241,696.00	0.00	0.00
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00								
10/9/2012 10:43:12													Seguinot, Elberto		UPD0001		Change Amounts:				0.00	0.00	0.00	0.00	0.00	0.00
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00								
10/9/2012 10:43:03													Seguinot, Elberto		UPD0001		Change Amounts:				0.00	0.00	0.00	0.00	0.00	0.00
48007	2013	36	SR	01090	3203740	C002548	410225	0000000	0000000	25200	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00								
10/9/2012 10:42:19													Seguinot, Elberto		UPD0001		Change Amounts:				0.00	0.00	0.00	0.00	0.00	0.00
49782	2013	36	SR	01090	3203740	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	1,146,696.00	1,146,696.00	0.00								
4/18/2013 11:20:47													Seguinot, Elberto		UPD0001		Change Amounts:				0.00	0.00	0.00	260,700.00	260,700.00	0.00
49782	2013	36	SR	01090	3203740	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	885,996.00	885,996.00	0.00								
10/17/2012 15:25:38													Seguinot, Elberto		UPD0001		Change Amounts:				0.00	0.00	0.00	885,996.00	885,996.00	0.00
49782	2013	36	SR	01090	3203740	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	0.00	0.00	0.00								
10/17/2012 15:25:24													Seguinot, Elberto		UPD0001		Change Amounts:				0.00	0.00	0.00	0.00	0.00	0.00



4/19/2013  
2:02:01PM

Fiscal Year: 2013  
Date Range: 10/1/2012 to 4/19/2013

## Detail Funding Point History

Site: SR

Page 1 of 1  
Report: REX0003

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC
Chg Date / Time		User		Prog. ID		Description												
49784	2013	35	SR	01090	3203736	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	504,700.00	504,700.00	0.00
4/16/2013 11:23:55		Segunot, Eliberto		UPD0001				Change Amounts:										
													0.00	0.00	0.00	159,000.00	159,000.00	0.00
49784	2013	35	SR	01090	3203736	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	345,700.00	345,700.00	0.00
10/17/2012 15:31:52		Segunot, Eliberto		UPD0001				Change Amounts:										
													0.00	0.00	0.00	345,700.00	345,700.00	0.00
49784	2013	35	SR	01090	3203736	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	0.00	0.00	0.00
10/17/2012 15:31:32		Segunot, Eliberto		UPD0001				Change Amounts:										
													0.00	0.00	0.00	0.00	0.00	0.00
50456	2013	35	SR	01090	3203736	C002548	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00
4/18/2013 11:05:08		Segunot, Eliberto		UPD0001		Reserves		Change Amounts:										
													0.00	0.00	0.00	-159,000.00	0.00	0.00
50456	2013	35	SR	01090	3203736	C002548	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	159,000.00	0.00	0.00
4/17/2013 16:46:34		Segunot, Eliberto		UPD0001		Reserves		Change Amounts:										
													0.00	0.00	0.00	159,000.00	0.00	0.00
50456	2013	35	SR	01090	3203736	C002548	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00
4/17/2013 16:46:14		Segunot, Eliberto		UPD0001				Change Amounts:										
													0.00	0.00	0.00	0.00	0.00	0.00



4/19/2013  
2:02:54PM

Fiscal Year 2013  
Date Range 10/1/2012 to 4/19/2013

# Detail Funding Point History

Site SR

Page 1 of 1  
Report: REX0003

XID	AY	Allot- tee	Rpt Ent Parent	Fund	Program	Pgm Parent	Rept Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	PY BUO Deob	BA Committed	BA Obligated	FAC
Chg Date / Time		User		Prog. ID		Description												
49783	2013	36	SR	01090	1714209	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	20,000.00	20,000.00	0.00
4/18/2013 11:22:23		Segunot, Elberta		UPD0001				Change Amounts:										
													0.00	0.00	0.00	10,000.00	10,000.00	0.00
49783	2013	36	SR	01090	1714209	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	10,000.00	10,000.00	0.00
10/17/2012 15:27:53		Segunot, Elberta		UPD0001				Change Amounts:										
													0.00	0.00	0.00	10,000.00	10,000.00	0.00
49783	2013	36	SR	01090	1714209	C002548	410003	0000000	0000000	25400	SR22470	0000000	0.00	0.00	0.00	0.00	0.00	0.00
10/17/2012 15:27:36		Segunot, Elberta		UPD0001				Change Amounts:										
													0.00	0.00	0.00	0.00	0.00	0.00
50455	2013	36	SR	01090	1714209	C002548	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00
4/18/2013 11:04:42		Segunot, Elberta		UPD0001		Reserves		Change Amounts:										
													0.00	0.00	0.00	10,000.00	0.00	0.00
50455	2013	36	SR	01090	1714209	C002548	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	10,000.00	0.00	0.00
4/17/2013 16:41:52		Segunot, Elberta		UPD0001		Reserves		Change Amounts:										
													0.00	0.00	0.00	10,000.00	0.00	0.00
50455	2013	36	SR	01090	1714209	C002548	410225	0000000	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00	0.00	0.00
4/17/2013 16:41:31		Segunot, Elberta		UPD0001				Change Amounts:										
													0.00	0.00	0.00	0.00	0.00	0.00

\*\* Draft Finplan \*\*

Contract Modification Number: \*\* No MOD \*\*

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Site: SR

\*\*\* DRAFT \*\*\*

Report: RFP0001

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	00500	WA	2924295	KC0202050	25400	0000000	0000000	0000000		0.00	204,000.00	76,000.00	280,000.00	280,000.00
Total for Program Parent/Control Point: KC0200000											0.00	204,000.00	76,000.00	280,000.00
410003	00500	WA	2924214	KP1702030	25400	0000000	0000000	0000000		84,671.60	158,639.52	138,000.00	296,639.52	381,311.12
Total for Program Parent/Control Point: KP0000000											84,671.60	158,639.52	296,639.52	381,311.12
Total for Fund: 00500											84,671.60	362,639.52	576,639.52	661,311.12
410003	00697	SB	3165133	WN3200000	25400	0000000	0000000	0000000		0.00	0.00	6,600,000.00	6,600,000.00	6,600,000.00
AY 2012 - Transfer \$6,600,000 to support the retention of qualified personnel, receipt, and disposition of enriched uranium solutions from AECL in H Canyon. The WN32 funds being added to the SRNS Finplan require prior authorization for use by Pat McGuire or J J Hynes. MG041813														
Total for Program Parent/Control Point: WN0000000											0.00	0.00	6,600,000.00	6,600,000.00
Total for Fund: 00697											0.00	0.00	6,600,000.00	6,600,000.00
410003	00910	3T	1720297	400403209	25400	0000000	0000000	0411154 11154		0.00	0.00	42,718.45	42,718.45	42,718.45
AY 2013 - WFO: SRARM-AA6 SRARMY-AA6 MIPR3380840019														
Total for Program Parent/Control Point: 400000000											0.00	0.00	42,718.45	42,718.45
Total for Fund: 00910											0.00	0.00	42,718.45	42,718.45
410003	01050	TF	3184820	RH0501010	25400	0000000	0000000	0000000		1,918.36	0.00	-1,918.36	-1,918.36	0.00
410003	01050	TF	3184849	RH0607010	25400	0000000	0000000	0000000		193.60	0.00	-193.60	-193.60	0.00
Total for Program Parent/Control Point: RH0301000											2,111.96	0.00	-2,111.96	0.00
Total for Fund: 01050											2,111.96	0.00	-2,111.96	0.00
410003	01090		3203735	GD2540980	25400	0000000	0000000	0000000		0.00	189,468.00	-4,000.00	185,468.00	185,468.00
Total for Program Parent/Control Point: GD2540000											0.00	189,468.00	-4,000.00	185,468.00
410003	01090		3203740	GD3003010	25400	0000000	0000000	0000000		0.00	885,996.00	260,700.00	1,146,696.00	1,146,696.00
410003	01090		1714209	GD3005000	25400	0000000	0000000	0000000		0.00	10,000.00	10,000.00	20,000.00	20,000.00
410003	01090		3203736	GD3015000	25400	0000000	0000000	0000000		0.00	345,700.00	199,000.00	504,700.00	504,700.00
Total for Program Parent/Control Point: GD3001000											0.00	1,241,696.00	429,700.00	1,671,396.00
Total for Fund: 01090											0.00	1,431,164.00	425,700.00	1,856,864.00
410003	01091		3184701	HQ1001000	25400	0000000	0000000	0000000		0.00	290,000.00	45,000.00	335,000.00	335,000.00
Total for Program Parent/Control Point: HQ1001000											0.00	290,000.00	45,000.00	335,000.00
Total for Fund: 01091											0.00	290,000.00	45,000.00	335,000.00
410003	01250	TP	1110925	EY804910K	25400	0000000	0004074	0000000		0.00	124,194.85	50,000.00	174,194.85	174,194.85
410003	01250	TP	1110925	EY804910K	25400	0000000	0004202	0000000		0.00	65,000.00	40,000.00	105,000.00	105,000.00
Total for Program Parent/Control Point: EY804910A											0.00	189,194.85	90,000.00	279,194.85
Total for Fund: 01250											0.00	189,194.85	90,000.00	279,194.85

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
354		04/29/2013		13EM001660	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				X	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
No change to accounting data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>				
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>				
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>				
	<b>D. OTHER (Specify type of modification and authority)</b>				
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)				
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
<b>A. The purpose of this modification is to incorporate Contract Work Authorization numbers:</b> 1) HQTD1000, Rev 4, for Technical Planning, Integration and Risk Management; 2) EM30 ARI-4-13, for Asset Revitalization Initiative: DOE Site Impact on Local Economy and Natural Capital Asset Mangement DOE Complex system design; and 3) SR071801-4-13, Rev 3, for Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River (See attachments 1 through 3.					
<b>B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds were allocated previously under FINPLAN 11 and and 12, Fiscal Year 2013. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally</b> Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			Scott D. Langston		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b> 04/29/2013	

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/354PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	shall become a part of the contract.  C. The contract estimated value and all other terms and conditions remain unchanged.				


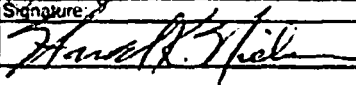
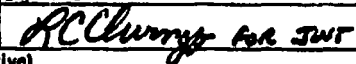
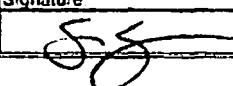
## Attachment 3

Contract Work Authorization No. HQTD1000, Rev 4

Project Title: Technical Planning, Integration and Risk  
Management

**Note: Ten (10) pages, inclusive of Cost and Obligation Report  
Year-To-Date values and supporting documentation**

2013-55

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION				
<b>1a. Project Title</b> Technical Planning, Integration and Risk Management			<b>1b. Work Proposal Number</b> HOTD1000	
<b>2. Headquarters Program Point of Contact</b>				
Name: Steven P. Schneider		Organization Code: EM-21		Telephone: 301-903-4307
<b>3. Headquarters Budget Point of Contact</b>				
Name: Connie Flohr		Organization Code: EM-61		Telephone: 301-903-0393
<b>4. Responsible Program</b> Office of Environmental Management			<b>5. Responsible Secretarial Officer</b> Tracy P. Mustin Phone: 202-586-7709 Routing: EM-1	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations				
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC			<b>7b. Contractor Point of Contact</b>	
			Name: John W. Temple Telephone No. (803) 952-7210	
<b>8. Work Authorization Number</b> HOTD1000			<b>9. Revision Number</b> 4	
<b>10. Funds Authorized (Pending resolution of CR)</b> This is a Net \$0 distribution by the Program Office of prior year uncosted funds to continue funding Statement of Work				
<b>Budget &amp; Reporting Code:</b>	<b>Project Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
EY4049110	RV140901.	\$26,000.23	(\$26,000.23)	\$0.00
EY4049110	HOTD1000	\$682,608.13	\$26,000.23	\$708,608.36
<b>Total:</b>		\$708,608.36	\$0.00	\$708,608.36
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start</b>	<b>13. Expected Completion Date</b>	
10/1/2012		9/30/2013	10/1/2012	
			9/30/2013	
<b>14. Statement of Work (Includes attachments)</b> SRNL will assist EM-30 in FY2013 with development and deployment of technological solutions to EM cleanup problems to include: 1. Support five Technical Project areas a. WP-1 Waste Retrieval and Closure Technologies b. WP-2 Alternative Waste Pretreatment c. WP-3 Advanced Unit Operations and Scaling d. WP-4 Improved Ventilation Capacity e. WP-5 Increased Waste Loadings 2. Technical Integration - Provide rapid response to emergent HQ requests 3. HQ Requested Studies and Reports - Issuance of reports and technical reviews as needed. 4. Systems Engineering - Provide systems engineering solutions to complicated issues, to include assisting EM in the risk management of its technical portfolio, develop and maintain program execution documents, and facilitate implementation of complex-wide clean-up strategies				
<b>15. DOE-SR Program Point of Contact</b>				
Name (typed): John Christman		Signature: 		Date: 4/25/13
<b>16. DOE Budget Official</b>				
Name (typed): Harold K. Nielsen		Signature: 		Date: 4/25/13
<b>17. Contractor's Authorized Representative</b>				
Name (typed): John Temple		Signature: 		Date: 4/29/13
<b>18. DOE Contracting Officer (or delegated representative)</b>				
Name (typed): Scott Langston		Signature: 		Date: 4/25/13



OFFICE OF TANK WASTE & NUCLEAR MATERIALS (EM-20) WORK AUTHORIZATION /TASK CHANGE REQUEST (TCR)								
Project Number :	HQTD1000	Date:	March 2013	AFP Change Month:	April 2013			
Project Title:	Technical Planning, Integration and Risk Management							
Site /Contractor:	SRNL	Waste Processing Area: WP-0						
Contract Number if other than National Laboratory or DOE site contractor:								
Name of Principal Investigator: Jeff Griffin, Savannah River National Laboratory, (803) 725-1343, jeff.griffin@srnl.doe.gov Bill Wilmarth, Savannah River National Lab, 803-725-1727, bill.wilmarth@srnl.doe.gov								
Name of Budget Analyst at site: Leza Roberson, SRS, (803)952-9196 , leza.roberson@srs.gov								
New BA (\$K) Requested	Prior Funding (\$K) in this FY	Total Uncosted (\$K) as of Beginning of this FY		Total Available Funding (\$K) including this request (add first three columns)				
Net \$ 0 K distributed as follows: a. (\$26 K) from SRNL project RV091401 (FY09); and b. \$26K to SRNL project HQTD1000	569.852	112.756		\$708.608 K				
Spend Plan for Total Annual Funding (use actual costed funds for previous quarters)								
1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY	3 <sup>rd</sup> Quarter of FY	4 <sup>th</sup> Quarter of FY	Projected uncosted at the end of this FY				
\$177 K	\$ 177 K	\$177 K	\$177 K	\$ 0.608 K				
Funding Codes (To be Completed by Budget Office)								
Fund	Year	Allottee	Reporting Entity	SGL	Object Class	Program	Project	Amount
See attached								
Short Description of Work Scope Authorized /Changed for Input in AFP:	<p>To accomplish its mission, DOE-EM Office of Tank Waste Management (EM-21) relies on support from the various national laboratories such as INL and ORNL. These labs assist EM-30 in the development and deployment of technological solutions to EM cleanup problems to include:</p> <ol style="list-style-type: none"> <li>Support of the five Technical Project areas: <ol style="list-style-type: none"> <li>WP-1 Waste Retrieval and Closure Technologies</li> <li>WP-2 Alternative Waste Pretreatment</li> <li>WP3 Advanced Unit Operations and Scaling</li> <li>WP-4 Improved Vitrification Capacity</li> <li>WP-5 Increased Waste Loadings</li> </ol> </li> <li>Technical Integration – Provides a rapid response to emergent HQ requests.</li> <li>HQ Requested Studies and Reports – Issuance of reports and technical reviews as needed.</li> <li>Systems Engineering -- Provide systems engineering solutions to complicated issues, to include assisting EM in the risk management of its technical portfolio; develop and maintain program execution documents, and facilitate implementation of complex-wide clean-up strategies.</li> </ol> <p>Net 0 sum TCR. Transfer \$ 0 K as follows: (\$26K) from SRNL project RV091401 (FY09) to SRNL project HQTD1000.</p>							

Submitted by:	Gary R. Peterson	Date: 8 Mar 13
Headquarters Project Manager (Please Print & Sign)		
Approved by:	[Signature]	Date: 3/11/13
Office Director (Please Print & Sign)		
Approved by:	Tom R. [Signature]	Date: 3/12/13
Deputy Assistant Secretary, BM-20		
Submitted to:	[Signature]	Date: 3/13/2013
BM-20 Budget Analyst for TODD to complete AFP change.		



### Funding Codes

[illegible]

## Technical Task Plan – Technical Planning, Integration and Risk Management (WP-0)

### NEEDS STATEMENT:

The EM Office of Tank Waste Management manages the EM Tank Waste Technology Development and Deployment (TDD) Program that conducts applied research and technology development, demonstration and deployment. This office is chartered to remediate the radioactive tank waste that is stored at the three major EM sites (Hanford, SRS, and Idaho). The objective of the program is to reduce the technical risk and uncertainty in the Department's tank waste disposition projects. To reduce those risks and uncertainties, the program will provide technical solutions where none exist, improved solutions that enhance safety and operating efficiency, or technical alternatives that reduce programmatic risks (cost, schedule, or effectiveness).

### BACKGROUND AND PURPOSE:

DOE-EM will be assisted in carrying out these activities by the Savannah River National Laboratory (SRNL), which will provide programmatic support to DOE-EM and assist in mitigating technical and programmatic risks.

### TECHNICAL APPROACH:

#### Summary of the Approach

Programmatic tasks in support of the Office of Waste Processing include support of the Tank Waste Technical Development and Deployment (TDD) Program. This support includes coordinating teams of National Lab, DOE staff and staff of selected directed institutions to assist the development of the technical scope to be accomplished in each research area, recommending the performing organizations and recommending appropriate funding levels. Assess progress of the performing organizations and make recommendations to EM-21 for project direction. This also includes assuring that the international program is aligned with each Technical Project Area. Furthermore this supports reporting on project costs and schedules, as well as the annual reports and highlights, technical reviews and other reports as needed, e.g. the Report to Congress.

### SCHEDULE / MILESTONES:

Activity	Date
TBD	TBD

## SPENDING PLAN

**Monthly Spending Plan for FY2013 (\$K)**

**Prior Year \$4.732K**

**Carry Over: \$149K**

Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sept 13	Carryover	Total
59	59	59	59	59	59	59	59	59	59	59	59	0.608	708.608

## Signature and Approvals

**HQ Program Manager:**

**Office Director:**

**BUDGET:**

Task	Budget FY13 (\$K)
Support the EM-21 Tank Waste TDD Program	\$ 708 K

# Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: March 18, 2013 at 08:22:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411152	11152	0.00	0.00	47,204.75	47,204.75	47,204.75
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0410858	DOD-J4	343,763.18	500,000.00	250,000.00	750,000.00	1,093,763.18
AY 2013 - WFO# SRDOD-J4 LR-809844														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0410956	FBI-O4	1,000.27	0.00	-1,000.27	-1,000.27	0.00
AY 2009 - WFO SRFBIO4 A9I902900														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411028	FBI-S8	45,950.96	0.00	-45,950.96	-45,950.96	0.00
AY 2010 - WFO: SRFBIO4 A0I004842 de-obligate per email from Terry Weeks dated 3-04-2013														
Total for Program Parent/Control Point: 400000000										390,714.41	500,000.00	250,253.52	750,253.52	1,140,967.93
Total for Fund: 01055										390,714.41	500,000.00	250,253.52	750,253.52	1,140,967.93
410003	01090		1714217	GD3009000	25400	0000000	0000000	0000000		0.00	0.00	60,000.00	60,000.00	60,000.00
Total for Program Parent/Control Point: GD3001000										0.00	0.00	60,000.00	60,000.00	60,000.00
Total for Fund: 01090										0.00	0.00	60,000.00	60,000.00	60,000.00
410003	01091		3184701	HQ1001000	25400	0000000	0000000	0000000		0.00	225,000.00	65,000.00	290,000.00	290,000.00
Total for Program Parent/Control Point: HQ1001000										0.00	225,000.00	65,000.00	290,000.00	290,000.00
Total for Fund: 01091										0.00	225,000.00	65,000.00	290,000.00	290,000.00
410003	01250	TP	1110676	EY4049110	25400	0000000	0003925	0000000		15,138.97	253,061.49	-117,999.88	135,061.61	150,200.58
410003	01250	TP	1110676	EY4049110	25400	0000000	0003958	0000000		19,768.12	-17,768.00	-2,000.12	-19,768.12	0.00
410003	01250	TP	1110676	EY4049110	25400	0000000	0004026	0000000		48,059.23	-22,059.00	-26,000.23	-48,059.23	0.00
410003	01250	TP	1110676	EY4049110	25400	0000000	0004030	0000000		383,020.52	175,000.00	-25,000.00	150,000.00	533,020.52
410003	01250	TP	1110676	EY4049110	25400	0000000	0004261	0000000		112,756.20	569,851.93	26,000.23	595,852.16	708,608.36
Total for Program Parent/Control Point: EY4000000										578,743.04	958,086.42	-145,000.00	813,086.42	1,391,829.46
410003	01250	TP	1110925	EY804910K	25400	0000000	0004074	0000000		0.00	100,000.00	24,194.85	124,194.85	124,194.85
Total for Program Parent/Control Point: EY804910A										0.00	100,000.00	24,194.85	124,194.85	124,194.85
410003	01250	TP	1110947	EY8648110	25400	0000000	0001761	0000000		500,000.00	0.00	-500,000.00	-500,000.00	0.00
AY 2010 - Transfer \$500,000 from FY10 EY8648110 to FY10 EY864811F per Lynn Horney email 031313, MG031413														
410003	01250	TP	1111499	EY864811F	25400	0000000	0004366	0000000		110,373.09	9,006,985.00	500,000.00	9,506,985.00	9,617,358.09
AY 2010 - Transfer \$500,000 from FY10 EY864811D to EY864811F per Lynn Horney email 031313, MG031413														
Total for Program Parent/Control Point: EY8648020										610,373.09	9,006,985.00	0.00	9,006,985.00	9,617,358.09
Total for Fund: 01250										1,189,116.13	10,065,071.42	-120,805.15	9,944,266.27	11,133,382.40
410003	01296		1110462	EW1001206	25400	0000000	0000712	0000000		0.00	500,000.00	-210,000.00	290,000.00	290,000.00
AY 2013 - 3.12.2013 - Reduced by \$210K moved to salaries/benefits - mat														
Total for Program Parent/Control Point: EW1000000										0.00	500,000.00	-210,000.00	290,000.00	290,000.00
Total for Fund: 01296										0.00	500,000.00	-210,000.00	290,000.00	290,000.00

Execution - Analyst Run
-------------------------

XID	Appr Year	Rpt Ent Parent	Allot- tee	Fund	Program	Program Parent	Rpt Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	Committed BA	Obligated BA
49999	2007	SR	36	01250	1110676	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	4,733.00	4,733.00
49998	2009	SR	36	01250	1110676	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	34,119.16	34,119.16
45434	2012	SR	36	01250	1110676	C000977	410003	0004261	0000000	25400	SR22470	0000000	112,756.20	0.00	0.00	0.00
47658	2013	SR	36	01250	1110676	C000977	410003	0004261	0000000	25400	SR22470	0000000	0.00	0.00	557,000.00	557,000.00
49908	2013	SR	36	01250	1110676	C000977	410225	0004261	0000000	25102	9999999	0000000	0.00	0.00	0.00	0.00
Report Totals:													112,756.20	0.00	595,852.16	595,852.16

HQTID1000

4/25/2013

10:45:03AM

Fiscal Year: 2013

**Execution - Analyst Run**

Site: SR

Page 1 of 1  
Report: UPD0001

NID	Appr Year	Rpt Ent Parent	Allot- tee	Fund	Program	Program Parent	Rpt Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	Committed BA	Obligated BA
48458	2009	SR	36	01250	1110676	C000977	410003	0004026	0000000	25400	SR22470	0000000	48,059.23	-48,059.23	0.00	0.00
Report Totals:													48,059.23	-48,059.23	0.00	0.00



### Detail Funding Point History

Allot-		Rpt Ent				Pgm	Rept				Obj	Purchase	Local	PY			BA	BA			
XID	AY	tee	Parent	Fund	Program	Parent	Entity	Project	WFO	Class	Order	Use	BUO	BUO Deob	BUO Deob	Committed	Obligated	FAC			
Chg Date / Time			User	Prog. ID	Description																
48092	2013	36	SR	01250	1110676	C000977	410225	0000000	0000000	25102	99999999	00000000	0.00	0.00	0.00	0.00	0.00	0.00			
4/8/2013 10:49:56			Seguinot, Eliberto	UPD0003	RESERVES								Change Amounts:			0.00	0.00	0.00	0.00	0.00	0.00
48092	2013	36	SR	01250	1110676	C000977	410225	0000000	0000000	25200	99999999	00000000	0.00	0.00	0.00	0.00	0.00	0.00			
10/10/2012 14:47:38			Seguinot, Eliberto	UPD0001	RESERVES								Change Amounts:			0.00	0.00	0.00	0.00	0.00	0.00
48093	2013	36	SR	01250	1110676	C000977	410225	0003199	0000000	25102	99999999	00000000	0.00	0.00	0.00	0.00	0.00	0.00			
10/17/2012 16:09:52			Seguinot, Eliberto	UPD0001	RESERVES								Change Amounts:			0.00	0.00	0.00	-809,000.00	0.00	0.00
48093	2013	36	SR	01250	1110676	C000977	410225	0003199	0000000	25102	99999999	00000000	0.00	0.00	0.00	809,000.00	0.00	0.00			
10/10/2012 15:09:05			Seguinot, Eliberto	UPD0003	RESERVES								Change Amounts:			0.00	0.00	0.00	0.00	0.00	0.00
48093	2013	36	SR	01250	1110676	C000977	410225	0003199	0000000	25200	99999999	00000000	0.00	0.00	0.00	809,000.00	0.00	0.00			
10/10/2012 14:56:08			Seguinot, Eliberto	UPD0001	RESERVES								Change Amounts:			0.00	0.00	0.00	809,000.00	0.00	0.00
48093	2013	36	SR	01250	1110676	C000977	410225	0003199	0000000	25200	99999999	00000000	0.00	0.00	0.00	0.00	0.00	0.00			
10/10/2012 14:55:54			Seguinot, Eliberto	UPD0001	RESERVES								Change Amounts:			0.00	0.00	0.00	0.00	0.00	0.00
48458	2009	36	SR	01250	1110676	C000977	410003	0004026	0000000	25400	SR22470	00000000	48,059.23	-48,059.23	0.00	0.00	0.00	0.00			
3/13/2013 14:25:54			Seguinot, Eliberto	UPD0001									Change Amounts:			0.00	-26,000.23	0.00	0.00	0.00	0.00
48458	2009	36	SR	01250	1110676	C000977	410003	0004026	0000000	25400	SR22470	00000000	48,059.23	-22,059.00	0.00	0.00	0.00	0.00			
3/13/2013 14:24:58			Seguinot, Eliberto	UPD0001									Change Amounts:			0.00	0.00	0.00	26,000.23	26,000.23	0.00
48458	2009	36	SR	01250	1110676	C000977	410003	0004026	0000000	25400	SR22470	00000000	48,059.23	-22,059.00	0.00	-26,000.23	-26,000.23	0.00			
3/13/2013 14:22:01			Seguinot, Eliberto	UPD0001									Change Amounts:			0.00	0.00	0.00	-26,000.23	-26,000.23	0.00
48458	2009	36	SR	01250	1110676	C000977	410003	0004026	0000000	25400	SR22470	00000000	48,059.23	-22,059.00	0.00	0.00	0.00	0.00			
12/12/2012 13:45:02			Seguinot, Eliberto	UPD0001									Change Amounts:			0.00	-22,059.00	0.00	0.00	0.00	0.00
48584	2009	36	SR	01250	1110676	C000977	410003	0003918	0000000	25400	SR22470	00000000	951.60	-951.60	0.00	0.00	0.00	0.00			
12/12/2012 13:50:09			Seguinot, Eliberto	UPD0001									Change Amounts:			0.00	-951.60	0.00	0.00	0.00	0.00

## Attachment 2

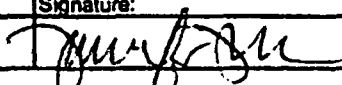
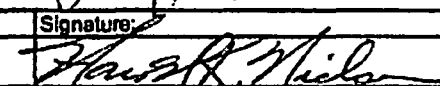
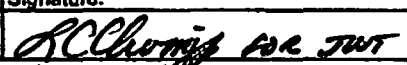
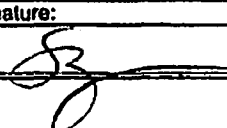
Contract Work Authorization No. EM30 ARI-4-13

Project Title: Asset Revitalization initiative: DOE Site Impact on  
Local Economy and Natural Capital Asset Management DOE  
Complex system design

**Note: Seven (7) pages, inclusive of Cost and Obligation Report  
Year-To-Date values and supporting documentation**



2013-56

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b> Asset Revitalization Initiative: DOE Site Impact on Local Economy and Natural Capital Asset Management DOE Complex system design		<b>1b. Work Proposal Number</b> See attached plan	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name:</b>	<b>Organization:</b>	<b>Telephone:</b>	
Name: Frank Marcinowski	Organization Code: EM-30, Office of Waste Management	Phone: 202-586-0370	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name:</b>	<b>Organization:</b>	<b>Telephone:</b>	
Name: Tania Smith	Organization Code: EM-54, Asset Revitalization	Telephone: 202-586-5008	
<b>4. Responsible Program</b> Office of Environmental Management		<b>5. Responsible Secretarial Officer</b> Tracy P. Mustin Phone: 202-586-7709 Routing: EM-1 E-mail: tracy.mustin@em.doe.gov	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 852- 7210	
<b>8. Work Authorization Number</b> EM30 ARI-4-13		<b>9. Revision Number</b> 0	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b> EY804910M3	<b>Previous:</b> \$206,441	<b>Change:</b> \$0	<b>Current:</b> \$206,441
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b> 1-Apr-13      30-Sep-13		<b>12. Work Start Date</b> 1-Apr-13	<b>13. Expected Completion Date</b> 30-Sep-13
<b>14. Statement of Work (Includes attachments)</b> This Action Plan breaks out the economic study into three (3) phases and adds scope to address development of natural assets management system to ensure valuation of the total assets attributable to the DOE Complex. See attached action plan and NCAM scope description. This TCR anticipates the requested additional funds of 41K would not be available until the fourth quarter and that the period of performance would carry into FY14 based on accessibility of funds.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b> Helen Belencan Jennifer J. Nielsen	<b>Signature:</b> 	<b>Date:</b> 4-19-13	
<b>16. DOE Budget Official</b>			
<b>Name (typed):</b> Harold K. Nielsen	<b>Signature:</b> 	<b>Date:</b> 4/24/13	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b> John Temple	<b>Signature:</b> 	<b>Date:</b> 4/25/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b> Scott Langston	<b>Signature:</b> 	<b>Date:</b> 4/19/13	

**OFFICE OF TECHNOLOGY INNOVATION & DEVELOPMENT (EM-30)**  
**WORK AUTHORIZATION /TASK CHANGE REQUEST (TCR)**

Project Number :	<u>TBD</u>	Date:	<u>2 Apr 2013</u>	AFP Change Month:	<u>April 2013</u>
Project Title:	<u>Asset Revitalization Initiative: DOE Site Impact on Local Economy and Natural Capital Asset Management DOE Complex system design</u>				
Site /Contractor:	<u>SRNL</u>	Project Area from Roadmap:	<u>n/a</u>	Technical Task Plan Attached:	<u>yes</u>

Contract Number if other than National Laboratory or DOE site contractor:

Name of Principal Investigator: Andrew Fellinger / Ron Schroder

Name of Budget Analyst at the site where the contract is held: SRS: Leza Roberson (803) 952-9196, [leza.roberson@srs.gov](mailto:leza.roberson@srs.gov)

New BA (\$K) Requested	Prior Funding (\$K) in this FY	Total Uncosted (\$K) as of Beginning of this FY	Total Available Funding (\$K) including this request (add first three columns)
\$41,000 (for added scope in 2 <sup>nd</sup> 1/2 of FY)	0	\$206,441.10	247,441.10

**Spend Plan for Total Available Funding (use actual costed funds for previous quarters)**

1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY	3 <sup>rd</sup> Quarter of FY	4 <sup>th</sup> Quarter of FY	Projected uncosted at the end of this FY
88586.39	4759.01	98461.54	55634.10	\$0K

**Funding Codes (To be Completed by Budget Office)**

Fund	Year	Allottee	Reporting Entity	SGL	Object Class	Program	Project	Amount
<u>01250</u>		<u>36</u>	<u>410003</u>		<u>25400</u>	<u>1110927</u>	<u>0000700</u>	

**Short Description of Work Scope Authorized /Changed for Input in AFP:** This Action Plan breaks out the economic study into three (3) phases and adds scope to address development of natural assets management system to ensure valuation of the total assets attributable to the DOE Complex. See attached action plan and NCAM scope description. This TCR anticipates the requested additional funds of 41K would not be available until the fourth quarter and that the period of performance would carry into FY14 based on accessibility of funds.

Submitted by: Tania Smith, Tania Smith Date: Apr 4, 2013  
 Headquarters Project Manager (Please Print & Sign)

Field: \_\_\_\_\_ Date: \_\_\_\_\_

**Field DOE Representative (Please Print & Sign)**

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Office Director (Please Print & Sign)

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

DAS Site Restoration Mission Unit

Submitted to: \_\_\_\_\_

EM-HQ Budget Analyst for TDD to complete AFP change

Date: \_\_\_\_\_

## Modification to contract SOW # 0000059882

### 3.1.3 Task 3

(Adds scope to existing contract based on HQ request within available funds at SRNL except where noted)

A) Compile Natural Capital capacity and capability data for targeted communication among DOE Site stakeholders to support asset revitalization and programming decisions, using work done previously at the SRS and in this task to generate a demonstration case for Natural Capital Asset Management for the DOE Complex.

- Asset Definition and Scope (regenerative assets, banked assets, natural infrastructure, restored assets)
- Research and analysis (EIS, Permit analysis, banking records, other)
- Interviews, stakeholder inputs
- Select and prioritize asset categories for inventory compilation
- Develop direct or derived quantified data inputs that reflect capacity availability

Completion Date: 90 days from Task Award

B) Develop an 'inventory' of current usable natural infrastructure supplies using the existing data and the results of tasks 1 and 2 above. This would need to be done on a site- by-site basis. The SRS will be used to demonstrate the mechanism and benefit of developing the 'inventory'.

- Review inventory framework developed in Task 1 of this subcontract and revise as needed
- Scope asset categories and review data
- Input data from element A (above) into Inventory Framework

Completion Date: 120 days from Task Award

C) Recommend a process to perform the capacity and capability evaluations of the DOE Sites natural infrastructure for mission support and expansion (as needed) based on units of natural infrastructure available and in conjunction with the built and human capital capacity. The SRS will be used as the pilot site to demonstrate the process to perform the capacity and capability evaluations mechanism. This will serve as a guide as each Site will be different.

- Scope performance, output, expansion, or mission goals and actions by natural capital use levels
- Test alignment indexes that relate quantified units natural capital assets used to achieve the intended performance goal or output
- Develop estimating tool for units of mission capability and output per unit of natural asset capacity

Completion Date: 150 days from Task Award

### (Not included in 4/2/2013 estimate)

D) Participate in the implementation of the process above to assign values to the various natural capital assets whether in use or held in reserve for various purposes. This would be done on a Site by Site basis and would be funded incrementally as Sites are evaluated.

- Develop calculation for capacity and capability rates of underutilized assets
- Craft recording process for 'use' assignment and utilization rates
- Develop valuation protocols for mission use, banking, and regional access to underutilized asset capacity and capability

Completion Date: 180 days from Task Award (For implementation only at SRS based on pilot demonstration)



# Action Plan for ARI DOE Site Impact on Local Economy

This Action Plan breaks out the economic study into three (3) phases.

## Phase 1, Overview of the local economy within the region of influence (ROI) of DOE-Sites

Actions for Phase 1 are:

- Consider renaming Phase 1 report to better describe the content of the report—for example, “Overview of DOE Site’s Regional Economies” or “Local Economy of DOE-Sites”
- Revise *Introduction* to reflect the purpose of Phase 1
  - Identify information/data are contained in the Phase 1 report
  - Caveats and general limitations of Phase 1 report
- Update and verify existing data
- Add references as to the origin/source of the data
- Add a bibliography for referenced sources and other documents relevant to the report
- Improve consistency in how data and information is presented for each DOE site
  - Figures for “Workforce versus Industrial Sector”—make the legends for each industrial sector consistent between DOE sites
- Include matrix comparing key parameters/attributes of each site to one another
- Summarize findings
- Make recommendations, including those for future phases
- Submit Phase 1 report to DOE ARI Leadership

## Phase 2, Economic report on the most impacted sites

Actions for Phase 2 are:

- Identify most impacted sites for additional economic study
  - DOE ARI Leadership
  - DOE Program Office Leadership
  - DOE Site Leadership
- Identify the credible existing sources information/data
  - Publicly available and open source data
  - Existing economic studies in ROI
  - DOE Program Offices
  - DOE Sites
  - Community Reuse Organizations
  - State and local government economic development offices
- Identify the economic information/data/parameters required and/or desired
  - Delineate and finalize what information/data are required and determine with the desired information/data that will be included, for example:
    - A description of the inter-relationship between the National Laboratories and the different program offices at each site
    - Number of subcontractors at the site

## Action Plan for ARI DOE Site Impact on Local Economy

- Effects of trends in work for Others – consideration might need to be included regarding DOE's true investment/share to support this
- Effects of trends in user sites
- Trends in non-DOE diversity
- Effects of trends to share sites with other agencies
- Tax-base generated from transfers and other endeavors
- Payments in lieu of taxes (PILT) and its % of county revenues in ROI
- Good & Services purchased within ROI
- If requested, redefine each ROI based on the % of site employees in each county and input from the site
- Obtain the required and desired information/data from
  - Open sources
  - Site's sources (e.g. Human Resource, Financial, and Procurement)
  - CROs, and state and local governments
- Document/reference source of information of information/data
- Present the information/data in appropriate formats (e.g. charts, graphs, tables)
- Analyze the information and data
- Summarize findings of each site
- Compare data (key parameters/attributes) of each DOE-Site analyzed to one another
- Summarize the collective findings for all the DOE-Sites analyzed
- Make recommendations to
  - DOE ARI Leadership
  - DOE Program Offices with site landlord responsibilities
  - DOE-Sites
  - Community Reuse Organizations
- Submit Phase 2 report to DOE ARI Leadership
- Determine if ARI Leadership wants the economic analysis released formally to DOE leadership, Program Office and the Sites.
  - Determine whether or not to release the economic analysis report, if yes, then
    - Create an Executive Summary
    - Develop communication plan
    - Develop press releases tailored to targeted audience
    - Release Phase 2 report as directed by DOE ARI Leadership

### Phase 3, Further Economic Analysis (Not included in Estimate)

- Based on the recommendations in Phase 2 and approval by ARI and DOE Leadership
  - Examine selected DOE sites in-depth, including an analysis what the implications will be on co-located program offices when the host program office completes their mission and leaves the site

## Action Plan for ARI DOE Site Impact on Local Economy

- What will be the implications for the community when large portions of the site are cleaned up, the missions are accomplished, and DOE staff and contractors no longer work at the site

DRAFT

DEPARTMENT OF ENERGY  
STATUS OF OBLIGATIONAL AUTHORITY - CURRENT YEAR DATA  
REPORT

Report Date: 10-APR-13 08:05  
Page: 2 of 2

APP		Beginning Uncosted	Allocation	Expired	PYA- Unexpended	Recast Adjustments	Obs Less PYA/Recst	PYA-Expended	Recast-Costs	Costs Less PYA/Recst	Ending Uncosted	Unobligated/ Uncommitted
	CID H5Z0706											
	01250.2009.36.410225.25300.1110927.0000700.0000000.0	1,809	0	0	0	0	0	0	0	-4	1,813	0
	000000.000000											
	01250.2010.36.410225.25300.1110927.0000700.0000000.0	50,000	0	0	0	0	0	0	0	0	50,000	0
	000000.000000											
	Totals for: H5Z0706	51,809	0	0	0	0	0	0	0	-4	51,813	0
	CID H5Z0734											
	01250.2010.36.410225.25300.1110927.0000700.0000000.0	24,031	0	0	0	0	0	0	0	2,118	21,913	0
	000000.000000											
	Totals for: H5Z0734	24,031	0	0	0	0	0	0	0	2,118	21,913	0
	CID SR22470											
	01250.2010.36.410003.25400.1110927.0000700.0000000.0	280,722	0	0	0	0	0	0	0	223,337	57,385	0
	000000.000000											
	01250.2011.36.410003.25400.1110927.0000700.0000000.0	346,959	0	0	0	0	0	0	0	0	346,959	0
	000000.000000											
	01250.2012.36.410003.25400.1110927.0000700.0000000.0	282,750	0	0	0	0	0	0	0	0	282,750	0
	000000.000000											
	Totals for: SR22470	910,431	0	0	0	0	0	0	0	223,337	687,094	0
		986,271	0	0	0	0	0	0	0	225,452	760,820	0

Project #



## Attachment 1

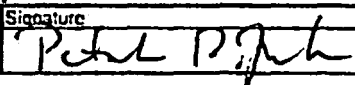
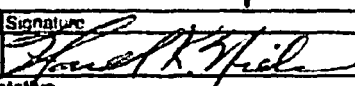
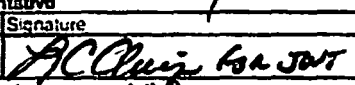
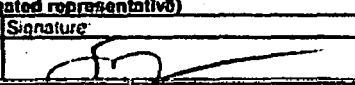
Contract Work Authorization No. SR071801-4-13, Rev 3

Project Title: Attenuation-Based Remedies for the Subsurface  
Applied Field Research initiative at Savannah River

**Note: Ten (10) pages, inclusive of Cost and Obligation Report  
Year-To-Date Values and supporting documentation**



2013-58

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b> Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River		<b>1b. Work Proposal Number</b> SR071801-4-13	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b> Grover Chamberlain	<b>Organizational Code</b> EM-12	<b>Telephone</b> 301.903 7240	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b> Jeffrey McMillan	<b>Organizational Code</b> EM-61	<b>Telephone</b> 301.903 7701	
<b>4. Responsible Program</b> Environmental Management		<b>5. Responsible Secretarial Officer</b> M. Gilbertson	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952-7210	
<b>8. Work Authorization Number</b> SR071801-4-13		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act"			
<b>Budget and Reporting Code:</b> EY4049110	<b>Previous:</b> \$255,061.61	<b>Change:</b> \$ 200,000.00	<b>Current:</b> \$455,061.61
<b>11. Performance Period Covered by Funds</b> 10/1/2012 9/30/2013		<b>12. Work Start Date</b> 10/1/2012	<b>13. Expected Completion Date</b> 9/30/2013
<b>14. Statement of Work (includes attachments)</b> Task 1: Enhanced Attenuation of Uranium and 129I by Humic Acid Pilot field-scale tests and optimization of this technology to move this technical approach from basic science to actual field deployment and regulatory acceptance Task 2: Develop Strategy from SOMERS w/PNNL SRNL participation on the Scientific Opportunities for Monitoring Environmental Remediation Sites (SOMERS) team to develop improved strategies for monitoring subsurface groundwater contamination Task 3: Road map for End Points w/PNNL SRNL participation on the DOE-EM Roadmap team that is tasked with defining technically defensible end states, systems based remediation approaches and systems-based monitoring strategies that include closure solutions that are cost-effective, sustainable, and protective of public health and natural resources at DOE sites. Task 4: Management of the Technical Assistance Program Management of the technical assistance program including helping site problem holders to develop technical needs statements, selection of the technical experts, contracting of non-SRNL participants, management of the team meeting, and preparation of the technical assistance team report Note: Period of performance for this work scope ends September 30, 2013. **\$60,000 to PNWL & \$60,000 to LBNL			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b> Patrick Jackson	<b>Signature</b> 	<b>Date:</b> 4/18/13	
<b>16. DOE-SR Field Budget Official</b>			
<b>Name (typed):</b> Harold K. Nielsen	<b>Signature</b> 	<b>Date:</b> 4/25/13	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b> John Temple	<b>Signature</b> 	<b>Date:</b> 4/29/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b> Scott Langston	<b>Signature</b> 	<b>Date:</b> 4/11/13	

OFFICE OF TECHNOLOGY INNOVATION & DEVELOPMENT (EM-30) WORK AUTHORIZATION / TASK CHANGE REQUEST (TCR)											
Project Number:		SR071801		Date:		March 13, 2013		APP Change Month:		April 2013	
Project Title:		Attenuation Based Remedies APRI									
Site / Contractor:		SRNL		Project Area from Roadmap:		2.3.1 OW&S(II)s		Technical Task Plan Attached:		Yes	
Contract Number if other than National Laboratory or DOE site contractor:											
Name of Principal Investigator: Miles Donham											
Name of Budget Analyst at the site where the contract is held:											
Now BA (\$K) Requested		Prior Funding (\$K) In this FY		Total Uncosted (\$K) as of Beginning of this FY				Total Available Funding (\$K) including this request (add first three columns)			
620K 200K		120K		100K				610K 420K			
Spend Plan for Total Available Funding (use actual costed funds for previous quarters)											
1 <sup>st</sup> Quarter of FY		2 <sup>nd</sup> Qtr of FY		3 <sup>rd</sup> Quarter of FY		4 <sup>th</sup> Quarter of FY		Projected uncosted at the end of this FY			
200		140		420		420		0			
Funding Codes (To be Completed by Budget Office)											
Fund	Year	Alloca	Reporting Entity	SGL	Object Class	Program	Project	Amount			
01250	2013	36	410003	610000	25400	1110676	0003925	200,000			
Short Description of Work Scope Authorized / Changed for Input in APP:		See Attached TTP: 1. Continue human testing to sequester iodine 129 2. Develop characterization and remediation tools for mercury at ORO 3. Optimize sampling & monitoring tools in conjunction with the SOMERS Strategic Plan 4. Develop underplumbings for use of attenuation based remedies to facilitate risk informed end points.									
Submitted by:		Gregor H Chamberlain <i>Gregor H Chamberlain</i>						Date: 3/13/13			
		Headquarters Project Manager (Please Print & Sign)									
Field:		Karen Adams <i>Karen Adams</i>						Date: 03.13.13			
		Field DOE Representative (Please Print & Sign)									
Approved by:		Kurt Gerdies <i>Kurt Gerdies</i>						Date: 3/13/13			
		Office Director (Please Print & Sign)									
Approved by:		<i>[Signature]</i>						Date:			
		DOE Site Restoration Mission Unit									
Submitted to:		<i>[Signature]</i> HQ Budget Analyst for TDD to complete APP change						Date: 4/3/2013			

## FY2013 Technical Task Plan

### NEEDS STATEMENT:

Remediation of subsurface contamination is a significant challenge facing the U.S. Department of Energy Office of Environmental Management (EM). EM manages one of the largest and most complex soil and groundwater cleanup programs in the world. Although EM has completed cleanup activities at many of their sites, many of the remaining sites are technically challenging, either due to the nature of the contaminants or to the nature of the subsurface environment. Although traditional standards-based closure goals have been successful at many sites, these approaches may not be technically or economically feasible at many of the remaining complex sites. EM has recently proposed the use of alternate endpoints to establish a path for cleanup that may include intermediate remedial milestones and transition points and/or regulatory alternatives at complex sites. Development and implementation of an alternate endpoint-based approach for remediation and waste site closure presents a number of challenges and opportunities. These challenges include scientific and technical, regulatory, institutional, and budget and resource allocation issues. Opportunities exist to develop and implement systems for remedial characterization, monitoring, and remediation that in many cases will combine both innovative and baseline approaches to reach the desired endpoint. Without these approaches and tools, many contaminated sites in the DOE complex will be unable to achieve acceptable end-states in a reasonable timeframe.

The objective of the Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) at the Savannah River Site is to develop and deploy science-based approaches and tools to monitor and remediate difficult sites contaminated with combinations of metals, radionuclides, and recalcitrant organic compounds. Of particular importance is the development of strategies and tools that can be used to transition active/aggressive technologies that are reaching diminishing effectiveness to strategies that emphasize natural attenuation processes with an ultimate end state goal of monitored natural attenuation (MNA). There is a wealth of basic science information on attenuation mechanisms, yet the science and protocols for determining or demonstrating whether contaminants left in the subsurface pose an acceptable risk are immature. There is a major need for applied science that incorporates the basic science into a holistic understanding of how waste sites, especially the nature of the attenuated contaminants, evolve over time. These studies are critical in order to evaluate sites for applicability and selection of attenuation-based remedies, as well as demonstrate to regulators and stakeholders that attenuated contaminants will not remobilize as the site evolves. Additionally, there is an important need to expand the toolbox of enhanced attenuation remedies. Addressing these needs will lead to development of approaches and tools that facilitate the use of attenuation-based remedies.

### BACKGROUND AND PURPOSE:

Complex groundwater contamination plumes with toxic metals and/or radionuclides are present at the majority of DOE facilities. These plumes have reached up to a mile in length at some sites and discharge to surface water exposure points (e.g., Hanford, Savannah River Site and Oak Ridge). To meet the needs stated above the Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) was established by EM-12 with the Savannah River National Laboratory as the lead. The F-Area groundwater contaminant plume at the Savannah River Site is the primary field research site of the ABRS AFRI and is a plume that has been remediated to an alternative end-point. A innovative passive remedial system is being monitored and evaluated over the long term prior to traditional regulatory closure. Contaminants being addressed at this site are uranium, strontium-90, iodine-129, and tritium. SRNL and SRS are designated as the lead for the EM-12 funded ABRS AFRI because:

- SRNL and the Savannah River Nuclear Solutions Area Completion Projects have a decades long history of working together to develop and deploy innovative technical approaches to achieving desired end-states at contaminated sites
- SRNL was a key collaborator in development of the in situ remediation at the F-Area plume that

allowed the abandonment of the pump-and-treat system, moving the site closer to end-state goals in a more cost effective and efficient way

- The desired end-state at F-Area will be met in phases that are specified in the SRS RCRA Permit (2009) that also encourages continued development and deployment of innovative technologies to achieve the end-state
- Successful applied research conducted at this AFRI will provide the means of achieving the end-state specified in the RCRA permit, as well as being widely applicable across the DOE complex

The objective of (ABRS AFRI) is to develop and bring to maturity science-based approaches and associated tools that facilitate transition of sites with groundwater and soil contamination from active to more passive attenuation-based remedies including MNA. This includes development of enhanced attenuation remedies, as well as site characterization, site evaluation, monitoring, and decision making approaches and tools necessary for successful use of attenuation-based remedies. These activities facilitate the use of attenuation-based remedies by providing the information necessary to prove their effectiveness, and hence allowing negotiation of appropriate and reasonable end-states with regulatory agencies.

Advancements achieved at the ABRS AFRI work in conjunction with those achievements realized at the Hanford and Oak Ridge AFRIs as well as the Advanced Simulation Capability for Environmental Management (ASCEM) Initiative to make up the applied science portfolio established within the EM-12 Soil and Groundwater Remediation Program. Specifically, the data-rich and mature nature of the SRS F-Area site provides a great opportunity for testing ASCEM developed concepts.

#### **ABRS AFRI GOALS**

As stated in the ABRS AFRI Strategic Plan, the Initiatives goals are:

- Develop tools and approaches for attenuation-based remedies and integrate them into the regulatory framework established by the US EPA and ITRC.
- Develop characterization and monitoring tools that focus on the geochemical properties that control contaminant fate and transport, facilitate evaluation on the field-scale, and are inexpensive and easy to use.
- Develop approaches that will optimize the number of locations and the number of samples and measurements required to achieve an acceptable level of uncertainty in decision making.
- Develop remediation technologies that will effectively and efficiently attenuate contaminants and result in their long-term stabilization.
- Through a collaboration of applied and basic research provide the technically defensible underpinnings for approaches, tools and technologies to implement attenuation-based remedies leading to completion of remediation activities for contamination of groundwater by metals and radionuclides.
- Transfer the ABRS AFRI products to site owners, regulators and other members of the communities of practice to foster usage by the DOE community, as well as the national community.

#### **AFRI COLLABORATORS**

DOE Office of Science funded Sustainable Systems Scientific Focus Area at LBNL is the main collaborator providing funding independent of this AFRI. Other collaborators include:

Interstate Technology and Regulatory Council  
North Carolina State University  
GSI Environmental, LLC  
Oregon State  
University Sandia  
National Laboratory  
Pacific Northwest National Laboratory  
Technical Assistance Collaborators TBD

## 2013 TECHNICAL APPROACH

The five tasks listed here cover the various focus areas of the AFRI ABRS.

### Task 1: Attenuation Remedies In Support of Alternative End-States

One important pathway to alternate endpoints is development of effective long-lived attenuation-based remedies. For such remedies to gain regulatory approval, they must demonstrably reduce contaminant flux to compliance points for long periods of time. One of the primary goals of the AFRI ABRS is to mature promising attenuation-based technologies from concept to field-scale pilot tests. Bench-scale studies done at Lawrence Berkeley National Laboratory showed that humates sorbed on aquifer minerals strongly bind uranium at mildly acidic pH and potentially bind  $^{129}\text{I}$ . Their research suggests that humates would be an ideal enhanced attenuation amendment to use for hot-spot treatment at the F-Area Applied Field Research site where both contaminants are present in acidic groundwater. Use of humate could also be applicable for contaminant stabilization at a wide variety of other DOE sites. Pilot field-scale tests and optimization of this technology will be required to move this technical approach from basic science to actual field deployment and regulatory acceptance. This task also involves collaboration with the Deep Vadose Zone AFRI at Pacific Northwest National Laboratory (PNNL). PNNL is interested in exploring microbiological aspects of the redox chemistry of  $^{129}\text{I}$  and potential interaction with humates. The task will take two approaches. The first will be a one well test injection test similar to a push-pull test in which humate will be injected into a well that will be subsequently monitored for uranium and  $^{129}\text{I}$ . The second approach will use humate loaded sediments in diffusion samplers. These are similar to bio-traps that PNNL will deploy in a Hanford  $^{129}\text{I}$  plume. SRNL and PNNL will collaborate on microbial (PNNL) and iodine speciation analyses (SRNL) of these samplers.

#### Sub-tasks

- 1.1 Field test of humate technology for uranium and  $^{129}\text{I}$  remediation at the F-Area Field Research Site using single well push-pull type tests using existing wells
- 1.2 Diffusion sampler study of sorption and microbial interactions of U and  $^{129}\text{I}$  on humate treated and untreated F-Area sediments
- 1.3 Send samples from diffusion samplers (sediments) and push-pull test (water) to PNNL for microbial analysis and perform uranium and  $^{129}\text{I}$  speciation analysis on diffusion samplers and PNNL bio-traps

#### Deliverables

Sub-task 1.1 Progress report on field injection test

9/16/2013

Sub-task 1.2 Report on diffusion sampler study

9/08/2013

### Task 2: Develop Innovative Characterization and Monitoring Strategies to Support Implementation of Alternative End Points

Implementation of long-lived attenuation-based remedies will require significant levels of monitoring to ensure that the remedies continue to be effective over long periods of time. This will be required to demonstrate to regulators and stakeholders that attenuated contaminants are behaving as predicted by site conceptual model and will not remobilize as the site evolves. Additionally, there is an important need to expand the toolbox of enhanced attenuation remedies. Addressing these needs will lead to development of approaches and tools that facilitate the use of attenuation-based remedies.

#### Sub-tasks

##### 2.1 SRNL Participation on the SOMERS team

This task supports SRNL participation on the Scientific Opportunities for Monitoring Environmental Remediation Sites (SOMERS) team to develop improved strategies for monitoring subsurface

groundwater contamination that will be used by DOE-EM to develop their three-year Strategic Plan by the end of FY2013. The SOMERS team will be organized by the PNNL and the task will support attendance at team meetings and preparation of a contribution to the technical strategy document. Meeting dates and description of deliverables are TBD.

***Subtask 2.2 Implementation of Innovative Paradigm for Long Term Monitoring at Metals and Rad sites***

This task will support a pilot field implementation of an alternative paradigm for long term monitoring that should simultaneously improve performance monitoring systems and lower costs. Traditional long-term monitoring relies predominantly on point source measurement of contaminant concentrations at monitoring wells. Concentration measurements for all types of contaminants in groundwater are a lagging indicator plume movement – significant changes indicate that contamination has already migrated. The new paradigm is focused on measurement of the controlling variables that are leading indicators for changes in the stability of the plume. This would be supplemented by a substantially reduced number of concentration measurements at wells. The controlling variables include boundary conditions, master variables, and plume/contaminant variables. Boundary conditions are the overall driving forces that control plume movement and therefore provide leading indication to changes in plume stability. Master variables are the key variables that control the chemistry of the groundwater system, and include redox variables (ORP, DO, chemicals), pH, specific conductivity, biological community (breakdown/decay products), and temperature. A robust suite of tools is commercially available to measure these variables.

Currently, at F-area, monitoring/sampling analyses locations (~100 locations) can be divided into the following categories: Background Wells, Point of Compliance wells associated with the F-area basin closure, Plume Definition Wells, Gate Monitoring Wells, Wetland Piezometers, and Stream Surface Water Sampling points. We propose implementation of the pilot monitoring system in two phases. Phase 1 activities will consist of replacing contaminant sampling and analysis at selected Gate Monitoring Wells and Wetland Piezometers with a sensor system that measures master variables and boundary conditions (pH, ORP, water level). Phase 2 activities will consist of reducing the number of Plume Definition wells by fifty percent. The specifics of these activities will be developed and coordinated with the appropriate regulatory agencies and stakeholder groups.

The proposed system should improve the performance of F-area monitoring systems while significantly lowering monitoring costs. In addition, monitoring of leading indicators (boundary conditions and geochemical conditions) will identify deviations from expected plume behavior more effectively than baseline contaminant monitoring systems. This will allow for early identification of changes in physical and chemical controls that will enable remedial response before contamination has migrated in an unacceptable manner. This approach can be used at other waste sites at SRS as well throughout the DOE and federal complex.

**Deliverable 2.1 Deployment of sensor system at F-Area (8/5/2013)**

**Deliverable 2.2 Submit journal article describing innovative paradigm (9/20/2013)**

**Task 3: Participation in the Development of the End Points Roadmap**

This task will support SRNL participation on the DOE-EM Roadmap team that is tasked with defining technically defensible end states, systems-based remediation approaches and systems-based monitoring strategies that include closure solutions that are cost-effective, sustainable, and protective of public health and natural resources at DOE sites. The team will be organized by the PNNL and the task will support attendance at team meetings and assistance in the preparation of a contribution to a technical whitepaper. Meeting dates and description of deliverables are TBD.

**Task 4: Management of the Technical Assistance Program**

For over two decades, SRNL has managed a dynamic and efficient national program sponsored by DOE Office of Environmental Management that provides teams of technical experts with a broad experience base to

recommend strategies to address DOE's challenging environmental problems when standard approaches haven't worked. The Technical Assistance program organizes and manages small teams of nationally recognized experts in support of both DOE's smaller sites, such as Paducah, Portsmouth, Pinellas, Ashtabula, Fernald, Mound, and Kansas City Plant, and larger sites such as Oak Ridge, Los Alamos, Lawrence Livermore and Savannah River. Typically these teams work with site problem holders to develop efficient and effective solutions to address their complex/difficult technical issues. FY2013 funding will administration of the technical assistance program including helping site problem holders to develop technical needs statements, selection of the technical experts, contracting of non-SRNL participants, management of the team meeting, and preparation of the technical assistance team reports. Task 2 will support identification and implementation of 'Quick Win' ideas for mercury characterization and remediation at Oak Ridge's Y-12 facility. This funding will leverage funding provided by the OR DOE office. Potential Task 2 projects include:

- **Innovative Strategies for Characterization of Mercury in Support of D&D activities**
  - Develop strategy/sampling protocols to support D&D slab removal/soil remediation/closure activities similar to Site Excavation Plans developed by TA teams for Fernald and Mound
  - Develop innovative approaches and field detectors to support timely and cost-effective decision-making (Field mercury detectors, Field XRF, Flute liners, optical/neutron probes)
  - Develop final closure verification sampling requirements and strategies
- **Innovative Methods for Remediation/Mitigation of Source Zone Hg**
  - Thermal Remediation and Gas-phase Sequestration
  - Explore blending or injection of sequestration materials (e.g., biochar/carbon, alumina, etc.)
  - Explore beneficial use of current building sumps as long-term passive mercury reduction systems (e.g., fill with amendment and connect to stream)
- Explore and extend the portfolio of low cost field screening methods to "bin" soils (e.g., contaminated, potentially contaminated, clean), constraining the magnitude of source material to be treated/excavated

#### *Deliverables*

- 4.1 Identify specific opportunities for Quick Wins at OR and develop work scope (5/1/2013)
- 4.2 Support Implementation of Quick project at OR (9/30/2013)

#### **Task 5: Phase II of Understanding Aquifer Heterogeneity with the Reactive Facies Approach**

Aquifer heterogeneity is a challenge to acceptance of alternate endpoints because it complicates prediction of contaminant fate and transport and can interfere with effective remediation. Hence, understanding aquifer heterogeneity at a site is important to demonstrating that alternate endpoints can achieve the risk reduction required by regulators and stakeholders. The reactive facies concept developed jointly by SRNL and LBNL relates the complexity of aquifer heterogeneity to the original geologic environment of deposition of the aquifer. It exploits the fact that heterogeneity in aquifers is not random, but occurs in patterns defined by the environment of deposition. Phase I of Understanding Heterogeneity with the Reactive Facies Approach focused on the upper aquifer at the F-Area Applied Field Research Site. Reactive facies proved to be a valuable construct for understanding geochemical heterogeneity in this relatively simple system. The lower aquifer is more complex and the degree of heterogeneity more representative of aquifers across the DOE complex. Phase I was completed in collaboration with the Science Focus Area (SFA) Plume Challenge at LBNL. Phase II began in FY11 but was interrupted by a funding hiatus in FY12. The activities of Phase II will be resumed in collaboration with LBNL to develop the concept of reactive facies into a more general approach to aquifer heterogeneity that can be applied across the DOE complex. The concept of reactive facies will be extended to include the distribution and role of granular iron and phosphate minerals in natural attenuation. The lower aquifer zone at the F-Area Field Research Site contains abundant phosphate minerals that can potentially sequester uranium, as well as iron minerals that can potentially pose redox conditions to be favorable for natural attenuation of some contaminants. The general approach to aquifer heterogeneity, based on reactive facies, will ultimately transfer to ASCEM allowing inclusion of a powerful means of accounting for subsurface heterogeneity in modeling.

**Sub-tasks.**

- 3.1 Sampling and analysis of existing lower aquifer cores by high vertical resolution x-ray fluorescence and acid-base titrations to delineate reactive facies and correlate to depositional environments
- 3.2 Continued analysis of sample textures by optical microscopic image analysis
- 3.3 Analysis of the spatial distribution and reactivity of the "heavy mineral" suite in the lower aquifer zone

**SPENDING PLAN:****Monthly Spending Plan for FY13 (\$K)**

Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Total
0	5	20	24	25	66	80	80	90	90	80	60	620

**Signatures and Approvals:**HQ Program Manager: Latrency BatesOffice Director: Kurt GerdesPrincipal Investigator: Miles Denham 3/12/2013Site Representative: Karen Adams 03.12.13**BUDGET:**

Task	Budget FY13 \$K
Task 1: Attenuation Remedies in Support of Alternative End Points	230 <sup>a</sup>
Task 2: : Develop Innovative Characterization and Monitoring Strategies to Support Implementation of Alternative End Points	140 <sup>b</sup>
Task 3: Participation in the Development of the End Points Roadmap	30 <sup>b</sup>
Task 4: Management of Technical Assistance Program	75 <sup>b</sup>
Task 5: Phase II of Understanding Aquifer Heterogeneity: Reactive Facies Approach	145
<b>Total</b>	<b>\$620</b>

a- \$140K FY13 funding received previously

b- \$120K FY12 Carryover identified in Zero Sum TCR dated 12/2012 distributed across these tasks



# Financial Plan Report - Detail


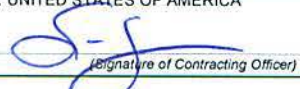
SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: April 11, 2013 at 02:52:55 PM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	Previous	BA Change	Revised	Total Available
410003	01250	TP	1110676	EY4049110	25400	0000000	0003925	0000000		15,138.97	135,061.61	200,000.00	335,061.61	350,200.58
410003	01250	TP	1110676	EY4049110	25400	0000000	0004017	0000000		26,037.10	59,000.00	40,000.00	99,000.00	125,037.10
410003	01250	TP	1110676	EY4049110	25400	0000000	0004266	0000000		76,614.28	147,098.00	15,000.00	162,098.00	238,712.28
Total for Program Parent/Control Point: EY4000000										117,790.35	341,159.61	255,000.00	596,159.61	713,949.96
410003	01250	TP	1111525	EY8648111	25400	0000000	0001761	0000000		119,672.95	18,977,800.00	7,007,417.00	25,985,217.00	26,104,889.95
AY 2013 - Transfer to SRNS per MG/PP. rz														
410003	01250	TP	1111461	EY864811B	25400	0000000	0004363	0000000		1,312,929.09	-918,475.00	500,000.00	-418,475.00	894,454.09
AY 2013 - \$500K of funds are specifically to support the PAV project activities per H. Gunter. rz														
410003	01250	TP	1111497	EY864811D	25400	0000000	0004364	0000000		2,676,304.39	60,235,629.92	16,286,919.00	76,522,548.92	79,198,853.31
AY 2013 - Transfer to SRNS per MG/PP. rz														
410003	01250	TP	1111498	EY864811E	25400	0000000	0004365	0000000		1,184,520.19	22,878,741.00	5,416,399.00	28,295,140.00	29,479,660.19
AY 2013 - \$1.2M specifically for: "\$700K these funds are specifically to support: (\$400k for SRNS efforts for a pre-conceptual for vulnerability assessment for the Waste Isolation Pilot Plant and \$300k for SRNS efforts to develop an application package for submittal to the Nuclear Regulatory Commission for the 3013 9975 shipping package); \$500K for DSA 10 & 11 preparations and Operations support to PAV" per H. Gunter. rz														
410003	01250	TP	1111499	EY864811F	25400	0000000	0004366	0000000		110,373.09	9,506,985.00	2,902,431.00	12,409,416.00	12,519,789.09
AY 2013 - Transfer to SRNS per MG/PP. rz														
410003	01250	TP	1111526	EY8648121	25400	0000000	0001762	0000000		344,221.52	18,164,250.00	5,874,896.00	24,039,146.00	24,383,367.52
AY 2013 - Transfer to SRNS per MG/PP. rz														
410003	01250	TP	1110949	EY8648130	25400	0000000	0001763	0000000		11,288,054.07	7,392,562.00	3,778,782.00	11,171,344.00	22,459,398.07
AY 2013 - 4.9.2012 - Increased by \$3,778,782 per RMO P. Petty -mat														
410003	01250	TP	1110950	EY8648300	25400	0000000	0001766	0000000		868,926.39	22,278,064.00	8,187,882.00	30,465,946.00	31,334,872.39
AY 2013 - 4.9.2013 - Increased by \$8,187,882 - Per RMO email P. Petty -mat														
Total for Program Parent/Control Point: EY8648020										17,905,001.69	158,515,556.92	49,954,726.00	208,470,282.92	226,375,284.61
410003	01250	TP	1111528	EY8748141	25400	0000000	0001764	0000000		1,358,284.88	41,016,000.00	7,000,000.00	48,016,000.00	49,374,284.88
410003	01250	TP	1111528	EY8748141	25400	0411107	0001764	0000000		0.00	18,062,500.00	4,000,000.00	22,062,500.00	22,062,500.00
410003	01250	TP	1111528	EY8748141	25400	0411108	0001764	0000000		121,214.20	7,741,000.00	2,000,000.00	9,741,000.00	9,862,214.20
410003	01250	TP	1111528	EY8748141	25400	0411130	0001764	0000000		0.00	7,606,000.00	2,000,000.00	9,606,000.00	9,606,000.00
Total for Program Parent/Control Point: EY8748140										1,479,499.08	74,425,500.00	15,000,000.00	89,425,500.00	90,904,999.08
410003	01250	TP	1111166	FS5048010	25400	0000000	0001765	0000000		185,186.65	1,950,000.00	200,000.00	2,150,000.00	2,335,186.65
410003	01250	TP	1111167	FS5048020	25400	0000000	0001765	0000000		191,501.97	5,407,000.00	2,000,000.00	7,407,000.00	7,598,501.97
410003	01250	TP	1111172	FS5048070	25400	0000000	0001765	0000000		820,190.84	565,000.00	300,000.00	865,000.00	1,685,190.84
Total for Program Parent/Control Point: FS5010010										1,196,879.46	7,922,000.00	2,500,000.00	10,422,000.00	11,618,879.46
Total for Fund: 01250										20,699,170.58	241,204,216.53	67,709,726.00	308,913,942.53	329,613,113.11

# Execution - Analyst Run

XID	Appr Year	Rpt Ent Parent	Allot- tee	Fund	Program	Program Parent	Rpt Entity	Project	WFO	Obj Class	Purchase Order	Local Use	BUO	BUO Deob	Committed BA	Obligated BA
50238	2006	SR	36	01250	1110676	C000977	410003	0003925	0000000	25400	SR22470	0000000	0.00	0.00	2,984.79	2,984.79
50239	2007	SR	36	01250	1110676	C000977	410003	0003925	0000000	25400	SR22470	0000000	0.00	0.00	2,871.00	2,871.00
50240	2009	SR	36	01250	1110676	C000977	410003	0003925	0000000	25400	SR22470	0000000	0.00	0.00	29,437.70	29,437.70
50414	2009	SR	36	01250	1110676	C000977	410225	0003925	0000000	25300	M5Z0825	0000000	0.00	0.00	60,000.00	0.00
49084	2011	SR	36	01250	1110676	C000977	410003	0003925	0000000	25400	SR22470	0000000	15,138.97	0.00	19,768.12	19,768.12
49788	2013	SR	36	01250	1110676	C000977	410003	0003925	0000000	25400	SR22470	0000000	0.00	0.00	280,000.00	280,000.00
50413	2013	SR	36	01250	1110676	C000977	410225	0003925	0000000	25300	M5Z0826	0000000	0.00	0.00	60,000.00	0.00
Report Totals:													15,138.97	0.00	455,061.61	335,061.61

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      126	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
355		07/29/2013		13EM001692	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		CODE 00901	
				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				x	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b>		<b>FACILITY CODE</b>			
798861048					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
No change to accounting data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Clause H-28, Performance-Based Incentives					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
A. The purpose of this modification is to incorporate Performance Evaluation Measurement Plan (PEMP), Revision 4, for the period October 1, 2012 through September 30, 2013. Previous edition of the FY 2013 PEMP is hereby superseded and replaced with Revision 4, effective July 29, 2013.					
B. All other terms and conditions remain unchanged.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>	
L.C. Clevinger II Manager, Contracts		 (Signature of person authorized to sign)		8/15/13	
<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		<b>16B. UNITED STATES OF AMERICA</b>		<b>16C. DATE SIGNED</b>	
Scott D. Langston		 (Signature of Contracting Officer)		8/15/13	
NSN 7540-01-152-8070 Previous edition unusable					
STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243					

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2									
2. AMENDMENT/MODIFICATION NO. 356		3. EFFECTIVE DATE 05/15/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM001856									
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.									
				9B. DATED (SEE ITEM 11)									
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470									
				10B. DATED (SEE ITEM 13) 01/10/2008									
CODE 798861048		FACILITY CODE											
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>													
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.													
12. ACCOUNTING AND APPROPRIATION DATA (If required) No change to accounting data													
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td style="text-align: center;">X</td> <td>D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:	X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.												
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).												
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:												
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)												
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.													
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)													
A. The purpose of this modification is to incorporate the Contract Work Authorizations listed below:													
1) No. SL-410003-13, Rev 2, for Solar Energy 2) No. KL/W/SR1/13, Rev 1, for Workforce Development for Teachers and Scientists 3) No. SR071801-5-13, for Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at SR 4) No. 89X0319, Rev 4, for Fuel Cycle Technologies 5) No. KC/SR1/3, Rev 2, for Basic Energy Sciences - Energy Frontier Research Centers 6) No. IN13012, Rev 3, for Energy and Threat 7) No. IN13021, Rev 1, for Energy and Threat Continued ...													
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.													
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)											
		Marie A. Garvin											
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA									
(Signature of person authorized to sign)				Signature on File									
				(Signature of Contracting Officer)									
				16C. DATE SIGNED 05/15/2013									

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/356	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>8) No. HQ1001-0-SR, Rev 4, for Advanced Simulation Capability for Environment Management</p> <p>9) HQ091101, Rev 2, for Advanced Simulation Capability for Environment</p> <p>10) No. 410003, Rev 3, for Funding for the Packaging and Certification Program and Packaging and Transportation Operations Support</p> <p>11) No. HI-410003-13-5-13, Rev 1, for Fuel Cell Technologies Program</p> <p>12) No. HI-410003-13-5-13, Rev 2, for Fuel Cell Technologies</p> <p>13) No. HQTD1000, Rev 5, for Technical Planning, Integration and Risk Management</p> <p>14) No. 89X0319, Rev 5, Fuel Cycle Technologies</p> <p>The above reference contract work authorizations are provided as attachment 1 through 14, hereto. Funds are allocated under FINPLAN numbers 12, 14, and and 15, for Fiscal Year 2013, by separate modifications.</p> <p>B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>.</p>				


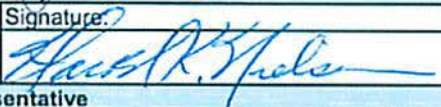
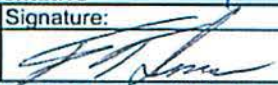
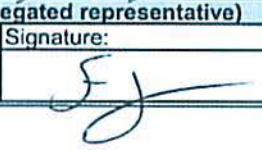
## **Attachment 1**

**Work Authorization No. SL-410003-13, Rev 2**

**Project Title: Solar Energy**



2013-70

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b> Solar Energy		<b>1b. Work Proposal Number</b> AOP #2013; Agreement No. 25835 and 25683	
<b>2. Headquarters Program Point of Contact</b>			
Name: Minh Le		Organization Code:	Telephone No. 202-287-1372
<b>3. Headquarters Budget Point of Contact</b>			
Name: Kyra Humphreys		Organization Code: EE-3B	Telephone No. 202-586-8138
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> Savannah River Site Office			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b> SL-410003-13		<b>9. Revision Number</b> 2	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act." Funds will be divided by Agreement as listed: Agreement 25835 - \$105,931.00 Agreement 25683 - \$278,873.00			
<b>Budget and Reporting Code:</b> SL0100000	<b>Previous</b> \$ 900,225.00	<b>Change</b> \$ 384,804.00	<b>Current</b> \$ 1,285,029.00
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/2012 To: 9/30/2013		10/1/2012	9/30/2013
<b>14. Statement of Work (Includes attachments)</b>			
Funding in the amount of \$384,804 is authorized by the Solar Energy to perform work in the areas of : The U.S. Department of Energy (DOE) SunShot Initiative and Solar Energy Technologies Program (SETP) authorizes funding in accordance with the program Annual Operating Plan (AOP). This operating plan authorizes specific funding amounts for each project and agreement, and requires detailed performance milestones and deliverable be met or completed within the period of performance. Please refer to the Work Proposal Number (1b) to determine which section(s) of the AOP for which this authorization provides funding.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): JOHN CHRISTIAN	Signature: 	Date: 5/3/2013	
<b>16. DOE-SR Budget Official (Field CFO)</b>			
Name (typed): Harold K. Nielsen	Signature: 	Date: 5/3/2013	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John W. Temple FDK	Signature: 	Date: 5/9/2013	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: 	Date: 5/10/13	



2013-70

U.S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
1a. Program Title: Solar Energy		1b. Work Proposal Number (if applicable): AOP #2013, AOP #2013 <i>AUCW-1 # 25835</i>	
2. Headquarters Program Point of Contact:			
Name: Minh Le		Organization Code:	Telephone No: (202) 287-1372
3. Headquarters Budget Point of Contact:			
Name: Kyra Humphreys		Organization Code: EE-3B	Telephone No: (202) 586-8138
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Energy Efficiency and Renewable Energy		David Danielson	
6. Responsible Field Element:			
Savannah River Site Office			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact:	
Savannah River Nuclear Solutions, LLC		Name: John Christian Telephone No:	
8. Work Authorization Number:*			
SL-410003-13		2	
10. Funds Authorized:			
<u>Congressional Control Point</u>	<u>Previous</u>	<u>Change</u>	<u>Current</u>
SL0000000	\$900,225.00	\$384,804.00	\$1,285,029.00
11. Performance period covered by funds:		12. Work Start Date:	13. Expected Completion Date:
From:10/01/2012 To:09/30/2013		10/01/2012	09/30/2013
14. Statement of Work:			
<p>Funding in the amount of \$384,804.00 is authorized by the Solar Energy to perform work in the areas of :  The U.S. Department of Energy (DOE) SunShot Initiative and Solar Energy Technologies Program (SETP)  authorizes funding in accordance with the program Annual Operating Plan (AOP). This operating plan authorizes  specific funding amounts for each project and agreement, and requires detailed performance milestones and  deliverable be met or completed within the period of performance.  Please refer to the Work Proposal Number (1b) to determine which section(s) of the AOP for which this authorization  provides funding.</p>			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
16. Work Authorization Program Official:			
Name (typed): John Conboy, Proxy for Minh Le		Signature: 564c7fd2-929d-4dbd- 8b4e-8f662c77e921	Date: 4/15/2013
17. DOE Field Organization Official:			
Name (typed):		Signature:	Date:
18. Contractor's Authorized Representative:			
Name (typed):		Signature:	Date:
19. DOE Contracting Officer (or delegated representative):			
Name (typed):		Signature:	Date:



\* The work authorization number will consist of the program code, AFP code, and the fiscal year

FED 13-11083 - May

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM

05/01/2013  
PAGE: 2

89X0321 - ENERGY EFFICIENCY AND RENEWABLE ENERGY

FISCAL YEAR: 2013

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

5


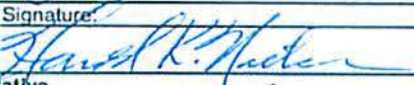


B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0321.91 (05450)									
O HT	HYDROGEN AND FUEL CELLS TECHNOLOGIES		2013	NEW OA	2,553,164.00		291,155.00		2,844,319.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,553,164.00		291,155.00		2,844,319.00
O HT TOTAL, HYDROGEN AND FUEL CELLS TECHNOLOGIES				NEW OA	2,553,164.00		291,155.00		2,844,319.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,553,164.00		291,155.00		2,844,319.00
O SL	SOLAR ENERGY		2013	NEW OA	900,225.00		384,804.00		1,285,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	900,225.00		384,804.00		1,285,029.00
O SL TOTAL, SOLAR ENERGY				NEW OA	900,225.00		384,804.00		1,285,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	900,225.00		384,804.00		1,285,029.00
TOTAL, OPERATING EXPENSES (05450)				NEW OA	3,453,389.00		675,959.00		4,129,348.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	3,453,389.00		675,959.00		4,129,348.00
TOTAL, DIRECT FUNDING				NEW OA	3,453,389.00		675,959.00		4,129,348.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	3,453,389.00		675,959.00		4,129,348.00
TOTAL, OBLIGATIONAL AUTHORITY				NEW OA	3,453,389.00		675,959.00		4,129,348.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	3,453,389.00		675,959.00		4,129,348.00

## **Attachment 2**

**Work Authorization No. KL/W/SR1/13, Rev 1**

**Project Title: Workforce Development for Teachers and Scientists**

2013-21

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Workforce Development for Teachers and Scientists		Various	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b>	<b>Organizational Code</b>	<b>Telephone</b>	
Patricia M. Dehmer	SC-27	202.287.6490	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b>	<b>Organizational Code</b>	<b>Telephone</b>	
Andrea Conrad	SC-41	301.903.3310	
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Workforce Development for Teachers and Scientists		Under Secretary for Science	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
KLW/SR1/13		1	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: Reference Appropriation Act for Fiscal Year 2013: "Appropriations and funds made available and authority granted pursuant to this joint resolution shall be available until whichever of the following first occurs: (1) the enactment into law of an appropriation for any project or activity provided for in this joint resolution; (2) the enactment into law of the applicable appropriations Act for fiscal year 2013 without any provision for such project or activity; or (3) March 27, 2013.			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
KL1001000	\$ 10,000.00	\$ (8,726.50)	\$ 1,273.50
KL1002000	\$ 10,000.00	\$ (8,726.50)	\$ 1,273.50
KL Total	\$ 20,000.00	\$ (17,453.00)	\$ 2,547.00
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
10/1/2012	9/30/2013	10/1/2012	9/30/2013
<b>14. Statement of Work (Includes attachments)</b>			
The FY 2013 Approved Funding Program provides funding to accomplish Workforce Development for Teachers and Scientists activities, generally consistent with the Field Work Proposal submissions and modifications and specific guidance provided by the enclosed memorandum. The Office of Workforce Development for Teachers and Scientists (WDTS) is committed to conducting work in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public and the environment is a direct and individual responsibility of all WDTS managers and WDTS-supported staff. Funds provided by WDTS will be applied as necessary to ensure that all WDTS activities are conducted safely and in an environmentally conscientious manner. Only work conducted in this way will be supported. The following are required for the Workforce Development for Teachers and Scientists program: analysis reports as produced, a fiscal year end report, and a final report.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b>	<b>Signature:</b>	<b>Date:</b>	
JOHN CHRISTIAN		5/3/2013	
<b>16. DOE-SR Field Budget Official</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
Harold K. Nielsen		5/3/2013	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
John Temple FOI		5/9/2013	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
Scott Langston		5/10/13	



**Department of Energy**  
**Office of Science**  
**Washington, DC 20585**

**APR 24 2013**

**MEMORANDUM FOR: DR. DAVID MOODY**  
**MANAGER**  
**SAVANNAH RIVER**

**FROM:**

**PATRICIA M. DEHMER** *Patricia M. Dehmer*  
**DEPUTY DIRECTOR FOR SCIENCE PROGRAMS**  
**OFFICE OF SCIENCE**

**SUBJECT: FY 2013 Office of Science Approved Funding Program -**  
**Savannah River Nuclear Solutions**

The attached budget detail and program comments relate to the May AFP recently submitted to the Chief Financial Officer for the Workforce Development for Teachers and Scientists program.

Also attached, in accordance with DOE Order 412.1A, is the FY 2013 Work Authorization for the M&O contract with Savannah River Nuclear Solutions to support funding in the May AFP.

There should not be any variance in performance from this guidance during the year prior to changes being coordinated and approved by the appropriate Headquarters program manager and documented by a program letter from Headquarters. This is essential to maintain accountability for the utilization of these funds.

If you have any questions regarding the attached please call Andrea Conrad (301-903-3310) or the appropriate program manager at Headquarters.

**Attachment**

**cc:**

**L. Roberson, SR**  
**D. Ryan, AMEST, SR**



**U.S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title:</b> Workforce Development for Teachers and Scientists		<b>1b. Work Proposal Number (if applicable):</b> Various	
<b>2. Headquarters Program Point of Contact.</b> Name: Patricia M. Dehmer Organization Code: SC-27 Telephone No.: (202) 287-8490			
<b>3. Headquarters Budget Point of Contact.</b> Name: Andrea Conrad Organization Code: SC-41 Telephone No.: (301) 803-3310			
<b>4. Responsible Program:</b> Workforce Development for Teachers and Students		<b>5. Responsible Secretarial Officer:</b> Under Secretary for Science	
<b>6. Responsible Field Organization:</b> Savannah River Operations Office			
<b>7a. Site and Facility Management Contractor:</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact.</b> Name: Telephone No.:	
<b>8. Work Authorization Number:</b> KL/ W/SR1/13		<b>9. Revision Number:</b> 01	
<b>10. Funds Authorized (\$ in thousands).</b> B&R Code: KL Previous: \$20 Change: \$-17 Current: \$3*			
<b>11. Performance Period Covered by Funds.</b> From: 10/01/12 To: 09/30/13		<b>12. Work Start Date:</b> 10/01/12	<b>13. Expected Completion Date:</b> 09/30/13
<b>14. Statement of Work:</b> The FY 2013 Approved Funding Program provides funding to accomplish Workforce Development for Teachers and Scientists activities, generally consistent with the Field Work Proposal submissions and modifications and specific guidance provided by the enclosed memorandum.  The Office of Workforce Development for Teachers and Scientists (WDTS) is committed to conducting work in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public and the environment is a direct and individual responsibility of all WDTS managers and WDTS-supported staff. Funds provided by WDTS will be applied as necessary to ensure that all WDTS activities are conducted safely and in an environmentally conscientious manner. Only work conducted in this way will be supported.			
<b>15. Reporting Requirements (Status reports, scientific and technical information or similar):</b> The following are required for the Workforce Development for Teachers and Scientists program: analysis reports as produced, a fiscal year end report, and a final report.			
<b>16. Work Authorization Program Official.</b> Name (typed): Patricia M. Dehmer Signature: <i>Patricia M. Dehmer</i> Date: 4/23/13			
<b>17. DOE Field Organization Official.</b> Name (typed): Signature: Date:			
<b>18. Contractor's Authorized Representative.</b> Name (typed): Signature: Date:			
<b>19. DOE Contracting Officer (or delegated representative).</b> Name (typed): Signature: Date:			

\*Includes Operating of \$2,546.

**Workforce Development for Teachers and Scientists  
FY 2013 May Program Guidance Attachment**

**Savannah River National Laboratory (410003)**

**Internships and Visiting Faculty Activities**

**SULI (KL-10-01)**

**\$8,726.50 is withdrawn and provided to ORISE for SULI support. Authorization is provided for support of 2 2013 Summer Term SULI participants.**

**CCI (KL-10-02)**

**\$8,726.50 is withdrawn and provided to ORISE for SULI support.**

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89X0222 - SCIENCE  
FISCAL YEAR: 2013

04/30/2013  
PAGE: 2

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

6

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0222.91 (00500)									
O KC	BASIC ENERGY SCIENCES								
			2013	NEW OA	280,000.00		21,000.00		301,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	280,000.00		21,000.00		301,000.00
O KC TOTAL, BASIC ENERGY SCIENCES				NEW OA	280,000.00		21,000.00		301,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	280,000.00		21,000.00		301,000.00
O KL	WDTS								
			2013	NEW OA	20,000.00		17,453.00-		2,547.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	20,000.00		17,453.00-		2,547.00
O KL TOTAL, WDTS				NEW OA	20,000.00		17,453.00-		2,547.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	20,000.00		17,453.00-		2,547.00
O KP	BIOLOGICAL AND ENVIRONMENTAL RESEARCH								
			2013	NEW OA	278,000.00		0.00		278,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	278,000.00		0.00		278,000.00
			2012	NEW OA	0.00		0.00		0.00
				UNOB BAL	25,000.00		0.00		25,000.00
				TOTAL OA	25,000.00		0.00		25,000.00
O KP TOTAL, BIOLOGICAL AND ENVIRONMENTAL RESEARCH				NEW OA	278,000.00		0.00		278,000.00
				UNOB BAL	25,000.00		0.00		25,000.00
				TOTAL OA	303,000.00		0.00		303,000.00
TOTAL, OPERATING EXPENSES (00500)				NEW OA	578,000.00		3,547.00		581,547.00
				UNOB BAL	25,000.00		0.00		25,000.00
				TOTAL OA	603,000.00		3,547.00		606,547.00



RPT7.RPT  
B&R: KL 89X0222  
Lab: All

Workforce Development for Teachers and Scientists  
FY 2013 May Program Guidance Attachment

18 Apr 13  
Page 20

SETASIDES: Exclude -- UA Reserves  
Current Stage: 2013-07-01  
Proposed Stage: 2013-08-01  
\$: Whole

----- Approved Obligations -----			----- Approved Costs -----		
Current	Change	Proposed	Current	Change	Proposed

Savannah River Ops Office

SAVANNAH RIVER NATL LAB

Operating Expenses

KL10	Internships and Visiting Faculty Activities						
KL1001	Science Undergraduate Laboratory Internship						
	OPE	10,000	-8,727	1,273	10,000	-8,727	1,273
	Total KL1001	10,000	-8,727	1,273	10,000	-8,727	1,273
KL1002	Community College Internship Program						
	OPE	10,000	-8,727	1,273	10,000	-8,727	1,273
	Total KL1002	10,000	-8,727	1,273	10,000	-8,727	1,273
	Total KL10	20,000	-17,454	2,546	20,000	-17,454	2,546
	Total Operating Expenses	20,000	-17,454	2,546	20,000	-17,454	2,546
	Total SAVANNAH RIVER NATL LAB	20,000	-17,454	2,546	20,000	-17,454	2,546


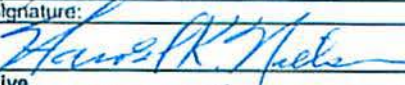
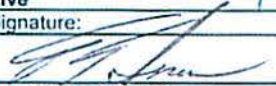

KL 1001000 - 2924406

## **Attachment 3**

**Work Authorization No. SR071801-5-13**

**Project Title: Attenuation-Based Remedies for the Subsurface Applied Field  
Research Initiative at Savannah River**

2013-72

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b> Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative at Savannah River		<b>1b. Work Proposal Number</b> SR071801-5-13	
<b>2. Headquarters Program Point of Contact</b>			
<b>Name</b> Grover Chamberlain	<b>Organizational Code</b> EM-12	<b>Telephone</b> 301.903.7248	
<b>3. Headquarters Budget Point of Contact</b>			
<b>Name</b> Jeffrey McMillan	<b>Organizational Code</b> EM-61	<b>Telephone</b> 301.903.7701	
<b>4. Responsible Program</b> Environmental Management		<b>5. Responsible Secretarial Officer</b> M. Gilbertson	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> SR071801-5-13		<b>9. Revision Number</b> 4	
<b>10. Funds Authorized (See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b> EY4049110	<b>Previous:</b> \$ 455,061.61	<b>Change:</b> \$ 35,000.00	<b>Current:</b> \$ 490,061.61
<b>11. Performance Period Covered by Funds</b> 10/1/2012 9/30/2013		<b>12. Work Start Date</b> 10/1/2012	<b>13. Expected Completion Date</b> 9/30/2013
<b>14. Statement of Work (Includes attachments)</b> Task 1: Enhanced Attenuation of Uranium and 129I by Humic Acid Pilot field-scale tests and optimization of this technology to move this technical approach from basic science to actual field deployment and regulatory acceptance. Task 2: Develop Strategy from SOMERS w/PNNL SRNL participation on the Scientific Opportunities for Monitoring Environmental Remediation Sites (SOMERS) team to develop improved strategies for monitoring subsurface groundwater contamination. Task 3: Road map for End Points w/PNNL SRNL participation on the DOE-EM Roadmap team that is tasked with defining technically defensible end states, systems based remediation approaches and systems-based monitoring strategies that include closure solutions that are cost-effective, sustainable, and protective of public health and natural resources at DOE sites. Task 4: Management of the Technical Assistance Program Management of the technical assistance program including helping site problem holders to develop technical needs statements, selection of the technical experts, contracting of non-SRNL participants, management of the team meeting, and preparation of the technical assistance team report. Note: Period of performance for this work scope ends September 30, 2013.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b> JOHN CHRISTIAN	<b>Signature:</b> 	<b>Date:</b> 5/3/2013	
<b>16. DOE-SR Field Budget Official</b>			
<b>Name (typed):</b> Harold K. Nielsen	<b>Signature:</b> 	<b>Date:</b> 5/3/2013	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b> John Temple FOR	<b>Signature:</b> 	<b>Date:</b> 5/9/2013	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b> Scott Langston	<b>Signature:</b> 	<b>Date:</b> 5/10/13	

OFFICE OF TECHNOLOGY INNOVATION & DEVELOPMENT (BM-30)							
WORK AUTHORIZATION/TASK CHANGE REQUEST (TCR)							
Project Number :		SR071501		Date:	March 13, 2013		APP Change Month:
Project Title:		Attenuation Based Remedies APR					
Site/Contractor:		SRNL		Project Area from Roadmap:	2.3.1 GW&SOLs		Technical Task Plan Attached:
Contract Number if other than National Laboratory or DOR site contractor:							
Name of Principal Investigator:		Miles Denham					
Name of Budget Analyst at the site where the contract is held:							
New BA (\$K) Requested		Prior Funding (\$K) in this FY		Total Uncoated (\$K) as of Beginning of this FY		Total Available Funding (\$K) including this request (add first three columns)	
-630K 35K		420K 320K		100K		840K 455K	
Spend Plan for Total Available Funding (use actual costed funds for previous quarters)							
1 <sup>st</sup> Quarter of FY		2 <sup>nd</sup> Qtr of FY		3 <sup>rd</sup> Quarter of FY		4 <sup>th</sup> Quarter of FY	
-400		-140		-420		420	
						Projected uncoated at the end of this FY	
						0	
Funding Codes (To be Completed by Budget Office)							
Fund	Year	Allofee	Reporting Entity	SQL	Object Class	Program	Project
01250	2013	36	410003	6100000	25400	1110676	0003925
Amount		35,000					
Short Description of Work Scope Authorized/Changed for Input in APP:		See Attached TTP: 1. Continue humane testing to sequester iodine 129 2. Develop characterization and remediation tools for uranium at ORO 3. Optimize sampling & monitoring tools in conjunction with the SOMURS Strategic Plan 4. Develop underplannings for use of attenuation based remedies to facilitate risk informed end points.					
Submitted by:		Grover H Chamberlain					Date:
		Headquarters Project Manager (Please Print & Sign)					2/14/13
Field:		Karen Adams					Date:
		Field DOE Representative (Please Print & Sign)					03.13.13
Approved by:		Kurt Cordes					Date:
		Office Director (Please Print & Sign)					3/13/13
Approved by:							Date:
		DAS Site Remediation Mission Unit					
Submitted to:		Dana J. McPherson					Date:
		USAFHQ Budget Analyst for TDD to complete APP change					4/22/2013

## FY2013 Technical Task Plan

### NEEDS STATEMENT:

Remediation of subsurface contamination is a significant challenge facing the U.S. Department of Energy Office of Environmental Management (EM). EM manages one of the largest and most complex soil and groundwater cleanup programs in the world. Although EM has completed cleanup activities at many of their sites, many of the remaining sites are technically challenging, either due to the nature of the contaminants or to the nature of the subsurface environment. Although traditional standards-based closure goals have been successful at many sites, these approaches may not be technically or economically feasible at many of the remaining complex sites. EM has recently proposed the use of alternate endpoints to establish a path for cleanup that may include intermediate remedial milestones and transition points and/or regulatory alternatives at complex sites. Development and implementation of an alternate endpoint-based approach for remediation and waste site closure presents a number of challenges and opportunities. These challenges include scientific and technical, regulatory, institutional, and budget and resource allocation issues. Opportunities exist to develop and implement systems for remedial characterization, monitoring, and remediation that in many cases will combine both innovative and baseline approaches to reach the desired endpoint. Without these approaches and tools, many contaminated sites in the DOE complex will be unable to achieve acceptable end-states in a reasonable timeframe.

The objective of the Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) at the Savannah River Site is to develop and deploy science-based approaches and tools to monitor and remediate difficult sites contaminated with combinations of metals, radionuclides, and recalcitrant organic compounds. Of particular importance is the development of strategies and tools that can be used to transition active/aggressive technologies that are reaching diminishing effectiveness to strategies that emphasize natural attenuation processes with an ultimate end state goal of monitored natural attenuation (MNA). There is a wealth of basic science information on attenuation mechanisms, yet the science and protocols for determining or demonstrating whether contaminants left in the subsurface pose an acceptable risk are immature. There is a major need for applied science that incorporates the basic science into a holistic understanding of how waste sites, especially the nature of the attenuated contaminants, evolve over time. These studies are critical in order to evaluate sites for applicability and selection of attenuation-based remedies, as well as demonstrate to regulators and stakeholders that attenuated contaminants will not remobilize as the site evolves. Additionally, there is an important need to expand the toolbox of enhanced attenuation remedies. Addressing these needs will lead to development of approaches and tools that facilitate the use of attenuation-based remedies.

### BACKGROUND AND PURPOSE:

Complex groundwater contamination plumes with toxic metals and/or radionuclides are present at the majority of DOE facilities. These plumes have reached up to a mile in length at some sites and discharge to surface water exposure points (e.g., Hanford, Savannah River Site and Oak Ridge). To meet the needs stated above the Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) was established by EM-12 with the Savannah River National Laboratory as the lead. The F-Area groundwater contaminant plume at the Savannah River Site is the primary field research site of the ABRS AFRI and is a plume that has been remediated to an alternative end-point. A innovative passive remedial system is being monitored and evaluated over the long term prior to traditional regulatory closure. Contaminants being addressed at this site are uranium, strontium-90, iodine-129, and tritium. SRNL and SRS are designated as the lead for the EM-12 funded ABRS AFRI because:

- SRNL and the Savannah River Nuclear Solutions Area Completion Projects have a decades long history of working together to develop and deploy innovative technical approaches to achieving desired end-states at contaminated sites
- SRNL was a key collaborator in development of the in situ remediation at the F-Area plume that

allowed the abandonment of the pump-and-treat system, moving the site closer to end-state goals in a more cost effective and efficient way

- The desired end-state at F-Area will be met in phases that are specified in the SRS RCRA Permit (2009) that also encourages continued development and deployment of innovative technologies to achieve the end-state
- Successful applied research conducted at this AFRI will provide the means of achieving the end-state specified in the RCRA permit, as well as being widely applicable across the DOE complex

The objective of (ABRS AFRI) is to develop and bring to maturity science-based approaches and associated tools that facilitate transition of sites with groundwater and soil contamination from active to more passive attenuation-based remedies including MNA. This includes development of enhanced attenuation remedies, as well as site characterization, site evaluation, monitoring, and decision making approaches and tools necessary for successful use of attenuation-based remedies. These activities facilitate the use of attenuation-based remedies by providing the information necessary to prove their effectiveness, and hence allowing negotiation of appropriate and reasonable end-states with regulatory agencies.

Advancements achieved at the ABRS AFRI work in conjunction with those achievements realized at the Hanford and Oak Ridge AFRI as well as the Advanced Simulation Capability for Environmental Management (ASCEM) initiative to make up the applied science portfolio established within the EM-12 Soil and Groundwater Remediation Program. Specifically, the data-rich and mature nature of the SRS F-Area site provides a great opportunity for testing ASCEM developed concepts.

#### **ABRS AFRI GOALS**

As stated in the ABRS AFRI Strategic Plan, the initiatives goals are:

- Develop tools and approaches for attenuation-based remedies and integrate them into the regulatory framework established by the US EPA and ITRC.
- Develop characterization and monitoring tools that focus on the geochemical properties that control contaminant fate and transport, facilitate evaluation on the field-scale, and are inexpensive and easy to use.
- Develop approaches that will optimize the number of locations and the number of samples and measurements required to achieve an acceptable level of uncertainty in decision making.
- Develop remediation technologies that will effectively and efficiently attenuate contaminants and result in their long-term stabilization.
- Through a collaboration of applied and basic research provide the technically defensible underpinnings for approaches, tools and technologies to implement attenuation-based remedies leading to completion of remediation activities for contamination of groundwater by metals and radionuclides.
- Transfer the ABRS AFRI products to site owners, regulators and other members of the communities of practice to foster usage by the DOE community, as well as the national community.

#### **AFRI COLLABORATORS**

DOE Office of Science funded Sustainable Systems Scientific Focus Area at LBNL is the main collaborator providing funding independent of this AFRI. Other collaborators include:

Interstate Technology and Regulatory Council

North Carolina State University

GSI Environmental, LLC

Oregon State

University Sandia

National Laboratory

Pacific Northwest National Laboratory

Technical Assistance Collaborators TBD



## 2013 TECHNICAL APPROACH

The five tasks listed here cover the various focus areas of the AFRI ABRS.

### Task 1: Attenuation Remedies In Support of Alternative End-States

One important pathway to alternate endpoints is development of effective long-lived attenuation-based remedies. For such remedies to gain regulatory approval, they must demonstrably reduce contaminant flux to compliance points for long periods of time. One of the primary goals of the AFRI ABRS is to mature promising attenuation-based technologies from concept to field-scale pilot tests. Bench-scale studies done at Lawrence Berkeley National Laboratory showed that humates sorbed on aquifer minerals strongly bind uranium at mildly acidic pH and potentially bind  $^{129}\text{I}$ . Their research suggests that humates would be an ideal enhanced attenuation amendment to use for hot-spot treatment at the F-Area Applied Field Research site where both contaminants are present in acidic groundwater. Use of humate could also be applicable for contaminant stabilization at a wide variety of other DOE sites. Pilot field-scale tests and optimization of this technology will be required to move this technical approach from basic science to actual field deployment and regulatory acceptance. This task also involves collaboration with the Deep Vadose Zone AFRI at Pacific Northwest National Laboratory (PNNL). PNNL is interested in exploring microbiological aspects of the redox chemistry of  $^{129}\text{I}$  and potential interaction with humates. The task will take two approaches. The first will be a one well test injection test similar to a push-pull test in which humate will be injected into a well that will be subsequently monitored for uranium and  $^{129}\text{I}$ . The second approach will use humate loaded sediments in diffusion samplers. These are similar to bio-traps that PNNL will deploy in a Hanford  $^{129}\text{I}$  plume. SRNL and PNNL will collaborate on microbial (PNNL) and iodine speciation analyses (SRNL) of these samplers.

#### Sub-tasks

- 1.1 Field test of humate technology for uranium and  $^{129}\text{I}$  remediation at the F-Area Field Research Site using single well push-pull type tests using existing wells
- 1.2 Diffusion sampler study of sorption and microbial interactions of U and  $^{129}\text{I}$  on humate treated and untreated F-Area sediments
- 1.3 Send samples from diffusion samplers (sediments) and push-pull test (water) to PNNL for microbial analysis and perform uranium and  $^{129}\text{I}$  speciation analysis on diffusion samplers and PNNL bio-traps

#### Deliverables

Sub-task 1.1 Progress report on field injection test	9/16/2013
Sub-task 1.2 Report on diffusion sampler study	9/08/2013

### Task 2: Develop Innovative Characterization and Monitoring Strategies to Support Implementation of Alternative End Points

Implementation of long-lived attenuation-based remedies will require significant levels of monitoring to ensure that the remedies continue to be effective over long periods of time. This will be required to demonstrate to regulators and stakeholders that attenuated contaminants are behaving as predicted by site conceptual model and will not remobilize as the site evolves. Additionally, there is an important need to expand the toolbox of enhanced attenuation remedies. Addressing these needs will lead to development of approaches and tools that facilitate the use of attenuation-based remedies.

#### Sub-tasks

##### 2.1 SRNL Participation on the SOMERS team

This task supports SRNL participation on the Scientific Opportunities for Monitoring Environmental Remediation Sites (SOMERS) team to develop improved strategies for monitoring subsurface

groundwater contamination that will be used by DOE-EM to develop their three-year Strategic Plan by the end of FY2013. The SOMERS team will be organized by the PNNL and the task will support attendance at team meetings and preparation of a contribution to the technical strategy document. Meeting dates and description of deliverables are TBD.

**Subtask 2.2 Implementation of Innovative Paradigm for Long Term Monitoring at Metals and Rad sites**

This task will support a pilot field implementation of an alternative paradigm for long term monitoring that should simultaneously improve performance monitoring systems and lower costs. Traditional long-term monitoring relies predominantly on point source measurement of contaminant concentrations at monitoring wells. Concentration measurements for all types of contaminants in groundwater are a lagging indicator plume movement – significant changes indicate that contamination has already migrated. The new paradigm is focused on measurement of the controlling variables that are leading indications for changes in the stability of the plume. This would be supplemented by a substantially reduced number of concentration measurements at wells. The controlling variables include boundary conditions, master variables, and plume/contaminant variables. Boundary conditions are the overall driving forces that control plume movement and therefore provide leading indication to changes in plume stability. Master variables are the key variables that control the chemistry of the groundwater system, and include redox variables (ORP, DO, chemicals), pH, specific conductivity, biological community (breakdown/decay products), and temperature. A robust suite of tools is commercially available to measure these variables.

Currently, at F-area, monitoring/sampling analyses locations (~100 locations) can be divided into the following categories: Background Wells, Point of Compliance wells associated with the F-area basin closure, Plume Definition Wells, Gate Monitoring Wells, Wetland Piezometers, and Stream Surface Water Sampling points. We propose implementation of the pilot monitoring system in two phases. Phase 1 activities will consist of replacing contaminant sampling and analysis at selected Gate Monitoring Wells and Wetland Piezometers with a sensor system that measures master variables and boundary conditions (pH, ORP, water level). Phase 2 activities will consist of reducing the number of Plume Definition wells by fifty percent. The specifics of these activities will be developed and coordinated with the appropriate regulatory agencies and stakeholder groups.

The proposed system should improve the performance of F-area monitoring systems while significantly lowering monitoring costs. In addition, monitoring of leading indicators (boundary conditions and geochemical conditions) will identify deviations from expected plume behavior more effectively than baseline contaminant monitoring systems. This will allow for early identification of changes in physical and chemical controls that will enable remedial response before contamination has migrated in an unacceptable manner. This approach can be used at other waste sites at SRS as well throughout the DOE and federal complex.

**Deliverable 2.1 Deployment of sensor system at F-Area (8/5/2013)**

**Deliverable 2.2 Submit journal article describing innovative paradigm (9/20/2013)**

**Task 3: Participation in the Development of the End Points Roadmap**

This task will support SRNL participation on the DOE-EM Roadmap team that is tasked with defining technically defensible end states, systems-based remediation approaches and systems-based monitoring strategies that include closure solutions that are cost-effective, sustainable, and protective of public health and natural resources at DOE sites. The team will be organized by the PNNL and the task will support attendance at team meetings and assistance in the preparation of a contribution to a technical whitepaper. Meeting dates and description of deliverables are TBD.

**Task 4: Management of the Technical Assistance Program**

For over two decades, SRNL has managed a dynamic and efficient national program sponsored by DOE Office of Environmental Management that provides teams of technical experts with a broad experience base to



recommend strategies to address DOE's challenging environmental problems when standard approaches haven't worked. The Technical Assistance program organizes and manages small teams of nationally recognized experts in support of both DOE's smaller sites, such as Paducah, Portsmouth, Pinellas, Ashtabula, Fernald, Mound, and Kansas City Plant, and larger sites such as Oak Ridge, Los Alamos, Lawrence Livermore and Savannah River. Typically these teams work with site problem holders to develop efficient and effective solutions to address their complex/difficult technical issues. FY2013 funding will administration of the technical assistance program including helping site problem holders to develop technical needs statements, selection of the technical experts, contracting of non-SRNL participants, management of the team meeting, and preparation of the technical assistance team reports. Task 2 will support identification and implementation of 'Quick Win' Ideas for mercury characterization and remediation at Oak Ridge's Y-12 facility. This funding will leverage funding provided by the OR DOE office. Potential Task 2 projects include:

- **Innovative Strategies for Characterization of Mercury in Support of D&D activities**
  - Develop strategy/sampling protocols to support D&D slab removal/soil remediation/closure activities similar to Site Excavation Plans developed by TA teams for Fernald and Mound
  - Develop innovative approaches and field detectors to support timely and cost-effective decision-making (Field mercury detectors, Field XRF, Flute liners, optical/neutron probes)
  - Develop final closure verification sampling requirements and strategies
- **Innovative Methods for Remediation/Mitigation of Source Zone Hg**
  - Thermal Remediation and Gas-phase Sequestration
  - Explore blending or injection of sequestration materials (e.g., biochar/carbon, alumina, etc.)
  - Explore beneficial use of current building sumps as long-term passive mercury reduction systems (e.g., fill with amendment and connect to stream)
- Explore and extend the portfolio of low cost field screening methods to "bin" soils (e.g., contaminated, potentially contaminated, clean), constraining the magnitude of source material to be treated/excavated

#### **Deliverables**

- 4.1 Identify specific opportunities for Quick Wins at OR and develop work scope (5/1/2013)
- 4.2 Support implementation of Quick project at OR (9/30/2013)

**Task 5: Phase II of Understanding Aquifer Heterogeneity with the Reactive Facies Approach**  
 Aquifer heterogeneity is a challenge to acceptance of alternate endpoints because it complicates prediction of contaminant fate and transport and can interfere with effective remediation. Hence, understanding aquifer heterogeneity at a site is important to demonstrating that alternate endpoints can achieve the risk reduction required by regulators and stakeholders. The reactive facies concept developed jointly by SRNL and LBNL relates the complexity of aquifer heterogeneity to the original geologic environment of deposition of the aquifer. It exploits the fact that heterogeneity in aquifers is not random, but occurs in patterns defined by the environment of deposition. Phase I of Understanding Heterogeneity with the Reactive Facies Approach focused on the upper aquifer at the F-Area Applied Field Research Site. Reactive facies proved to be a valuable construct for understanding geochemical heterogeneity in this relatively simple system. The lower aquifer is more complex and the degree of heterogeneity more representative of aquifers across the DOE complex. Phase I was completed in collaboration with the Science Focus Area (SFA) Plume Challenge at LBNL. Phase II began in FY11 but was interrupted by a funding hiatus in FY12. The activities of Phase II will be resumed in collaboration with LBNL to develop the concept of reactive facies into a more general approach to aquifer heterogeneity that can be applied across the DOE complex. The concept of reactive facies will be extended to include the distribution and role of granular iron and phosphate minerals in natural attenuation. The lower aquifer zone at the F-Area Field Research Site contains abundant phosphate minerals that can potentially sequester uranium, as well as iron minerals that can potentially pose redox conditions to be favorable for natural attenuation of some contaminants. The general approach to aquifer heterogeneity, based on reactive facies, will ultimately transfer to ASCM allowing inclusion of a powerful means of accounting for subsurface heterogeneity in modeling.

**Sub-tasks:**

- 9.1 Sampling and analysis of existing lower aquifer cores by high vertical resolution x-ray fluorescence and acid-base titrations to delineate reactive facies and correlate to depositional environments
- 9.2 Continued analysis of sample textures by optical microscopic image analysis
- 9.3 Analysis of the spatial distribution and reactivity of the "heavy mineral" suite in the lower aquifer zone

**SPENDING PLAN:****Monthly Spending Plan for FY13 (\$K)**

Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Total
0	5	20	24	25	66	80	80	90	90	80	60	620

**Signatures and Approvals:**HQ Program Manager: Latrice BatesOffice Director: Kurt GerdesPrincipal Investigator: Miles DanhamSite Representative: Karen Adams

8/12/2013

08.12.13

**BUDGET:**

Task	Budget FY13 \$K
Task 1: Attenuation Remedies in Support of Alternative End Points	230 <sup>a</sup>
Task 2: : Develop Innovative Characterization and Monitoring Strategies to Support Implementation of Alternative End Points	140 <sup>b</sup>
Task 3: Participation in the Development of the End Points Roadmap	30 <sup>b</sup>
Task 4: Management of Technical Assistance Program	75 <sup>b</sup>
Task 5: Phase II of Understanding Aquifer Heterogeneity: Reactive Facies Approach	145
<b>Total</b>	<b>\$620</b>

a- \$140K FY13 funding received previously

b- \$120K FY12 Carryover identified in Zero Sum TCR dated 12/2012 distributed across these tasks

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89X0251 - DEFENSE ENVIRONMENTAL CLEANUP  
FISCAL YEAR: 2013

04/30/2013

PAGE: 2

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

9

B&F CODE	B&F TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0251.91 (01250)									
O EY40	DSAC TECHNOLOGY DEVELOPMENT & DEPLOYMENT								
EY404911	PROJECTS TO REDUCE TECHNICAL RISK		2013	NEW OA	1,689,000.00		85,000.00		1,774,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,689,000.00		85,000.00		1,774,000.00
O EY40 TOTAL, DSAC TECHNOLOGY DEVELOPMENT & DEPLOYMENT				NEW OA	1,689,000.00		85,000.00		1,774,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,689,000.00		85,000.00		1,774,000.00
O EY80	DEC - PROGRAM SUPPORT								
EY804910K	EM13 FEDERAL DISPOSITION OPTIONS		2013	NEW OA	279,194.85		0.00		279,194.85
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	279,194.85		0.00		279,194.85
O EY80 TOTAL, DEC - PROGRAM SUPPORT				NEW OA	279,194.85		0.00		279,194.85
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	279,194.85		0.00		279,194.85
O EY8648	SAVANNAH RIVER SITE - SITE RISK MANAGEME								
			2013	NEW OA	217,430,885.00		17,059,186.00		234,490,071.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	217,430,885.00		17,059,186.00		234,490,071.00
O EY8648 TOTAL, SAVANNAH RIVER SITE - SITE RISK MANAGEME				NEW OA	217,430,885.00		17,059,186.00		234,490,071.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	217,430,885.00		17,059,186.00		234,490,071.00
O EY874814	SR-0014C RADIOA LIQ TNK WASTE STAB/DISP								
			2013	NEW OA	423,942,553.00		16,628,897.00		440,571,450.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	423,942,553.00		16,628,897.00		440,571,450.00

Part of 35,000-  
50,000  
↓



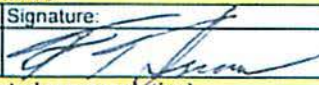
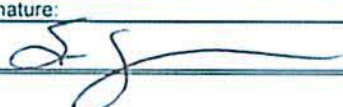
## **Attachment 4**

**Work Authorization No. 89X0319, Rev 4**

**Project Title: Fuel Cycle Technologies**



**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Fuel Cycle Technologies		<b>1b. Work Proposal Number</b> 89X0319	
<b>2. Headquarters Program Point of Contact</b> Name: Robert Rova      Organization Code: NE-5      Telephone: 301-903-9096			
<b>3. Headquarters Budget Point of Contact</b> Name: Daphne M. Lugenbeel      Organization Code: NE-34      Telephone: 301-903-2251			
<b>4. Responsible Program</b> Office of Nuclear Energy		<b>5. Responsible Secretarial Officer</b> John Herczeg	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> 89X0319		<b>9. Revision Number</b> 4	
<b>10. Funds Authorized (See NOTE below)</b> This guidance is based on funding provided under the FY 2013 Continuing Resolution (CR) for Appropriation 89X0319 and reflected in the AF58 Budget and Reporting codes for the April Approved Funding Program (AFP). Per the attached direction, \$300,000 was added to NFST Planning Project - 1.2.09.08 ST Design Concepts managed under BNR/CAM AF586502. Also, per the attached direction, additional appropriations year 2012 funds from B&R Code AF583203, in the amount of \$100,000, are being added to this Work Authorization.			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
AF5805100	\$ 736,470.00	\$ 315,630.00	\$ 1,052,100.00
AF5865010	\$ 631,950.00	\$ 184,800.00	\$ 816,750.00
AF5865020	\$ 325,550.00	\$ 482,700.00	\$ 808,250.00
AF5832030	\$ 36,750.00	\$ 15,750.00	\$ 52,500.00
AF5832020	\$ 124,950.00	\$ 53,550.00	\$ 178,500.00
<b>FY2013 Totals</b>	<b>\$ 1,855,670.00</b>	<b>\$ 1,052,430.00</b>	<b>\$ 2,908,100.00</b>
<b>FY2012 Funding (AF5832030)</b>		\$ 100,000.00	\$ 100,000.00
<b>Grand Total</b>	<b>\$ 1,855,670.00</b>	<b>\$ 1,152,430.00</b>	<b>\$ 3,008,100.00</b>
<b>11. Performance Period Covered by Funds</b> From: Oct. 1, 2012      To: Sept. 30, 2013		<b>12. Work Start Date</b> <b>13. Expected Completion Date</b> From: Oct. 1, 2012      To: Sept. 30, 2013	
<b>14. Statement of Work (Includes attachments)</b> The FCT work packages defining the authorized work scope are maintained in the Program Information Collection System NE (PICSNE). PICSNE will be used for all monthly performance reporting to Headquarters Management including, but not limited to the status of: Level 2 milestones, deliverables, cost and schedule, Baseline Change Proposals, and carryover projections. The funding allocation by B&R code is shown in the attached table.			
<b>15. DOE-SR Program Point of Contact</b> Name (printed): Patrick Jackson      Signature:  Date: May 8, 2013 <small>APPROVED By Patrick R. Jackson at 2:36 pm, May 08, 2013</small>			
<b>16. DOE Budget Official</b> Name (typed): Harold K. Nielsen      Signature:  Date: 5/3/2013			
<b>17. Contractor's Authorized Representative</b> Name (typed): John Temple      Signature:  Date: 5/9/2013 <small>FDR.</small>			
<b>18. DOE Contracting Officer (or delegated representative)</b> Name (typed): Scott Langston      Signature:  Date: 5/10/13			

# memorandum

**DATE:** April 25, 2013  
**REPLY TO:**  
**ATTN OF:** NE-5  
**SUBJECT:** Fiscal Year (FY) 2013 Program Guidance—Fuel Cycle Technologies (FCT)  
**TO:** David C. Moody III, Manager  
Savannah River Operations Office

This memorandum provides Office of Nuclear Energy (NE) guidance regarding FCT activities to be conducted by the Savannah River Site (SRS) and Savannah River National Laboratory (SRNL) in FY 2013. The funding provided for authorized FCT work scope activities performed by SRS/SRNL is increased \$300,000 to \$3,983,000. This guidance is based on funding provided under the FY 2013 Continuing Resolution (CR) for Appropriation 89X0319 and reflected in the AF58 Budget and Reporting codes for the April Approved Funding Program (AFP).

Additionally, Appropriations Year (AY) 2012 funds are available as described below:

(AY)	B&R Code	Local Use Code	Description	Amount
2012	AF583203	0301556	DOE NE Pu Disposition Study	\$100,000

The FCT work packages defining the authorized work scope are maintained in the Program Information Collection System NE (PICSNE). A work scope must be provided and approved in PICSNE. PICSNE will be used for all monthly performance reporting to Headquarters Management including, but not limited to the status of: Level 2 milestones, deliverables, cost and schedule, Baseline Change Proposals, and carryover projections. The funding allocation by B&R code is shown in the attached table.

Funds covered by this guidance memorandum are not to be used for Headquarters programmatic support services. In addition, these funds are not to be used to hire support service contractors who are then used by Headquarters Federal personnel to perform specific tasks directed by a Federal employee.

All travel and conference activities funded through this work authorization are to be in compliance with the Office of Management and Budget Memorandum M-12-12 dated May 11, 2012, and SRNL, SRS and Department of Energy conference reporting requirements.

Attached is a Work Authorization System form consistent with this program guidance. Please obtain the appropriate signatures and return a copy of the completed authorization to Daphne Miss-Lugenbeel, NE-22.

I appreciate your cooperation and support to ensure that this program is successfully carried out. The Headquarters point of contact for this work is Bob Rova, who can be contacted at (301)903-9096.



John W. Herczeg  
Associate Deputy Assistant Secretary  
for Fuel Cycle Technologies  
Office of Nuclear Energy

**1 Attachment**

cc: M. Gonzalez, SR  
H. Gunter, SR  
William Summers, SRNL  
J. Aljayoushi, ID  
Brad Couch, INL (TIO)  
Sandra Knoll, INL (TIO)  
M. Brainard, PRC  
M. Venhuizen, ASTC



**Fuel Cycle Technologies**  
**Fiscal Year (FY) 2013 Program Guidance**  
**Savannah River Operations Office**  
**Savannah River Site/Savannah River National Laboratory**  
**(\$3,983,000)**

Funding for FY 2013 is authorized as follows:

Control Account Title	BNR/CAM	SRNL
<b>Separations Campaign - 1.2.03</b>	<b>AF5805</b>	<b>\$1,503,000</b>
.03 - Sigma Teams - Minor Actinides	Bruce Moyer	\$318,000
.04 - Fundamental S&M / M&S	Leigh Martin	\$140,000
.05 - Advanced Separations Process Alternatives	Bob Jubin	\$200,000
.07 - Waste Form Characterization	William Ebert	\$365,000
.08 - Advanced Waste Form Processing	John Vienna	\$480,000
<b>Used Fuel Disposition - 1.2.08</b>	<b>AF586501</b>	<b>\$1,225,000</b>
.02 - ST Field Demonstration	Ken Sorenson	\$100,000
.04 - DR Thermal Load Management & Design Concepts	Kevin McMahon	\$65,000
.05 - ST Storage and Transportation Experiments	Ken Sorenson	\$400,000
.09 - DR Inventory	Kevin McMahon	\$200,000
.12 - DR Low Level Radioactive Waste Disposition	Kevin McMahon	\$210,000
.13 - ST Transportation	Ken Sorenson	\$150,000
.16 - CX Storage, Transportation and Disposal Interface Analysis	John Wagner	\$100,000
<b>NFST Planning Project - 1.2.09</b>	<b>AF586502</b>	<b>\$925,000</b>
.02 - SX Systems Analysis	John Wagner	\$375,000
.08 - ST Design Concepts	John Wagner	\$400,000
.12 - TR Operational	John Wagner	\$150,000
<b>Technical Integration - 1.2.11</b>	<b>AF583203</b>	<b>\$75,000</b>
.02 - Program Support	Brad Couch	\$75,000
<b>Fuel Cycle Options - 1.2.12</b>	<b>AF583202</b>	<b>\$255,000</b>
.02 - Evaluation and Screening	Roald Wigeland	\$75,000
.03 - Integrated Fuel Cycle Analysis (IFCA)	Temi Taiwo	\$105,000
.04 - Nuclear Energy Systems Analysis	Temi Taiwo	\$75,000
<b>Totals</b>		<b>\$3,983,000</b>



U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89X0319 - NUCLEAR ENERGY  
FISCAL YEAR: 2013

04/16/2013  
PAGE: 2

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

3

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0319.91 (05350)									
O AF58	FUEL CYCLE RESEARCH AND DEVELOP (FCR&D)								
AF5805	SEPARATIONS AND WASTE FORMS R&D								
			2013	NEW OA	736,470.00 ✓		315,630.00		1,052,100.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	736,470.00		315,630.00		1,052,100.00
AF583202	SYSTEMS ANALYSIS								
			2013	NEW OA	124,950.00 ✓		53,550.00		178,500.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	124,950.00		53,550.00		178,500.00
AF583203	TECHNICAL INTEGRATION								
			2013	NEW OA	36,750.00 ✓		15,750.00		52,500.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	36,750.00		15,750.00		52,500.00
			2012	NEW OA	0.00		0.00		0.00
				UNOB BAL	0.00		100,000.00		100,000.00
				TOTAL OA	0.00		100,000.00		100,000.00
AF5865	USED NUCLEAR FUEL DISPOSITON								
			2013	NEW OA	957,500.00 ✓		957,500.00-		0.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	957,500.00		957,500.00-		0.00
AF586501	USED FUEL RESEARCH AND DEVELOPMENT								
			2013	NEW OA	0.00		816,750.00		816,750.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	0.00		816,750.00		816,750.00
AF586502	STORAGE AND TRANSPORTATION OPTIONS								
			2013	NEW OA	0.00		808,250.00		808,250.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	0.00		808,250.00		808,250.00
O AF58 TOTAL, FUEL CYCLE RESEARCH AND DEVELOP (FCR&D)				NEW OA	1,855,670.00		1,052,430.00		2,908,100.00
				UNOB BAL	0.00		100,000.00		100,000.00
				TOTAL OA	1,855,670.00		1,152,430.00		3,008,100.00
TOTAL, OPERATING EXPENSES (05350)				NEW OA	1,855,670.00		1,052,430.00		2,908,100.00
				UNOB BAL					

## **Attachment 5**

**Work Authorization No. KC/SR1/3, Rev 2**

**Project Title: Basic Energy Sciences – Energy Frontier Research Centers**

2013-71

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Basic Energy Sciences - Energy Frontier Research Centers		Various; Project Code 2005000	
<b>2. Headquarters Program Point of Contact</b>			
Name: Harriet Kung		Organization Code: SC-22	Telephone: 301-903-3081
<b>3. Headquarters Budget Point of Contact</b>			
Name: Kristy Shriver		Organization Code: SC-41.2	Telephone: 301-903-3129
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Science: Basic Energy Sciences		Patricia Dehmer, Deputy Director for Science Programs	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
KC/SR1/3		2	
<b>10. Funds Authorized (See NOTE below)</b>			
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
KC0202050	\$ 280,000.00	\$ 21,000.00	\$ 301,000.00
<b>11. Performance Period Covered by Funds (See NOTE in Block 10)</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/12	To: Sep 30, 2013	From: 10/1/12	To: 9/30/13
<b>14. Statement of Work (Includes attachments)</b>			
Materials Sciences and Engineering: Funds in the amount of \$76,000, under KC020205, are provided for project #SCW-0090 entitled "Elucidation of Hydride Interaction Mechanisms with Carbon Nanostructures and the Formation of Novel Nanocomposites," Zidan, principal investigator.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed):	Signature:	Date:	
John Christian	John Christian	5/3/2013	
<b>16. DOE Budget Official</b>			
Name (typed):	Signature:	Date:	
Harold K. Nielsen	Harold K. Nielsen	5/3/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed):	Signature:	Date:	
John Temple	John Temple	5/9/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed):	Signature:	Date:	
Scott Langston	Scott Langston	5/10/13	





Department of Energy  
Office of Science  
Washington, DC 20585

APR 26 2013

MEMORANDUM FOR DOUGLAS J. DEAROLPH  
MANAGER  
SAVANNAH RIVER SITE OFFICE

FROM: HARRIET KUNG *[Signature]*  
ASSOCIATE DIRECTOR OF SCIENCE  
FOR BASIC ENERGY SCIENCES

SUBJECT: FY 2013 Office of Science Approved Funding Program -  
Savannah River National Laboratory

The attached budget detail and program guidance relate to the funding amounts in the FY 2013 May Approved Funding Program (AFP) recently submitted to the Chief Financial Officer by the Office of Basic Energy Sciences. Also attached, in accordance with DOE Order 412.1A, is the FY 2013 Work Authorization for the M&O contract with Savannah River National Laboratory. This authorization covers funding through the May AFP.

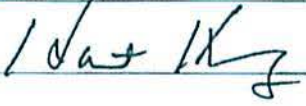
If you have any questions regarding the attached, please call Kristy Shriver on 301-903-3129 or Mike Osinski on 301-903-3590.

Attachment

cc: D. Donati, SR ([dennis.donati@srs.gov](mailto:dennis.donati@srs.gov))  
P. Jackson, SR ([patrick.jackson@srs.gov](mailto:patrick.jackson@srs.gov))  
R. Jump, SR ([roxanne.jump@nnsa.srs.gov](mailto:roxanne.jump@nnsa.srs.gov))  
L. Roberson, SR ([leza.roberson@srs.gov](mailto:leza.roberson@srs.gov))



**U.S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

1a. Project Title: <b>Basic Energy Sciences</b>		1b. Work Proposal Number (if applicable): <b>Various</b>	
2. Headquarters Program Point of Contact. Name: <b>Harriet Kung</b> Organization Code: <b>SC-22</b> Telephone No.: <b>(301) 903-3081</b>			
3. Headquarters Budget Point of Contact. Name: <b>Kristy Shriver</b> Organization Code: <b>SC-41</b> Telephone No.: <b>(301) 903-3129</b>			
4. Responsible Program: <b>Basic Energy Sciences</b>		5. Responsible Secretarial Officer: <b>Director, Office of Science</b>	
6. Responsible Field Organization: <b>Savannah River Operations Office</b>			
7a. Site and Facility Management Contractor: <b>Savannah River Nuclear Solutions, LLC</b>		7b. Contractor Point of Contact. Name: Telephone No.:	
8. Work Authorization Number: <b>KC/SR1/3</b>		9. Revision Number: <b>02</b>	
10. Funds Authorized (\$ in thousands). B&R Code: <b>KC</b> Previous: <b>\$280</b> Change: <b>\$+21</b> Current: <b>\$301</b>			
11. Performance Period Covered by Funds. From: <b>10/01/12</b> To: <b>09/30/13</b>		12. Work Start Date: <b>10/01/12</b>	13. Expected Completion Date: <b>09/30/13</b>
14. Statement of Work: This FY 2013 Approved Funding Program provides funding to support <b>Basic Energy Sciences</b> activities, consistent with the Field Work Proposals, as amended, and the monthly program guidance letters. The <b>Office of Basic Energy Sciences (BES)</b> is committed to conducting research in a manner that ensures protection of the workers, the public, and the environment. Protecting the workers, the public, and the environment is a direct and individual responsibility of all BES managers and BES-supported researchers and their staff. Funds provided by BES for research will be applied as necessary to ensure that all BES research activities are conducted safely and in an environmentally conscientious manner. Only research conducted in this way will be supported.			
15. Reporting Requirements (Status reports, scientific and technical information or similar): It is recognized that for BES the research will be reported as publications in the open literature, copies of which will be made available to DOE. An annual progress report must be included with each FWP including projects which are terminating. Throughout the year each program must receive written documentation of significant accomplishments.			
16. Work Authorization Program Official. Name (typed): <b>Harriet Kung</b>		Signature: 	Date: <b>4/26/13</b>
17. DOE Field Organization Official. Name (typed):		Signature:	Date:
18. Contractor's Authorized Representative. Name (typed):		Signature:	Date:
19. DOE Contracting Officer (or delegated representative). Name (typed):		Signature:	Date:

**Savannah River National Laboratory**

**Materials Sciences and Engineering**

Funds in the amount of \$21,000, under KC020205, are provided for project #SCW-0090 entitled "Elucidation of Hydride Interaction Mechanisms with Carbon Nanostructures and the Formation of Novel Nanocomposites," Zidan, principal investigator.



Basic Energy Sciences  
FY 2013 May Program Guidance Attachment

		Approved Obligations			Approved Costs		
		Current	Change	Proposed	Current	Change	Proposed
Savannah River Ops Office	SAVANNAH RIVER NATIONAL LABORATORY						
KC02	Materials Sciences and Engineering						
KC020205	Physical Behavior of Materials						
	OPE	280,000	21,000	301,000	280,000	21,000	301,000
	Total KC02	280,000	21,000	301,000	280,000	21,000	301,000
Total	SAVANNAH RIVER NATIONAL LAB	280,000	21,000	301,000	280,000	21,000	301,000

## **Attachment 6**

**Work Authorization No. IN13012, Rev 3**

**Project Title: Energy and Threat**



2013-76

U.S. Department of Energy

**CONTRACT WORK AUTHORIZATION**

Project Title	Work Proposal Number
Energy and Threat	IN13012

HQ Program Point of Contact	Organization Code	Telephone
Kevin Kremer		202.586.8865

HQ Budget Point of Contact	Organization Code	Telephone
Debbra Dayton		202.586.4370

Program Name	Secretarial Office Name
Office of Energy and Threat	Office of Energy and Threat

Responsible Field Organization
U.S. Department of Energy (DOE), Savannah River Operations (SR)

Site Facility Management Contractor	Contractor Point of Contact
Savannah River Nuclear Solutions, LLC	John Temple 803.952.7210

Work Authorization Number	Revision
IN13012	3

Funds Authorized (See note below)

NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."

B/R Code	Previous	Change	Current
GD3003010/3203740	\$1,146,696.00	\$320,000.00	\$1,466,696.00
GD3015000/3203736	\$504,700.00	\$210,300.00	\$715,000.00
GD3006000/1714209	\$20,000.00	\$0.00	\$20,000.00
GD3009000/1714217	\$60,000.00	\$20,000.00	\$80,000.00
Total Funds	\$1,731,396.00	\$550,300.00	\$2,281,696.00


U.S. Department of Energy

# CONTRACT WORK AUTHORIZATION

Perf Start	Perf Stop	Work Start	Work Stop
10/1/2012	9/30/2013	10/1/2012	9/30/2013

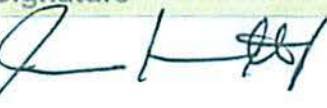
## Statement of Work

Statement of Work: Support of ASD, such as Analytical Transformation WG, Analytic Integrity and Standards Evaluation Program, Analytic Tools Forums, and Intelligence Collection Requirement activities. Reporting requirements: Provide monthly cost status reports to program managers.

POC Name Last	Signature	Date
JOHN CHRISTIAN		5/3/2013

Budget Name Last	Signature	Date
Harold K. Nielsen		5/3/13


Contract POC Name Last	Signature	Date
FRANK ILMIC FOR JOHN TEARLE		5/9/13

CO Name Last	Signature	Date
Lovett James		5/9/13



2013-16

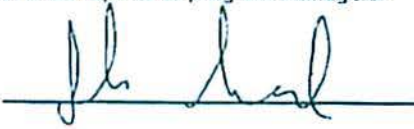
# U.S. DEPARTMENT OF ENERGY Work Authorization

- 1a. Project Title: Energy and Threat 1b. Work Proposal Number:
2. HQ Program Point of Contact:  
Name: Sandra Willis Kevin Kremer Terry Creque  
Stockton Butler Telephone #
3. HQ Budget Point of Contact:  
Name: Debbra Dayton  Telephone # 202-586-4370
4. Responsible Program Office: Office of Energy and Threat
5. Responsible Program Secretarial Officer: Office of Energy and Threat
6. Responsible Ops/Site Office: Savannah River Operations Office
- 7a. Major Operating Contractor: Savannah River Nuclear Solutions, LLC (410003)
- 7b. Contractor Point of Contact: Anthony Burris Telephone # 803-725-3471
8. Work Authorization Number: IN13012 Month: May 9. Revision: 3

10. Funds Hereby Authorized:

Director Initials	B&R Code/STARS Value Code	FY 2013 Initial Amount	Prior Changes to Date	YTD Amount	Current Month Change	FY 2013 Revised Amount
JSW	GD3003010 / 3203740 - Analysis	885,996	260,700.00	1,146,696.00	320,000.00	1,466,696.00
	GD3003020 / 3203741 - Foreign Nucle	-	-	-	-	-
	GD3004010 / 3203745 - Nuclear Terror	-	-	-	-	-
KPV	GD3006000 / 1714209 - Analytic Supp	10,000	10,000.00	20,000.00	-	20,000.00
JSW	GD3009000 / 1714217 - M&O Contract	-	60,000	60,000.00	20,000.00	80,000.00
JSW	GD3012000 / 1714286 - Science & Tec	-	-	-	-	-
RSP	GD3015000 / 3203736 - NMIP	345,700	159,000.00	504,700.00	210,300.00	715,000.00
M	GD3016000 / 3203748 - Integrated Ex	-	-	-	-	-
	Totals:	1,241,696	489,700	1,731,396.00	550,300.00	2,281,696.00

11. Performance Period: 10/1/2012 to 9/30/2013 12. Work Start Date: 10/1/2012
13. Expected Completion Date: Continuing
14. Statement of Work: Incremental funding to cover staff costs till full year CR funds are allocated.

15. Reporting Requirements: Provide monthly cost status reports to program managers.
16. Work Authorization Program Official:  
Name: John Gerrard  Date: 5/1/13
17. DOE Field Org/Site Office Official:  
Name: Date:
18. Contractor's Authorized Rep.  
Name: Date:
19. DOE Contracting Officer (or delegated representative)  
Name: Date:

Please return signed WORK AUTHORIZATION STATEMENTS (WAS) to the centralized WAS email box at was@doe.gov and penny.lamb@doe.gov within 4 weeks of start time.

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89130243 - OTHER DEFENSE ACTIVITIES  
FISCAL YEAR: 2013

05/01/2013  
PAGE: 2

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

6

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89130243.91 (01090)									
O GD25	VULNERABILITY & THREAT PROGRAM								
	GD254098 OFFICE OF THE SCIO		2013	NEW OA	189,468.00		150,000.00		339,468.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	189,468.00		150,000.00		339,468.00
O GD25 TOTAL, VULNERABILITY & THREAT PROGRAM				NEW OA	189,468.00		150,000.00		339,468.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	189,468.00		150,000.00		339,468.00
O GD30	ENERGY AND PROLIFERATION								
	GD300101 ANALYSIS		2013	NEW OA	1,146,696.00		320,000.00		1,466,696.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,146,696.00		320,000.00		1,466,696.00
	GD3006 ANALYTIC SUPPORT		2013	NEW OA	20,000.00		0.00		20,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	20,000.00		0.00		20,000.00
	GD3009 M&O CONTRACTORS		2013	NEW OA	60,000.00		20,000.00		80,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	60,000.00		20,000.00		80,000.00
	GD3015 NMIP		2013	NEW OA	504,700.00		210,300.00		715,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	504,700.00		210,300.00		715,000.00
O GD30 TOTAL, ENERGY AND PROLIFERATION				NEW OA	1,731,396.00		550,300.00		2,281,696.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,731,396.00		550,300.00		2,281,696.00
TOTAL, OPERATING EXPENSES (01090)				NEW OA	1,920,864.00		700,300.00		2,621,164.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,920,864.00		700,300.00		2,621,164.00

## **Attachment 7**

**Work Authorization No. IN13021, Rev 1**

**Project Title: Energy and Threat**



2013-74

## U.S. Department of Energy

## CONTRACT WORK AUTHORIZATION

Project Title	Work Proposal Number
Energy and Threat	IN13021

HQ Program Point of Contact	Organization Code	Telephone
Sunny Slacum		202.586.8865

HQ Budget Point of Contact	Organization Code	Telephone
Debbra Dayton		202.586.4370

Program Name	Secretarial Office Name
Analysis, Investigations & Office of the SCIO	Office of Energy and Threat

Responsible Field Organization
U.S. Department of Energy (DOE), Savannah River Operations (SR)

Site Facility Management Contractor	Contractor Point of Contact
Savannah River Nuclear Solutions, LLC	John Temple 803.952.7210

Work Authorization Number	Revision
IN13021	1

Funds Authorized (See note below)

NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."

B/R Code	Previous	Change	Current
GD2540980	\$189,468.00	\$150,000.00	\$339,468.00

Perf Start	Perf Stop	Work Start	Work Stop
10/1/2012	9/30/2013	10/1/2012	9/30/2013

## Statement of Work

Incremental funding to cover staff costs until full year CR funds are allocated.

POC Name Last	Signature	Date
JOHN CHRISTIAN	John Temple	5/3/13

Budget Name Last	Signature	Date
Harold K. Nielsen	Harold K. Nielsen	5/3/13

Contract POC Name Last	Signature	Date
FRANK INGLE FOR JOHN TEMPLE	Frank Ingle	5/9/13
CO Name Last James Lovett	James Lovett	5/9/13



2013-74

DOE O 412.1A, 4-21-05

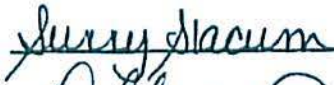
# U.S. DEPARTMENT OF ENERGY Work Authorization

1a. Project Title: **Energy and Threat**

1b. Work Proposal Number:

2. HQ Program Point of Contact:

Name: Sunny Slacum

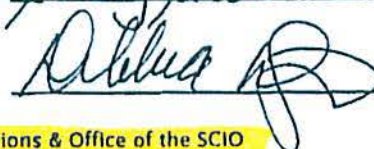


Telephone #

202-586-8865

3. HQ Budget Point of Contact:

Name: Debbra Dayton



Telephone #

202-586-4370

4. Responsible Program Office:

**Analysis, Investigations & Office of the SCIO**

5. Responsible Program Secretarial Officer:

**Office of Energy and Threat**

6. Responsible Ops/Site Office:

Savannah River Operations Office

7a. Major Operating Contractor:

Savannah River Nuclear Solutions, LLC (410003)

7b. Contractor Point of Contact:

Greg Hull-Ryde

Telephone #

803-725-3471

8. Work Authorization Number:

**IN13021**

Month:

**May**

9. Revision:

**1**

10. Funds Hereby Authorized:

B&R Code/STARS Value Code	FY 2013 Initial Amount	Prior Changes to Date	YTD Amount	Current Month Change	FY 2013 Revised Amount
CD2540101 / 3203738 (Analysis)	-	-	-	-	-
CD2540200 / 1001217 (Investigations)	-	-	-	-	-
CD2540250 / 3203755 (CI Training)	-	-	-	-	-
CD2540500 / 1001220 (Insider Threat)	-	-	-	-	-
CD2540700 / 1001222 (Inspections)	-	-	-	-	-
<b>CD2540980 / 3203735 (SCIO)</b>	<b>189,468</b>	-	<b>189,468</b>	<b>150,000.00</b>	<b>339,468.00</b>
CD2540990 / 3203701 (M&O at DOE HQ)	-	-	-	-	-
	-	-	-	-	-
<b>Totals:</b>	<b>189,468</b>	-	<b>189,468.00</b>	<b>150,000.00</b>	<b>339,468.00</b>

11. Performance Period:

10/1/2012 to 9/30/2013

12. Work Start Date:

10/1/2012

13. Expected Completion Date:

Continuing

14.

Statement of Work: Incremental funding to cover staff costs till full year CR funds are allocated.

15. Reporting Requirements:

Provide monthly cost status reports to program managers.

16. Work Authorization Program Official:

Name: Charles Durant



Date:

30-Apr-13

17. DOE Field Org/Site Office Official:

Name:

Date:

18. Contractor's Authorized Rep.

Name:

Date:

19. DOE Contracting Officer (or delegated representative)

Name:

Date:

Please return signed WORK AUTHORIZATION STATEMENTS (WAS) to the centralized WAS email box at was@doe.gov and penny.lamb@doe.gov within 4 weeks of start time.

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89130243 - OTHER DEFENSE ACTIVITIES  
FISCAL YEAR: 2013

05/01/2013  
PAGE: 2

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO. 6

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89130243.91 (01090)									
O GD25	VULNERABILITY & THREAT PROGRAM								
	GD254098 OFFICE OF THE SCIO								
			2013	NEW OA	189,468.00		150,000.00		339,468.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	189,468.00		150,000.00		339,468.00
O GD25 TOTAL, VULNERABILITY & THREAT PROGRAM				NEW OA	189,468.00		150,000.00		339,468.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	189,468.00		150,000.00		339,468.00
O GD30	ENERGY AND PROLIFERATION								
	GD300301 ANALYSIS								
			2013	NEW OA	1,146,696.00		320,000.00		1,466,696.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,146,696.00		320,000.00		1,466,696.00
	GD3006 ANALYTIC SUPPORT								
			2013	NEW OA	20,000.00		0.00		20,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	20,000.00		0.00		20,000.00
	GD3009 M&O CONTRACTORS								
			2013	NEW OA	60,000.00		20,000.00		80,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	60,000.00		20,000.00		80,000.00
	GD3015 NMIP								
			2013	NEW OA	504,700.00		210,300.00		715,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	504,700.00		210,300.00		715,000.00
O GD30 TOTAL, ENERGY AND PROLIFERATION				NEW OA	1,731,396.00		550,300.00		2,281,696.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,731,396.00		550,300.00		2,281,696.00
TOTAL, OPERATING EXPENSES (01090)				NEW OA	1,920,864.00		700,300.00		2,621,164.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,920,864.00		700,300.00		2,621,164.00



## **Attachment 8**

**Work Authorization No. HQ1001-0-SR, Rev 4**

**Project Title: Energy Employees Occupational Illness Compensation Program  
(EEOICPA)**

2013-77

## U.S. Department of Energy

**CONTRACT WORK AUTHORIZATION**

Project Title		Work Proposal Number	
Energy Employees Occupational Illness Compensation Program (EEOICPA)		HQ1001-0-SR	
HQ Program Point of Contact	Organization Code	Telephone	
Greg Lewis	HS-14	202.586.2784	
HQ Budget Point of Contact	Organization Code	Telephone	
Debra James	HS-10	301.983.3456	
Program Name		Secretarial Office Name	
Office of Health, Safety and Security		Health, Safety and Security	

## Responsible Field Organization

U.S. Department of Energy (DOE), Savannah River Operations (SR)

Site Facility Management Contractor	Contractor Point of Contact	
Savannah River Nuclear Solutions, LLC	John Temple	803.952.7210
Work Authorization Number	Revision	
HQ1001-0-SR	4	

## Funds Authorized (See note below)

NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."

B/R Code	Previous	Change	Current
HQ1001000	\$335,000.00	\$100,000.00	\$435,000.00
Perf Start	Perf Stop	Work Start	Work Stop
10/1/2012	9/30/2013	10/1/2012	9/30/2013

## Statement of Work

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

- 1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.
- 2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.
- 3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.
- 4) Perform other necessary EEOICPA related records work as needed.
- 5) Maintain local records to track the activities conducted under EEOICPA.

## FY 2013 DELIVERABLES:

By the 15th of each month provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:

- HS-14 (Greg Lewis),
- HS-10 Budget Contact (Jeanette Yarrington)

U.S. Department of Energy

# CONTRACT WORK AUTHORIZATION

- HS-81 Budget Contact (Debra James)

POC Name Last	Signature	Date
Christian <i>John A. Miller</i> For B. Miller	<i>[Signature]</i>	5/3/13
Budget Name Last	Signature	Date
Nielsen	<i>Harold K. Nielsen</i>	5/3/13
Contract POC Name Last	Signature	Date
Temple <i>FDN</i>	<i>[Signature]</i>	5/9/13
CO Name Last	Signature	Date
Lovett James	<i>James Lovett</i>	5/8/13





**Department of Energy**  
Washington, DC 20585

May 1, 2013

MEMORANDUM FOR DR. DAVE MOODY  
MANAGER  
SAVANNAH RIVER FIELD OFFICE

FROM: STEPHEN A. KIRCHHOFF *SA Kirchhoff*  
DIRECTOR  
OFFICE OF RESOURCE MANAGEMENT  
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: May FY 2013 Approved Funding Program

The attached work authorization is consistent with changes made in the May 2013 financial plans. As stated in DOE Order 412.1, work authorizations are to be issued/revised when there is a change in funding or program guidance.

Please return a copy of the signed work authorization to the appropriate Headquarters budget point-of-contact listed on the work authorization. The signed (and returned) work authorization is written documentation that provides the Headquarters program manager with confirmation that transferred funds were received, work accepted, and the effort will proceed as stated.

We appreciate your assistance and support in carrying out the Work Authorization System. Please contact me if you have any questions on 202-586-3373. If your staff has any questions or problems, please contact the appropriate budget point-of-contact listed on the work authorization.

Attachment:  
2013-HS-2001036, Rev. 4

cc w/attachment:  
Eliberto Seguinot, SR  
Rachel Zoss, SR  
H. Kriss Nielsen, SR  
Patricia Petty, SR



2013-77

Project Number: 2013-HS-2001038

## WORK AUTHORIZATION

## U.S. DEPARTMENT OF ENERGY

## Management and Operating (M &amp; O) Contract Work Authorization

1. INITIATOR(s): Pat Worthington HS-10 301-903-5926  
Name & Signature Organization Code Phone
2. PROJECT TITLE: Energy Employees Occupational Illness Compensation Program (EEOICPA) AC:
3. RESPONSIBLE PROGRAM SECRETARIAL OFFICE: Office of Health, Safety, and Security
4. RESPONSIBLE FIELD OFFICE: Savannah River
5. M & O CONTRACTOR NAME: Savannah River / 410225 / 410225 (SR - SRO)
6. WORK AUTHORIZATION NO: HQ1001 - 0 - SR

## 7. FUNDS HEREBY AUTHORIZED (WHOLE DOLLARS)

TOTAL BUDGET AUTHORITY: \$436,000.00

TOTAL BUDGET OUTLAY: \$438,000.00

B & R	Program	ORG	Transaction Type	Rev.	Date	Budget Authority	Budget Outlay
HQ1001000	3184701	HS-10	Fund Project from B&R	0	10/1/2012	\$125,000.00	\$125,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	1	1/1/2013	\$100,000.00	\$100,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	2	3/1/2013	\$65,000.00	\$65,000.00

Please see next page.

## 8. PERFORMANCE PERIOD COVERED BY FUNDS:

FROM: 10/1/2012TO: 9/30/20139. WORK START DATE: 10/1/201210. EXPECTED COMPLETION DATE: TBD11. FUTURE FUNDING PLANNED: To Be Determined

## 12. WORK AUTHORIZED:

See attached Statement of Work.

NAME AND SIGNATURE

## 13. WORK AUTHORIZATION OFFICIAL:

Stephen Kirchhoff

DATE

5/1/2013

## 14. OPERATIONS OFFICE OFFICIAL:

## 15. M &amp; O CONTRACTOR OFFICIAL:

## HEADQUARTERS BUDGET POINT OF CONTACT:

Debra James, 301-903-3465

4-25-13

## FIELD/CONTRACTOR POINT OF CONTACT:

**WAS Project No.: 2013-HS-2001036**

**Laboratory/Contractor: The Savannah River Site (CID#: 410225)**

**Laboratory/Contractor Contact: Regina Price**

**Phone: 803-952-6288**

**HS Program Contact: Greg Lewis Org: HS-14 Phone: 202-586-2784**

### **OVERALL PROJECT GOAL/OBJECTIVE:**

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA) establishes a program to provide compensation to current and former employees of the Department of Energy (DOE), its contractors and subcontractors, companies that provided beryllium to DOE, and atomic weapons employers (AWE's). Under EEOICPA, DOE is required to verify employment histories, provide medical records, and provide radiation dose records and other information pertinent to National Institute for Occupational Safety and Health (NIOSH) radiation dose reconstruction and Department of Labor (DOL) Subtitle B and Subtitle E case preparation for anyone who applies for compensation under EEOICPA.

### **FUNDING FOR THE FOLLOWING ACTIVITIES:**

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

**1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.**

- Work with corporate entities or unions to verify employment of former site workers.
- Complete all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

**2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.**

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

**3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.**

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.

**WAS Project No.: 2013-HS-2001036**

- Complete declassification, as needed, of records required for the processing of claims forms.
- 4) Perform other necessary EEOICPA related records work as needed.
  - 5) Maintain local records to track the activities conducted under EEOICPA.
  - 6) EEOICPA funding should not be used for any Freedom of Information Act (FOIA) or Privacy Act (PA) requests from the public, even if the individual making the FOIA and/or PA request has also applied to the EEOICPA program.

**FY 2013 DELIVERABLES:**

**DATES:**

Provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:

15<sup>th</sup> of the following month

- HS-14 (Greg Lewis),
- HS-10 Budget Contact (Jeanette Yarrington)
- HS-81 Budget Contact (Debra James).

**FY 2013 FUNDING FOR MAY FINANCIAL PLAN:  
\$100,000**

**U.S. Department of Energy  
Work Authorization  
Funding Data Continuation Sheet**

**I.WAS Number: 2013-HS-2001036**

[illegible]

**Note: \*\* We hereby certify that funds cited are proper for this authorization and in compliance with Appropriation Acts and Fiscal Law**

**Distribute 5 copies to: Contracting Office (white), Date Entry Point (blue), Controller (pink), Initiating Office (green) and Office of Small and Disadvantaged Business Utilization (goldenrod).**



U.S.DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89130243 - OTHER DEFENSE ACTIVITIES  
FISCAL YEAR:2013

05/01/2013  
PAGE: 6

410225-SAVANNAH RIVER OPERATIONS OFFICE

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

5

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89130243.91 (01091)									
O HQ	EMPLOYEE COMPENSATION INITIATIVE								
HQ1001	WORKER ADVOCACY		2013	NEW OA	335,000.00		100,000.00		435,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	335,000.00		100,000.00		435,000.00
O HQ TOTAL, EMPLOYEE COMPENSATION INITIATIVE				NEW OA	335,000.00		100,000.00		435,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	335,000.00		100,000.00		435,000.00
O LM01	LEGACY MANAGEMENT ACTIVITIES - DEFENSE								
LM010510	ENVIRONMENTAL JUSTICE		2013	NEW OA	150,000.00		0.00		150,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	150,000.00		0.00		150,000.00
O LM01 TOTAL, LEGACY MANAGEMENT ACTIVITIES - DEFENSE				NEW OA	150,000.00		0.00		150,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	150,000.00		0.00		150,000.00
TOTAL, OPERATING EXPENSES (01091)				NEW OA	485,000.00		100,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	485,000.00		100,000.00		585,000.00
COMBINED TOTAL, OPERATING EXPENSES				NEW OA	486,000.00		99,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	486,000.00		99,000.00		585,000.00
TOTAL, DIRECT FUNDING				NEW OA	486,000.00		99,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	486,000.00		99,000.00		585,000.00
TOTAL, OBLIGATIONAL AUTHORITY				NEW OA	486,000.00		99,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	486,000.00		99,000.00		585,000.00

## **Attachment 8**

**Work Authorization No. HQ1001-0-SR, Rev 4**

**Project Title: Energy Employees Occupational Illness Compensation Program  
(EEOICPA)**

2013-77

U.S. Department of Energy

# CONTRACT WORK AUTHORIZATION

Project Title		Work Proposal Number
Energy Employees Occupational Illness Compensation Program (EEOICPA)		HQ1001-0-SR
HQ Program Point of Contact	Organization Code	Telephone
Greg Lewis	HS-14	202.586.2784
HQ Budget Point of Contact	Organization Code	Telephone
Debra James	HS-10	301.983.3456
Program Name		Secretarial Office Name
Office of Health, Safety and Security		Health, Safety and Security

Responsible Field Organization
U.S. Department of Energy (DOE), Savannah River Operations (SR)

Site Facility Management Contractor	Contractor Point of Contact
Savannah River Nuclear Solutions, LLC	John Temple 803.952.7210

Work Authorization Number	Revision
HQ1001-0-SR	4

Funds Authorized (See note below)
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."

B/R Code	Previous	Change	Current
HQ1001000	\$335,000.00	\$100,000.00	\$435,000.00
Perf Start	Perf Stop	Work Start	Work Stop
10/1/2012	9/30/2013	10/1/2012	9/30/2013

## Statement of Work

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

- 1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.
- 2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.
- 3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.
- 4) Perform other necessary EEOICPA related records work as needed.
- 5) Maintain local records to track the activities conducted under EEOICPA.

### FY 2013 DELIVERABLES:

By the 15th of each month provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:

- HS-14 (Greg Lewis),
- HS-10 Budget Contact (Jeanette Yarrington)



U.S. Department of Energy

# CONTRACT WORK AUTHORIZATION

• HS-81 Budget Contact (Debra James)

POC Name Last	Signature	Date
<del>Christian</del> <i>John A. Miller</i> for B.M. 11/23	<i>[Signature]</i>	5/3/13
Budget Name Last	Signature	Date
Nielsen	<i>Harold K. Nielsen</i>	5/3/13
Contract POC Name Last	Signature	Date
Temple FOR	<i>[Signature]</i>	5/9/13
CO Name Last	Signature	Date
Lovett James	<i>James Lovett</i>	5/8/13



**Department of Energy**  
Washington, DC 20585

May 1, 2013

MEMORANDUM FOR DR. DAVE MOODY  
MANAGER  
SAVANNAH RIVER FIELD OFFICE

FROM: STEPHEN A. KIRCHHOFF *SA Kirchhoff*  
DIRECTOR  
OFFICE OF RESOURCE MANAGEMENT  
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: May FY 2013 Approved Funding Program

The attached work authorization is consistent with changes made in the May 2013 financial plans. As stated in DOE Order 412.1, work authorizations are to be issued/revised when there is a change in funding or program guidance.

Please return a copy of the signed work authorization to the appropriate Headquarters budget point-of-contact listed on the work authorization. The signed (and returned) work authorization is written documentation that provides the Headquarters program manager with confirmation that transferred funds were received, work accepted, and the effort will proceed as stated.

We appreciate your assistance and support in carrying out the Work Authorization System. Please contact me if you have any questions on 202-586-3373. If your staff has any questions or problems, please contact the appropriate budget point-of-contact listed on the work authorization.

Attachment:  
2013-HS-2001036, Rev. 4

cc w/attachment:  
Eliberto Seguinot, SR  
Rachel Zoss, SR  
H. Kriss Nielsen, SR  
Patricia Petty, SR



2013-77

Project Number: 2013-HS-2001036

## WORK AUTHORIZATION

U.S. DEPARTMENT OF ENERGY  
Management and Operating (M & O) Contract Work Authorization

1. INITIATOR(s): Pet Worthington HS-10 301-903-6926  
Name & Signature Organization Code Phone
2. PROJECT TITLE: Energy Employees Occupational Illness Compensation Program (EEOICPA) AC:
3. RESPONSIBLE PROGRAM SECRETARIAL OFFICE: Office of Health, Safety, and Security
4. RESPONSIBLE FIELD OFFICE: Savannah River
5. M & O CONTRACTOR NAME: Savannah River / 410228 / 410226 (SR - SRO)
6. WORK AUTHORIZATION NO: HQ1001 - 0 - SR

## 7. FUNDS HEREBY AUTHORIZED (WHOLE DOLLARS)

TOTAL BUDGET AUTHORITY: \$436,000.00

TOTAL BUDGET OUTLAY: \$436,000.00

B & R	Program	ORG	Transaction Type	Rev.	Date	Budget Authority	Budget Outlay
HQ1001000	3184701	HS-10	Fund Project from B&R	0	10/1/2012	\$126,000.00	\$126,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	1	1/1/2013	\$100,000.00	\$100,000.00
HQ1001000	3184701	HS-10	Fund Project from B&R	2	3/1/2013	\$60,000.00	\$60,000.00

Please see next page.

## 8. PERFORMANCE PERIOD COVERED BY FUNDS:

FROM: 10/1/2012

TO: 9/30/2013

## 9. WORK START DATE: 10/1/2012

## 10. EXPECTED COMPLETION DATE: TBD

## 11. FUTURE FUNDING PLANNED: To Be Determined

## 12. WORK AUTHORIZED:

See attached Statement of Work.

NAME AND SIGNATURE

DATE

## 13. WORK AUTHORIZATION OFFICIAL:

Stephen Kirchhoff

5/1/2013

## 14. OPERATIONS OFFICE OFFICIAL:

## 15. M &amp; O CONTRACTOR OFFICIAL:

## HEADQUARTERS BUDGET POINT OF CONTACT:

Debra James, 301-903-3466

4-25-13

## FIELD/CONTRACTOR POINT OF CONTACT:

**WAS Project No.: 2013-HS-2001036**

**Laboratory/Contractor: The Savannah River Site (CID#: 410225)**

**Laboratory/Contractor Contact: Regina Price**

**Phone: 803-952-6288**

**HS Program Contact: Greg Lewis Org: HS-14 Phone: 202-586-2784**

### **OVERALL PROJECT GOAL/OBJECTIVE:**

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA) establishes a program to provide compensation to current and former employees of the Department of Energy (DOE), its contractors and subcontractors, companies that provided beryllium to DOE, and atomic weapons employers (AWE's). Under EEOICPA, DOE is required to verify employment histories, provide medical records, and provide radiation dose records and other information pertinent to National Institute for Occupational Safety and Health (NIOSH) radiation dose reconstruction and Department of Labor (DOL) Subtitle B and Subtitle E case preparation for anyone who applies for compensation under EEOICPA.

### **FUNDING FOR THE FOLLOWING ACTIVITIES:**

The funding provided through this financial plan is to be used to conduct the following work tasks to implement EEOICPA, including claims under both Subtitle B and Subtitle E of the EEOICPA. These tasks include:

**1) Perform the work necessary to complete Employment Verifications requested by DOL for the EEOICPA Subtitle B program.**

- Work with corporate entities or unions to verify employment of former site workers.
- Complete all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

**2) Perform the work necessary to provide radiation dose records requested by NIOSH as part of the EEOICPA Subtitle B program.**

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.
- Complete declassification, as needed, of records required for the processing of claims forms.

**3) Perform the work necessary to complete Document Acquisition Request (DAR) requested by DOL as part of the EEOICPA Subtitle E program.**

- Complete and sign off on all necessary claims forms associated with the request.
- Research and retrieve records needed to complete claims forms.

**WAS Project No.: 2013-HS-2001036**

- Complete declassification, as needed, of records required for the processing of claims forms.
- 4) Perform other necessary EEOICPA related records work as needed.
- 5) Maintain local records to track the activities conducted under EEOICPA.
- 6) EEOICPA funding should not be used for any Freedom of Information Act (FOIA) or Privacy Act (PA) requests from the public, even if the individual making the FOIA and/or PA request has also applied to the EEOICPA program.

**FY 2013 DELIVERABLES:**

**DATES:**

Provide monthly reports that include the number of records requests received, number completed and cost per request for each of the three types of requests. This report should be sent to:

15<sup>th</sup> of the following month

- HS-14 (Greg Lewis),
- HS-10 Budget Contact (Jeanette Yarrington)
- HS-81 Budget Contact (Debra James).

**FY 2013 FUNDING FOR MAY FINANCIAL PLAN:  
\$100,000**



**U.S. Department of Energy  
Work Authorization  
Funding Data Continuation Sheet**

[illegible]

**Note: \*\* We hereby certify that funds cited are proper for this authorization and in compliance with Appropriation Acts and Fiscal Law**

**Distribute 5 copies to: Contracting Office (white), Data Entry Point (blue), Controller (pink), Initiating Office (green) and Office of Small and Disadvantaged Business Utilization (goldenrod).**

U.S.DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89130243 - OTHER DEFENSE ACTIVITIES  
FISCAL YEAR:2013

05/01/2013  
PAGE: 6

410225-SAVANNAH RIVER OPERATIONS OFFICE

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

5

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89130243.91 (01091)									
O HQ	EMPLOYEE COMPENSATION INITIATIVE								
HQ1001	WORKER ADVOCACY		2013	NEW OA	335,000.00		100,000.00		435,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	335,000.00		100,000.00		435,000.00
O HQ TOTAL, EMPLOYEE COMPENSATION INITIATIVE				NEW OA	335,000.00		100,000.00		435,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	335,000.00		100,000.00		435,000.00
O LM01	LEGACY MANAGEMENT ACTIVITIES - DEFENSE								
LM010510	ENVIRONMENTAL JUSTICE		2013	NEW OA	150,000.00		0.00		150,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	150,000.00		0.00		150,000.00
O LM01 TOTAL, LEGACY MANAGEMENT ACTIVITIES - DEFENSE				NEW OA	150,000.00		0.00		150,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	150,000.00		0.00		150,000.00
TOTAL, OPERATING EXPENSES (01091)				NEW OA	485,000.00		100,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	485,000.00		100,000.00		585,000.00
COMBINED TOTAL, OPERATING EXPENSES				NEW OA	486,000.00		99,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	486,000.00		99,000.00		585,000.00
TOTAL, DIRECT FUNDING				NEW OA	486,000.00		99,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	486,000.00		99,000.00		585,000.00
TOTAL, OBLIGATIONAL AUTHORITY				NEW OA	486,000.00		99,000.00		585,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	486,000.00		99,000.00		585,000.00


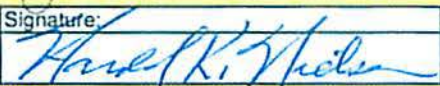

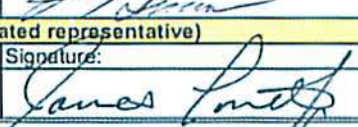
## **Attachment 9**

**Work Authorization No. HQ091101, Rev 2**

**Project Title: Advanced Simulation Capability for Environment Management**

2013-07

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Advanced Simulation Capability for Environmental Management		HQ091101	
<b>2. Headquarters Program Point of Contact</b>			
Kurt Gerdes	EM-12	301.903.7248	
<b>3. Headquarters Budget Point of Contact</b>			
Jeffrey McMillan	EM-61	301.903.7701	
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Environmental Management		Mark Gilbertson, DAS Site Restoration	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
HQ091101		2	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
EY4049110	\$ 99,000.00	\$ 50,000.00	\$ 149,000.00
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: October 1, 2012      To: Sept. 30, 2013		From: Oct. 1, 2012	To: Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
Task 5: A S C E M Support Provide support and funding to ASCEM project including but not limited to F-Area field site data for model validation. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs. The alignment of the AFRI work and the data needs for ASCEM model development and validation ensure an integrated approach to decisions necessary to accomplish the DOE EM clean up mission. Note: Period of performance for this work scope ends September 30,2013.			
<b>15. DOE-SR Program Point of Contact</b>			
<b>Name (printed):</b>	<b>Signature:</b>	<b>Date:</b>	
JOHN CHRISTIAN		5/3/2013	
<b>16. DOE Budget Official</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
Harold K. Nielsen		5/3/2013	
<b>17. Contractor's Authorized Representative</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
John Temple FOK		5/9/2013	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
<b>Name (typed):</b>	<b>Signature:</b>	<b>Date:</b>	
Jim Lovett		5/8/13	



**SITE RESTORATION (EM-10)**  
**WORK AUTHORIZATION / TASK CHANGE REQUEST (TCR)**

May 2013

Project Number : HQ021101 Date: March 11, 2013 AFP Change Month: April 2013

Project Title: Advanced Simulation Capability for Environmental Management

Site / Contractor: LANL/LBNL/PNNL/ ORNL/SRNL/ANL. Project Area from Roadmap: Soil & GW Work Proposal Attached: No

Contract Number if other than National Laboratory or DOE site contractor: Justin Marble - 301.903.7210

Name of Principal Investigator: Paul Dixon (LANL)

Name of Budget Analyst at the site where the contract is held: Valerie Kanta (LBNL), Steven Romero (LANL), Delisa Atwater (ORNL-PNNL)

New BA (\$K) Requested	Prior Funding (\$K) in this FY	Total Unencosted (\$K) as of Beginning of this FY	Total Available Funding (\$K) including this request (add first three columns)
LANL = 525k	525k	525k	525k
LBNL = 575k	575k	575k	575k
PNNL = 775k	775k	775k	775k
ORNL = 30	30	30	30
SRNL = 180k	180k	180k	180k

**Spent Plan for Total Available Funding (use actual costed funds for previous quarters)**

1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY	3 <sup>rd</sup> Quarter of FY	4 <sup>th</sup> Quarter of FY	Projected unencosted at the end of this FY
1125k				

**Funding Codes (To be Completed by Budget Office)**


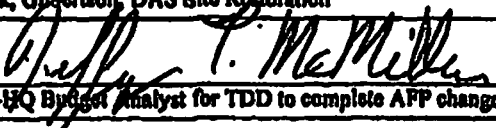
Fund	Year	Allottee	Reporting Entity	SQL	Object Class	Program	Project	Amount
LANL	01250	2013	01	700025	61000000	25400	110676	0004017 36,000
LBNL	01250	2013	61	450010	61000000	25400	110676	0004017 56,000
PNNL	01250	2013	30	470006	61000000	25400	110676	0004017 50,000
ORNL								
SRNL	01250	2012	36	410003	61000000	25400	110676	0004017 50,000
ANL								

Short Description of Work Scope Authorized / Changed for input in AFP: The ASCM program is a multi-year multi-laboratory program developing Advanced Simulation Capability for Environmental Management. LANL -> 525k for High Performance Computing and Field Application (NN88) LBNL -> 575k for Platform Thrust and High Performance Computing PNNL -> 775k for Platform Thrust SRNL -> 180k for Field Application (SR tanks)

Submitted by: Justin Marble *Justin Marble* Date: 3/11/2013  
 Justin Marble, Headquarters Project Manager (Please Print & Sign)

Field: Russell Patterson *Russell Patterson* Date: 3/10/2013  
 Russell Patterson, Field DOE Representative (Please Print & Sign)

Approved by: Kurt Gordes *Kurt Gordes* Date: 3/12/13  
 Kurt Gordes, Office Director (Please Print & Sign)

Approved by:		Date:
Mark, Gilbertson, DAS Site Restoration		
Submitted to:		4/22/2013
BM-HQ Budget Analyst for TDD to complete AFP change		Date:

**SCHEDULE / MILESTONES:**

WBS	Milestone Title	Date*
<b>Platform and HPC Development</b>		
1.1.1	Release Workshop Version of Code	TBD
1.1.1	Alpha Code Integration Complete	-33d, 3/12/2013
1.1.1	Beta Code Integration Complete	-23d, 7/15/2013
1.1.1	Release Candidate 2 Complete	-30d, 9/27/2013
<b>Platform and HPC Documentation</b>		
1.1.1 & 1.1.2	ASCEM User Guide Documents Complete	9/27/2013
1.1.2	ASCEM Developer Guide Document Complete (Amanal Only)	7/29/2013
<b>Site Applications</b>		
1.1.3	Phase III Demonstration Plan	TBD
1.1.3	Demonstration Workshops	-22d, 3/29/2013
1.1.3	Phase III Demonstration Report	-23d, 9/30/2013
<b>Program Management</b>		
1.1.4.3	User steering committee meeting	Quarterly
1.1.4.4	ASCEM website maintenance	On going
1.1.4.5	Monthly status reports	Submitted by the 15th of each month
1.1.4.5	Integrated schedule	Due yearly in August
1.1.4.6	FY13 Basio Phase QA Plan Rolled-Out	3/1/2013
1.1.4.6	Applied Phase QA Plan Complete	9/30/2013

**\*NUMBER OF DAYS DELAYED DUE TO FUNDING AS OF MARCH 11, 2013****SPENDING PLAN****Monthly Spending Plan for FY2013**

Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Total
365	338	261	436	210	0	342	342	342	342	342	342	3455

\*Funded with \$60K carryover at project level

Signature and Approvals

HQ Program Manager:

Office Director:

Principal Investigator

Site Representative

3-12-13

**SCHEDULE / MILESTONES:**

WBS	Milestone Title	Date*
<b>Platform and HPC Development</b>		
1.1.1	Release Workshop Version of Code	TBD
1.1.1	Alpha Code Integration Complete	-33d, 3/12/2013
1.1.1	Beta Code Integration Complete	-23d, 7/15/2013
1.1.1	Release Candidate 2 Complete	-30d, 9/27/2013
<b>Platform and HPC Documentation</b>		
1.1.1 & 1.1.2	ASCEM User Guide Documents Complete	9/27/2013
1.1.2	ASCEM Developer Guide Document Complete (Amanzi Only)	7/29/2013
<b>Site Applications</b>		
1.1.3	Phase III Demonstration Plan	TBD
1.1.3	Demonstration Workshops	-22d, 3/29/2013
1.1.3	Phase III Demonstration Report	-23d, 9/30/2013
<b>Program Management</b>		
1.1.4.3	User steering committee meeting	Quarterly
1.1.4.4	ASCEM website maintenance	On going
1.1.4.5	Monthly status reports	Submitted by the 15th of each month
1.1.4.5	Integrated schedule	Due yearly in August
1.1.4.6	FY13 Basic Phase QA Plan Rolled-Out	3/1/2013
1.1.4.6	Applied Phase QA Plan Complete	9/30/2013

**\*NUMBER OF DAYS DELAYED DUE TO FUNDING AS OF MARCH 11, 2013****SPENDING PLAN****Monthly Spending Plan for FY2013**

Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Total
365	338	261	436	210	0	342	342	342	342	342	342	3455

\*Funded with \$60K carryover at project level

Signature and Approvals

HQ Program Manager: 

Office Director: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

Site Representative: \_\_\_\_\_



**BUDGET:****Thrust Budgets (\$K)**

Thrust	Budget FY13
1.1.1 – Platform and Integrated Toolsets	\$1,113
1.1.2 – Multi-Process HPC Simulator	\$1,193
1.1.3 – Site Applications	\$698
1.1.4 – Project Management	\$450
Total	\$3,455

**Laboratory FY13 Budgets (\$K)**

Thrust	LANL	LBNL	PNNL	ANL	LLNL	ORNL	SRNL
1.1.1 – Platform and Integrated Toolsets	211	406	496	0	0	0	0
1.1.2 – Multi-Process HPC Simulator	566	339	288	0	2	0	0
1.1.3 – Site Applications	17	236	262	0	0	1.6	180.8
1.1.4 – ASCEM Program Management	271	21	114	7	0	0	44.5
Total	1,065.3	1,002.9	1,160.0	0	0	1.6	225.3

## Technical Task Plan/ASCEM WBS 1.1

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCEM). ASCEM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCEM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities; in order to reduce uncertainties and risks associated with DOE-EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The Site Restoration's mission is to develop technologies that advance the safe and timely cleanup of legacy wastes and facilities from defense nuclear applications. This is the largest cleanup program in the world [1]. Although EM has made great progress toward this goal during the past twenty years, the remaining clean-up challenges are far more complex than those previously addressed. The role of the ASCEM initiative is to develop a transformational modeling approach and toolset to help EM better meet these challenges through improving its long-term risk and performance modeling capabilities and by characterizing and reducing the uncertainty associated with the resulting predictions for the types of EM clean-up sites illustrated in the figure below.



In a review of the EM technology roadmap, the National Research Council (NRC) of the National Academies provided advice to DOE-EM for addressing principal science and technology gaps. The NRC identified the principal technology gaps in the groundwater and soil remediation program and the major recommendation was on the development and use of advanced computational models to better understand subsurface flow and contaminant transport behavior in complex geological systems, and the long-term performance of engineered components and barriers, including cementitious materials in nuclear waste disposal facilities.

In response to the NAS and internal DOE review recommendations, and to address key NRC challenge areas DOE-EM has launched the ASCEM initiative along with other complementary and synergistic initiatives with other DOE offices. The DOE Offices of Science, Nuclear Energy, and Fossil Energy have made significant investments in developing advanced, high performance computing models for evaluating groundwater flow and transport, source term degradation and release, and mechanical degradation of structures and barriers. ASCEM leverages these investments. In doing so, ASCEM is improving the timeliness and cost effectiveness of its modeling approach and toolset, which is not only to the benefit of DOE-EM, but the greater DOE community as well (e.g., in the areas of geologic sequestration of carbon and high level waste repository performance).

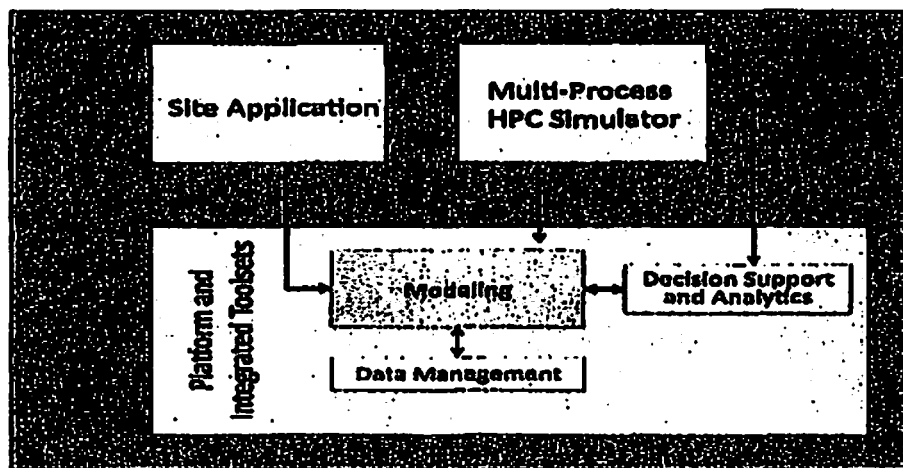
A major ASCEM goal is to provide a community code for DOE-EM and the greater scientific and engineering communities. To that end, the ASCEM HPC modeling tools is being developed using an open source model, with involvement from the DOE-SC community. This method is allowing ASCEM to leverage the considerable scientific investment that has already been made both within and outside of DOE-EM in the areas of subsurface geosciences, modeling and simulation, and environmental remediation.

The ASCEM model will be deployed at the EM sites through a phased process. The phased deployment of ASCEM will be done in close collaboration with the site end-users who have the ultimate ownership of this process. Initially the ASCEM platform and high performance computing toolsets will be used to provide additional technical underpinning to the existing risk and performance assessments. Eventually ASCEM will become the regulatory assessment tool used for updates and new risk and performance assessments at all EM sites.

#### **TECHNICAL APPROACH:**

##### **Summary of the Approach**

The ASCEM project is organized into three technical thrust areas: the Multi-Process High Performance Computing Simulator (HPC Simulator), which constitutes the computational engine; the Platform and Integrated Toolsets, which provide the user interfaces; and Site Applications (see Figure below). Detailed descriptions of the three thrust areas are contained in the ASCEM FY10-FY15 Integrated Modeling Implementation Plan.



The ASCEM project will be led by a management and integration team represented by senior representatives from the participating laboratories, Thrust areas leaders, and a Technical Systems Integration lead. A dedicated Project Manager (PM), will provide the single point of contact and overall interface responsibility to the DOE program manager.

This Task Plan describes the overall ASCEM Program with detailed budgets, tasks and milestone descriptions for all the ASCEM Thrust and management areas. Detailed budgets, tasks and milestone descriptions for each of the three thrusts and the ASCEM program management areas are contained in the following task plans:

- 1) ASCEM Task Plan WBS 1.1.1 Platform and Integrated Toolsets
- 2) ASCEM Task Plan WBS 1.1.2 Multi-Process HPC Simulator
- 3) ASCEM Task Plan WBS 1.1.3 Site Applications
- 4) ASCEM Task Plan WBS 1.1.4 ASCEM Program Management

## Technical Task Plan ASCEM WBS 1.1.1

### NEEDS STATEMENT:

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components, including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### BACKGROUND AND PURPOSE:

The purpose of the Platform and Integrated Toolset is to make available the use of the ASCeM HPC simulation capabilities for the solution of environmental management tasks, and to provide support for the related model development and analysis tasks. Application of high-fidelity computational simulation to EM problems requires not only a well-designed multiphysics simulator, but also a computational environment that facilitates the complex process of code application to a given site and problem. The Platform and Integrated Toolset ("Platform") will build a set of tools incorporated into a powerful user interface to support a modeling workflow that is flexible, maintains quality assurance procedures and data integrity, and significantly enhances user efficiency. Tasks within this thrust area include the core platform development with user interfaces, information and data management tools, model setup tools, parameter estimation approaches, uncertainty quantification, decision support and risk assessment tools, and advanced visualizations.

### TECHNICAL APPROACH:

#### Summary of the Approach

The Platform development effort is structured as a set of tasks, as described below. The activities in these tasks are closely coordinated to ensure commonalities are addressed appropriately and the Platform software architecture and data management support a broad set of capabilities for the toolsets.

This Task Plan describes the overall ASCeM Platform thrust WBS 1.1.1 with detailed budgets, tasks and milestone descriptions for all the Platform activities.

#### Platform Thrust Management WBS 1.1.1.1:

The Thrust Area Lead (TAL) and the deputy are responsible for the overall technical leadership, planning and execution of the scope within the thrusts. The TAL and the deputy will work closely with the Technical Systems Integration Lead to develop technical and design requirements for the ASCeM HPC Core and Platform Toolsets based on needs identified from the EM site end users. The TAL and the deputy will select key project staff and technical performers from best available resources from the participating National Laboratories to execute the ASCeM work scope. The TAL will report monthly status and progress, and identify and communicate technical or programmatic issues. They will use the ASCeM baseline change control process to recommend changes to the technical program. Finally the TAL will assure the thrust area delivers products that meet project requirements for quality, cost, and schedule. Review thrust areas reports and products and transmit to the core management team for review, as needed prior to submittal to DOE.

#### Data Management WBS 1.1.1.3:

This task will further enhance the existing Platform data management infrastructure to support modeling and analysis activities, and provide more sophisticated integration with visualization tools. The task will work with identified DOE

sites to ingest site data into the ASCEM database, capturing a consistent set of metadata that is associated with the site data files. This data will then be made available to Platform users for incorporation in modeling activities. A key focus will be the creation of programming interfaces to enable the data in the data management system to be easily queried and extracted, resulting in a seamless integration with the other Platform toolsets. We will also, as identified by Initial Platform users, extend the data management system to incorporate new data types such as bioremediation and treatment histories.

#### **Model Setup and Analysis WBS 1.1.1.4:**

This task will enhance the Initial Model Setup Toolset with new capabilities to support conceptual/numerical model creation. The effort will extend the collection of mesh types that a user can create, and incorporate new capabilities to specify geochemical parameters required by specific Amanzi models. Working closely with the Core Platform and HPC Thrust, this task will help specify and refine the Amanzi input file format, and extend existing capabilities available for importing/generating the computational grid. Improvements to usability, robustness and performance will also be made based on testing by the initial user community.

#### **Requirement Document, Design Document, and Reviews WBS 1.1.1.10**

This task will work with the task teams, HPC Thrust and Site Applications Thrust, as well as key ASCEM demonstration sites to revise, refine and update the Platform Requirements and Design documents.

#### **Akuna WBS 1.1.1.11**

Akuna is the core Platform user environment. We will continue to build upon the initial Akuna release to improve user workflows, model management and incorporate new plotting and visualizations. Working with the Toolsets and Model Setup tasks, we will continue to create and improve capabilities for users to exploit the new algorithms that are available in the toolsets. This requires extensive work to create appropriate user interfaces and extensions to the Akuna internal data model. Attention will also be given to performance and usability of the environment, as well as supporting initial users with documentation, case studies and workshops.

#### **Toolsets SA, PE, DS, UQ WBS 1.1.1.12**

We will work to add new capabilities for Parameter Estimation, Uncertainty Quantification and Sensitivity Analysis into the Platform. These will provide users with a broader range of capabilities that can be used in conjunction with Amanzi and Akuna to execute models and analyze results. Working closely with the Akuna task, we will ensure that powerful visualization and data provenance features are built to support each toolset. We will also exploit commonalities in the toolsets to more efficiently implement these features. In addition, we will start to design and implement an initial version of the Decision Support toolset. This will provide users with model-based decision analyses (i.e. based on model predictions), along with support for users to perform these analyses through Akuna.

#### **Agni WBS 1.1.1.13**

Agni provides a scalable and extensible coupling between the Akuna user interface and Amanzi by managing model input and output to the simulators. In addition to executing a single simulation run, Agni executes a series of model analysis tools, including parameter estimation, geostatistical simulation, and uncertainty quantification. We will continue to incorporate the new Toolset algorithms into Agni, and improve its robustness and performance. A key focus will be to ensure a seamless integration with Akuna, extending existing features to provide powerful and flexible tools for simulation execution and analysis.

## **Technical Task Plan ASCEM WBS 1.1.2**

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high-performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The Multi-Process High Performance Computing (HPC) Simulator, Amanzi, will provide a flexible and extensible computational engine that will simulate the coupled processes and flow scenarios described by the conceptual models developed using the ASCeM Platform. These conceptual models span a range of process complexity, potentially coupling hydrological, bio-geochemical, geo-mechanical, and thermal processes and will be used to quantify the associated uncertainty, sensitivity, and risk. Early in the development of this thrust we focused on documenting the mathematical description of these processes as a means to define the modeling requirements for the Multi-Process HPC Simulator. Building on these established requirements for process models, the HPC thrust has three tasks: the HPC Toolsets, the HPC Core Framework, and Verification and Validation. The HPC Toolsets task provides the essential building blocks (modules) for the process models, including grids, advanced discretizations, multiscale techniques, and nonlinear/linear equation solvers. In addition, this task supports development of the Multi-Process Coordinator (MPC). The HPC Core Framework task provides the underlying low-level services, such as parallel I/O, and data structures. The last task focuses on code and algorithm verification and model validation, and is an important bridge between The Process Models and the HPC Simulator, as well as the Site Applications Thrust (WBS 1.1.3).

### **TECHNICAL APPROACH:**

#### **HPC Thrust Management WBS 1.1.2.1**

The Thrust Area Lead (TAL) and the deputy are responsible for the overall technical leadership, planning and execution of the scope within the thrusts. The TAL and the deputy will work closely with the other thrust leads and the HPC Thrust team to continue to evolve the technical and design requirements for the ASCeM HPC Toolsets, HPC Core Framework, and their interface with the Platform (WBS 1.1.1) based on needs identified from the EM site end users. The TAL and the deputy will select key project staff and technical performers from best available resources from the participating National Laboratories, industry and universities to execute the ASCeM work scope. The TAL will report monthly status and progress, and identify and communicate technical or programmatic issues. They will use the ASCeM baseline change control process to recommend changes to the technical program. Finally the TAL will assure the thrust area delivers products that meet project requirements for quality, cost, and schedule. Review thrust areas reports and products and transmit to the core management team for review, as needed prior to submittal to DOE.

#### **HPC Toolsets WBS 1.1.2.2**

The HPC Toolsets provide the building blocks that transform the mathematical description of the process models into a discrete form suitable for simulation on a computer. The activities in this task are aligned with the three toolsets:

meshing, discretization, and solvers. In each toolset, we will leverage existing algorithms, techniques, and implementations, where appropriate.

The mesh provides an essential and fundamental data structure that bridges the conceptual site model and the numerical methods, and is ultimately the building block that connects the resulting simulation with the computing hardware. The Meshing Toolset provides mesh data structures and services for both structured meshes, which may be adapted to fit to the stratigraphy or features of the solution, and fully unstructured meshes. The Discretization Toolset is composed of several modules, including spatial and temporal discretization, geochemical reactions, and multiscale techniques. Using these modules as fundamental building blocks we create process kernels to simulate the various process models. The Multi-Process Coordinator (MPC) manages the coupling of these processes and is at the heart of providing a flexible and extensible simulation capability. Activities in this area will significantly enhance the flexibility of the MPC, and provide more robust and accurate discrete models. In addition, features that enhance integration with the Platform thrust (WBS 1.1.1), such as model gradients for optimization, and augmented systems for direct evolution of parameter sensitivities, will be considered.

In the Solvers Toolset we treat the nonlinear systems of equations that arise throughout Environmental Management applications, from the time evolution of discretizations and geochemical reaction networks, to optimization and assimilation. Through the first two ASCEM demonstrations we have established high-level requirements for the Solver Toolset, and established a baseline capability that leveraged existing tools for steady state and time evolution problems. In this activity, we will further enhance the design and implementation of preconditioners to fully support the flexibility, robustness and scalability required by the graded and iterative approach to site assessments.

#### **HPC Core Framework WBS 1.1.2.3**

This task focuses on the key infrastructure that facilitates the modular design of the HPC Simulator, as well as its portability and its graded Quality Assurance program. This task has two key activities, the HPC Core Infrastructure, and Portability and Performance Tuning. The HPC Core Infrastructure activity provides a number of low-level services for the HPC Toolsets (WBS 1.1.2.2), which provide the building blocks for the process models. These include data structures, input file specification and utilities, parallel input/output capabilities, application programming interfaces, and HPC related visualization support. Existing HPC Frameworks will be investigated to identify tools, algorithms, and techniques that may be leveraged in each of these activities.

The portability and performance tuning activities will ensure that the HPC Simulator runs well on a wide range of platforms, from laptops to supercomputers. This activity will leverage an automated build process in conjunction with automated testing and reporting to ensure a reliable capability is available on all required platforms. Together with the Verification and Validation task (WBS 1.1.2.4) this provides critical support for the graded QA program planned for ASCEM.

#### **Verification and Validation WBS 1.1.2.4**

The Verification and Validation (V&V) task will provide a unified hierarchical approach to testing, verification and validation, and benchmarking in order to ensure the reliability and robustness of the HPC Simulator. At the lowest level of the hierarchy, unit tests of individual models will be used to verify the correctness of specific sub-modules. At higher levels various integrated tests will be designed to span multiple coupled processes and detailed conceptual model descriptions with data requirements will be developed. Finally, at the highest level, benchmarks will be developed or gathered from the community that captures realistic site-application scenarios. These test suites will be developed in collaboration with the Site Applications thrust, particularly the Site Working Groups, and hence, this element provides a critical bridge between these thrusts. In addition, this element enhances communication between the HPC Toolsets and HPC Core Framework tasks (WBS 1.1.2.2 and 1.1.2.3, respectively).

## **Technical Task Plan ASCEM WBS 1.1.3**

### **NEEDS STATEMENT:**

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### **BACKGROUND AND PURPOSE:**

The Site Applications Thrust provides expertise and site data for model development and testing and a linkage between the computational capabilities and specific DOE EM sites where cleaning up legacy wastes and managing disposal activities will require advanced modeling. The thrust will establish and maintain linkages with end users. A key aspect of the Site Applications Thrust Area will be to provide testing and feedback for developing the HPC and Platform components based on user experience, to disseminate information, and provide training.

The Site Applications Thrust includes tasks to maintain an interface with end users; establish demonstrations; develop, expand, and coordinate working groups formed to perform demonstrations; and disseminate working group progress to the environmental community and, DOE management. Tasks focused on development of application protocols for the ASCeM toolset and training as well as a plan for long-term maintenance of the capability are also part of the Site Applications Thrust.

### **TECHNICAL APPROACH:**

#### **Site Applications Thrust Area Management WBS 1.1.3.1**

This task encompasses three key items: (1) coordination and oversight of the Site Applications Thrust activities, ultimately leading to effective completion of deliverables within allotted budget and timeframe; (2) participation with other ASCeM leads in guiding the evolution, cross-thrust linkages, and implementation of ASCeM; and (3) representation of the Site Application Thrust activities to the environmental community and, where appropriate, DOE management. The task is staffed by the Thrust Area Lead and a Deputy Thrust Lead

#### **User Interface WBS 1.1.3.2**

This task focuses on outreach to DOE EM performance assessment and risk assessment users and to scientists involved in other modeling and research activities at DOE Sites. Efforts will continue with on-going interactions with the LFRG, PA Community of Practice, and the Cementitious Barriers Partnership. This task will provide a means for continuous feedback regarding ASCeM as the project moves forward. Key tasks in FY13 will be developing a report on end user interactions and leading a demonstration workshop with the User Steering Committee.

#### **Site Working Groups WBS 1.1.3.6:**

Working groups have been formed around each of the identified demonstration problems. The working groups are responsible for (a) refining the working group scope; (b) assembling the necessary input (conceptual models, data, process models, and other expert input) and (c) working closely with the developers to advance and test ASCeM using



realistic and relevant datasets; and (d) engage end-users in the development and use of ASCEM. The current working groups are formed around the SRS F Area Attenuation of Metals and Radionuclides Applied Field Research Initiative (AFRI), the Hanford Deep Vadose Zone AFRI, Waste Tank Performance Assessment, and the Oak Ridge Mercury problem. During FY13, efforts will be focused on demonstration workshops using the Phase II results, interactions with the developers on testing advancements and refinements in the capabilities, and completing a Phase III demonstration.

#### **SRS F-Area Seepage Basin Working Group WBS 1.1.3.6.1:**

The goal of the Attenuation-Based Remedies for the Subsurface Demonstration is to demonstrate how ASCEM capabilities can be used to evaluate and guide remediation strategies in heterogeneous subsurface environments at the Savannah F-Area. Building on previous demonstrations as well as AFRI and LBNL SPA advances, we will extend and implement ASCEM capabilities to simulate the effect of the pH manipulation barrier and recirculation on plume mobility in 3D. The developed capabilities will then be used to evaluate: 1) the duration required for the base injection treatment to meet clean-up goals; 2) the possibility of replacing active groundwater remediation by attenuation-based remedies, including natural and enhanced attenuation. The demonstration will take advantage of multi-scale reactive facies characterization approach used to develop model parameterization input for the F-Area (Sassen et al., WRR in press; Wainwright et al., in development and will engage end users (site personnel and others) in capability testing. Many ASCEM components will be refined and utilized in this demonstration: Data Management will be extended to archive and serve up datasets associated with the engineering treatments; HPC toolsets will be used to develop reaction networks associated with the base injection treatments; Model setup will be used to define the coupled physiochemical heterogeneity (or reactive facies); Amanzi will be used to simulate 3D plume responses to various remediation strategies over a minimum 100 year timeframe; visualization will be used to simulate model output, and UQ will be used to assess key controls on plume remediation. The F Area Seepage Basin working group efforts will be the focus of the Phase III demonstration report and this will be the final year of significant effort for this working group. The working group members will participate in the demonstration workshops.

#### **Hanford Deep Vadose Zone Working Group WBS 1.1.3.6.2:**

The Hanford Deep Vadose Zone (DVZ) Applied Field Research Initiative has provided an opportunity to demonstrate ASCEM capabilities needed to help DOE EM evaluate innovative treatment technologies for recalcitrant contaminants in the deep vadose zone. The current technology under evaluation at the BC Criba site is soil desiccation, an approach that minimizes <sup>99</sup>Tc movement in the vadose zone by removing pore water via the injection of dry air and extraction of vapor. During the Phase II Demonstration, the working groups illustrated integration of Platform and HPC components. During FY 2013, efforts will focus on making the Phase II demonstration more robust in preparation for the demonstration workshops. The working group members will participate in the demonstration workshops and continue interacting with the development teams to test and debug refined ASCEM components. Future demonstration phases will include explicit representation of soil desiccation as well as other remediation approaches, such as foam delivery or NH<sub>3</sub> gas treatment of uranium as well as exploring the concepts of end states for remediation. The remediation technologies will be developed as part of the Deep Vadose Zone AFRI or by CH2M Hill Plateau Remediation Contract and evaluated with ASCEM.

#### **Waste Tank PA Working Group WBS 1.1.3.6.3:**

Waste tank closures and comparable disposals of residual waste in engineered containment systems are a prominent component of the DOE EM complex. Engineered barriers also present unique process and requirements in comparison to purely geologic systems in the form of geometries, materials and associated properties, and physical and chemical processes. The Waste Tank PA Working Group will continue to develop ASCEM demonstrations that are representative of tank closures at Hanford and Savannah River and similar engineered barrier scenarios, using data from existing Performance Assessment (PA) studies for efficiency and relevance. Increased emphasis will be placed on working with real site data relevant to tank closure rather than representative sites. Working group activities in FY12 focused on ASCEM advancements in the areas of Adaptive Mesh Refinement (AMR) on structured grids, radioactive decay and progeny ingrowth, and collaboration with the Cementitious Barriers Partnership (CBP) on a joint demonstration. FY13 activity will be focus on making the Phase II demonstration more robust and participating in the demonstration workshops. In addition, the working group will complete the ASCEM-CBP joint demonstration, and expand the waste tank demonstration using site data from Savannah River and Hanford (as appropriate) commensurate with ongoing Amanzi code development. Interactions with the development teams on testing the Amanzi code will continue. The working group will begin to engage end users in the PA community related to modeling of cementitious waste forms (e.g., Saltstone) and other waste tank closure issues.

## Management Task Plan ASCEM WBS 1.1.4

### NEEDS STATEMENT:

The United States Department of Energy (DOE), Office of Environmental Management (EM), in collaboration with other DOE offices, is leading a multi-institution, multi-disciplinary team of geoscientists, material scientists, and computational scientists from Los Alamos, Lawrence Berkeley, Pacific Northwest, Oak Ridge, and Savannah River National Laboratories with support from Argonne, Lawrence Livermore, and Idaho National Laboratories to develop a modeling initiative for Advanced Simulation Capability for Environmental Management (ASCeM). ASCeM is a state-of-the-art scientific toolset and approach for understanding and predicting contaminant fate and transport in natural and engineered systems. This modular and open source high performance computing (HPC) tool will facilitate graded and integrated approaches to modeling and site characterization that enable more robust and standardized assessments of performance and risk for EM disposal operations, cleanup and closure activities. The ASCeM Multi-Laboratory program is aimed at addressing critical EM program needs to provide the capability to better understand and quantify subsurface flow and contaminant transport behavior in complex geological systems and the long-term performance of engineered components including cementitious materials in nuclear waste disposal facilities, in order to reduce uncertainties and risks associated with DOE EM's disposal, environmental cleanup and closure programs.

### BACKGROUND AND PURPOSE:

The ASCeM project will be led by a management and integration team represented by senior representatives from the participating laboratories, Thrust areas leaders, and a Technical Systems Integration lead. A dedicated Project Manager (PM), selected from one of the core laboratories, provides the single point of contact and overall interface responsibility to the DOE program manager. This Task Plan describes the ASCeM Project Management WBS 1.1.4 detailed budgets, tasks and milestone descriptions.

### TECHNICAL APPROACH:

#### **Program Management WBS 1.1.4.1**

##### ASCeM Multi-Lab Program Manager:

The ASCeM Program Manager (PM) serves as primary programmatic point of contact for the project and with DOE Program Manager. The ASCeM Multi-Lab PM leads the preparation, maintenance, and execution a life-cycle Program Plan, which includes quality assurance plan, schedule and milestone management, budgeting and financial control, and records maintenance. Through weekly management and integration meetings the PM will oversee project execution activities, ensure the project fulfills the clients' requirements, and assure that the ASCeM project products meet customers' requirements based on approved scope, schedule and budget. On a yearly basis, the PM will work with the ASCeM Management and Integration Team to prepare and approve the annual technical scope, staffing, and budget plans for the DOE annual budgeting process. The ASCeM multi-lab PM will oversee execution activities, including drafting and submitting to DOE program execution guidance for project performers and establish and implement a reporting and communication mechanism among ASCeM project staff. The ASCeM Multi-Lab PM will chair the project baseline change control board composed of the Management and Integration Team and submit requests to DOE for change approvals. This position is also supported by a part time admin.

##### Laboratory Representatives:

Each of the core laboratories supporting the ASCeM Program will be represented by a "Lab Lead". The Lab Lead will provide non-parochial senior-level technical and programmatic expertise to assure project planning and execution is defensible, achievable, and has the full commitment of the participating laboratory. The Lab Leads will assure the ASCeM Program has the needed laboratory resources for program execution by providing technical expertise to address technical gaps and emerging issues. The Lab Leads will assist the ASCeM Multi-Lab PM in assuring the program meets quality, cost, and schedule performance, and address performance issues within their represented laboratory.

#### **User Steering Committee WBS 1.1.4.3:**

This member of the ASCEM management team serves as the primary project interface with the PA User Community (e.g., EM Office of Regulatory Compliance, Low-Level Waste Disposal Facility Federal Review Group (LFRG) Members, site contractors, US NRC, and others as applicable). In addition, the user steering committee lead will communicate EM user needs and requirements to the ASCEM Management and Integration Team. This member of the ASCEM management team will serve as coordinator for the User Steering Committee, including development of its Charter, organizing the Steering Committee meetings, and reporting to the Management and Integration Team on the User Steering Committee Meeting results. This person will also serve as the primary interface with EM Office of Compliance to coordinate ASCEM with future updates of DOE Order 435.1.

#### **Communications and Website Team WBS 1.1.4.4:**

The Communication and Website management team has three roles: 1) oversight and maintenance of the ASCEM internal communication tool for sharing of project information, 2) oversight and maintenance of the external ASCEM website, and 3) preparation of presentations and document production oversight for internal and external ASCEM project reports. This team is experienced in marketing, technical editing, website design, and communications. The communications function will support regular communication products, including input to EM weekly reports, EM highlights, and annual reports. The lead for this area will provide direct support to the Thrust Area Teams as well as the Core Management Team. Web-based communication resources will be established to maximize ease of access by all team members including DOE-EM management and advisory group members, and site user collaborators. These tools will provide for real-time sharing of project information through tools such as a share point sites or other internet-based networking products to support multi-lab, university, and industry collaboration.

#### **Project Controls & Business Mgmt WBS 1.1.4.5:**

The project controls function will provide the overall business, finance, and schedule tracking and reporting support to the PM and management core team, including Thrust Area leaders and task managers. This function will work with individual laboratory finance and project controls staff to assure the overall project is tracking and managing deliverables at an appropriate level. The project is employing an Earned Value Management System (EVMS) process and provide DOE monthly reporting on project performance. Internally, the project will track critical path activities on a more frequent basis.

#### **Quality Assurance WBS 1.1.4.6:**

The ASCEM platform and HPC framework will ultimately be deployed to support EM regulatory decisions (e.g., PA, risk assessments, composite analyses). Therefore, NQA-1 software quality requirements will be met for the final products of the project. To assure NQA-1 compliance, a graded approach will be employed to allow for early development and testing of prototype components and systems without unnecessary burden on the research and development effort. Other software quality standards such as the 1996/1997 EPA Guidance on "Ground-Water Model Testing: Systematic Evaluation and Testing of Code Functionality and Performance" and ASTM D 6025 (reapproved 2008) "Standard guide for developing and evaluating Ground-water modeling codes" will be considered for application, depending on regulatory requirements. As components and systems mature to deployment status, enhanced QA requirements and corresponding procedures will be applied. The QA function is responsible for developing and instituting an overall QA project plan and QA requirements that will flow down to project participants. The QA function will work across the Thrust Areas and laboratories to assure task level QA requirements are appropriately and consistently applied, and minimize the QA burden on individual task leaders.

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM  
89X0251 - DEFENSE ENVIRONMENTAL CLEANUP  
FISCAL YEAR: 2013

04/30/2013  
PAGE: 2

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

9

OPERATING EXPENSES : 89X0251.91 (01250)

O EY40 DSAC TECHNOLOGY DEVELOPMENT &amp; DEPLOYMENT

EY404911 PROJECTS TO REDUCE TECHNICAL RISK

2013 NEW OA 1,689,000.00 85,000.00 1,774,000.00  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 1,689,000.00 85,000.00 1,774,000.00

O EY40 TOTAL, DSAC TECHNOLOGY DEVELOPMENT & DEPLOYMENT  
NEW OA 1,689,000.00 85,000.00 1,774,000.00  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 1,689,000.00 85,000.00 1,774,000.00

O EY80 DEC - PROGRAM SUPPORT

EY804910K EM13 FEDERAL DISPOSITION OPTIONS

2013 NEW OA 279,194.85 0.00 279,194.85  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 279,194.85 0.00 279,194.85

O EY80 TOTAL, DEC - PROGRAM SUPPORT  
NEW OA 279,194.85 0.00 279,194.85  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 279,194.85 0.00 279,194.85

O EY8648 SAVANNAH RIVER SITE - SITE RISK MANAGEMENT

2013 NEW OA 217,430,885.00 17,059,186.00 234,490,071.00  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 217,430,885.00 17,059,186.00 234,490,071.00

O EY8648 TOTAL, SAVANNAH RIVER SITE - SITE RISK MANAGEMENT  
NEW OA 217,430,885.00 17,059,186.00 234,490,071.00  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 217,430,885.00 17,059,186.00 234,490,071.00

O EY874814 SR-0014C RADIOA LIQ TRK WASTE STAB/DISP

2013 NEW OA 423,942,553.00 16,628,897.00 440,571,450.00  
UNOB BAL 0.00 0.00 0.00  
TOTAL OA 423,942,553.00 16,628,897.00 440,571,450.00


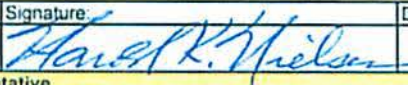
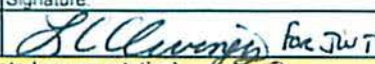
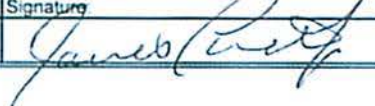
part  
of  
35,000  
50,000

## **Attachment 10**

**Work Authorization No. 410003, Rev 3**

**Project Title: Funding for the Packaging and  
Certification Program and Packaging  
Transportation Operations Support**

2013-65

U. S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
<b>1a. Project Title</b> Funding for the Packaging and Certification Program and Packaging and Transportation Operations Support.		<b>1b. Work Proposal Number</b> DE-AC09-08SR22470 - 410003	
<b>2. Headquarters Program Point of Contact</b>			
Name: Stephen O'Connor	EM-33	Phone: 301-903-7854	
<b>3. Headquarters Budget Point of Contact</b>			
Name: Angela Maddox	Organization Code: EM-61, Office of Budget	Telephone No: 301-903-4888	
<b>4. Responsible Program</b> Office of Environmental Management; Office of Packaging and Transportation		<b>5. Responsible Secretarial Officer</b> F. Marciniowski	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b>	
		Name: John W. Temple	Telephone No. (803) 952- 7210
<b>8. Work Authorization Number</b> DE-AC09-08SR22470 - 410003		<b>9. Revision Number</b> 3	
<b>10. Funds Authorized (\$ in thousands) (See NOTE below)</b>			
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
EY5202410	\$ 1,000,000.00	\$ -	\$ 1,000,000.00
EY8648300	\$ -	\$ 100,000.00	\$ 100,000.00
EY8648130	\$ -	\$ 86,000.00	\$ 86,000.00
EY8648111	\$ -	\$ 399,000.00	\$ 399,000.00
EY8648121	\$ -	\$ 55,000.00	\$ 55,000.00
<b>Total</b>	<b>\$ 1,000,000.00</b>	<b>\$ 640,000.00</b>	<b>\$ 1,640,000.00</b>
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: 10/1/12	To: 9/30/2013	10/1/2012	9/30/2013
<b>14. Statement of Work (Includes attachments)</b>			
<p>Within the funding set aside at the Savannah River Site for FY 2013 Management Initiatives, please direct \$640,000 to the Savannah River National Laboratory to support Packaging and Certification.</p> <p>These funds support packaging certification review for the Safety Analysis Report for Packaging and/or facilities in addition to providing oversight, assistance, and training in these and other technical areas. This also includes analysis and field implementation of the Department of Energy (DOE) Packaging Certification Program Radiofrequency Identification Program for the SGTs and other areas; facilities, packages, and packaging.</p> <p><del>Also within the funding set aside at the Savannah River Site for FY 2013 Management Initiatives, please direct \$20,000 to the Savannah River Remediation to support Packaging and Transportation Operations Support.</del></p> <p><del>These funds are to provide SME support for TCAP assessments of packaging and transportation activities at DOE sites as directed by EM-33 Program Manager.</del></p> <p>prj (May 9, 2013)</p>			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed): Patrick R. Jackson	Signature: 	Date: May 9, 2013	
<b>16. DOE Budget Official</b>			
Name (typed): Harold K. Nielsen	Signature: 	Date: 5/13/13	
<b>17. Contractor's Authorized Representative</b>			
Name (typed): John Temple	Signature: 	Date: 5/14/13	
<b>18. DOE Contracting Officer (or delegated representative)</b>			
Name (typed): Scott Langston	Signature: 	Date: 5/15/13	





**Department of Energy**  
Washington, DC 20585

April 22, 2013

**MEMORANDUM FOR KRISS NIELSEN**  
**DIRECTOR, OFFICE OF BUDGET**  
**SAVANNAH RIVER OPERATIONS OFFICE**

**FROM:** THOMAS FEKETE *Thomas A. Fekete*  
DEPUTY DIRECTOR, OFFICE OF BUDGET  
OFFICE OF ENVIRONMENTAL MANAGEMENT

**SUBJECT:** Funding for Packaging and Certification and Packaging and  
Transportation Operations Support

Within the funding set aside at the Savannah River Site for FY 2013 Management Initiatives, please direct \$640,000 to the Savannah River National Laboratory to support Packaging and Certification.

These funds support packaging certification review for the Safety Analysis Report for Packaging and/or facilities in addition to providing oversight, assistance, and training in these and other technical areas. This also includes analysis and field implementation of the Department of Energy (DOE) Packaging Certification Program Radiofrequency Identification Program for the SGTs and other areas; facilities, packages, and packaging.

Also within the funding set aside at the Savannah River Site for FY 2013 Management Initiatives, please direct \$20,000 to the Savannah River Remediation to support Packaging and Transportation Operations Support.

These funds are to provide SME support for TCAP assessments of packaging and transportation activities at DOE sites as directed by EM-33 Program Manager.

If you have any questions or require additional information please contact Angie Maddox of my office on (301) 903-4888.

cc: P. Petty, SR  
L. Roberson, SR  
E. Seguinot, SR  
E. Huang, EM-45  
A. Maddox, EM-61



**Department of Energy**  
Washington, DC 20585

NOV 14 2012

**MEMORANDUM FOR K. NIELSEN**  
**DIRECTOR, OFFICE OF BUDGET**  
**SAVANNAH RIVER OPERATIONS OFFICE**

**FROM:** THOMAS FEKETE *Thomas A. Fekete*  
**DEPUTY DIRECTOR, OFFICE OF BUDGET**  
**OFFICE OF ENVIRONMENTAL MANAGEMENT**

**SUBJECT:** Funding for Packaging and Certification

Funding in the amount of \$1,000,000 is provided in the November 2013 AFP to support Packaging and Certification.

These funds supports packaging certification review for the Safety Analysis Report for Packaging and/or facilities in addition to providing oversight, assistance, and training in these and other technical areas. This also includes analysis and field implementation of the DOE Packaging Certification Program Radiofrequency Identification Program for the SGTs and other areas, facilities, packages, and packaging.

The funding codes are as follows:

Fund	Year	Reporting Entity	Program Value	B&R	Project Value	PBS	Amount
01260	2013	410225	1111557	EY520241	0001526	RL-0041.01	1,000,000
							1,000,000

If you have any questions or require additional information please contact Angie Maddox of my office on (301) 903-4888.

cc: P. Petty, SR  
L. Roberson, SR  
E. Seguinot, SR  
B. Huang, EM-45  
A. Maddox, EM-61



\*\* Draft Finplan \*\*

Contract Modification Number \*\* No MOD \*\*

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

Site: SR

\*\*\* DRAFT \*\*\*

Report: RFP0001

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01250	TP	1110676	EY4049110	25400	0000000	0001772	0000000		7,172.70	0.00	-7,172.70	-7,172.70	0.00
AY 2009 - Transfer to Project 0004261 per HQ SH 5/8/13														
410003	01250	TP	1110676	EY4049110	25400	0000000	0003925	0000000		15,138.97	335,061.61	35,000.00	370,061.61	385,200.58
410003	01250	TP	1110676	EY4049110	25400	0000000	0004017	0000000		26,037.10	99,000.00	50,000.00	149,000.00	175,037.10
410003	01250	TP	1110676	EY4049110	25400	0000000	0004261	0000000		112,756.20	595,852.16	7,172.70	603,024.86	715,781.06
AY 2009 - Transfer from project # 0001772 SH 5/8/13														
Total for Program Parent/Control Point: EY4000000										161,104.97	1,029,913.77	85,000.00	1,114,913.77	1,276,018.74
410003	01250	TP	1111525	EY8648111	25400	0411160	0001761	0000000		0.00	0.00	399,000.00	399,000.00	399,000.00
AY 2013 - Transfer \$399,000 from Other DOE managed to support HQ directed funds be provided to SRNL for the Package & Certification workscope per Pat Petty's email dated 05/08/13 MG0508013														
410003	01250	TP	1111497	EY8648110	25400	0000000	0004354	0000000		2,676,304.39	76,522,548.92	6,500,000.00	83,022,548.92	85,698,853.31
AY 2013 - Transfer \$6,500,000 to support EY8648110 per Lynn Horney's email dated 05/02/13 MG050813														
410003	01250	TP	1111526	EY8648121	25400	0000000	0001762	0000000		344,221.52	24,039,146.00	1,500,000.00	25,539,146.00	25,883,367.52
AY 2013 - Transfer \$1,500,000 to support SRNS May Finplan per Lynn Horney's email dated 05/02/13 MG050813														
410003	01250	TP	1111526	EY8648121	25400	0411160	0001762	0000000		0.00	0.00	55,000.00	55,000.00	55,000.00
AY 2013 - Transfer \$55,000 from Other DOE managed to support HQ directed funds be provided to SRNL for the Package & Certification workscope per Pat Petty's email dated 05/08/13 MG0508013														
410003	01250	TP	1110949	EY8648130	25400	0000000	0001763	0000000		11,288,054.07	11,171,344.00	2,000,000.00	13,171,344.00	24,459,398.07
AY 2013 - 5.8.2013 - Increased per Pat's email RMO - mat														
410003	01250	TP	1110949	EY8648130	25400	0411160	0001763	0000000		0.00	0.00	66,000.00	66,000.00	66,000.00
AY 2013 - 5.8.2013 - Increased by \$66K per Pat's email - RMO - mat														
410003	01250	TP	1110950	EY8648300	25400	0000000	0001766	0000000		868,926.39	30,465,946.00	5,000,000.00	35,465,946.00	36,334,872.39
AY 2013 - Additional funding for PBS30 per 5.7.13 email from DOE-SR CFO Management. Adjustment will be made in future fin plan to align funding with expected funds letter.														
410003	01250	TP	1110950	EY8648300	25400	0411160	0001766	0000000		0.00	0.00	100,000.00	100,000.00	100,000.00
AY 2013 - HQ directed funds be provided to SRNL for the Package & Certification workscope														
Total for Program Parent/Control Point: EY8648020										15,177,506.37	142,198,984.92	15,640,000.00	157,838,984.92	173,016,491.29
410003	01250	TP	1111528	EY8748141	25400	0000000	0001764	0000000		1,358,284.88	48,016,000.00	6,274,000.00	54,290,000.00	55,648,284.88
410003	01250	TP	1111528	EY8748141	25400	0411107	0001764	0000000		0.00	22,052,500.00	1,157,900.00	23,220,400.00	23,220,400.00
410003	01250	TP	1111528	EY8748141	25400	0411108	0001764	0000000		121,214.20	9,741,000.00	771,933.00	10,512,933.00	10,634,147.20
410003	01250	TP	1111528	EY8748141	25400	0411130	0001764	0000000		0.00	9,606,000.00	383,333.00	9,989,333.00	9,989,333.00
Total for Program Parent/Control Point: EY8748140										1,479,499.08	89,425,500.00	8,587,166.00	98,012,666.00	99,492,165.08
410003	01250	TP	1111167	FS5048020	25400	0000000	0001765	0000000		191,501.97	7,407,000.00	1,150,000.00	8,557,000.00	8,748,501.97
Total for Program Parent/Control Point: FS5010010										191,501.97	7,407,000.00	1,150,000.00	8,557,000.00	8,748,501.97
Total for Fund: 01250										17,009,612.39	240,061,398.69	25,462,166.00	265,523,564.69	282,533,177.08

4/24/2013  
1:30:53PM

Fiscal Year: 2013  
Fiscal Month: 7 (April - GL Open)

## Cost and Obligation Report YTD Values

Allottee: 36  
Site: SR

Page 1 of 1  
Report: REX0006

Funding Source: All

										BEARS			STARS		
Appr Year	Fund Code	Legacy FT	Program	Legacy B&R	Project	WFO	Object Class	Local Use	Purchase Order	BUO	BA Committed	BA Obligated	Curr Yr Obligated	Curr Yr Costs	Ending Uncosted
Legacy Program Parent: EY5202400															
2013	01250	TP	1111557	EY5202410	0001526	0000000	25400	0000000	SR22470	0.00	1,000,000.00	1,000,000.00	1,000,000.00	143,473.23	856,526.77
Total for Legacy Program Parent: EY5202400										0.00	1,000,000.00	1,000,000.00	1,000,000.00	143,473.23	856,526.77
Report Total										0.00	1,000,000.00	1,000,000.00	1,000,000.00	143,473.23	856,526.77

## **Attachment 11**


**Work Authorization No. HI-410003-13-5-13, Rev 1**

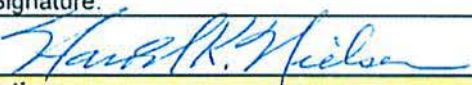
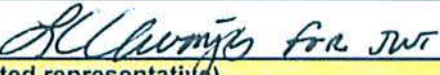
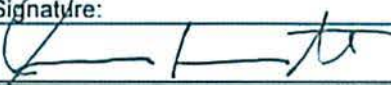
**Project Title: Fuel Cell Technologies Program**



2013-66

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b>		<b>1b. Work Proposal Number</b>	
Fuel Cell Technologies Program		HI-410003-13	
<b>2. Headquarters Program Point of Contact</b>			
Name: Sunita Satyapal		Organization Code: EE-2H	Phone: 202-586-2336
<b>3. Headquarters Budget Point of Contact</b>			
Name: Richard Farmer		Organization Code: EE-2H	Telephone No. 202-586-1623
<b>4. Responsible Program</b>		<b>5. Responsible Secretarial Officer</b>	
Office of Energy Efficiency and Renewable Energy		David Danielson	
<b>6. Responsible Field Organization</b>			
U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b>		<b>7b. Contractor Point of Contact</b>	
Savannah River Nuclear Solutions, LLC		Name: John W. Temple Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b>		<b>9. Revision Number</b>	
HI-410003-13-5-13		1	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b>			
NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
Congressional Control Point: HT0000000	\$ 1,695,000.00	\$ -	
HT0201000-05450-1009191 - Agreement # 13443	\$ -	\$ 70,054.22	
HT0201000-05450-1 0091 91 - Agreement# 26126	\$ -	\$ 210,162.64	
HT0202000-05450-1009192- Agreement 22272	\$ -	\$ 87,567.77	
HT0202000-05450-1009192 - Agreement 24099	\$ -	\$ 255,697.88	
HT0202000-05450-1 009192 - Agreement 22275	\$ -	\$ 112,086.74	
HT0500000-05450-1009195	\$ -	\$ 122,594.88	
<b>Total</b>	\$ 1,695,000.00	\$ 858,164.13	\$ 2,553,164.13
<b>11. Performance Period Covered by Funds</b>		<b>12. Work Start Date</b>	<b>13. Expected Completion Date</b>
From: October 1, 2012	To: September 30, 2013	From: Oct. 1, 2012	To: Sept. 30, 2013
<b>14. Statement of Work (Includes attachments)</b>			
In accordance with the approved Energy Efficiency and Renewable Energy Fuel Cell Technologies Office FY 2013 spend plan, funding has been planned for obligation and expenditure in accordance with program guidance as indicated in the attached program memorandum. Required changes can be completed via an Agreement Funds Transfer coordinated in the Corporate Planning System (CPS). The laboratory receiving the funds detailed in this letter will be responsible for reporting all funding obligations and cost to headquarters. The laboratory recipient must maintain obligations and cost data at the agreement level, and the data must be made available to Energy Efficiency and Renewable Energy.			
<b>15. DOE-SR Program Point of Contact</b>			
Name (printed):	Signature:	Date:	
Patrick R. Jackson		April 29, 2013	
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> <b>APPROVED</b>  <small>By Patrick R. Jackson at 4:44 pm, Apr 23, 2013</small> </div>			

<b>16. DOE Budget Official</b>		
Name (typed): Harold K. Nielsen	Signature: 	Date: 5/14/13
<b>17. Contractor's Authorized Representative</b>		
Name (typed): John Temple	Signature: 	Date: 5/15/13
<b>18. DOE Contracting Officer (or delegated representative)</b>		
Name (typed): Jim Lovett	Signature: 	Date: 5/15/13



U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM04/15/2013  
PAGE: 2

89X0321 - ENERGY EFFICIENCY AND RENEWABLE ENERGY

FISCAL YEAR: 2013

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

4

B&R CCODE	B&R TITLE	BRH	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0321.91 (05450)									
O HT	HYDROGEN AND FUEL CELLS TECHNOLOGIES								
			2013	NEW OA	1,695,000.00		858,164.00		2,553,164.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,695,000.00		858,164.00		2,553,164.00
O HT TOTAL, HYDROGEN AND FUEL CELLS TECHNOLOGIES				NEW OA	1,695,000.00		858,164.00		2,553,164.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,695,000.00		858,164.00		2,553,164.00
O SL	SOLAR ENERGY								
			2013	NEW OA	900,225.00		0.00		900,225.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	900,225.00		0.00		900,225.00
O SL TOTAL, SOLAR ENERGY				NEW OA	900,225.00		0.00		900,225.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	900,225.00		0.00		900,225.00
TOTAL, OPERATING EXPENSES (05450)				NEW OA	2,595,225.00		858,164.00		3,453,389.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,595,225.00		858,164.00		3,453,389.00
TOTAL, DIRECT FUNDING				NEW OA	2,595,225.00		858,164.00		3,453,389.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,595,225.00		858,164.00		3,453,389.00
TOTAL, OBLIGATIONAL AUTHORITY				NEW OA	2,595,225.00		858,164.00		3,453,389.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,595,225.00		858,164.00		3,453,389.00

Electronically signed by Richard Farmer  
 8e082c86-30a7-4e79-b532-0c871d71a50c  
 Program Manager: Satyapal, Sunita  
 Site Officer:  
 Laboratory/Contractor:  
 Contracting Officer:

**MEMORANDUM FOR:** Terry Michalske, Savannah River Nuclear Solutions  
 Savannah River National Laboratory (SRNL)

**SUBJECT:** FY 2013 Fuel Cell Technologies Office Funding for Savannah River National Laboratory (SRNL)

In accordance with the approved Energy Efficiency and Renewable Energy Fuel Cell Technologies Office FY 2013 spend plan, funding has been planned for obligation and expenditure in accordance with program guidance as indicated below. Required changes can be completed via an Agreement Funds Transfer coordinated in the Corporate Planning System (CPS). The laboratory receiving the funds detailed in this letter will be responsible for reporting all funding obligations and cost to headquarters. The laboratory recipient must maintain obligations and cost data at the agreement level, and the data must be made available to Energy Efficiency and Renewable Energy.

**PROGRAM GUIDANCE:**

**Funding Summary**

B&R code	BA (\$)
HT0201000-05450-1009191	\$280,216.86
HT0202000-05450-1009192	\$455,352.39
HT0500000-05450-1009195	\$122,594.88

**Funding Action # 41427 (Regular, Operating), HQ POC: Sutherland, Erika, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount
✓ Agreement #13443 - Pipelines - 13443 SRNL (FRP)	HT0201000-05450-1009191	\$70,054.22

**Description of Work:** Agreement Id: 13443 - Title: Material Testing for FRP Pipelines - SRNL

This project is focused on understanding potential environmental and operational degradation effects in fiber reinforced polymer (FRP) pipe, a potentially low-cost H2 pipeline material. FY2013 funds will be used to support the development of a code case for FRP pipe use in transporting hydrogen. Activities will focus on degradation testing of unflawed commercial FRP pipe, including accelerated environmental testing in order to achieve acceptance of a 50 year life under typical use conditions. A key outcome of the project in FY13 will be the completion of FRP performance test identification and submission of this recommendation to the ASME B31.12 Hydrogen Piping and Pipeline Committee Chair.

**Funding Action # 42272 (Regular, Operating), HQ POC: Dillich, Sara, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount

✓ Agreement #26126 - STCH - 26126 SRNL	HT0201000-05450-1009191	\$210,162.64
--	-------------------------	--------------

**Description of Work:** FY2013 funds are provided to address obstacles to the further development of the hybrid sulfur thermochemical cycle; specifically the identification and characterization of catalysts with low over-potential and high stability and high temperature membranes which can minimize sulfur species transport and support high catalyst kinetics. Funds will be used to complete fabrication of a pressurized button cell test station, perform anode catalyst screening in model solutions and establish the performance baseline MEA at sulfur depolarized electrolysis conditions.

**Funding Action # 42629 (Regular, Operating), HQ POC: Stetson, Ned, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #22272 - SRNL - Alane - 22272	HT0202000-05450-1009192	\$87,567.77

**Description of Work:** Hydrogen storage R&D (Independant Project)

SRNL will continue to develop regeneration methods for AlH<sub>3</sub>, including identifying potential commercialization partners, establishing an agreement with them, such as a CRADA, and initiating activities to transfer of the technology. In 2013 SRNL will demonstrate the use of spent aluminum from aluminum hydride to regenerate starting material with yield of more than 70 % based on reactants of Al and alkaline hydride (e.g. LiH).

**Funding Action # 42639 (Regular, Operating), HQ POC: Stetson, Ned, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #24099 - SRNL - HSECoE - 24099	HT0202000-05450-1009192	\$255,697.88

**Description of Work:** Agreement: 24099; SRNL - Engineering Center of Excellence

In FY2013 SRNL will continue overall management of the HSECoE, including organizing face-to-face, system architect, and coordinating council meetings; coordinate with the DOE for the partner presentations to the Hydrogen Storage Technical Team and at the Annual Merit Review; and carry out functions as requested by the DOE. SRNL will also play active roles in the metal hydride and sorbent systems design, modeling and validation, including demonstrating flow-through cooling of an adsorbent bed and performing as the "System Architech" for the metal hydride system design.

**Funding Action # 42659 (Regular, Operating), HQ POC: Stetson, Ned, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #22275 - SRNL - H2 Storage Tech Support - 22275	HT0202000-05450-1009192	\$112,086.74

**Description of Work:** Agreement Id: 22275 Technical Support/Independent evaluation of storage concepts  
Technical support will be provided as requested, including carrying out evaluations of proposed concepts and reported results. At least on peer review journal publication will be prepared.



**Funding Action # 42679 (Regular, Operating), HQ POC: Farmer, Richard, Field POC: Motyka, Ted**

<b>Agreement/solicitation ID &amp; Title</b>	<b>B&amp;R Code</b>	<b>Funding Amount</b>
<b>Agreement #24132 - SRNL - Technical Support</b>	<b>HT0500000-05450-1009195</b>	<b>\$122,594.88</b>

**Description of Work:** FY 13 funds are to be used by SRNL to provide technical assistance to DOE technology development managers specifically in the hydrogen Safety, Codes and Standards program including planning and coordinating activities such as the monthly lab manager's call and in responding to inquiries addressed to the SCS program.

*Electronically signed by Richard Farmer*  
**8c082c66-30a7-4e79-b532-0c871d71a50c**

**Richard Farmer, Acting Director  
Fuel Cell Technologies Office  
Energy Efficiency and Renewable Energy**

**CC: Patrick R. Jackson (SRS)  
Sylvia Green-Ellis (SRNL)**

## **Attachment 12**

**Work Authorization No. HI-410003-13-5-13, Rev 2**

**Project Title: Fuel Cell Technologies Program**

2013-73

**U. S. DEPARTMENT OF ENERGY  
CONTRACT WORK AUTHORIZATION**

<b>1a. Project Title</b> Fuel Cell Technologies Program		<b>1b. Work Proposal Number</b> AOP #FY13 SRNL PD, AOP #FY12 SRNL ST, AOP#FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #FY12SRNL PD, AOP #SRNL FY12 SCS.	
<b>2. Headquarters Program Point of Contact</b> Name: Sunita Satyapal      Organization Code: EE-2H      Phone: 202-586-2336			
<b>3. Headquarters Budget Point of Contact</b> Name: Richard Farmer      Organization Code: EE-2H      Telephone No. 202-586-1623			
<b>4. Responsible Program</b> Office of Energy Efficiency and Renewable Energy		<b>5. Responsible Secretarial Officer</b> David Danielson	
<b>6. Responsible Field Organization</b> U.S. Department of Energy, Savannah River Operations			
<b>7a. Site and Facility Management Contractor</b> Savannah River Nuclear Solutions, LLC		<b>7b. Contractor Point of Contact</b> Name: John W. Temple      Telephone No. (803) 952- 7210	
<b>8. Work Authorization Number</b> HI-410003-13-5-13		<b>9. Revision Number</b> 2	
<b>10. Funds Authorized (\$ in thousands)(See NOTE below)</b> NOTE: Work subject to funds availability and an approved "Full Year FY 2013 Continuing Resolution Act."			
<b>Budget and Reporting Code:</b>	<b>Previous:</b>	<b>Change:</b>	<b>Current:</b>
HT0201000-05450-1009191 - Agreement # 13443	\$ -	\$ 23,767.78	
HT0201000-05450-1 0091 91 - Agreement# 26126	\$ -	\$ 71,303.61	
HT0202000-05450-1009192- Agreement 22272	\$ -	\$ 29,709.23	
HT0202000-05450-1009192 - Agreement 24099	\$ -	\$ 86,753.12	
HT0202000-05450-1 009192 - Agreement 22275	\$ -	\$ 38,028.26	
HT0500000-05450-1009195 - Agreement 24132	\$ -	\$ 41,592.87	
<b>Total</b>	\$ 2,553,164.13	\$ 291,154.87	\$ 2,844,319.00
<b>11. Performance Period Covered by Funds</b> From: October 1, 2012      To: September 30, 2013		<b>12. Work Start Date</b> From: Oct. 1, 2012      To: Sept. 30, 2013	
<b>13. Expected Completion Date</b>			




2013-12

#### 14. Statement of Work (Includes attachments)


Funding in the amount of \$291,154.87 is authorized by the Fuel Cell Technologies Office to perform work in the areas of :

- Production & Delivery: Production of hydrogen from domestic resources with a focus on renewables and low carbon pathways, as well as delivery of hydrogen to meet costs of \$2 to \$4 per gallon gasoline equivalent
- Hydrogen Storage: Storage of hydrogen on vehicles with secondary emphasis on early market applications.
- Fuel Cells: Conversion of hydrogen and other fuels to electricity with a focus on transportation applications and secondary emphasis on stationary and portable power applications.
- Technology Validation: Technical validation of systems in real-world environments.
- Safety, Codes & Standards: Safety-related research and facilitation of the development of model codes and standards for widespread domestic and international commercialization of hydrogen and fuel cell technologies.
- Systems Analysis: Understanding the complex interactions among components, system costs, energy efficiency, environmental impacts, societal impacts, and system trade-offs.
- Manufacturing: Research and development of manufacturing technologies and processes to lower the cost and improve the quality of hydrogen and fuel cell systems and components.
- Market Transformation: Accelerates the commercialization and early adoption of hydrogen and fuel cell technologies.

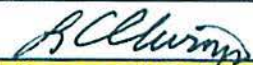
#### 15. DOE-SR Program Point of Contact

Name (printed):	Signature:	Date:
Patrick R. Jackson		May 14, 2013

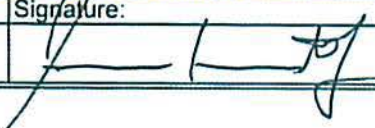
#### 16. DOE Budget Official

Name (typed):	Signature:	Date:
Harold K. Nielsen		5/14/13

#### 17. Contractor's Authorized Representative

Name (typed):	Signature:	Date:
John Temple		5/15/13

#### 18. DOE Contracting Officer (or delegated representative)

Name (typed):	Signature:	Date:
Jim Lovett		5/15/13

U.S. DEPARTMENT OF ENERGY  
FUNDS DISTRIBUTION SYSTEM  
APPROVED FUNDING PROGRAM05/01/2013  
PAGE: 689X0321 - ENERGY EFFICIENCY AND RENEWABLE ENERGY  
FISCAL YEAR: 2013

36 - MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO. 5

B&R CODE	B&R TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	FN	CHANGE	FN	REVISED AMOUNT
OPERATING EXPENSES : 89X0321.91 (05450)									
0	BM01	BIOMASS/BIOFUELS ENERGY SYSTEMS							
			2013	NEW OA	450,000.00		0.00		450,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	450,000.00		0.00		450,000.00
0	BM01 TOTAL,	BIOMASS/BIOFUELS ENERGY SYSTEMS		NEW OA	450,000.00		0.00		450,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	450,000.00		0.00		450,000.00
0	EL17	FEDERAL ENERGY MANAGEMENT PROGRAM							
			2013	NEW OA	12,000.00		0.00		12,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	12,000.00		0.00		12,000.00
0	EL17 TOTAL,	FEDERAL ENERGY MANAGEMENT PROGRAM		NEW OA	12,000.00		0.00		12,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	12,000.00		0.00		12,000.00
0	HT	HYDROGEN AND FUEL CELLS TECHNOLOGIES							
			2013	NEW OA	2,553,164.00		291,155.00		2,844,319.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,553,164.00		291,155.00		2,844,319.00
0	HT TOTAL,	HYDROGEN AND FUEL CELLS TECHNOLOGIES		NEW OA	2,553,164.00		291,155.00		2,844,319.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,553,164.00		291,155.00		2,844,319.00
0	SL	SOLAR ENERGY							
			2013	NEW OA	900,225.00		384,804.00		1,285,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	900,225.00		384,804.00		1,285,029.00

2013-13

U.S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
1a. Program Title: Fuel Cell Technologies Office		1b. Work Proposal Number (if applicable): AOP #FY13 SRNL PD, AOP #FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #FY12 SRNL PD, AOP #SRNL FY12 SCS	
2. Headquarters Program Point of Contact:			
Name: Sunita Satyapal		Organization Code: EE-2H	Telephone No: (202) 586-2336
3. Headquarters Budget Point of Contact:			
Name: Cathy Short		Organization Code: EE-3B	Telephone No: (202) 586-9302
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Energy Efficiency and Renewable Energy		David Danielson	
6. Responsible Field Element:			
Savannah River Site Office			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact:	
Savannah River Nuclear Solutions, LLC		Name: Ted Motyka	Telephone No: (803) 725-3665
8. Work Authorization Number:			
HI-410003-13		2	
10. Funds Authorized:			
<u>Congressional Control Point</u>	<u>Previous</u>	<u>Change</u>	<u>Current</u>
HT0000000	\$2,553,164.13	\$291,154.87	\$2,844,319.00
11. Performance period covered by funds:		12. Work Start Date:	13. Expected Completion Date:
From:10/01/2012 To:09/30/2013		10/01/2012	09/30/2013
14. Statement of Work:			
<p>Funding in the amount of \$291,154.87 is authorized by the Fuel Cell Technologies Office to perform work in the areas of :</p> <ul style="list-style-type: none"> <li>• Production &amp; Delivery: Production of hydrogen from domestic resources with a focus on renewables and low carbon pathways, as well as delivery of hydrogen to meet costs of \$2 to \$4 per gallon gasoline equivalent</li> <li>• Hydrogen Storage: Storage of hydrogen on vehicles with secondary emphasis on early market applications.</li> <li>• Fuel Cells: Conversion of hydrogen and other fuels to electricity with a focus on transportation applications and secondary emphasis on stationary and portable power applications.</li> <li>• Technology Validation: Technical validation of systems in real-world environments.</li> <li>• Safety, Codes &amp; Standards: Safety-related research and facilitation of the development of model codes and standards for widespread domestic and international commercialization of hydrogen and fuel cell technologies.</li> <li>• Systems Analysis: Understanding the complex interactions among components, system costs, energy efficiency, environmental impacts, societal impacts, and system trade-offs.</li> <li>• Manufacturing: Research and development of manufacturing technologies and processes to lower the cost and improve the quality of hydrogen and fuel cell systems and components.</li> <li>• Market Transformation: Accelerates the commercialization and early adoption of hydrogen and fuel cell technologies.</li> </ul>			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
16. Work Authorization Program Official:			

Name (typed): Sunita Satyapal, Director	Signature: afa0af19-cef4-411a-8915- 9267d8c20c8f	Date: 4/24/2013
17. DOE Field Organization Official:		
Name (typed):	Signature:	Date:
18. Contractor's Authorized Representative:		
Name (typed):	Signature:	Date:
19. DOE Contracting Officer (or delegated representative):		
Name (typed):	Signature:	Date:
* The work authorization number will consist of the program code, AFP code, and the fiscal year		

FED 13-8097 - May

## **Attachment 13**

**Work Authorization No. HQTD1000, Rev 5**

**Project Title: Technical Planning, Integration and Risk Management**



2013-19

U.S. Department of Energy

# CONTRACT WORK AUTHORIZATION

Project Title		Work Proposal Number	
Technical Planning, Integration and Risk Management		HQTD1000	
HQ Program Point of Contact	Organization Code	Telephone	
Steven P. Schneider	EM-21	301.903.4307	
HQ Budget Point of Contact	Organization Code	Telephone	
Connie Flohr	EM-61	301.903.0393	
Program Name		Secretarial Office Name	
Office of Environmental Management		Mustin	

Responsible Field Organization	
U.S. Department of Energy (DOE), Savannah River Operations (SR)	
Site Facility Management Contractor	Contractor Point of Contact
Savannah River Nuclear Solutions, LLC	John Temple 803.952.7210
Work Authorization Number	Revision
HQTD1000	5

Funds Authorized (See note below)			
This is a Net \$0 distribution by the Program Office of prior year uncosted funds to continue funding Statement of Work.			
B/R Code	Previous	Change	Current
EY4049110 SR031601	\$7,172.70	(\$7,172.70)	\$0.00
EY4049110 HQTD1000	\$595,852.16	\$7,172.70	\$603,024.86

## U.S. Department of Energy



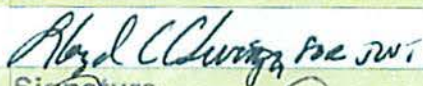
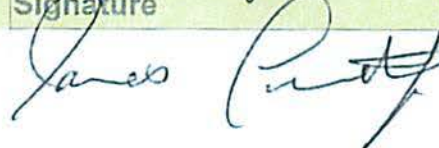
## CONTRACT WORK AUTHORIZATION

Perf Start	Perf Stop	Work Start	Work Stop
10/1/2012	9/30/2013	10/1/2012	9/30/2013

## Statement of Work

SRNL will assist EM-30 in FY2013 with development and deployment of technological solutions to EM cleanup problems to include:

1. Support five Technical Project areas:
  - a. WP-1 Waste Retrieval and Closure Technologies
  - b. WP-2 Alternative Waste Pretreatment
  - c. WP-3 Advanced Unit Operations and Scaling
  - d. WP-4 Improved Vitrification Capacity
  - e. WP-5 Increased Waste Loadings
2. Technical Integration - Provide rapid response to emergent HQ requests.
3. HQ Requested Studies and Reports - Issuance of reports and technical reviews as needed.
4. Systems Engineering - Provide systems engineering solutions to complicated issues, to include assisting EM in the risk management of its technical portfolio; develop and maintain program execution documents, and facilitate implementation of complex-wide clean-up strategies.

POC Name Last	Signature	Date
Patrick Jackson	 <small>APPROVED By Patrick R. Jackson at 3:44 pm, May 09, 2013</small>	May 9, 2013
Budget Name Last	Signature	Date
Harold K Nielsen		5/13/13
Contract POC Name Last	Signature	Date
John Temple		5/15/13
CO Name Last	Signature	Date
Scott Langston James Lovett		5/15/13

**OFFICE OF TANK WASTE & NUCLEAR MATERIALS (EM-20)  
WORK AUTHORIZATION /TASK CHANGE REQUEST (TCR)**

Project Number :	HQTD1000	Date:	May 2013	AFP Change Month:	June 2013
Project Title:	Technical Planning, Integration and Risk Management				
Site /Contractor:	SRNL	Waste Processing Area:WP-0			

Contract Number if other than National Laboratory or DOE site contractor:

Name of Principal Investigator: Jeff Griffin, Savannah River National Laboratory, (803) 725-1343, jeff.griffin@srl.doe.gov  
Bill Wilmarth, Savannah River National Lab, 803-725-1727, bill.wilmarth@srl.doe.gov

Name of Budget Analyst at site: Leza Roberson, SRS, (803)952-9196 , leza.roberson@srs.gov

New BA (\$K) Requested	Prior Funding (\$K) in this FY	Total Uncosted (\$K) as of Beginning of this FY	Total Available Funding (\$K) including this request (add first three columns)
<p>Net \$ 0 K distributed as follows:</p> <p>a. (\$7,173 K) from SRNL project SR031601 (FY09) to</p> <p>b. \$7,173K to SRNL project HQTD1000</p>	561.732	149	\$717.905 K

**Spend Plan for Total Annual Funding (use actual costed funds for previous quarters)**

1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY	3 <sup>rd</sup> Quarter of FY	4 <sup>th</sup> Quarter of FY	Projected uncosted at the end of this FY
\$177 K	\$ 177 K	\$177 K	\$186 K	\$ 0.905 K

**Funding Codes (To be Completed by Budget Office)**

Fund	Year	Allottee	Reporting Entity	SGL	Object Class	Program	Project	Amount
<del>01-50</del>	See attached							

**Short Description of Work Scope Authorized /Changed for input in AFP:**

To accomplish its mission, DOE-EM Office of Tank Waste Management (EM-21) relies on support from the various national laboratories such as INL and ORNL. These labs assist EM-30 in the development and deployment of technological solutions to EM cleanup problems to include:

1. Support of the five Technical Project areas:
  - a. WP-1 Waste Retrieval and Closure Technologies
  - b. WP-2 Alternative Waste Pretreatment
  - c. WP3 Advanced Unit Operations and Scaling
  - d. WP-4 Improved Vitrification Capacity
  - e. WP-5 Increased Waste Loadings
2. Technical Integration -- Provides a rapid response to emergent HQ requests.
3. HQ Requested Studies and Reports -- Issuance of reports and technical reviews as needed.
4. Systems Engineering -- Provide systems engineering solutions to complicated issues, to include assisting EM in the risk management of its technical portfolio; develop and maintain program execution documents, and facilitate implementation of complex-wide clean-up strategies.

Net 0 sum TCR. Transfer \$ 0 K as follows: (\$7.173K) from SRNL project SR031601 (FY09) to \$7.173K SRNL project HQTD1000.

Submitted by:	<i>Gary R. Petersen</i>	Date: 17 April
Headquarters Project Manager (Please Print & Sign)		
Approved by:	<i>Steve B. Schulz</i>	Date: 4/25/13
Office Director (Please Print & Sign)		
Approved by:	<i>W. Paul</i>	Date: 5/6/13
Deputy Assistant Secretary, EAM-20		
Submitted to:	<i>John L. McMillen</i>	Date: 5/6/2013
EAM-20 Budget Analyst for TDD to complete AFP change		

### Funding Codes

Site	Fund	Year	Allottee	Reporting Entity	SGL	Object Class	Program	Project	Amount
SRNL	01250	2009	36	410003	61000000	25400	1110676	0001772	-7,173
SRNL	01250	2009	36	410003	61000000	25400	1110676	0004261	7,173

EY4049100 - SR031601 7173.00 (7173.00) 0  
 " " HQT01000 595,852.16 ~~7173.00~~

## Technical Task Plan -- Technical Planning, Integration and Risk Management (WP-0)

### NEEDS STATEMENT:

The EM Office of Tank Waste Management manages the EM Tank Waste Technology Development and Deployment (TDD) Program that conducts applied research and technology development, demonstration and deployment. This office is chartered to remediate the radioactive tank waste that is stored at the three major EM sites (Hanford, SRS, and Idaho). The objective of the program is to reduce the technical risk and uncertainty in the Department's tank waste disposition projects. To reduce those risks and uncertainties, the program will provide technical solutions where none exist, improved solutions that enhance safety and operating efficiency, or technical alternatives that reduce programmatic risks (cost, schedule, or effectiveness).

### BACKGROUND AND PURPOSE:

DOE-EM will be assisted in carrying out these activities by the Savannah River National Laboratory (SRNL), which will provide programmatic support to DOE-EM and assist in mitigating technical and programmatic risks.

### TECHNICAL APPROACH:

#### Summary of the Approach

Programmatic tasks in support of the Office of Waste Processing include support of the Tank Waste Technical Development and Deployment (TDD) Program. This support includes coordinating teams of National Lab, DOE staff and staff of selected directed institutions to assist the development of the technical scope to be accomplished in each research area, recommending the performing organizations and recommending appropriate funding levels. Assess progress of the performing organizations and make recommendations to EM-21 for project direction. This also includes assuring that the international program is aligned with each Technical Project Area. Furthermore this supports reporting on project costs and schedules, as well as the annual reports and highlights, technical reviews and other reports as needed, e.g. the Report to Congress.

### SCHEDULE / MILESTONES:

Activity	Date
TBD	TBD



**SPENDING PLAN**

Monthly Spending Plan for FY2013 (\$K)

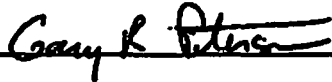
Prior Year \$4.732K

Carry Over: \$149K

Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sept 13	Carryover	Total
59	59	59	59	59	59	59	59	59	62	62	62	0.905	717.905

Signature and Approvals

HQ Program Manager:



Office Director:

**BUDGET:**

Task	Budget FY13 (\$K)
Support the EM-21 Tank Waste TDD Program	\$ 717.905 K

## **Attachment 14**

**Work Authorization No. 89X0319, Rev 5**

**Project Title: Fuel Cycle Technologies**



2013-78

## U.S. Department of Energy

**CONTRACT WORK AUTHORIZATION**

Project Title	Work Proposal Number
Fuel Cycle Technologies	89X0319

HQ Program Point of Contact	Organization Code	Telephone
Robert Rova	NE-5	301.903.9096

HQ Budget Point of Contact	Organization Code	Telephone
Daphne M. Lugenbeel	NE-34	301.903.2251

Program Name	Secretarial Office Name
Office of Nuclear Energy	John Herczeg

Responsible Field Organization
U.S. Department of Energy (DOE), Savannah River Operations (SR)

Site Facility Management Contractor	Contractor Point of Contact
Savannah River Nuclear Solutions, LLC	John Temple 803.952.7210

Work Authorization Number	Revision
89X0319	5

**Funds Authorized (See note below)**

This guidance is based on funding provided under the FY 2013 Continuing Resolution (CR) for Appropriation 89X0319 and reflected in the AF58 Budget and Reporting codes for the April Approved Funding Program (AFP). Per the attached direction, \$300,000 was added to NFST Planning Project - 1.2.09.08 ST Design Concepts managed under BNR/CAM AF586502. Also, per the attached direction, additional appropriations year 2012 funds from B&R Code AF583203, in the amount of \$100,000, are being added to this Work Authorization.

B/R Code	Previous	Change	Current
AF5805100	\$1,052,100.00	\$105,210.00	\$1,157,310.00
AF5865010	\$816,750.00	\$110,000.00	\$926,750.00
AF5865020	\$808,250.00	\$0.00	\$808,250.00
AF5832030	\$52,500.00	\$5,250.00	\$57,750.00
AF5832020	\$178,500.00	\$17,850.00	\$196,350.00
Total FY 2013	\$2,908,100.00	\$238,310.00	\$3,146,410.00

2013-78

U.S. Department of Energy

# CONTRACT WORK AUTHORIZATION

FY2012 Funding	\$100,000.00	\$0.00	\$100,000.00
Grand Total	\$3,008,100.00	\$238,310.00	\$3,246,410.00
Perf Start	Perf Stop	Work Start	Work Stop
10/1/2012	9/30/2013	10/1/2012	9/30/2013

## Statement of Work

The FCT work packages defining the authorized work scope are maintained in the Program Information Collection System NE (PICSNE). PICSNE will be used for all monthly performance reporting to Headquarters Management including, but not limited to the status of: Level 2 milestones, deliverables, cost and schedule, Baseline Change Proposals, and carryover projections. The funding allocation by B&R code is shown in the attached table.

POC Name Last	Signature	Date
Patrick Jackson	<div>APPROVED By Patrick R. Jackson at 2:29 pm, May 14, 2013</div>	May 14, 2013
Budget Name Last	Signature	Date
Harold K Nielsen	<i>Harold K Nielsen</i>	5/14/13
Contract POC Name Last	Signature	Date
John Temple	<i>John C. Clumey for JTW</i>	5/15/13
CO Name Last	Signature	Date
Scott Langston James Lovett	<i>James Lovett</i>	5/15/13

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1	2
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
357		05/15/2013		13EM001852			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				x			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$71,738,302.54	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to obligate funds to CLIN 0001 (Department of Energy (DOE)) in accordance with SRNS FINPLAN 15. Funds in the amount of \$71,738,302.54 are hereby obligated to CLIN 0001, thereby increasing it from \$4,345,091,874.70 to \$4,416,830,177.24.							
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,744,820,218.53 to \$5,816,558,521.07.							
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				Signature on File _____ (Signature of Contracting Officer)		05/15/2013	

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
359		See Block 16C					
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
CODE		FACILITY CODE		10B. DATED (SEE ITEM 13)			
798861048				01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to revise block 10 period of performance on Work Authorization No. ARRA-SRS-3-09-04 Rev.14 to read: From 4/8/2009 To 7/31/2013.  Revised contract work authorization for Project D (TRU and Solid Waste) is attached to reflect the administrative change.  All other terms and conditions remain the same.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				Signature on File		05/20/2013	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: OR for Savannah River U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4908 Oak Ridge TN 37831				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 0360		3. EFFECTIVE DATE 06/11/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002099	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 798861048      FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470		10B. DATED (SEE ITEM 13) 01/10/2008	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)      Net Increase:      \$129,800,826.50					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE      A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority) X      Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to obligate funds to CLIN 0001 (Department of Energy (DOE)) in accordance with SRNS FINPLAN 15. Funds in the amount of \$129,800,826.50 are hereby obligated to CLIN 0001, thereby increasing it from \$4,416,830,177.24 to \$4,546,631,003,74.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,816,558,521.07 to \$5,946,359,347.57.					
C. The contract estimated value and all other terms and conditions remain unchanged.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				06/11/2013	
		(Signature of Contracting Officer)			

**CONTINUATION SHEET**

REFERENCE NO. OF **MENT BEING CONTINUED**  
DE-AC09-08SR22470/0360

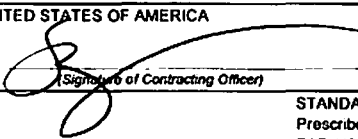
PAGE **2** OF **2**

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: OR for Savannah River U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4908 Oak Ridge TN 37831 FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0361		06/11/2013		13EM002099	
<b>5. PROJECT NO. (If applicable)</b>		<b>6. ISSUED BY</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
		CODE 00901		CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>		Net Increase:		\$267,871.24	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF					
D. OTHER (Specify type of modification and authority)					
X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
The purpose of this modification is to obligate funds to CLIN 0001; and correct error under Modification 0360. Accordingly, the following applies:					
A. Under CLIN 0001, funds in the amount of \$267,871.24 (Reimbursable Work Commercial), are hereby obligated, thereby increasing it from \$4,546,631,003.74 to \$4,546,898,874.98.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,946,359,347.57 to \$5,946,627,218.81.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>			
		Scott D. Langston			
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b>	
				06/11/2013	
NSN 7540-01-152-8070 Previous edition unusable					
STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243					

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/0361	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>C. Under Modification 360, paragraph 14.A, in the first sentence as read "FINPLAN 15," is changed to read "FINPLAN 16."</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>Payment:</p> <p>OR for Savannah River U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4908 Oak Ridge TN 37831</p> <p>FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1   2	
2. AMENDMENT/MODIFICATION NO. 0362		3. EFFECTIVE DATE 06/11/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002099	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO. (X)		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$1,951,660.84

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to obligate funds to CLIN 0001, in accordance with SRNS FINPLAN 15., as cited below:

- 1) Department of Commerce \$19,417.00
- 2) Department of Defense \$52,913.00
- 3) Department of State \$24,271.84
- 4) Miscellaneous \$1,855,059.00

The total amount of \$1,951,660.84 is hereby obligated to CLIN 0001, thereby increasing it from \$4,546,898,874.98 to \$4,548,850,535.82.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Scott D. Langston	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED 06/11/2013

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0362

PAGE 2 OF 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,946,627,218.81 to \$5,948,578,879.65.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>Payment:</p> <p>OR for Savannah River U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4908 Oak Ridge TN 37831</p> <p>FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1 CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0363		06/18/2013		13EM002163	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
CODE 798861048 FACILITY CODE				01/10/2008	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
The purpose of this modification is to recast FY 2013 Funds, and delete the payment office on Mods 360, 361 and 362. Accordingly, the following apply:  A. FY 2013 Funds are hereby recasted from Risk Management Fund code 01250 Project Baseline Summary (PBS) 11C, 12, 13 and 30 to Risk Management Fund code 01264, 01265, 01266 and 01267, in accordance with SRNS FINPLAN 17. The PBS will remain the same.  B. Under modifications 360, 361 and 362, of page 2, the Payment Office is deleted in its entirety, STRIPES error, not applicable to the M&O Contract.  C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
John W. Temple, Senior Vice President Contracts Administration			Marie A. Garvin		
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
John W. Temple (Signature of person authorized to sign)		6/19/13		Marie A. Garvin (Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b>	
				6/19/13	

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 0364		3. EFFECTIVE DATE 06/21/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002192	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
9C. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470		9D. DATED (SEE ITEM 13) 01/10/2008		10. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	
11. ACCOUNTING AND APPROPRIATION DATA (If required)		12. ACCOUNTING AND APPROPRIATION DATA (If required)		13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:		D. OTHER (Specify type of modification and authority)		X Section I, DEAR 970.5211-1 Work Authorization (May 2007)	
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office		14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)		A. The purpose of this modification is to incorporate Contract Work Authorization No. HI-410003-13, Rev 3, for Fuel Cell Technologies, attached hereto (See Attachment 1, Contract Work Authorization with Supporting Documentation).	
B. This modification formally incorporates the above referenced contract work authorization as part of the contract. Funds authorization was provided under separate modification, *FINPLAN #16, FY 2013. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.		C. The contract estimated value and all other terms and conditions remain unchanged.		Continued ...	
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		16B. DATE SIGNED	
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16C. DATE SIGNED	
15D. UNITED STATES OF AMERICA		16D. UNITED STATES OF AMERICA		16E. DATE SIGNED	
15F. NAME AND TITLE OF SIGNER (Type or print)		16F. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		16G. DATE SIGNED	
15G. NAME AND TITLE OF SIGNER (Type or print)		16G. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		16H. DATE SIGNED	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0364	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>*NOTE: In addition, FINPLAN #16, Page 2, provides details of funds held back on DOE side for purchase of Cyber Equipment required in support of Work Authorization No. IN3021, for Energy and Threat (Reference Mods 306 and 356). Funds were adjusted accordingly. Under governing Federal regulations Cyber Equipment in support of Government contracts shall be purchased by the Government.</p>				



## Contract Work Authorization Supporting Documentation Index

<u>Documentation No.</u>	<u>Work Proposal Number</u>	<u>Project Title</u>
A	HI-410003-13, Rev 3	Fuel Cycle Technologies (6 pages, DOE SR generated form with reviewers and approvals concurrence, DOE Hqts, EE-2H, generated Form DOE O 412.1A Attachment 1 – 2 pages)
B	Supporting Documentation	Memorandum to Program Manager, FY 2013 Fuel Cell Technologies Office Funding for SRNL (breakdown of funds with Program Guidance, 4 pages, Hqts Funding transfer – 1 page, SRNS FIN PLAN #16 – 8 pages, see page 7 of 8, attached)
C	Supporting Documentation	FY 2013 Annual Operating Plan for SRNL, Fuel Cell Technologies Program - Include Cover Page, Index, pages 3 -21 APO for B&R No. HT0500 – Page 22 -24 APO for BR No. EB-4201 – Pages 25 -34
D	Supporting Documentation	DOE-SR COR, Letter with copy of Certificate of Training

**\*Note: Funding Allocated under FINPLAN 16, FY 2013. The Contract Work Authorization was reviewed via SRS Electronic System for Approval (the generated Contract Work Authorization with the reviewers and/or approvals concurrences is considered the validated signed copy by all parties, inclusive of the above supporting documentation for official contract file for Modification No. 364.**

## **Supporting Documentation No. A**

## Work Authorization

		<b>U.S. DEPARTMENT OF ENERGY</b> <b>CONTRACT WORK AUTHORIZATION</b> <b>If you need assistance with this form contact</b> <b>Belinda Beckum 5-5352</b>		<b>Tracking Number</b> <b>CWA-2013-00000</b>	
1a. Project Title: Fuel Cell Technologies			1b. Work Proposal Number (if applicable): AOP #FY13 SRNL PD, AOP #FY12 SRNL ST, AOP		
2. Headquarters Program Point of Contact.					
Name: Sunita Satyapal		Organization Code: EE=2H		Telephone No.: 202-586-2336	
3. Headquarters Budget Point of Contact.					
Name: Cathy Short		Organization Code: EE-3B		Telephone No.: 202-586-9302	
4. Responsible Program: Office of Energy Efficiency and Renewable Energy			5. Responsible Secretarial Officer: Office of Energy Efficiency and Renewable Energy		
6. Responsible Field Organization U. S. Department of Energy (DOE), Savannah River Operations (SR)					
7a. Site and Facility Management Contractor: Savannah River Nuclear Solutions, LLC			7b. Contractor Point of Contact: Name: John Temple Telephone No.: 803-952-7210		
8. Work Authorization Number: HI-410003-13			9. Revision Number:* 3		
10. Funds Authorized (See note below)					
Work subject to funds availability and an approve "Full Year FY 2013 Continuing Resolution Act."					
Date	Budget and Reporting Code	Project Value	Previous:	Change:	Current:
5/13/13	HT0201000-05450-1009191 · Agreement #13443		23,767.78	6,178.00	29,945.78
	HT0201000-05450-		71,303.61	18,534.00	89,837.61
	HT0202000-05450-1009192 · Agreement #22272		29,709.23	7,723.00	37,432.23
	HT0202000-05450-		38,028.26	9,885.00	47,913.26
	HT0202000-05450-1009192 · Agreement #24099		86,753.12	22,549.00	109,302.12
	HT0500000-05450-		41,592.87	10,812.00	52,404.87
	Total (Includes initial funding of \$2,553,164.13)		2,844,319.00	75,681.00	2,920,000.00
11. Performance Period Covered by Funds. (See NOTE in block 10)			12. Work Start Date:		13. Expected Completion Date:
From: 10/1/12 To: 9/30/13			10/1/12		9/30/13
14. Statement of Work (includes attachments)					
Funding in the amount of \$75,681.00 is authorized by the Fuel Cell Technologies Office to perform work in the areas of : <ul style="list-style-type: none"> <li>• Production &amp; Delivery: Production of hydrogen from domestic resources with a focus on renewables and low carbon pathways, as well as delivery of hydrogen to meet costs of \$2 to \$4 per gallon gasoline equivalent</li> <li>• Hydrogen Storage: Storage of hydrogen on vehicles with secondary emphasis on early market applications.</li> <li>• Fuel Cells: Conversion of hydrogen and other fuels to electricity with a focus on transportation applications and secondary emphasis on stationary and portable power applications.</li> </ul>					

- **Technology Validation:** Technical validation of systems in real-world environments.
- **Safety, Codes & Standards:** Safety-related research and facilitation of the development of model codes and standards for widespread domestic and international commercialization of hydrogen and fuel cell technologies.
- **Systems Analysis:** Understanding the complex interactions among components, system costs, energy efficiency, environmental impacts, societal impacts, and system trade-offs.
- **Manufacturing:** Research and development of manufacturing technologies and processes to lower the cost and improve the quality of hydrogen and fuel cell systems and components.
- **Market Transformation:** Accelerates the commercialization and early adoption of hydrogen and fuel cell technologies.

#### 15. Technical Point of Contact

<b>Name</b> Ted Motyka/SRNL/Srs	<b>Title</b> SRS Technical Point of Contact	<b>Email</b> ted.motyka@srl.doe.gov	<b>Phone</b> (803) 507-8548
<b>SRS Technical Point of Contact Manager</b>			
<b>Name</b> Bond Calloway/SRNL/Srs	<b>Title</b> SRS Technical Point of Contact Manager	<b>Email</b> bond.calloway@sml.doe.gov	<b>Phone</b> (803) 507-5174

<b>16. DOE-SR Program Point of Contact</b> Patrick Jackson/DOE/Srs	<b>17. DOE-SR Field Budget Official</b> Harold Nielsen/DOE/Srs	<b>18. Contractor's Authorized Representative</b> John Temple/SRNS/Srs	<b>19. DOE Contracting Officer (or delegated representative)</b> Scott Langston/DOE/Srs
---	---	---	--

Technical POC

I accept the scope and funding requirements and have no issues meeting the requirements. ☐ Yes ☒ No  
 Christine Corbin has pressed the button, "I accept the scope and funding requirements and have no issues meeting the requirements." 06/19/2013 01:30 PM

DOE-SR Prog POC

### DOE-SR Work Authorization Program

#### DOE Order 412 Compliance Checksheet

<b>Project Title</b>	<b>Work Authorization Number</b>
Fuel Cell Technologies	HI-410003-13
<b>At a minimum, each work authorization will contain the following information:</b>	
<input checked="" type="radio"/> Yes <input type="radio"/> No	Project title and reference to work proposal number, if applicable
<input checked="" type="radio"/> Yes <input type="radio"/> No	Headquarters programmatic point of contact, organization, and telephone number
<input checked="" type="radio"/> Yes <input type="radio"/> No	Headquarters budget point of contact, organization code, and telephone number
<input checked="" type="radio"/> Yes <input type="radio"/> No	Responsible program
<input checked="" type="radio"/> Yes <input type="radio"/> No	Responsible program Secretarial Officer
<input checked="" type="radio"/> Yes <input type="radio"/> No	Responsible field organization
<input checked="" type="radio"/> Yes <input type="radio"/> No	Responsible contracting officer if different from above
<input checked="" type="radio"/> Yes <input type="radio"/> No	Site/facility management contractor name, point of contact, and telephone number
<input checked="" type="radio"/> Yes <input type="radio"/> No	Work authorization number, with revision number if applicable
<input checked="" type="radio"/> Yes <input type="radio"/> No	Budget and reporting code and funding level
<input checked="" type="radio"/> Yes <input type="radio"/> No	Dates for performance period, work start, and work completion
Statement of work (see paragraph below)	
<input checked="" type="radio"/> Yes <input type="radio"/> No	Headquarters, field organization, contractor, and if involving changes to scope, schedule, or funding, contracting officer signature blocks
<input checked="" type="radio"/> Yes <input type="radio"/> No	Reporting requirements, including (a) project management or status reports and (b) reports or publications for the purpose of informing DOE, the scientific community, and the public of the project results (e.g., scientific advances or technical progress)
<b>The statement of work will include the following information as appropriate:</b>	
<input checked="" type="radio"/> Yes <input type="radio"/> No	Detailed statement of work to be performed or reference to a work proposal, project plan, or similar document describing



<input checked="" type="radio"/> Yes <input type="radio"/> No	the scope of work in detail
<input checked="" type="radio"/> Yes <input type="radio"/> No	Required milestone dates
<input checked="" type="radio"/> Yes <input type="radio"/> No	Deliverables, including technical information as required by DOE O 241.1A, Scientific and Technical Information Management
<input checked="" type="radio"/> Yes <input type="radio"/> No	Associated performance-based indicators/targets consistent with DOE G 120.1-5, Guidelines for Performance Measurement, and any additional guidance that will assist the contractor in the performance of the work.

**Reviewer's Comments**

This authorization is: Accepted. If rejected, then comments are provided in this space.

DOE-SR Program Point of Contact

Date

Belinda Beckum/SRNL/Srs

06/03/2013 09:40 AM

DOE-SR Field Budget Official

BEARS database search complete and results attached to WAD package?

☒ Y ☐ N

Funding constrained: (Year constrained; CR; etc.)

☐ 1-year money ☒ No year money ☐ Free money

Is this funding in the Fin Plan?

☒ Y ☐ N

Necessary expense:

1. Does the expenditure bear a logical relationship to the appropriation sought to be charged? In other words, does it must make a direct contribution to carrying out either a specific appropriation or an authorized agency function for which more general appropriations are available?

☒ Y ☐ N

2. Is the expenditure prohibited by law?

☐ Y ☒ N

3. Is the expenditure otherwise provided for, that is, is it an item that falls within the scope of some other appropriation or statutory funding scheme?

☐ Y ☒ N

Contract Mod Admin

Contract Mod #

Attach Signed Mod

**Attachments**



PKG HI-410003-13 R3.pdf FY13 SRNL AOP Combined v2.pdf



WP # AOP #FY13-Draft Fin Plan 2013-83.pdf



Jackson COR Certification.pdf



#16 page 7 of 8  
as Jun 20, 2013

Notify on Approval

**Contract Work Authorization: In Process**

Approvers	Title	Assigned	Received	Status Changed	Status
Ted Motyka	Technical POC	06/03/2013 02:06:11 PM	06/03/2013 02:08:02 PM	06/04/2013 08:19:21 AM	Concur
John Christian	DOE-SR Work Auth Coordinator	06/04/2013 08:19:22 AM	06/04/2013 09:01:58 AM	06/05/2013 08:03:24 AM	Concur
Patrick Jackson	DOE-SR Program POC	06/05/2013 08:03:26 AM	06/05/2013 08:13:32 AM	06/05/2013 10:06:50 AM	Concur

Harold Nielsen	DOE-SR Field Budge Off	06/05/2013 10:06:52 AM	06/05/2013 12:38:16 PM	06/06/2013 11:12:57 AM	Concur
John Temple	SRNS Contractor Auth Rep	06/06/2013 11:12:58 AM	06/06/2013 11:49:15 AM	06/12/2013 10:26:44 AM	Concur
Scott Langston	DOE-SR Contract Officer	06/12/2013 10:26:45 AM	06/12/2013 11:08:56 AM	06/19/2013 11:52:36 AM	Concur
Christine Corbin	DOE-SR Contract Mod Admin	06/19/2013 11:52:54 AM	06/19/2013 01:02:11 PM	-	-
Kathryn Davis	SRNS Contracts	-	-	-	-

#### Reviewers

Name	Date Time	Action
Kathryn Davis	6/12/2013 8:19:11 AM	Reviewed
Marie Garvin	6/12/2013 12:21:59 PM	Reviewed

U.S. DEPARTMENT OF ENERGY CONTRACT WORK AUTHORIZATION			
1a. Program Title: Fuel Cell Technologies Office		1b. Work Proposal Number (if applicable): AOP #FY13 SRNL PD, AOP #FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #FY12 SRNL ST, AOP #SRNL FY12 SCS, AOP #FY12 SRNL PD	
2. Headquarters Program Point of Contact:			
Name: Sunita Satyapal		Organization Code: EE-2H	Telephone No: (202) 586-2336
3. Headquarters Budget Point of Contact:			
Name: Cathy Short		Organization Code: EE-3B	Telephone No: (202) 586-9302
4. Responsible Program:		5. Responsible Secretarial Officer:	
Office of Energy Efficiency and Renewable Energy		David Danielson	
6. Responsible Field Element:			
Savannah River Site Office			
7a. Site and Facility Management Contractor:		7b. Contractor Point of Contact:	
Savannah River Nuclear Solutions, LLC		Name: Ted Motyka	Telephone No: (803) 725-3665
8. Work Authorization Number:*			
HI-410003-13		3	
10. Funds Authorized:			
<u>Congressional Control Point</u>	<u>Previous</u>	<u>Change</u>	<u>Current</u>
HT0000000	\$2,844,319.00	\$75,681.00	\$2,920,000.00
11. Performance period covered by funds:		12. Work Start Date:	13. Expected Completion Date:
From:10/01/2012 To:09/30/2013		10/01/2012	09/30/2013
14. Statement of Work:			
<p>Funding in the amount of \$75,681.00 is authorized by the Fuel Cell Technologies Office to perform work in the areas of :</p> <ul style="list-style-type: none"> <li>• Production &amp; Delivery: Production of hydrogen from domestic resources with a focus on renewables and low carbon pathways, as well as delivery of hydrogen to meet costs of \$2 to \$4 per gallon gasoline equivalent</li> <li>• Hydrogen Storage: Storage of hydrogen on vehicles with secondary emphasis on early market applications.</li> <li>• Fuel Cells: Conversion of hydrogen and other fuels to electricity with a focus on transportation applications and secondary emphasis on stationary and portable power applications.</li> <li>• Technology Validation: Technical validation of systems in real-world environments.</li> <li>• Safety, Codes &amp; Standards: Safety-related research and facilitation of the development of model codes and standards for widespread domestic and international commercialization of hydrogen and fuel cell technologies.</li> <li>• Systems Analysis: Understanding the complex interactions among components, system costs, energy efficiency, environmental impacts, societal impacts, and system trade-offs.</li> <li>• Manufacturing: Research and development of manufacturing technologies and processes to lower the cost and improve the quality of hydrogen and fuel cell systems and components.</li> <li>• Market Transformation: Accelerates the commercialization and early adoption of hydrogen and fuel cell technologies.</li> </ul>			
15. Reporting Requirements (Status reports, scientific and technical information or similar):			
16. Work Authorization Program Official:			

Name (typed): Sunita Satyapal, Director	Signature: 38ff0a78-ad22-490a-ab22- 361795298c26	Date: 5/13/2013
17. DOE Field Organization Official:		
Name (typed):	Signature:	Date:
18. Contractor's Authorized Representative:		
Name (typed):	Signature:	Date:
19. DOE Contracting Officer (or delegated representative):		
Name (typed):	Signature:	Date:
* The work authorization number will consist of the program code, AFP code, and the fiscal year		

FED 13-8110 - Jun



## **Supporting Documentation No. B**

Program Manager: Satyapal, Sunita  
 Site Officer:  
 Laboratory/Contractor:  
 Contracting Officer:

**MEMORANDUM FOR:** Terry Michalske, Savannah River Nuclear Solutions  
 Savannah River National Laboratory (SRNL)

**SUBJECT:** FY 2013 Fuel Cell Technologies Office Funding for Savannah River National Laboratory (SRNL)

In accordance with the approved Energy Efficiency and Renewable Energy Fuel Cell Technologies Office FY 2013 spend plan, funding has been planned for obligation and expenditure in accordance with program guidance as indicated below. Required changes can be completed via an Agreement Funds Transfer coordinated in the Corporate Planning System (CPS). The laboratory receiving the funds detailed in this letter will be responsible for reporting all funding obligations and cost to headquarters. The laboratory recipient must maintain obligations and cost data at the agreement level, and the data must be made available to Energy Efficiency and Renewable Energy.

**PROGRAM GUIDANCE:**

**Funding Summary**

B&R code	BA (\$)
HT0201000-05450-1009191	\$24,712.00
HT0202000-05450-1009192	\$40,157.00
HT0500000-05450-1009195	\$10,812.00

***Funding Action # 44068 (Regular, Operating), HQ POC: Dillich, Sara, Field POC: Motyka, Ted***

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #26126 - STCH - 26126 SRNL	HT0201000-05450-1009191	\$18,534.00

**Description of Work:** Agreement: 26126; Hybrid Sulfur Thermochemical Cycle (HyS)

FY2013 funds are provided to address obstacles to the further development of the hybrid sulfur thermochemical cycle; specifically the identification and characterization of catalysts with low over-potential and high stability and high temperature membranes which can minimize sulfur species transport and support high catalyst kinetics. Funds will be used to complete fabrication of a pressurized button cell test station, perform anode catalyst screening in model solutions and establish the performance baseline MEA at sulfur depolarized electrolysis conditions.

***Funding Action # 44069 (Regular, Operating), HQ POC: Stetson, Ned, Field POC: Motyka, Ted***

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #22272 - SRNL - Alane - 22272	HT0202000-05450-1009192	\$7,723.00
Agreement #22275 - SRNL - H2 Storage Tech	HT0202000-05450-1009192	\$9,885.00

Support - 22275		
Agreement #24099 - SRNL - HSECoE - 24099	HT0202000-05450-1009192	\$22,549.00

**Description of Work: Agreement: 22272; Hydrogen storage R&D (Independent Project)**

SRNL will continue to develop regeneration methods for AlH<sub>3</sub>, including identifying potential commercialization partners, establishing an agreement with them, such as a CRADA, and initiating activities to transfer of the technology. In 2013 SRNL will demonstrate the use of spent aluminum from aluminum hydride to regenerate starting material with yield of more than 70 % based on reactants of Al and alkaline hydride (e.g. LiH).

**Agreement: 22275; Technical Support/Independent evaluation of storage concepts**

Technical support will be provided to the Hydrogen Storage team through review and evaluation of reports, concepts papers, proposals and site visits as appropriate. Information on carbon fiber composite technology applicable to improving and lowering the cost of COPVs will be continuously gathered through conferences, meetings, contact with stakeholders and etc.

Agreement: 24099; SRNL - Engineering Center of Excellence In FY2013 SRNL will continue overall management of the HSECoE, including organizing face-to-face, system architect, and coordinating council meetings; coordinate with the DOE for the partner presentations to the Hydrogen Storage Technical Team and at the Annual Merit Review; and carry out functions as requested by the DOE. SRNL will also play active roles in the metal hydride and sorbent systems design, modeling and validation, including demonstrating flow-through cooling of an adsorbent bed and performing as the "System Architect" for the metal hydride system design. In 2013 SRNL will provide analysis results on the ability of a MOF-5 adsorbent media bed having a total hydrogen density of: 11 % g H<sub>2</sub>/(g MOF) and 33 g H<sub>2</sub>/(liter MOF) at P = 60 - 5 bar and T = 80 - 160 K.

**Funding Action # 44070 (Regular, Operating), HQ POC: Farmer, Richard, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #24132 - SRNL - Technical Support	HT0500000-05450-1009195	\$10,812.00

**Description of Work: Agreement: 24132; Technical Support for Safety, Codes and Standards Activities**  
FY 13 funds are to be used by SRNL to provide technical assistance to DOE technology development managers specifically in the hydrogen Safety, Codes and Standards Program (SCS) including planning and coordinating activities such as the monthly lab manager's call and in responding to inquiries addressed to the SCS program.

**Funding Action # 44071 (Regular, Operating), HQ POC: Sutherland, Erika, Field POC: Motyka, Ted**

Agreement/solicitation ID & Title	B&R Code	Funding Amount
Agreement #13443 - Pipelines - 13443 SRNL (FRP)	HT0201000-05450-1009191	\$6,178.00

**Description of Work: Agreement: 13443; Material Testing for FRP Pipelines (SRNL)**

**This project is focused on understanding potential environmental and operational degradation effects in fiber reinforced polymer (FRP) pipe, a potentially low-cost H2 pipeline material. FY2013 funds will be used to support the development of a code case for FRP pipe use in transporting hydrogen. Activities will focus on degradation testing of unflawed commercial FRP pipe, including accelerated environmental testing in order to achieve acceptance of a 50 year life under typical use conditions. A key outcome of the project in FY13 will be the completion of FRP performance test identification and submission of this recommendation to the ASME B31.12 Hydrogen Piping and Pipeline Committee Chair.**

**Sunita Satyapal, Director  
Fuel Cell Technologies Office  
Energy Efficiency and Renewable Energy**

**CC: Patrick R. Jackson (SRS)  
Sylvia Green-Ellis (SRNL)**

Savannah River Nuclear Solutions, LLC  
WFO OPERATING COST ESTIMATE FORM  
FY 2013

Revised 3/11/2013

BUSINESS SENSITIVE

<b>JOB TITLE:</b> Fuel Cell Technologies Office <b>JOB DESCRIPTION:</b> Fuel Cell Technologies Office		<b>SRNL PI:</b> Ted Motyka <b>DD:</b> CE <b>BAF:</b> CE
<b>Customer:</b> EERE		<b>Date Prepared:</b> 6/3/2013 <b>Prepared by:</b> Lonnie Gordon

Type of work	Administrative Fee
MPO Memorandum Purchase Order	N/A
IWO Intra-DOE Work Order (MPO > \$100K)	N/A
OFA Other Federal Agency	3%
NFE Non Federal Entity (Commercial work)	3%
CRADA Cooperative Research & Dev Agreement	3%
Other EERE	N/A
X	

DOE ADMINISTRATIVE FEE WAIVED N/A

1. COCS LABOR		With DOH & UBS					
COCS		Cost Center	Labor Rate	EST. HOURS	LABOR		
CE/ST	E133	Rate A	101AL11/14000	116.54	X	0	= 0
	E133	Rate B	101AL11/14000	174.16	X	0	= 0
	E133	Rate C	101AL11/14000	232.86	X	204	= 47,531
	Composite	Ex	101AL11/14000	175.89	X	0	= 0
		NEx	101AL11/14000	101.15	X	0	= 0
Total CE/ST						204	= 47,531
NS	E133	Rate A	101AL12000	109.07	X	0	= 0
	E133	Rate B	101AL12000	162.85	X	0	= 0
	E133	Rate C	101AL12000	217.64	X	0	= 0
	P080	Ex	RadCon	79.78	X	0	= 0
	Composite	NEx	101AL12000	94.71	X	0	= 0
Total NS						0	= 0
ES	E133	Rate A	101AL13000	113.14	X	0	= 0
	E133	Rate B	101AL13000	169.02	X	0	= 0
	E133	Rate C	101AL13000	225.94	X	0	= 0
	Composite	Ex	101AL13000	170.70	X	0	= 0
	Composite	NEx	101AL13000	98.22	X	0	= 0
Total ES						0	= 0
Other	E133	Rate A	Other WO DD	72.41	X	0	= 0
	E133	Rate B	Other WO DD	107.33	X	0	= 0
	E133	Rate C	Other WO DD	142.91	X	0	= 0
	Composite	Ex	Other WO DD	108.38	X	0	= 0
	Composite	NEx	Other WO DD	63.08	X	0	= 0
Total Other WO DD						0	= 0
TOTAL HOURS				204.119	TOTAL LABOR W DD		\$47,531

2. NON-LABOR COST	Description	Direct Cost
A. Subcontracts		0
B. Materials		0
C. Travel		0
D. Other(Shipping,Printing, Misc.)		0
TOTAL NON-LABOR COST		\$0

TOTAL DIRECT COST (Labor \$ + Non-Labor \$) \$47,531

LDRD 4.00% \$1,901

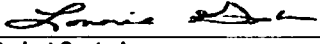
TOTAL COST W LDRD \$49,432

SRNS Composite Overhead Rate 53.1% \$26,249

TOTAL SRNS COSTS \$75,681

3. University Subcontracts	Description	
A. Subcontracts		\$0
G&A 6.35%		\$0
TOTAL SRNS COSTS W University Subcontract		<u>\$75,681</u>

4. DOE-HQ Administrative Fee				
Administrative Fee	0.00%	X	\$75,681	<u>0</u>
Administrative Fee				\$0
TOTAL ESTIMATED COST				<u>\$75,681</u>

5. Approvals	
 Project Controls	6/3/2013 DATE

APPROVED FUNDING PROGRAM  
89X0321 - ENERGY EFFICIENCY AND RENEWABLE ENERGY

FISCAL YEAR:2013

410003-SR SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

36-MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

APPROVED FUNDING PROGRAM NO.

6

B&F CODE	BAR TITLE	BRN	APPROPRIATION YEAR	TYPE	CURRENT APPROVED AMOUNT	PN	CHANGE	PN	REVISED AMOUNT
OPERATING EXPENSES : 89X0321.91 (05450)									
O HT	HYDROGEN AND FUEL CELLS TECHNOLOGIES								
			2013	NEW OA	2,844,319.00		75,681.00		2,920,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,844,319.00		75,681.00		2,920,000.00
O HT TOTAL, HYDROGEN AND FUEL CELLS TECHNOLOGIES				NEW OA	2,844,319.00		75,681.00		2,920,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	2,844,319.00		75,681.00		2,920,000.00
O SL	SOLAR ENERGY								
			2013	NEW OA	1,285,029.00		0.00		1,285,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,285,029.00		0.00		1,285,029.00
O SL TOTAL, SOLAR ENERGY				NEW OA	1,285,029.00		0.00		1,285,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	1,285,029.00		0.00		1,285,029.00
O WW	WIND ENERGY								
			2013	NEW OA	0.00		50,000.00		50,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	0.00		50,000.00		50,000.00
O WW TOTAL, WIND ENERGY				NEW OA	0.00		50,000.00		50,000.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	0.00		50,000.00		50,000.00
TOTAL, OPERATING EXPENSES (05450) .....				NEW OA	4,129,348.00		125,681.00		4,255,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	4,129,348.00		125,681.00		4,255,029.00
TOTAL, DIRECT FUNDING.....				NEW OA	4,129,348.00		125,681.00		4,255,029.00
				UNOB BAL	0.00		0.00		0.00
				TOTAL OA	4,129,348.00		125,681.00		4,255,029.00

*Eliberto*

*see pg 7, FIN PLAN #16*

Financial Plan Number: 16

Fiscal Year: 2013

Fiscal Month: 09

Contract Modification Number: 360 THRU 362

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

# Financial Plan Report - Detail

Site: SR

Page 1 of 8

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: June 12, 2013 at 08:19:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	00650	SA	1721222	WN0219060	25400	0000000	0000000	0411012	MSU-61006	2,389.16	0.00	-2,389.16	-2,389.16	0.00
AY 2010 - Deobligate per email from Terry Meeks dated 6-05-2013														
Total for Program Parent/Control Point: WN0000000										2,389.16	0.00	-2,389.16	-2,389.16	0.00
Total for Fund: 00650										2,389.16	0.00	-2,389.16	-2,389.16	0.00
410003	00697	SB	1721222	WN0219060	25400	0000000	0000000	0411012	MSU-61006	2,738.72	0.00	-2,738.72	-2,738.72	0.00
AY 2012 - De-obligate per email from Terry Meeks dated 6-05-2013														
Total for Program Parent/Control Point: WN0000000										2,738.72	0.00	-2,738.72	-2,738.72	0.00
Total for Fund: 00697										2,738.72	0.00	-2,738.72	-2,738.72	0.00
410003	00900	TC	2220743	DP1204010	25400	0000000	0000000	0000000		0.00	0.00	25,000.00	25,000.00	25,000.00
Total for Program Parent/Control Point: DP1204010										0.00	0.00	25,000.00	25,000.00	25,000.00
410003	00900	TC	2222416	DP1401030	25400	0000000	0000000	0000000		20,687.62	100,812.50	24,187.50	125,000.00	145,687.62
Total for Program Parent/Control Point: DP1401000										20,687.62	100,812.50	24,187.50	125,000.00	145,687.62
410003	00900	TC	2221070	FS2002000	25400	0000000	0000000	0000000		361,299.63	2,645,000.00	-235,000.00	2,410,000.00	2,771,299.63
410003	00900	TC	2221077	FS2007000	25400	0000000	0000000	0000000		638,126.62	562,000.00	235,000.00	797,000.00	1,435,126.62
Total for Program Parent/Control Point: FS2000000										999,426.25	3,207,000.00	0.00	3,207,000.00	4,206,426.25
410003	00900	TC	2222773	MB0203020	25400	0000000	0000000	0000000		1,114,231.27	1,633,969.00	-954,094.00	679,875.00	1,794,106.27
Total for Program Parent/Control Point: MB0203010										1,114,231.27	1,633,969.00	-954,094.00	679,875.00	1,794,106.27
410003	00900	TC	2222775	MB0204020	25400	0000000	0000000	0000000		703,447.27	2,902,593.50	-526,012.50	2,376,581.00	3,080,028.27
410003	00900	TC	2222776	MB0204030	25400	0000000	0000000	0000000		184,899.56	0.00	173,400.00	173,400.00	358,299.56
Total for Program Parent/Control Point: MB0204010										888,346.83	2,902,593.50	-352,612.50	2,549,981.00	3,438,327.83
Total for Fund: 00900										3,022,691.97	7,844,375.00	-1,257,519.00	6,586,856.00	9,609,547.97
410003	00910	3T	1720297	400403209	25400	0000000	0000000	0411154	11154	0.00	42,718.45	52,913.00	95,631.45	95,631.45
AY 2013 - Work For Others (WFO): SRARM-AA6 SRARMY-AA6 MIPR3380840019														
410003	00910	3T	3164744	400913000	25400	0000000	0000000	0411155	11155	0.00	0.00	400,000.00	400,000.00	400,000.00
AY 2013 - Work For Others (WFO): SRDHS-AA7 SRDHS-AA7 HSHQDC-13-X-00096														
Total for Program Parent/Control Point: 400000000										0.00	42,718.45	452,913.00	495,631.45	495,631.45
Total for Fund: 00910										0.00	42,718.45	452,913.00	495,631.45	495,631.45

Financial Plan Number: 16

Fiscal Year: 2013

Fiscal Month: 09

Contract Modification Number: 360 THRU 362

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

# Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Site: SR

Page 2 of 8

Report: RFP0001

Report Generated on: June 12, 2013 at 08:19:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01055	3F	1720292	400403109	25400	0000000	0000000	0411159		0.00	0.00	72,816.00	72,816.00	72,816.00
AY 2013 - Work For Others (WFO): SRAFAB4 SRAF-AB4 F3KTK83095G001														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411161		0.00	0.00	12,000.00	12,000.00	12,000.00
AY 2013 - WFO: SRFBI-AB1 SRFBI-AB1 LTR A3I303958														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411162		0.00	0.00	1,000,000.00	1,000,000.00	1,000,000.00
AY 2013 - Work For Others (WFO): SRFBI-AB2 SRFBI-AB2 LTR A3I303957														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411163		0.00	0.00	45,000.00	45,000.00	45,000.00
AY 2013 - WFO: SRDOD-AB3 SRDOD-AB3 LTR F3KTK73093G001														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411164		0.00	0.00	325,243.00	325,243.00	325,243.00
AY 2013 - WFO: SRDOD-AA9 SRDOD-AA9 LTR 130511														
Total for Program Parent/Control Point: 400000000										0.00	0.00	1,455,059.00	1,455,059.00	1,455,059.00
Total for Fund: 01055										0.00	0.00	1,455,059.00	1,455,059.00	1,455,059.00
410003	01090		3203735	GD2540980	25400	0000000	0000000	0000000		0.00	310,468.00	4,055.00	314,523.00	314,523.00
AY 2013 - \$21,950 remained on DOE side for purchase of Taclane -1G Encryptor KG-175G Part Number: 1GVLAN-1 on behalf of SRNL														
\$2,995 remained on DOE side for purchase of Sectera vIPER PSTN Part# VIPS1000XA on behalf of SRNL														
Total for Program Parent/Control Point: GD2540000										0.00	310,468.00	4,055.00	314,523.00	314,523.00
Total for Fund: 01090										0.00	310,468.00	4,055.00	314,523.00	314,523.00



## Financial Plan Report - Detail

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01250	TP	1110676	EY4049110	25400	0000000	0003932	0000000		14,812.69	0.00	-14,812.69	-14,812.69	0.00
AY 2010 - transfer from project 0003932														
410003	01250	TP	1110676	EY4049110	25400	0000000	0004010	0000000		3,633.88	0.00	-3,633.88	-3,633.88	0.00
AY 2009 - Transfer from project # 000401														
410003	01250	TP	1110676	EY4049110	25400	0000000	0004016	0000000		61,267.58	0.00	-61,267.58	-61,267.58	0.00
AY 2009 - transfer from project 0004016 6/6/13 sh														
410003	01250	TP	1110676	EY4049110	25400	0000000	0004030	0000000		383,020.52	150,000.00	79,714.15	229,714.15	612,734.67
AY 2010 - Funds transfer from 0003932 6/6/12 sh;														
AY 2009 - Funds transfer from 0004010 & 4004016														
Total for Program Parent/Control Point: EY4000000										462,734.67	150,000.00	0.00	150,000.00	612,734.67
410003	01250	TP	1110915	EY804910A	25400	0000000	0004047	0000000		0.00	0.00	110,000.00	110,000.00	110,000.00
410003	01250	TP	1110915	EY804910A	25400	0000000	0004123	0000000		0.00	0.00	30,000.00	30,000.00	30,000.00
410003	01250	TP	1110915	EY804910A	25400	0000000	0004502	0000000		0.00	0.00	5,845.60	5,845.60	5,845.60
Total for Program Parent/Control Point: EY804910A										0.00	0.00	145,845.60	145,845.60	145,845.60
410003	01250	TP	1111528	EY8748141	25400	0000000	0001764	0000000		1,358,284.88	54,290,000.00	26,689,000.00	80,979,000.00	82,337,284.88
AY 2013 - SRNS Section J Support														
\$150K additional funding outside Section J for SRNL perform a 3 month evaluation to identify options for increased SRS														
HLW salt processing to alleviate delays in start-up of SWPF per S. Blanco.														
410003	01250	TP	1111528	EY8748141	25400	0411107	0001764	0000000		0.00	23,220,400.00	8,287,400.00	31,507,800.00	31,507,800.00
410003	01250	TP	1111528	EY8748141	25400	0411108	0001764	0000000		121,214.20	10,512,933.00	3,871,267.00	14,384,200.00	14,505,414.20
410003	01250	TP	1111528	EY8748141	25400	0411130	0001764	0000000		0.00	9,989,333.00	5,008,667.00	14,998,000.00	14,998,000.00
410003	01250	TP	1111468	EY874814B	25400	0411108	0004370	0000000		2,670.97	0.00	-2,670.97	-2,670.97	0.00
410003	01250	TP	1111470	EY874814D	25400	0411108	0004371	0000000		4,716.79	0.00	-4,716.79	-4,716.79	0.00
410003	01250	TP	1111471	EY874814E	25400	0411108	0004372	0000000		10,116.87	0.00	-10,116.87	-10,116.87	0.00
410003	01250	TP	1111472	EY874814F	25400	0411108	0004373	0000000		15,420.41	0.00	-15,420.41	-15,420.41	0.00
410003	01250	TP	1111503	EY874814H	25400	0411108	0004375	0000000		32,795.77	0.00	-32,795.77	-32,795.77	0.00
410003	01250	TP	1111505	EY874814J	25400	0411108	0004377	0000000		18,855.88	0.00	-18,855.88	-18,855.88	0.00
Total for Program Parent/Control Point: EY8748140										1,564,075.77	98,012,666.00	43,771,757.31	141,784,423.31	143,348,499.08
410003	01250	TP	1111166	FS5048010	25400	0000000	0001765	0000000		185,186.65	2,750,000.00	1,055,500.00	3,805,500.00	3,990,686.65
AY 2013 - \$5,500 increase for Project # 2203, ESS Magazine Canopy per W. Dennis														
Funds from prior years covers Mobile Kennel Wash Pad per W. Dennis														
410003	01250	TP	1111167	FS5048020	25400	0000000	0001765	0000000		191,501.97	8,557,000.00	7,400,000.00	15,957,000.00	16,148,501.97
410003	01250	TP	1111167	FS5048020	31003	0410000	0001765	0000000		8,278,409.39	93,000.00	-5,850,000.00	-5,757,000.00	2,521,409.39
410003	01250	TP	1111169	FS5048040	25400	0000000	0001765	0000000		597,753.21	500,000.00	200,000.00	700,000.00	1,297,753.21
410003	01250	TP	1111170	FS5048050	25400	0000000	0001765	0000000		779,442.81	1,200,000.00	-155,000.00	1,045,000.00	1,824,442.81
410003	01250	TP	1111171	FS5048060	25400	0000000	0001765	0000000		584,405.24	2,057,000.00	-604,515.00	1,452,485.00	2,036,890.24
410003	01250	TP	1111172	FS5048070	25400	0000000	0001765	0000000		820,190.84	1,265,000.00	650,000.00	1,915,000.00	2,735,190.84
410003	01250	TP	1111174	FS5048090	25400	0000000	0001765	0000000		345,287.08	1,861,000.00	600,000.00	2,461,000.00	2,806,287.08
Total for Program Parent/Control Point: FS5010010										11,782,177.19	18,283,000.00	3,295,985.00	21,578,985.00	33,361,162.19

Financial Plan Number: 16

Fiscal Year: 2013

Fiscal Month: 09

Contract Modification Number: 360 THRU 362

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

# Financial Plan Report - Detail

Site: SR

Page 4 of 8

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: June 12, 2013 at 08:19:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available	
											Previous	Change	Revised		
Total for Fund: 01250											13,808,987.63	116,445,666.00	47,213,587.91	163,659,253.91	177,468,241.54
410003	01264		1111525	EY8648111	25400	0411160	0001761	0000000		0.00	0.00	86,920.00	86,920.00	86,920.00	
AY 2013 - Transfer \$86,920 to support Packaging & Cert - HQ June 2013 per Pat Petty's email dated 060713. MG060713.															
410003	01264		1111497	EY864811D	25400	0000000	0004364	0000000		0.00	0.00	35,307,175.00	35,307,175.00	35,307,175.00	
AY 2013 - Transfer \$47,107,175 (11D \$35,307,175, 11E \$8.5M, 11F \$3.3M) to support SRNS June Firplan per email dated 06/06/13															
410003	01264		1111498	EY864811E	25400	0000000	0004365	0000000		0.00	0.00	8,500,000.00	8,500,000.00	8,500,000.00	
AY 2013 - Transfer \$47,107,175 (11D \$35,307,175, 11E \$8.5M, 11F \$3.3M) to support SRNS June Firplan per email dated 06/06/13															
410003	01264		1111499	EY864811F	25400	0000000	0004366	0000000		0.00	0.00	3,300,000.00	3,300,000.00	3,300,000.00	
AY 2013 - Transfer \$47,107,175 (11D \$35,307,175, 11E \$8.5M, 11F \$3.3M) to support SRNS June Firplan per email dated 06/06/13															
Total for Program Parent/Control Point: EY8648020											0.00	0.00	47,194,095.00	47,194,095.00	47,194,095.00
Total for Fund: 01264											0.00	0.00	47,194,095.00	47,194,095.00	47,194,095.00
410003	01265		1111526	EY8648121	25400	0000000	0001762	0000000		0.00	0.00	2,500,000.00	2,500,000.00	2,500,000.00	
AY 2013 - Transfer \$2,500,000 to support SRNS June Firplan per email dated 06/06/13.MG060713															
410003	01265		1111526	EY8648121	25400	0411160	0001762	0000000		0.00	0.00	12,195.00	12,195.00	12,195.00	
AY 2013 - Transfer \$12,195.00 to support Packaging & Cert - HQ June per Pat Petty's email 060713.MG060713															
Total for Program Parent/Control Point: EY8648020											0.00	0.00	2,512,195.00	2,512,195.00	2,512,195.00
Total for Fund: 01265											0.00	0.00	2,512,195.00	2,512,195.00	2,512,195.00
410003	01266		1110949	EY8648130	25400	0000000	0001763	0000000		0.00	0.00	11,000,000.00	11,000,000.00	11,000,000.00	
AY 2013 - 6.7.2013 - Increased b \$11M in accordance to reprogramming - mat															
410003	01266		1110949	EY8648130	25400	0411160	0001763	0000000		0.00	0.00	18,835.00	18,835.00	18,835.00	
AY 2013 - 6.7.2013 - Increased by \$18,835 for HQs Initiatives - SR22470 - mat															
Total for Program Parent/Control Point: EY8648020											0.00	0.00	11,018,835.00	11,018,835.00	11,018,835.00
Total for Fund: 01266											0.00	0.00	11,018,835.00	11,018,835.00	11,018,835.00
410003	01267		1110950	EY8648300	25400	0000000	0001766	0000000		0.00	0.00	10,667,568.00	10,667,568.00	10,667,568.00	
AY 2013 - 6.7.2013 - Increased by \$10,667,568 for full value of expected funds letter - mat															
410003	01267		1110950	EY8648300	25400	0411160	0001766	0000000		0.00	0.00	22,050.00	22,050.00	22,050.00	
AY 2013 - 6.7.2013- Increasedby 22,050 for SRNL Packaging & Certification - HQs Initiative - mat															
Total for Program Parent/Control Point: EY8648020											0.00	0.00	10,689,618.00	10,689,618.00	10,689,618.00
Total for Fund: 01267											0.00	0.00	10,689,618.00	10,689,618.00	10,689,618.00



## Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: June 12, 2013 at 08:19:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01551	NS	2221132	NN2001000	25400	0000000	0000000	0000000		4,236,925.90	5,023,989.31	2,807,760.69	7,831,750.00	12,068,675.90
Total for Program Parent/Control Point: NN2000000										4,236,925.90	5,023,989.31	2,807,760.69	7,831,750.00	12,068,675.90
410003	01551	NS	2222717	NN4009010	25400	0000000	0000000	0000000		102,780.66	782,492.50	40,982.50	823,475.00	926,255.66
410003	01551	NS	2222718	NN4009020	25400	0000000	0000000	0000000		43,097.65	126,659.41	7,616.84	134,276.25	177,373.90
410003	01551	NS	2222719	NN4009030	25400	0000000	0000000	0000000		56,051.46	665,486.09	61,222.66	726,708.75	782,760.21
410003	01551	NS	2222722	NN4010021	25400	0000000	0000000	0000000		102,450.23	393,250.00	34,250.00	427,500.00	529,950.23
410003	01551	NS	2222726	NN4010050	25400	0000000	0000000	0000000		96,698.85	363,525.84	21,861.14	385,386.98	482,085.83
410003	01551	NS	2222727	NN4011010	25400	0000000	0000000	0000000		37,769.86	379,378.20	33,586.80	412,965.00	450,734.86
410003	01551	NS	2222728	NN4011020	25400	0000000	0000000	0000000		4,847.15	290,080.31	17,444.38	307,524.69	312,371.84
Total for Program Parent/Control Point: NN4000000										443,695.86	3,000,872.35	216,964.32	3,217,836.67	3,661,532.53
410003	01551	NS	2221231	NN5001010	25400	0000000	0000000	0000000		25,321.40	0.00	-25,321.40	-25,321.40	0.00
410003	01551	NS	2221234	NN5002010	25400	0000000	0000000	0000000		131,999.96	346,223.70	236,833.04	583,056.74	715,056.70
410003	01551	NS	2221240	NN5004010	25400	0000000	0000000	0000000		6,792.99	15,035.00	9,965.00	25,000.00	31,792.99
410003	01551	NS	2221252	NN5007010	25400	0000000	0000000	0000000		68,930.95	99,230.00	65,770.00	165,000.00	233,930.95
Total for Program Parent/Control Point: NN5000000										233,045.30	460,488.70	287,246.64	747,735.34	980,780.64
410003	01551	NS	2221267	NN6001030	25400	0000000	0000000	0000000		9,453,766.41	9,300,000.00	5,000,000.00	14,300,000.00	23,753,766.41
Total for Program Parent/Control Point: NN6001010										9,453,766.41	9,300,000.00	5,000,000.00	14,300,000.00	23,753,766.41
410003	01551	NS	2221798	NN9002000	25400	0000000	0000000	0000000		92,862.09	2,519,583.18	1,171,075.82	3,690,659.00	3,783,521.09
410003	01551	NS	2221799	NN9003000	25400	0000000	0000000	0000000		101,165.92	207,000.00	93,000.00	300,000.00	401,165.92
410003	01551	NS	2221801	NN9005000	25400	0000000	0000000	0000000		203,747.67	816,520.00	4,242.65	820,762.65	1,024,510.32
410003	01551	NS	2222109	NN9006100	25400	0000000	0000000	0000000		4,242.65	0.00	-4,242.65	-4,242.65	0.00
410003	01551	NS	2222100	NN9007010	25400	0000000	0000000	0000000		2,725,578.53	2,277,000.00	1,023,000.00	3,300,000.00	6,025,578.53
410003	01551	NS	2222101	NN9007020	25400	0000000	0000000	0000000		196,819.82	2,657,880.00	1,194,120.00	3,852,000.00	4,048,819.82
410003	01551	NS	2221811	NN900W060	25400	0000000	0000000	0000000		136,849.40	338,100.00	151,900.00	490,000.00	626,849.40
Total for Program Parent/Control Point: NN9001000										3,461,266.08	8,816,083.18	3,633,095.82	12,449,179.00	15,910,445.08
Total for Fund: 01551										17,828,699.55	26,601,433.54	11,945,067.47	38,546,501.01	56,375,200.56
410003	01758	1H	1720616	650201010	25400	0000000	0000000	0411158		0.00	0.00	25,000.00	25,000.00	25,000.00
AY 2013 - Work For Others (WFO) SRCRADA SRCRADA CR-13-002														
410003	01758	1H	1720616	650201010	25400	0000000	0000000	0411132 11132		0.00	524,271.85	48,543.70	572,815.55	572,815.55
AY 2013 - WFO: SRAP&C SRNL-CRADA-CR-12-006														
Total for Program Parent/Control Point: 650000000										0.00	524,271.85	73,543.70	597,815.55	597,815.55
Total for Fund: 01758										0.00	524,271.85	73,543.70	597,815.55	597,815.55

## Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: June 12, 2013 at 08:19:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01759	2H	1720572	600301010	25400	0000000	0000000	0411156		0.00	0.00	29,994.00	29,994.00	29,994.00
AY 2013 - WFO: SREIC-1BX SREIC-1BX EIC Laboratories Inc WFO-13-012														
410003	01759	2H	1720572	600301010	25400	0000000	0000000	0411157		0.00	0.00	20,000.00	20,000.00	20,000.00
AY 2013 - WFO: SREIC-1BW SREIC-1BW EIC Laboratories Inc WFO-13-011														
410003	01759	2H	1720572	600301010	25400	0000000	0000000	0411165		0.00	0.00	48,543.70	48,543.70	48,543.70
AY 2013 - Work For Others (WFO): SRCH2MWG-1BZ SRCH2MWG-1BZ SRCH2M.WG Idaho LLC WFO-13-014														
410003	01759	2H	1720572	600301010	25400	0000000	0000000	0411124 11124		24,272.00	9,708.75	45,631.10	55,339.85	79,611.85
AY 2013 - WFO: SRMDI Morpho Detection, In WFO-12-018 SRNL														
410003	01759	2H	1720572	600301010	25400	0000000	0000000	0411060 GENATOM-61108		5,779.26	0.00	-5,779.26	-5,779.26	0.00
410003	01759	2H	1720577	600305000	25400	0000000	0000000	0411166 11166		0.00	0.00	10,600.00	10,600.00	10,600.00
AY 2013 - WFO: SRGHSU SRGHSU Georgia Health Sciences University WFO-13-003-SRNL														
410003	01759	2H	1720577	600305000	25400	0000000	0000000	0411046 SCSU-61010		29,842.11	25,000.00	45,338.00	70,338.00	100,180.11
AY 2013 - WFO: SRSCSU-61010 South Carolina State University - SRNL														
Total for Program Parent/Control Point: 600000000										59,893.37	34,708.75	194,327.54	229,036.29	288,929.66
Total for Fund: 01759										59,893.37	34,708.75	194,327.54	229,036.29	288,929.66
410003	01760	3H	1720286	400402000	25400	0000000	0000000	0410887 DOC-L5		31,604.98	0.00	19,417.00	19,417.00	51,021.98
AY 2013 - WFO: SRDOC-L5 GMD/DOE-SR 2008 GMD/DOE-SR 2008 NOAA G8R1F28PCA 50-34-0000-00-00-00														
410003	01760	3H	1720371	400809000	25400	0000000	0000000	3012405 AGR1213ISNNADR5GLOBALMT		0.00	0.00	24,271.84	24,271.84	24,271.84
AY 2013 - WFO: SRTATE-AA8 S-IAA-12/13-ISN(NADR)-5-GLOBAL-MT														
Total for Program Parent/Control Point: 400000000										31,604.98	0.00	43,688.84	43,688.84	75,293.82
Total for Fund: 01760										31,604.98	0.00	43,688.84	43,688.84	75,293.82
410003	05350	CN	2720388	AF5805100	25400	0000000	0000000	0000000		57,491.60	1,157,310.00	112,725.00	1,270,035.00	1,327,526.60
AY 2013 - Transfer \$112,725 to support AF5805100.MG060713														
410003	05350	CN	2720874	AF5832020	25400	0000000	0000000	0000000		6,899.15	196,350.00	19,125.00	215,475.00	222,374.15
AY 2013 - Transfer \$19,125.00 to support AF5832020.MG060713														
410003	05350	CN	2720875	AF5832030	25400	0000000	0000000	0000000		2,322.09	157,750.00	105,625.00	263,375.00	265,697.09
AY 2013 - Transfer \$5,625.00 to support AF5832030. MG060713														
AY 2012 - Transfer \$100,000 to AF5832030 per AFP 053013.MG060713														
410003	05350	CN	2720924	AF5865010	25400	0000000	0000000	0000000		0.00	926,750.00	6,114.00	932,864.00	932,864.00
AY 2013 - Transfer \$6114.00 to support AF5865010 per AFP 053013.MG060713														
410003	05350	CN	2720925	AF5865020	25400	0000000	0000000	0000000		0.00	808,250.00	116,750.00	925,000.00	925,000.00
AY 2013 - Transfer \$116750.00 to support AF5865020 per AFP 053013.MG060713														
Total for Program Parent/Control Point: AF5800000										66,712.84	3,246,410.00	360,339.00	3,606,749.00	3,673,461.84
Total for Fund: 05350										66,712.84	3,246,410.00	360,339.00	3,606,749.00	3,673,461.84



Financial Plan Number: 16

Fiscal Year: 2013

Fiscal Month: 09

Contract Modification Number: 360 THRU 362

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

# Financial Plan Report - Detail

Site: SR

Page 7 of 8

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: June 12, 2013 at 08:19:05 AM

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	05450	ZA	1009191	HT0201000	25400	0000000	0000000	0000000		108,431.57	575,288.25	24,712.00	600,000.25	708,431.82
410003	05450	ZA	1009192	HT0202000	25400	0000000	0000000	0000000		545,594.97	1,929,843.00	40,157.00	1,970,000.00	2,515,594.97
410003	05450	ZA	1009195	HT0500000	25400	0000000	0000000	0000000		88,710.13	339,187.75	10,812.00	349,999.75	438,709.88
Total for Program Parent/Control Point: HT0100000										742,736.67	2,844,319.00	75,681.00	2,920,000.00	3,662,736.67
410003	05450	ZA	1005621	WW0200000	25400	0000000	0000000	0000000		0.00	0.00	50,000.00	50,000.00	50,000.00
Total for Program Parent/Control Point: WW0200000										0.00	0.00	50,000.00	50,000.00	50,000.00
Total for Fund: 05450										742,736.67	2,844,319.00	125,681.00	2,970,000.00	3,712,736.67
Total for Recipient Code: SR										35,566,454.89	157,894,370.59	132,020,358.58	289,914,729.17	325,481,184.06
Total for Reporting Entity: 410003										35,566,454.89	157,894,370.59	132,020,358.58	289,914,729.17	325,481,184.06
Total for SR22470 - Savannah River Nuclear Solutions (SRNS)										35,566,454.89	157,894,370.59	132,020,358.58	289,914,729.17	325,481,184.06

Financial Plan Number: 16

Fiscal Year: 2013

Contract Modification Number: 360 THRU 362

Fiscal Month: 09

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

**Financial Plan Report - Detail**

Site: SR

Page 8 of 8

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Report Generated on: June 12, 2013 at 08:19:05 AM

---

**Agency Sub-Report**

<u>Agency</u>	<u>Obligation Change Amount</u>
Department of Commerce	19,417.00
Department of Defense	52,913.00
Department of State	24,271.84
MISCELLANEOUS	1,855,059.00
<b>Total Appropriated Funds (Programs 40 or 55):</b>	<b>1,951,660.84</b>
<b>Total DOE Funds:</b>	<b>129,800,826.50</b>
<b>Total Non-Appropriated Funds:</b>	<b>267,871.24</b>
<b>Grand Total:</b>	<b>132,020,358.58</b>

---

**TAS Sub-Report**

<b>DOE Funding:</b>	89X0251
<b>Reimbursable Funding:</b>	
Department of Commerce	13X1450
Department of Defense	2102020
Department of State	19-112/31075
MISCELLANEOUS	0411162, 0411155, 0411164, 0411159, 0411163, 0411161

This financial plan was generated for the following options: All Transactions

## Supporting Documentation No. C

# **Fuel Cell Technologies Program**

## **FY 2013 Annual Operating Plan**

**For**

**Savannah River National Laboratory**

**October 1, 2012**

**Reviewed:**



\_\_\_\_\_  
Theodore Motyka

\_\_\_\_\_  
October 1, 2012

Date

**Approved:**

\_\_\_\_\_  
Sunita Satyapal, Program Manager

\_\_\_\_\_  
October 1, 2012

Date



## **Table of Contents**

<b><u>Hydrogen Storage R&amp;D</u></b> .....	<b>3</b>
<b>Task 1: Electrochemical Charging of <math>\text{AlH}_3</math></b> .....	<b>5</b>
<b>Task 2: Hydrogen Storage Engineering Center of Excellence         Management</b> .....	<b>10</b>
<b>Task 3: Hydrogen Storage Engineering Center of Excellence:         Adsorbent System Modeling, Design and         Demonstration.....</b>	<b>13</b>
<b>Task 4: Load Sharing Polymeric Liner for Hydrogen Storage         Composite Tanks</b> .....	<b>16</b>
<b>Task 5: Detailee Assignment to DOE EERE FCT         Hydrogen Storage</b> .....	<b>18</b>
<b>Task 6: Composite Adsorbents for Enhanced Hydrogen         Storage</b> .....	<b>19</b>
<b><u>Hydrogen Code &amp; Standards</u></b> .....	<b>21</b>
<b>Task 1: Detailee Assignment to DOE EERE FCT         Hydrogen Codes &amp; Standards</b> .....	<b>23</b>
<b><u>Hydrogen Production &amp; Delivery</u></b> .....	<b>24</b>
<b>Task 1: FRP Codification and Fatigue Testing</b> .....	<b>26</b>
<b>Task 2: Electrolyzer Component Development for the         Hybrid Sulfur Thermochemical Cycle (HyS)</b> .....	<b>32</b>




SRNL FY 2013  
Hydrogen Storage Research & Development  
Annual Operating Plan  
ver. 1.2

# Savannah River National Laboratory

## Hydrogen Storage R&D (B&R No. HT0202000)

### Annual Operating Plan For FY 2013

Submitted:

  
Donald L. Anton  
Hydrogen Storage Program Manager  
Savannah River National Laboratory

June 30, 2012

Date

Approved:

  
Ned Stetson  
US Department of Energy

8/14/2012  
Date

### **Hydrogen Storage R&D Summary**

This annual operating plan describes the activities to be conducted at Savannah River National Laboratory (SRNL) in FY 2013 in support of DOE's Advanced Energy Initiative in partial fulfillment of the Energy Policy Act of 2005. Specifically, the efforts described here outline a program to develop hydrogen storage technologies for automotive, stationary, and portable power applications. SRNL will lead the Hydrogen Storage Engineering Center of Excellence, design, modeling and test adsorbent and metal hydride systems, conduct research on electrochemical charging of alane, assess the utility of thermotropic liquid crystal polymers as load bearing tank liners and furnish support to the hydrogen storage program through a detailee assignment. These activities will be performed in-part through a subcontract with the University of South Carolina which will supply post doctoral students. These activities are summarized in the task areas described below and detailed in the following task descriptions.

### **FY 2013 Hydrogen Storage R&D Cost Summary**

<b>Task</b>	<b>FY'10 Budget (K\$)</b>
<b>Task 1: Electrochemical Reversible Formation of <math>\text{AlH}_3</math></b>	<b>\$ 250</b>
<b>Task 2: Hydrogen Storage Engineering Center of Excellence Management (HSECoE)</b>	<b>\$ 370</b>
<b>Task 3: Hydrogen Storage Engineering Center of Excellence: Adsorbent System Modeling, Design and Demonstration (HSECoE)</b>	<b>\$ 790</b>
SRNL	<b>\$ 240</b>
UQTR	
<b>Task 4: Load Sharing Polymeric Liner for Hydrogen Storage Composite Tanks</b>	<b>\$ 200*</b>
<b>Task 5: Detailee Assignment to DOE EERE FCT Hydrogen Storage</b>	<b>\$ 320</b>
<b>Task 6: Composite Adsorbents for Enhanced Hydrogen Storage</b>	<b>\$ 400*</b>
<b>TOTAL</b>	<b>\$2,570</b>

*\*Proposed Project – currently unfunded*

## Task 1

### Electrochemical Reversible Formation of $\text{AlH}_3$

Principle Investigator: **Ragaiy Zidan, [ragaiy.zidan@srnl.doe.gov](mailto:ragaiy.zidan@srnl.doe.gov)**  
**Doug Knight, [douglas.knight@srs.gov](mailto:douglas.knight@srs.gov)**  
**Scott Greenway, [scott.greeway@srs.gov](mailto:scott.greeway@srs.gov)**  
**Ted Motyka, [ted.motyka@srnl.doe.gov](mailto:ted.motyka@srnl.doe.gov)**

#### Summary

The objective of this effort is to enable a low-cost rechargeable hydrogen storage material based on aluminum hydride,  $\text{AlH}_3$  (alane) having gravimetric capacity of 10 wt% and volumetric capacity of 149 g/L  $\text{H}_2$ , and favorable thermodynamics and kinetics. Desorption temperature of alane is in the range of 60° C to 175° C (depending on particle size and the addition of catalysts) with the potential to fulfill the DOE onboard hydrogen transportation goals. However, alane is only stable kinetically not thermodynamically. The theoretical hydrogen pressure required to regenerate spent alane is on the order of  $10^5$  bars at room temperature, far in excess of what is readily achievable commercially. The typical formation route of alane is through the chemical reaction of lithium alanate with aluminum chloride in diethyl ether. This reaction yields dissolved alane etherate adduct,  $\text{AlH}_3 \cdot \text{Et}_2\text{O}$ , and precipitates lithium chloride. Alane can be separated from the ether by heating *en vacuo*. However the synthesis of  $\text{AlH}_3$  by these methods results in the formation of alkali halide salts such as LiCl. The formation of these salts becomes a thermodynamic sink because of their stability. For a cyclic process, lithium metal must be recovered from lithium chloride by electrolysis of a LiCl/KCl melt at 600 °C and costing at least -429 kJ/mol of energy equivalent to the heat of formation and heat of fusion of LiCl.

In order to avoid the impractical high pressure and the costly chemical route to form alane our approach utilizes electrolytic potential to increase hydrogen activity and/ or drive chemical reactions to regenerate  $\text{AlH}_3$ . Hydrogen charging of metals has readily been accomplished through the utilization of electrical potential. The relatively low potential required to achieve high hydrogen pressure is illustrated in Faraday's equation as:

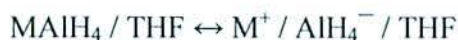
$$E = -\frac{RT}{2F} \ln(p_{\text{H}_2})$$

where E is the electrical potential, F, Faraday's constant and R & T are gas constant and temperature respectively. From the above equation it is clear that the driving potential is only proportional to the logarithm of the hydrogen pressure, resulting in modest driving potential requirements. However, if electrochemistry is used Al and  $\text{AlH}_3$  oxidize in aqueous environments, inhibiting the use of all protic solvents as electrolytes. For this reason, a novel route using a non-aqueous solvent system is used.

### Approach and Past Result

The cell preparation and electrochemical experiments are performed in an argon environment using gloveboxes or on a Schlenk line. For optimization purposes, experiments will be carried out at different temperatures and pressures. Electrochemical alane generation experiments will be conducted using two different electrochemical cells; an air-tight three electrode cell and a hydrogen pressurized and temperature controlled cell. The working electrode is an aluminum sheet, aluminum rod or coiled aluminum wire. A “leak-free” 3M KCl Ag/AgCl reference electrode (Warner Instruments) with a Luggin capillary or an aluminum reference electrode will be used to measure the potential of the working electrode. The counter electrode is platinum foil or platinum coiled wire. Other counter electrodes such as Ti, TiH, or PdH will also be examined. The electrolyte in the cell is made of alanates such as NaAlH<sub>4</sub> or LiAlH<sub>4</sub> dissolved in anhydrous THF or diethyl ether or mixture of the two (Aldrich). Mixes of polar solvents and amines will also be tried.

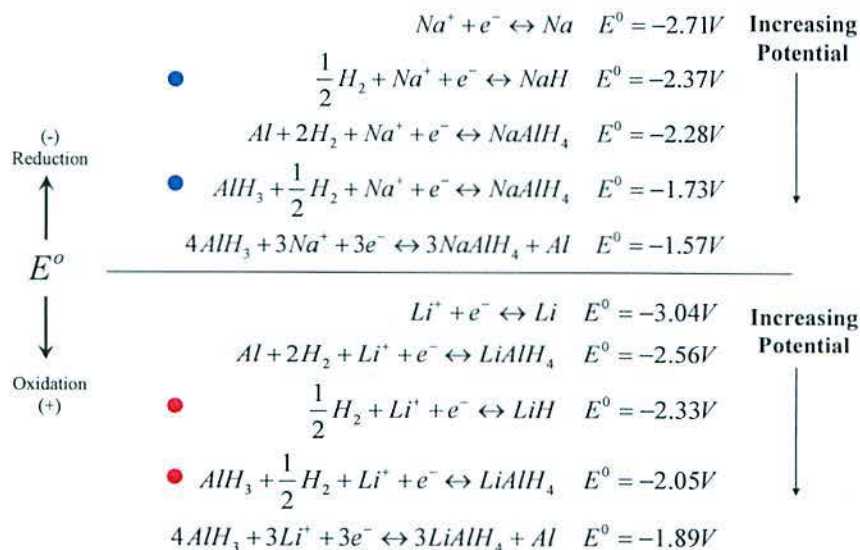
The electrolysis is carried out in an electrochemically stable, aprotic, and polar solvent such as THF or ether. MAIH<sub>4</sub> (M = Li, Na) is dissolved in this solvent, forming the ionic solution as shown below which is used as an electrolyte, when THF is used.



Electrochemical experiments are performed with a CH Instruments 660C potentiostat, in FY'08-FY'12. Cyclic voltammograms were performed at different ranges of voltage. Bulk electrolysis experiments are carried out at selected voltage identified from cyclic voltammogram measurements. It is important to note that in these cells we utilize electrolytic potential, *E*, to drive chemical reactions to form AlH<sub>3</sub>, based on Gibbs free energy and Faraday equation:

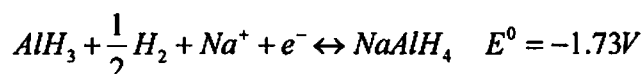
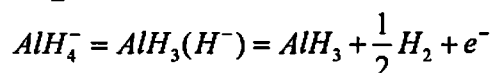
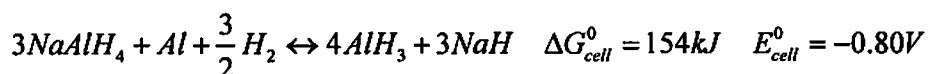
$$\Delta G = -nFE^o$$

To form alane from the set up described above the electrochemical cells operation in terms of electrochemical potential can be summarized as



We have shown the possibility of producing gram quantities of alane (FY'08-09). The electrochemical cells are operated by translating Electrical Energy into Chemical Energy. The NaAlH<sub>4</sub>/THF system the operation of the cell can expressed as follows:

$$E_{cell}^0 = -\frac{\Delta G_{cell}^0}{nF}$$



A significant part of the FY13 effort was devoted to improving the efficiency and yield of the alane production process. During FY13, the electrochemical synthesis of alane has been improved by using a saturated solution electrolyte, allowing precipitation of higher yield of alane adduct and increasing efficiency by simplifying the separation process. A pressurized electrochemical cell for alane production has also been developed and demonstrated. Spent aluminium was used to regenerate the starting material.

To increase the efficiency and yield a closed cycle electrochemical cell reactor that can withstand 2000 psi of hydrogen pressure was utilized. The pressurized cell allows the use of dimethyl ether (Me<sub>2</sub>O) instead of THF. The use of dimethyl ether (Me<sub>2</sub>O) significantly reduced the energy cost needed to separate AlH<sub>3</sub> from THF since extended heating and the use of vacuum can be minimized. Part of this step is the use of a catalyst to regenerate the starting electrolyte. Reduction of the cost of the catalyst is still need SRNL will concentrate on improving the efficiency and the yield for charging (reversing) aluminum to aluminum hydride.

SRNL is currently negotiating a Cooperative Research and Development Agreement (CRADA) with Ardica Technologies, Inc. (ARDICA) for research in the area of developing aluminum hydride for portable energy storage systems. The CRADA is expected to be in place prior to the start of the FY13. Under this CRADA Ardica with subcontractor SRI International (SRI), will work with SRNL to achieve the improvements to SRNL's processes outlined above, scale the technologies, and transition them to commercial production of affordable alane. Part of this work will evaluate parameters from the use phase of the alane fuel life cycle in a small scale portable fuel

cell system and feedback results pertinent to the fuel material properties and fuel chemistry in order to help determine the end to end cost effectiveness and energy efficiency of the alane fuel production and regeneration process.

### **FY 2013 Task Plan**

#### **Task 1 – Electrolytic Regeneration of $\text{AlH}_3$**

##### ***1.1 Continue work on increasing yield and efficiency***

- 1.1.1 Explore using other hydrides such as  $\text{KAlH}_4$  to form alane
- 1.1.2 Explore the use of less expensive catalyst, instead  $\text{TiCl}$ , for the regeneration step
- 1.1.3 Continue the use of the pressurized electrochemical cell reactor and spent alane

##### ***1.2 Continue Electrochemical Process Optimization***

- 1.2.1 Vary combination of catalysts and alanates to obtain least costly combination
- 1.2.2 Explore the use of other solvents and amines mixtures for easier alane separation
- 1.2.2 Use spent aluminum to obtain in-situ regeneration
- 1.2.3 Evaluate using metal hydrides such as  $\text{PdH}$  for counter electrode

##### ***1.3 Continue Advanced Alane Separation and Analytical Procedures***

- 1.3.1 Optimize the system that uses dimethyl ether ( $\text{Me}_2\text{O}$ ) instead of THF
- 1.3.2 Use techniques (e.g. NMR, and Raman) to quantify and characterize  $\text{AlH}_3$

##### ***1.4 Evaluate Scale-Up Electrolytic Cell***

- 1.4.1 Work with researchers at other national labs and private companies to optimize the parameters needed for producing larger quantities of  $\text{AlH}_3$  more efficiently

### **FY 2013 Cost Breakdown**

Manpower	\$180K
Materials & Equip.	\$ 35K
Analytical	\$ 30K
Travel & Misc.	\$ 5K
Total	\$250K

### **FY 2013 Milestones/Deliverables**

#### **SMART Milestone**

Demonstrate the use of spent aluminum from aluminum hydride to regenerate starting material with yield of more than 70 % based on reactants of Al and alkaline hydride (e.g.  $\text{LiH}$ )

9/13

#### **Tracking Milestones (based on \$250 K funding)**

Develop a closed and efficient  $\text{AlH}_3$  separation system

9/13



Identify combination of catalysts and alanes to obtain lower cost	9/13
Explore <i>in-situ</i> regeneration of starting materials in a closed cell	9/13

**Deliverables**

Task Budget and Status Report	15 <sup>th</sup> of each
month	
Quarterly Progress Reports	10/12, 1&4/13
DOE Peer Review Meeting	6/13
Provide Samples to collaborators	as-required
Annual Summary Report	7/13

**Out-year Plan**

Additional work in FY'14 will include optimization of the process and an increase in the material purity to improve material handling, safety and substantially lower the cost of alane production.

Total Required Budget  
FY'14        \$600K

**Task 2**  
**Hydrogen Storage Engineering Center of Excellence:**  
**Management**  
**(HSECoE)**

**Principle Investigator:**     **Donald L. Anton, [donald.anton@srnl.doe.gov](mailto:donald.anton@srnl.doe.gov)**  
   **Ted Motyka, [ted.motyka@srnl.doe.gov](mailto:ted.motyka@srnl.doe.gov)**

**Summary**

Savannah River National Laboratory (SRNL) has assembled a team of leading North American national laboratories, universities, and industrial laboratories, each with a high degree of hydrogen storage engineering expertise cultivated through prior Department of Energy (DOE), international, and privately sponsored programs to form the Hydrogen Storage Engineering Center of Excellence (HSECoE).

The Center has both management and technical objectives. The management objectives are to effectively collaborate with the Center's partners and to integrate the Center's key activities with the partner's core capabilities and experience. These activities will facilitate the development of innovative and viable approaches to overcoming current technical barriers to systems design and implementation. The Center will provide up to three demonstrated subscale prototype storage systems and the related storage system requirements for potential implementation in light-duty vehicles. Our partners will provide the critical intellectual and physical capabilities to integrate, and when necessary, invent the technologies to address and mitigate the key technical risks and engineering barriers on the pathway to viable on-board hydrogen storage systems.

The Center's technical objectives will include development and dissemination of the experimentally validated design tools and modeling methodologies required to develop materials selection criteria and design subscale hydrogen storage systems. The Center will apply these advanced modeling techniques in the analysis, design, and implementation of hydrogen-fueled light-duty vehicles. These models will be continuously validated to ensure their accuracy.

The technical objectives of the proposed Center are as follows:

- Analyze hydrogen storage system requirements for light-duty vehicles by using systems engineering concepts to design innovative system architectures with the potential to meet DOE performance and cost targets.
- Develop system models that will lend insight into overall fuel cycle efficiency.
- Compile all relevant materials data for candidate storage media and define future data requirements.
- Develop engineering and design models to further the understanding of on-board storage energy management requirements.
- Develop innovative on-board system concepts for metal hydride, chemical hydride, and adsorption hydride materials-based storage technologies.

- Design components and experimental test fixtures to evaluate the innovative storage devices and subsystem design concepts, validate model predictions, and improve both component design and predictive capability.
- Identify technical gaps inhibiting systems from achieving DoE targets and develop approaches and methodologies to overcome these gaps.
- Design, fabricate, test, and decommission the subscale prototype components and systems of each materials-based technology (adsorbents, metal hydrides, and chemical hydrogen storage materials).

### **FY 2013 Task Plan**

#### **Task 2 Hydrogen Storage Engineering Center of Excellence: Management**

##### **Task 2.1 HSECoE Management**

- 2.1.1 Coordination and facilitation of partner's activities
  - 2.1.1.1 Organize and conduct one F2F Center Technical Meeting.
  - 2.1.1.2 Organize and conduct six System Architect meetings as required.
  - 2.1.1.3 Organize and conduct monthly Coordinating Council meetings.
  - 2.1.1.4 Publish two metal hydride models on the HSECoE WEB site.
  - 2.1.1.5 Complete Phase 3 Go/NoGo requirements
- 2.1.2 Assess global hydrogen storage system efforts and coordinate activities where beneficial
  - 2.1.2.1 Organize an IEA-HIA Task project on Hydrogen Storage Applied Sciences

##### **Task 2.2 HSECoE Technical**

- 2.2.1 Complete BoP and cost analysis for adsorbent system (P&CA)
- 2.2.2 Complete BoP and cost analysis for chemical hydride system (P&CA)
- 2.2.3 Complete prototype system testing plan for both adsorbent and chemical hydride systems (IPPSSM)
- 2.2.4 Publish two models on the WEB for public access (IPPSSM)
- 2.2.5 Demonstrate adsorbent system heating (TP)
- 2.2.6 Demonstrate stable flow through reactor design for slurry AB (TP)
- 2.2.7 Identify scale-up methods for slurry AB (MOR)
- 2.2.7 Identify optimum adsorbent packing strategies (MOR)
- 2.2.8 Submit for publication two peer reviewed journal articles outlining the required materials properties needed to meet the DoE System Technical Targets for adsorbents and chemical hydrides. (MOR)
- 2.2.9 Demonstrate stable gas liquid separator design (ET)
- 2.2.10 Complete manufacturing analysis to determine adsorbent system down select priority (ET)
- 2.2.11 Identify and design one adsorbent system to go forward with in Phase 3
- 2.2.12 Identify and design one chemical hydride system to go forward with in Phase 3

**FY 2013 Cost Breakdown****Task 2 – Hydrogen Storage Engineering Center of Excellence: Management**

Manpower	\$ 350K
Materials	<u>\$ 20K</u>
<b>Total:</b>	<b>\$ 370K</b>

**FY 2013 Milestones/Deliverables****SMART Milestone**

Report on ability to identify two materials based systems, adsorbent and chemical hydride, meeting the USDrive Technical Targets for Onboard Hydrogen Storage.

**Tracking Milestones**

Identify optimum adsorbent packing strategies	11/12
Complete prototype system testing plans	1/13
Demonstrate adsorbent system heating	2/13
Demonstrate stable flow through reactor design for slurry AB	3/13
Identify scale-up methods for slurry AB	4/14
Publish two models on the WEB for public access	9/13
Identify and design adsorbent system prototype	9/13
Identify and design one chemical hydride system prototype	9/13

**Deliverables**

DOE Peer Review Materials	May
Annual Operating Plan Submittal	July
Quarterly Technical Reports	Oct., Jan.,
April	
Annual Summary Report	July

**Out-year Plan:****Summary**

The details of the out year plans are described in the SRNL proposal for the HSECoE, with the emphasis in FY'14 to (i) build system prototypes (ii) down select advanced system components and requirements (iii) Experimentally verify concepts in laboratory scale experiments, (iv) conclude materials assessment and (v) down select materials and system concepts to move forward into Phase 3.. The Center will conclude in FY'15 with the design, build, evolution and decommissioning of up to three hydrogen storage systems.

**Budget**

FY'14	\$ 400K
FY'15	\$ 400K

### **Task 3**

## **Hydrogen Storage Engineering Center of Excellence: Adsorbent System Modeling Design and Demonstration**

**Principle Investigator:** **Bruce Hardy**, [bruce.hardy@srnl.doe.gov](mailto:bruce.hardy@srnl.doe.gov)  
 Richard Chahine, [Richard\\_Chahine@UQTR.CA](mailto:Richard_Chahine@UQTR.CA)  
 David Tamburello, [david.tamburello@srnl.doe.gov](mailto:david.tamburello@srnl.doe.gov)  
 Claudio Corgnale, [claudio.corgnale@gmail.com](mailto:claudio.corgnale@gmail.com)  
 Donald. Anton, [Donald.anton@srnl.doe.gov](mailto:Donald.anton@srnl.doe.gov)

#### **Summary**

The Savannah River National Laboratory (SRNL) and its sub recipient, the University of Quebec at Trois Rivières (UQTR), will continue their participation in the Hydrogen Storage Engineering Center of Excellence (HSECoE). This task will focus on metal hydride and adsorbent storage media, and at a secondary level work to ensure the integration and synergy of chemical hydride systems developed by team members. The overarching goal is the identification and testing of viable, practical subscale prototype storage system designs.

SRNL will apply its expertise in modeling dynamic transport phenomena and chemical processes, materials testing, and system modeling to accomplish its objectives for the Hydrogen Storage Engineering Center of Excellence. These general objectives are: (i) develop and apply models to identify viable subscale prototype designs; (ii) identifying viable prototype concepts; (iii) apply detailed models to scale-up of the prototypes – predicting and evaluating the performance of full-scale storage systems based on the prototype design; (iv) collect, compile, and analyze available material engineering property data for various metal hydride candidate hydrogen storage materials and assist in obtaining any missing engineering property data; and (v) serve as the System Architect for the metal hydride systems.

UQTR will apply its unique expertise with adsorbent systems to identify suitable materials and storage devices, and supply the necessary properties for modeling these systems. To accomplish these objectives UQTR will: (i) provide system design and media data for use in the adsorbent-based models; (ii) develop an efficient adsorption model that can be easily implemented but still accurately predict the adsorption characteristics over a range of temperatures; (iii) extend the model for hydrogen adsorption on activated carbons to other potentially useful adsorbents; and (iv) if an adsorbent system is down selected for additional testing at the end of Phase 2, design and build a test station to evaluate the subscale prototype with input from SRNL and other key partners.

#### **FY 2013 Task Plan**

##### **Task 3: SRNL HSECoE Technical Work Scope**

Task 3.1: Design apparatus for heating the adsorbent to yield H<sub>2</sub> discharge on an appropriate time scale and compatible with flow-through cooling.

3.1.1 Use modeling analysis to design the heating system. Current concepts are:  
 Hexagonal cell with resistance heater, Hexagonal cell that is resistively heated by

passing an axial electrical current through the cell walls, Joule heating of the adsorbent, Use of resistively heated helical element (this is being developed by GM), Expandable resistive heater, Fin and tube heat exchanger and MATI concept.

3.1.2 Test design viable concepts using a subscale prototype (at UQTR).

Ensure that concept functions properly in the physical tests

3.1.3 Validate models for adsorbent heating against subscale tests, if they work

Task 3.2 Identify form of MOF-5 to be used in prototype and sub-scale prototype tests.

Task 3.3 Apply/Develop system models to:

3.3.1 Determine best performing MOF form

3.3.2 Determine consumption of stored hydrogen for heating and other processes

3.3.3 Identify optimal system design concepts

3.3.4 Evaluate cooling processes other than flow-through cooling

Task 3.4 Develop concept of cooled tank wall to reduce exhaust H<sub>2</sub> required for flow-through cooling.

3.4.1 Design tank cooling jacket

3.4.2 Assess concept using detailed models

3.4.3 Identify operating procedure – timing of wall cooling vs H<sub>2</sub> injection

Task 3.5 Evaluate alternative methods to flow-through cooling:

Task 3.6 Determine minimally acceptable adsorbent material properties to meet the 2017 and ultimate system targets.

### **FY 2013 Cost Breakdown**

**Task 3 – SRNL HSECoE Technical Work Scope:**

	Manpower	\$ 690K
	Materials	<u>\$ 100K</u>
Sub Total:	SRNL	\$ 790K
	UQTR subcontract (DOE share)	<u>\$ 240K*</u>
<b>Total</b>	<b>SRNL + UQTR (DOE Total)</b>	<b>\$1,030K</b>

\* does not include UQTR cost-share

### **FY 2013 Milestones/Deliverables**

#### **SMART Milestone**

Report on ability to develop a MOF-5 adsorbent media bed having a total hydrogen density of: 11 % g H<sub>2</sub>/(g MOF) and 33 g H<sub>2</sub>/(liter MOF) at P = 60 - 5 bar and T = 80 - 160 K

9/13

#### **Tracking Milestones**

1. Guide experimental validation of honeycomb fin concept for nominal form adsorbents with respect to model predictions 12/12
2. Validate discharging model utilizing modified UQTR experiments 4/13
3. Complete one honeycomb/heater adsorbent storage vessel and system design

4. Design Phase 3 prototype storage vessel 9/13

**Deliverables**

Task Budget and Status Report	15 <sup>th</sup> of each
month	
Face to Face Meeting	October, TBD
DOE Peer Review Meeting	May
Annual Summary Report	June
Annual Operating Plan Submittal	July

**Out-year Plan:**

**Summary**

1. Build sub-scale prototype adsorbent system
2. Evaluate performance of sub-scale prototype adsorbent system

**Out-year Budget\***

FY'14 - \$ 1732K FY'15 - TBD

\* includes UQTR DOE funding but not UQTR cost-share and 4% escalation.

## **Task 4**

### **Load Sharing Polymeric Liner for Hydrogen Storage Composite Tanks**

**Principle Investigators:** Elliot Clark, SRNL, [elliott.clark@srnl.doe.gov](mailto:elliott.clark@srnl.doe.gov)  
Don Baird, Virginia Tech, [dbaird@vt.edu](mailto:dbaird@vt.edu)

#### **Summary**

Reduction in the cost of compressed hydrogen storage tanks is an essential target that must be met for a competitive commercial fuel cell market to unfold. Currently, high pressure storage tanks are designed for nominal operational pressures between 350 and 700 bar and are manufactured using expensive carbon fibers. The high cost of carbon fibers is due to the conversion process of the carbon precursor (i.e. PAN by solution spinning). It has been stated that current carbon fiber prices of \$13/lb must be reduced by half, to approximately \$6/lb, for these tanks to be competitive. An economical material and process is needed to obtain a high modulus and high strength polymer tank which can be directly manufactured without the costly conversion process.

Thermotropic liquid crystalline polymers (TLCPs), when either rotocast or blow molded, may lead to tanks with comparable or improved characteristics such as improved barrier to H<sub>2</sub> compared to carbon fiber based composite tanks as a low cost manufacturing alternative. A group at Virginia Tech has been successful in rotational molding TLCPs into tanks capable of pressures upward of 2500 psi. SRNL in partnership with Virginia Tech seeks to expand on this initial effort and investigate the use of TLCPs as an alternative tank liner material.

TLCPs have a low coefficient of thermal expansion and a hundred-fold lower hydrogen permeability than HDPE, the predominant Type 4 tank liner. TLCPs cannot be processed to have the strength of typical high strength carbon fibers, Toray T700 (711 ksi), but we look to utilize the above mentioned advantages and build a high pressure tank from the inside-out. Unlike conventional hydrogen storage tanks, the TLCPs will share the load during operation allowing for less stress/load to be applied on the outer shell of the tank. This new load sharing liner will allow for lower cost fibers (e.g.- melt spun recyclable TLCP fibers or ultra-high molecular HDPE) to be used instead of carbon fiber. Carbon fiber use may not be eliminated as a possibility, but a less expensive, lower strength carbon fiber could be utilized instead. In addition to the material advantages, we will process the TLCP liner using blow-molding techniques developed at Virginia Tech. This process step could drastically reduce the amount of time to manufacture a high pressure tank and lead to tanks with burst pressures pushing 5000 psi or higher (or ½ the required value). In conclusion, this project brings two unique ideas from a material and processing perspective that has not been investigated for hydrogen storage.

#### **Task Plan**

##### **4.1 Development and characterization of TLCP liner materials**

###### **4.1.1 Baseline material characterization**



- 4.1.2 Blow Molding process optimization for development of TLCP liner (up to 700 bar)
- 4.1.3 Investigation of low cost over-wrap fiber alternative for development of high pressure storage vessel
- 4.2 Testing and Validation of TLCP Technology
  - 4.2.1 H<sub>2</sub> Permeability Measurements (in conjunction with project at ORNL)
  - 4.2.2 Hydrostatic Burst Testing of small-scale prototypes
  - 4.2.3 Constant Pressure Ramp and Hold
- 4.3 Cost Analysis of TLCP and comparison to conventional carbon fiber technology

### **FY 2013 Cost Breakdown**

SRNL	\$100K
Virginia Tech	<u>\$100K</u>
<b>Total:</b>	<b>\$200K</b>

### **FY 2013 Milestones/Deliverables**

#### **SMART Milestone**

Report on ability of the TLCP liner material to reach tensile strengths up to 1000 MPa, which is a 30x improvement compared to conventional HDPE (30 MPa).

#### **Deliverables**

Task Budget and Status Report	15 <sup>th</sup> of each month
Quarterly Progress Reports & 10/13	1/13, 4/13, 7/13,
DOE Peer Review Meeting	
5/13	
Annual Summary Report	
7/13	

### **Out-year Plan**

#### **Summary**

Additional work in FY'13 will include further optimization of the process and to produce more samples.

#### **Out Year Budget**

FY'14 \$ 250K

## Task 5

### Detailee Assignment to DOE EERE Fuel Cell Technologies Program

Detailee: Christopher S. McWhorter, [scott.mcwhorter@srnl.doe.gov](mailto:scott.mcwhorter@srnl.doe.gov)

#### Summary

Under this task, SRNL will provide technical assistance to DOE technology development managers in hydrogen storage program planning and implementation activities. Specifically, this task will include but not limited to providing input for:

- Program reviews and meetings relevant to related technologies;
- Presentations materials, technical papers, fact sheets, and display material for use at technical conferences;
- Meetings of the US DRIVE Technical Team;
- White papers on technical issues as required;
- Annual progress reports describing the results of laboratory R&D, cooperative contractor R&D accomplishments;
- Reviews of unsolicited proposals and correspondence related to the development of fuel cell systems, components, and enabling R&D;
- Program execution plans, technology development roadmaps, The Hydrogen Posture Plan, and the Fuel Cells Technologies Multi-Year Program Plan;
- The 2013 Fuel Cells Technologies Program Annual Accomplishments report;
- Technical review of proposals and project progress;
- Technical assistance to interagency and international working groups, including the hydrogen research and development task force and the IPHE; and
- Travel and Participation at technical meetings and conferences including but not limited to the following:
  - FY2013 Annual Merit Review and Peer Evaluation;
  - Hydrogen Storage Engineering Center of Excellence meetings;
  - Materials Research Society;
  - Other hydrogen storage related technical meetings or conferences.

#### FY 2013 Cost Breakdown

##### Task 4 – Detailee Assignment to DOE EERE Fuel Cell Technologies Program

Cost Element	Funding Request
Salary & Benefits including Overhead	\$ 295.0K
Costs related to Temporary Detailee Assignment (including travel, per diem expenses and overhead)	\$ 155.0K
Anticipated FY12 Carry-over	(\$ 130.0K)
Total Requested:	\$ 320.0K

## **Task 6**

### **Composite Adsorbents for Enhanced Hydrogen Storage**

**Principle Investigator:**

**M. Anton, [mary.anton@srnl.doe.gov](mailto:mary.anton@srnl.doe.gov)**  
**Bruce Hardy, [bruce.hardy@srnl.doe.gov](mailto:bruce.hardy@srnl.doe.gov)**  
**Donald Anton, [Donald.anton@srnl.doe.gov](mailto:Donald.anton@srnl.doe.gov)**

**Summary**

In the development of hydrogen storage systems through the HSECoE, a novel approach to desorption energy introduction has been identified. The current approach is to insert a helical resistance heater into a packed powder MOF-5 adsorbent bed. This approach relies on selecting the appropriate pitch of the helices used to spread heat evenly across the cryogenic adsorption bed and proper placement of the resistance heater. Owing to the very low thermal conductivity of the bed,  $<0.5 \text{ W/m}\cdot\text{K}$ , this pitch will necessarily be low and will also require the incorporation of 10w/o Expanded Natural Graphite (ENG) into the MOF-5 bed. Both of these measures will necessarily reduce the capacity of the storage system.

Joule heating (direct resistance heating of the adsorbent bed using implanted electrodes and an external power source) has been used for introducing heat into activated carbon adsorption beds in the past. Activated carbon is a relatively good conductor and thus Joule heating a practical approach to obtaining very uniform heat input at modest energy expenditure. MOF-5, however is an electrical insulator, with no measurable conductivity up to voltages of 10,00V. The current approach of the HSECoE is to incorporate 10 w/o ENG into the MOF-5 to raise the thermal conductivity to  $10 \text{ W/m}\cdot\text{K}$ , allowing for inserted resistance heating. This necessarily reduces the storage capacity of the MOF-5 by 10% since the ENG has no measurable hydrogen adsorption capacity. The problem is then to impart electrical conductivity into the MOF-5 insulating powder while not detracting from the hydrogen storage capacity. This can be accomplished through the incorporation of 5-10wt% super activated carbon into the MOF-5 powder resulting in a composite adsorbent system. SAC has been previously shown to be an excellent hydrogen adsorption media, while not quite as good as MOF-5. Incorporation of SAC into MOF-5 will only minimally diminish the adsorption capacity of the composite mixture while allowing for introduction of Joule heating as a means of hydrogen desorption. Preliminary electrical conductivity experiments have been conducted on MOF-5/SAC mechanical mixtures showing that adequate electrical conductivity can be obtained in lightly compacted samples.

It is proposed that a program be initiated to investigate the hydrogen storage characteristics of MOF-5/SAC composite materials. The excess adsorption capacity will be measured with various amounts of SAC to determine the interrelationship of the two isotherms on both charging and discharging. Additionally, alternate methods of introducing SAC into MOF-5 powders will be investigated to minimize SAC content while maintaining sufficient conductivity to insure Joule heating. Preliminary consolidation experiments will be conducted to establish temperature rises which can be achieved as well as alternate methods of composite materials compaction to achieve

higher volumetric densities. Preliminary Joule heating experiments will be conducted to establish the concept to TRL-2 at which time the HSECoE may determine if the technology is ready for prototype introduction.

### **FY 2013 Task Plan**

#### **Task 6: Composite Adsorbents for Enhanced Hydrogen Storage**

Task 6.1: Identify optimized additive mixing process

Task 6.2: Determine electrical resistivity vs. composition and compaction

Task 6.3: Determine Capacity and D/A parameters

Task 6.4: Determine Joule Heating

### **FY 2013 Cost Breakdown**

#### **Task 3 – SRNL HSECoE Technical Work Scope:**

Task 6.1-2	\$ 200K
Task 6.3	\$ 100K
Task 6.4	<u>\$ 100K</u>
Total	\$ 400K

### **FY 2012 Milestones/Deliverables**

#### **SMART Milestone**

Report on ability to develop a MOF-5 composite adsorbent media bed having an electrical resistivity of 1000 ohms sufficient to allow hydrogen discharge of 1.6gH<sub>2</sub>/s while maintaining 500g/g at 40 bar and 77K gravimetric capacity  
9/13

#### **Tracking Milestones**

Identify optimized additive mixing process	12/12
Determine electrical resistivity vs. composition and compaction	4/13
Determine capacity and D/A parameters	7/13
Determine Joule heating effect on composite material	9/13

#### **Deliverables**

Task Budget and Status Report	15 <sup>th</sup> of each month
Face to Face Meeting	October, TBD
DOE Peer Review Meeting	May
Annual Summary Report	June
Annual Operating Plan Submittal	July

### **Out-year Plan:**

Design subscale prototype test system utilizing Joule heating  
Build, evaluate and validate models in subscale prototype test system

### **Out-year Budget\***

FY'14 - \$ 400K

FY'15 – 400K

# Savannah River National Laboratory

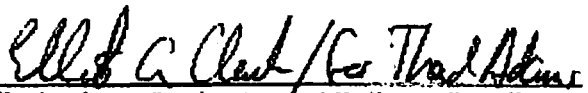
## Hydrogen Codes & Standards

B&R No. HT0500

### Annual Operating Plan For FY 2013

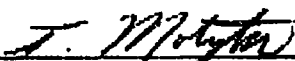
Date: July 24, 2013

Approved

  
Thad Adams, Production and Delivery Coordinator  
Savannah River National Laboratory

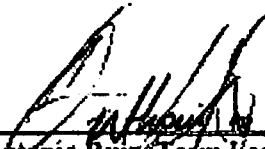
7/24/2012  
Date

Approved

  
Ted Motyka, Hydrogen Program Manager  
Savannah River National Laboratory

7/24/12  
Date

Approved:

  
Antonio Ruiz, Team Lead  
Hydrogen Codes & Standards

8/20/12  
Date

This annual operating plan describes the activities to be conducted at Savannah River National Laboratory in FY 2013 in support of DOE's Hydrogen and Fuel Cell Technologies Program. The Detailee assignment is for in-office support at DOE headquarters for the Safety, Codes and Standards program. These proposed activities are divided into the task areas described below.

Task	FY13 Budget Request
Task 1 – Detailee Assignment to DOE EERE Fuel Cell Technologies Program	\$400K
Total:	\$400K



## Task 1

**Detailee Assignment to DOE EERE Fuel Cell Technologies Program**

**Detailee:** Charles (Will) James, [charles.james@srnl.doe.gov](mailto:charles.james@srnl.doe.gov)

**Summary**

Under this task, SRNL will provide technical assistance to DOE technology development managers in hydrogen codes and standards program planning and implementation activities. Specifically, this task will include but not limited to providing input for:

- Develop a DOE Safety and Communication Plan;
- Co-organize a workshop of hydrogen compatibility issues in polymeric and composite materials
- Program reviews and meetings relevant to related technologies;
- Presentations materials, technical papers, fact sheets, and display material for use at technical conferences;
- Meetings of the FreedomCAR Fuel Cell Technical Team;
- Meetings with National and International Standard Development Organization (SDOs) and Code Development Organizations (CDOs) (eg - NFPA, ISO, CSA, etc);
- White papers on technical issues as required;
- Evaluate annual progress reports (APRs) describing the results of laboratory R&D and contractor R&D accomplishments;
- Reviews of unsolicited proposals and correspondence related to the development of fuel cell systems, components, and enabling R&D;
- Program execution plans, technology development roadmaps, The Hydrogen Posture Plan, and the five-year Fuel Cells Technologies Program Plan;
- The 2012 Fuel Cells Technologies Program Annual Accomplishments report (hardcopy and CD versions);
- Technical review of proposals and projects progress;
- Technical assistance to interagency and international working groups, including the hydrogen research and development task force, IPHE, IEA HIA Task 31; and
- Participation at the following meetings is also anticipated:
  - FY2012 Annual Merit Review and Peer Evaluation;
  - Codes and Standards Technical Meetings as directed.

**FY 2013 Cost Breakdown****Task 1 – Detailee Assignment to DOE EERE Fuel Cell Technologies Program**

Salary & Benefits	\$ 260K
Annual Housing Cost	\$ 85K
ITRA	\$ 15K
Work Related Travel	\$ 40K

**Total:** **\$ 400K**

# Savannah River National Laboratory

## Hydrogen Production and Delivery

B&R No. EB-4201

### Annual Operating Plan For FY 2013

Date: July 9, 2012

Approved



Thad Adams, Production and Delivery Coordinator  
Savannah River National Laboratory

8/14/2012  
Date

Approved



Ted Motyka, Hydrogen Program Manager  
Savannah River National Laboratory

8/14/2012  
Date

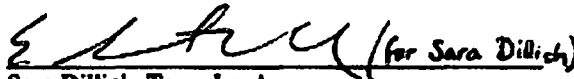
Approved:



Erika Sutherland, Technology Development Manager  
Hydrogen Production and Delivery R&D

08/13/2012  
Date

Reviewed:

 (for Sara Dillich)

Sara Dillich, Team Lead,  
Hydrogen Production R&D

08/13/2012  
Date



This annual operating plan describes the activities to be conducted at Savannah River National Laboratory in FY 2013 in support of DOE's program to develop hydrogen production and delivery technologies for fuel cell power systems. We will conduct research on fiber reinforced composite piping for hydrogen delivery. These proposed activities are divided into the task areas described below.

Task	FY13 Budget
FRP Codification and Fatigue Testing	\$300k
Total:	\$300k

## Development of Fiber Reinforced Piping for Hydrogen Delivery

### Principle Investigator:

George Rawls, [george.rawls@srnl.doe.gov](mailto:george.rawls@srnl.doe.gov), 803-725-5658

Thad M. Adams, [thad.adams@srnl.doe.gov](mailto:thad.adams@srnl.doe.gov), 803-725-5510

### Background

This annual operating plan describes the activities to be conducted at the Savannah River National Laboratory in FY 2013 in support of the DOE program to develop hydrogen production and delivery technologies.

The goal is to successfully adapt spoolable FRP currently used in the oil and natural gas industry to use high-pressure hydrogen delivery systems. The plan for this multiyear effort is provided in Attachment 1, "Life Management Methodology Development for Fiber Reinforced H<sub>2</sub> Pipelines". The plan was a joint document developed by SRNL and the American Society of Mechanical Engineers (ASME) to guide generation of a technical basis for safe use of FRP in delivery applications.

The plan provides for the needed material evaluations and also focuses on the needed information for codification of FRP into the ASME B31 Code of Pressure Piping. The B31.12 Hydrogen Piping Code is the existing code that provides a consensus standard for the safe and reliable implementation of the piping in hydrogen service. This plan is designed to provide the needed information to support the Codification of FRP. The B1.12 Code provides for the initial construction of piping systems. This plan includes additional tasks to ensure the safe and reliable use of FRP during its service lifetime.

SRNL in partnership with Aiken County Economic Development Partnership, Center for Hydrogen Research, ORNL and ASME has developed a project proposal to partner with industry and government to provide an integrated hydrogen delivery demonstration project. The proposal is provided in Attachment 2. The objective of the project is to install at least 1000 f of FRP pipeline operating in hydrogen service at a design pressure of 1500psi. The pipeline would serve as a test and surveillance facility as a final proof of concept for FRP in Hydrogen Service. The proposed location of the project is the Savannah River National Laboratory with demonstration portions at the Sage Mill Central Hydrogen Facility located at Aiken County's Sage Mill Industrial Park. The facility will have an integrated educational component for the public.

## **Expected Outcome and Significance**

### **Technical Barriers**

This project addresses the following technical barriers from the Hydrogen Delivery section of the Hydrogen, Fuel Cells and Infrastructure Technologies Program Multi-Year Research, Development and Demonstration Plan:

- D. High Capital Cost and Hydrogen Embrittlement of Pipelines
- I. Hydrogen Leakage and Sensors
- K. Safety, Codes and Standards, Permitting

### **Technical Targets**

This project is focused on the evaluation of fiber reinforced composite piping for hydrogen service applications. Assessment of the structural integrity of the FRP piping and the individual manufacturing components in hydrogen will be performed. Insights gained will support qualifications of these materials for hydrogen service including the

**Transmission pipeline reliability: Acceptable for H2 as a major energy carrier**

**Transmission pipeline total capital cost \$735k per mile (2015),**

**Transmission pipeline total capital cost \$715k, per mile (2020)**

**H2 Delivery Cost <\$0.90/GGE**

**H2 pipeline leakage: < 780 kg/mi/y (2020)**

### **Results Achieved in Prior Year:**

In FY12, the SRNL program has focused on supporting the development of a life management methodology for FRP composite pipe materials and the ASME B31.12 Codification the FRP. The materials testing effort has centered on the fatigue damage of FRP for both flawed and unflawed conditions. Initial meetings were held with the ASME B31.12 Piping Committee to initiate the codification process. A functions and requirements documents was also developed for a proposed integrated hydrogen demonstration project.

- **FRP Materials Testing**  
Fatigue testing has been completed for both flawed and unflawed samples  
Proposal Developed for extending the service life of FRP
- **FRP Codification into ASME B31.12**  
Codification workshop with all stakeholders  
Presented technical data on FRP to B31.12 Committee
- **Proposal to DOE for FRP Demonstration Project**  
Developed a concept plan for an integrated hydrogen delivery project

### **Technical Approach and Plan**

The complete technical approach is provided in the plan for “Life Management Methodology Development for Fiber Reinforced H2 Pipelines” (Attachment 1) which was developed by SRNL and ASME.

### **FY13 Proposed Tasks**

#### **Sub-Task 1 FRP Codification**

SRNL will develop the initial draft of the required B31.12 Code language providing the technical requirements for FRP codification. The document will address the code requirements for scope, materials, design, fabrication, examination, testing, and inspection. The technical base for the Code section will draw from the testing and analysis work performed by SRNL and ORNL for the hydrogen delivery program. Technical details will also be obtained from the industrial FRP manufacturer supporting the delivery effort. While the document is being developed periodic reviews will be held with the B31.12 Committee to ensure that the final product has a high probability of acceptance. The final Code language will be presented to the Code Committee as a proposed action for approval and inclusion in the ASM B31.12 Hydrogen Piping Code.

**Deliverable** - Code section and presentation to ASME B31.12

**Proposed Budget** - \$125k

#### **Sub-Task 2 FRP Fatigue Testing**

Fatigue testing of FRP was started at SRNL during FY 12 and it is planned to continue this effort during FY 13. The fatigue testing is directly tied to the FRP life management plan in task 2.2 and 3.2. During FY12 fatigue tests were performed on flawed and unflawed specimens. The results of these test show that the FRP piping is susceptible to some level of fatigue damage. Literature reviews of fatigue damage in fiber reinforced structures support this conclusion. At the levels initially measured FRP still offers a viable alternative to metallic piping. The additional tests proposed for FY 13 will focus on data needs for FRP piping design and codification.

**Deliverable** – Technical data for development of a fatigue design curve

**Proposed Budget** - \$175k

**Collaborations:** Fiberspar, ORNL, Aiken County, ASME

### **Cost Breakdown by Sub Task**

<b>Sub-Task</b>	<b>Description</b>	<b>FY12 Budget</b>
Sub-Task 1	Write Draft Code Section for FRP Codification in ASME B31.12	\$125K

Sub-Task 2	<b>Preform Additional Fatigue Testing to Develop Cyclic Design Requirement for FRP</b>	\$175K
<b>Total FY13</b>		<b>\$300K</b>

### Y13 Technical Milestones

Milestone	Completion Date
<b>SMART—Complete Draft Code Section for FRP Codification in B31.12</b>	<b>6/15/13</b>
<b>SMART—Develop Fatigue Design Requirement for FRP</b>	<b>9/15/13</b>

### Additional Funding Opportunities

#### Sub-Task 3 Integrated FRP Hydrogen Demonstration Project

This proposed project will provide a piping distribution system between an existing hydrogen storage system and a hydrogen fuel cell providing an integrated demonstration of a system providing electric power using hydrogen. The piping connecting the components will be fiber reinforced plastic piping (FRP).

Cost effective distribution of hydrogen gas will be a primary requirement for the beginning of a hydrogen infrastructure. The DOE Hydrogen Delivery Program has identified spoolable FRP as a cost effective alternative to metallic piping for hydrogen service. The main advantage of the spoolable FRP product form is that it can be obtained in long sections, (1/2 mile), substantially reducing the fabrication cost associated with welding metallic piping. The DOE Hydrogen Delivery Pipeline Working Group has been developing data through testing programs at the DOE National Labs to support the use of FRP in hydrogen services. SRNL and ORNL are now working with industrial pipeline producers and ASME to codify FRP in to the ASME B31.12 Hydrogen Piping Code. An integrated demonstration project utilizing FRP as the hydrogen delivery mechanism is the next logical step in the evaluation process for fiber reinforced pipeline technology. A pipeline demonstration project will provide DOE with the capability to investigate all aspects in the life cycle of FRP and fuel cell performance. Performance data from a system undergoing real time degradation is a key element in providing codes and standards development organizations, regulators, and the public a high level of confidence in the FRP technology for hydrogen service. The project will emphasize safety codes and standards so that the new FRP technology can easily be brought to the market place in the most economic manner.

#### Subtask 3.1 Pre- Pre-Conceptual Design

- The project concept will be completely defined by the partners.
- Pre- Conceptual design will be developed

**Proposed Budget \$75K**

**Subtask 3.2 Final Design and Permitting**

- Final design will be developed and permitting through the State will begin. South Carolina has state-wide permitting through the State Fire Marshall which will help expedite the project.

**Proposed Budget \$100K**

**Subtask 3.3 Construction**

- The integrated demonstration will be constructed at the Sage Mill Industrial Park.

# Savannah River National Laboratory

## Hydrogen Production and Delivery

B&R No. HT0201

### Annual Operating Plan For FY 2013

Date: July 24, 2013

Approved

Thad Adams  
Thad Adams, Production and Delivery Coordinator  
Savannah River National Laboratory

7/24/12  
Date

Approved

Ted Motyka  
Ted Motyka, Hydrogen Program Manager  
Savannah River National Laboratory

7/24/12  
Date

Approved:

\_\_\_\_\_  
Eric Miller, Technology Development Manager  
Hydrogen Production R&D

\_\_\_\_\_  
Date

Reviewed:

\_\_\_\_\_  
Sara Dillich, Team Lead,  
Hydrogen Production R&D

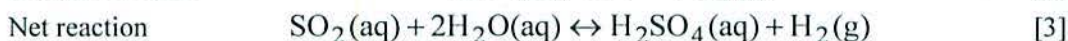
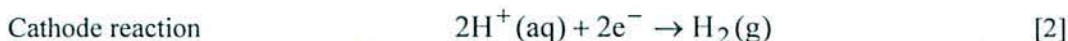
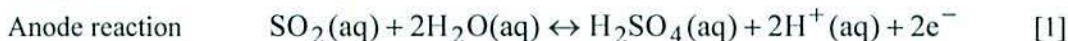
\_\_\_\_\_  
Date



## Electrolyzer Component Development for the Hybrid Sulfur Thermochemical Cycle (HyS)

Contacts: William Summers, [William.summers@srnl.doe.gov](mailto:William.summers@srnl.doe.gov), (803)-25-7766  
Hector Colon-Mercado, [Hector.Colon-Mercado@srnl.doe.gov](mailto:Hector.Colon-Mercado@srnl.doe.gov), (803)645-7819

HyS is conceptually the simplest of the thermo-chemical cycles, involving only sulfur chemistry and all fluid reactants. In the HyS, hydrogen gas ( $H_2$ ) is produced at the cathode of the electrochemical cell. Sulfur dioxide ( $SO_2$ ) is oxidized at the anode to form sulfuric acid ( $H_2SO_4$ ) and protons ( $H^+$ ) as illustrated below:



where, the oxidation of  $SO_2$  to produce  $H_2$  in the sulfur depolarized (SDE) occurs at potentials of 0.156 V vs. SHE (~1V lower than pure water electrolysis). A separate high temperature reaction decomposes the sulfuric acid to water and sulfur dioxide which are then recycled to the electrolyzer, and oxygen which is separated out as a secondary product. Heat for the decomposition step can be provided by solar means or by a high temperature nuclear reactor. The successful coupling of these two operations will result in a simple process that has the potential to be more efficient and cost-effective for the massive production of hydrogen than alkaline electrolysis and other thermochemical cycles.

The development of HyS cycle was led by SRNL and funded by DOE-NE under the Nuclear Hydrogen Initiative (NHI) program from FY04 thru FY10. During the program, SRNL was mainly focused on the SDE working on the characterization of the individual components [proton exchange membranes (PEM), electrocatalysts, diffusion media, etc.] and testing of membrane electrode assemblies (MEA) under HyS operating conditions. SRNL successfully completed Level 1 DOE milestones for three consecutive years, demonstrating long term steady-state operation of a single cell, multi-cell operation, and operation without sulfur formation (a major technical challenge). In order to continue with the progress of the HyS, several obstacles need to be addressed for the successful deployment of the technology. The main obstacles consist of:

- anode electrocatalyst: identify and test catalysts with low overpotential and high stability
- proton exchange membrane: identify and test high temperature highly selective membranes in order to minimize the sulfur species transport while maintaining high ionic conductivity in the presence of strong acid concentrations, and support high catalyst kinetics.

In order to target these obstacles, the following tasks are needed:

### Task 1 – Complete fabrication of pressurized button cell test station

During FY10, fabrication of a pressurized button cell test station was started. However, due to lack of funding only 50 % of the station was completed. Completion of the cells will facilitate the testing of anode electrocatalysts and high temperature membranes at SDE relevant conditions.

### Task 2 – Establish performance baseline MEA at SDE conditions

SRNL will use the button cell test station to test and establish performance baselines with the state-of-the-art commercially available materials.

### Task 3 – Perform anode catalyst screening in model solutions



Rapid screening of electrocatalyst will be performed by sputter depositing of the material of interest (Pt, Au, Ag, etc.) on tantalum coupons and evaluated in sulfur dioxide saturated sulfuric acid solutions. This will seek to find catalysts that will reduce the sulfur dioxide oxidation overpotential in order to meet the SDE targets.

### **FY 2013 Cost Breakdown and Milestones**

<b>Task 1</b>	<b>Complete fabrication of pressurized button cell test station (\$180,000)</b>	
1.1	Evaluate completed section of the test station	10/13
1.2	Design of saturator and auxiliary equipment	12/13
1.3	Purchase and fabricate parts	3/14
1.4	Integrate components and add to control software	5/14
1.5	Perform safety inspection and get approvals of safety plan	6/14
<b>Task 2</b>	<b>Establish performance baseline MEA at SDE conditions (\$60,000)</b>	
2.1	Prepare different catalyst loading MEA on state of the art materials	7/14
2.2	Test the effect of different catalyst loading	8/14
2.3	Test the effect of different operating pressures	9/14
2.4	Test the effect of different acid concentration	10/14
<b>Task 3</b>	<b>Perform anode catalyst screening in model solutions (\$60,000)</b>	
3.1	Prepare catalyst substrates	1/14
3.2	Sputter deposit catalyst on substrate	7/14
3.3	Test activity on model solutions	7/14
<b>Total:</b>	<b>\$ 300,000</b>	

### **FY 2013 Deliverables**

#### **Deliverables**

Quarter Reports Contributions	end of quarter
2014 Annual Operating Plan	07/13

## Supporting Documentation No. D

**United States Government****Department of Energy (DOE)****Savannah River Operations Office (SR)****memorandum****DATE:** DEC 07 2010**REPLY TO****ATTN OF:** CMD (J. Lovett, 803/952-9829)**SUBJECT:** Appointment as Contracting Officer's Representative (COR), Contract No. DE-AC09-08SR22470, with Savannah River Nuclear Solutions (SRNS)**to:** Patrick Jackson, Senior Program Manager, Office of Laboratory Oversight.

Pursuant to and in accordance with the clause of subject contract entitled, "H.30 Performance/Technical Direction", you are hereby designated to act as a COR in relation to the services to be provided under the subject contract. This designation is personal to you and may not be delegated to any other individual and is valid the period of time you serve as Senior Program Manager, Office of Laboratory Oversight.

Your responsibilities originate from the provisions of the subject contract. You should thoroughly familiarize yourself with all of the requirements of the contract and your responsibilities relative to these requirements. Your COR authority is limited as set forth below and may be exercised only in relation to the performance areas/functions identified to be within your cognizance in DOE-SR Manual 300.1.1B, Chapter 1, DOE-SR Functions, Responsibilities and Authorities Procedure.

Your duties and responsibilities consist of the following:

1. Monitor technical compliance. Ensure the Contractor complies with all technical requirements of the work defined in the scope of work, either included in or attached to the contract, including reports, documentation, data, etc. In this connection, you should:

Issue written technical direction and interpret technical requirements in accordance with the Technical Direction clause (DEAR 952.242-70) contained in the contract. Technical direction must be in writing and within the scope of work as stated in the contract. All technical direction letters must contain the following paragraph:

"The action taken herein is considered to be within the scope of the existing contract and does not authorize the Contractor to incur any additional costs or delay delivery to the Government. If the Contractor considers that carrying out this action will increase contract costs, delay any delivery, or require the submission of a baseline change proposal, then the Contractor shall not implement this technical direction and shall promptly notify the Contracting Officer's Representative orally, confirming and explaining the notification in writing to the Contracting Officer within five (5) working days. Following submission of a written impact analysis, the Contractor shall await further direction from the Contracting Officer. If the Contractor accepts the direction contained herein, then the Contractor waives any right to an equitable adjustment under the contract arising from the technical direction."

- (a) **Technical direction includes, but is not limited to:**
- (1) **Directions to the Contractor which redirect the Contract effort, shift work emphasis within a work area or a Work Authorization Directive, require pursuit of certain lines of inquiry, fill in details or otherwise serve to accomplish the Statement of Work (SOW), Work Authorization/Execution Plan (WA/EP), or Performance Evaluation and Measurement Plan (PEMP).**
  - (2) **Provision of written information to the Contractor which assists in the interpretation of drawings, specifications or technical portions of the work description.**
  - (3) **Review and, where required by the Contract, approve technical reports, drawings, specifications and technical information to be delivered by the Contractor to the Government under the Contract.**

**All technical questions arising out of the contract which cannot be resolved without increasing costs or causing alterations or changes to the contract scope, Performance Based Incentives (PBI), or other incentives should be reported to the Contracting Officer. Any unresolvable differences should be reported to the Contracting Officer. Such reports should contain the facts and recommendations pertinent to the questions at issues.**

- (b) **Assure that changes in the scope of work, work authorizations, delivery schedule, or any aspect of a PBI or other incentive are issued by the Contracting Officer in writing before the Contractor proceeds with the changes.**
- (c) **Ensure that the Government meets its contract obligations to the Contractor. This includes, but is not limited to: Government-furnished equipment and services called for in the contract, work authorization document, PBI, or other incentive; and, timely Government comment on or approval of contract deliverables as may be required by the contract.**
- (d) **Inform the Contracting Officer in writing of any substantive performance failure by the Contractor.**
- (e) **Inform the Contracting Officer if you foresee that any portion of the contract will not be completed according to schedule.**
- (f) **Prepare Memoranda for the Record of all substantive meetings or telephone conversations relating to the contract. All correspondence relating to Performance Direction under the contract shall cite the contract number. A copy of all records and other correspondence shall be furnished to the Contracting Officer at completion of the contract. The utmost care must be given to proper handling of proprietary data, as well as classified and business-sensitive information.**

- (g) Inform the Contracting Officer in writing of any needed changes in the scope of work described in the contract, work authorization document, PBI, or other incentive.
- 2. Monitor specific technical, administrative and funds aspects.
  - (a) Notify the Contracting Officer immediately of any indication that the cost to the Government for completing any aspect of performance under the contract will exceed the amount stated in the contract.
  - (b) Report to the Contracting Officer any indication that costs are being incurred which are not appropriately chargeable to this contract.
  - (c) Monitor travel performed under the contract to assure the necessity and the duration thereof.
  - (d) Conduct or assure the Government inspection and acceptance are accomplished on work covered by a PBI or other incentive. Review and concur on PBI/Special Performance Area (SPA) or other incentive invoices after validation of completion of work. Ensure payment type (provisional, incremental or final payment) being made is in accordance with the provisions of the PBI or other incentive. If you do not concur with the Contractor's request for payment of a PBI/SPA or other incentive, in whole or in part, you are to contact the undersigned Contracting Officer and discuss a proposed course of action.
  - (e) Assure that the Contractor's work locale is separate from that of Government employees to the maximum extent possible. Advise the Contracting Officer of instances where the locale cannot be separated.
  - (f) Assure that the Contractor's employees are not supervised by Government personnel. Notify the Contracting Officer of any instances of actual or suspected Government supervision.
- 3. Property management:
  - (a) Review and comment on the Contractor's request for Government-furnished facilities, supplies, materials, and equipment and forward the request to the Contracting Officer for disposition.
  - (b) Review and comment on the Contractor's requests for consent to purchase supplies, material, and equipment as required under the contract and provide the results of your evaluations/assessments to the Contracts Management Division for disposition.
- 4. Assist in the closeout of the Contract. Upon completion of the work:
  - (a) Forward to the Contracts Management Division all records and documents pertinent to the administration of the contract which were retained by you in your capacity as COR during the period of contract performance.

- (b) If your contract files contain classified documents, coordinate the disposition with the Office of Safeguards, Security, and Emergency Services.

Only a duly appointed Contracting Officer is authorized to enter into contractual agreements on behalf of the Government; waive any requirement of a contract, modify any term or condition of a contract (i.e., contract amount, contract period of performance, the contract scope of work); revise any PBI issued under a contract; or accept non-conforming work. Any technical direction issued must be in writing and shall not:

1. Constitute an assignment of additional work outside the contract scope of work or work authorized under the WA/EP or PEMP.
2. Constitute a change as defined in the contract clause entitled, "Changes."
3. In any manner cause an increase or decrease in the total estimated contract cost or the time required for contract performance.
4. Change any expressed term, condition or specification of the contract.
5. Interfere with the Contractor's right to perform the terms and conditions of the contract.

The authorities delegated above and those set forth in SRM 300.1.1B, Chapter 1, DOE-SR Functions, Responsibilities, and Authorities Procedure (which is incorporated into the contract), constitute specific delegations of authority. Unless authority to take an action is set forth above or contained in the SRM, it has not been delegated and cannot be exercised by you. If there is any doubt if an authority has been delegated, you should contact me for guidance and direction. If in your absence performance direction is required to be issued, the performance direction letter is to be referred to me or a Contracting Officer in the Contracts Management Division for signature.

If you have any questions regarding your appointment as a COR or any authorities delegated to you, please contact me at (803) 952-9829.

Please acknowledge receipt of this appointment by signing the next page and return a copy to the Contracts Management Division.

  
James Lovett, Jr.  
Contracting Officer  
Contracts Management Division

CMD-11-038

cc:  
J. W. Temple, SRNS

**\*RECEIPT ACKNOWLEDGED:**

---

Name

---

Date

**\*Acknowledgment must be by the addressee.**



U.S. Department of Energy  
Acquisition Career Management Program  
Federal Acquisition Certification  
Contracting Officer's Representative  
Level III

This certificate is awarded to

**Patrick Jackson**

In recognition of your outstanding achievements, commitment and continuing contributions to the acquisition mission of the United States Department of Energy.



Certificate Expires December 31, 2013

A handwritten signature in black ink, reading 'Thomas M. McAllister'.

December 2, 2011

Thomas M. McAllister, COR ACM

Date



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2											
2. AMENDMENT/MODIFICATION NO. 0365		3. EFFECTIVE DATE 06/25/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002214											
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802											
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)											
CODE 798861048      FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO DE-AC09-08SR22470		10B. DATED (SEE ITEM 13) 01/10/2008											
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$102,879,575.04															
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> <tr> <td style="text-align: center;">X</td> <td>Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:		D. OTHER (Specify type of modification and authority)	X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)														
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:														
	D. OTHER (Specify type of modification and authority)														
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)														
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)															
<p>A. The purpose of this modification is to obligate funds to CLIN 0001 (Department of Energy (DOE)) in accordance with SRNS FINPLAN 18. Funds in the amount of \$102,879,575.04 are hereby obligated to CLIN 0001, thereby increasing it from \$4,548,850,535.82 to \$4,651,730,110.96.</p> <p>B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$5,948,578,879.65 to \$6,051,458,454.69.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p> <p>Continued ...</p> <p>Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.</p>															
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)													
		James Lovett													
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA											
(Signature of person authorized to sign)				(Signature of Contracting Officer)											
				16C. DATE SIGNED 06/25/2013											

REFERENCE NO. OF L      IMENT BEING CONTINUED  
DE-AC09-08SR22470/0365

PAGE	OF
2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

## AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1

2

2. AMENDMENT/MODIFICATION NO.

0366

3. EFFECTIVE DATE

06/25/2013

4. REQUISITION/PURCHASE REQ. NO.

13EM002214

5. PROJECT NO. (If applicable)

6. ISSUED BY

CODE

00901

7. ADMINISTERED BY (If other than Item 6)

CODE

00901

Savannah River Operations  
U.S. Department of Energy  
Savannah River Operations  
P.O. Box A  
Aiken SC 29802

Savannah River Operations  
U.S. Department of Energy  
Savannah River Operations  
P.O. Box A  
Aiken SC 29802

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC  
Attn: LLOYD CLEVINGER  
203 LAURENS ST SW  
AIKEN SC 298012421

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER NO.  
DE-AC09-08SR22470

10B. DATED (SEE ITEM 13)

CODE 798861048

FACILITY CODE

01/10/2008

## 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Net Increase:

\$10,185.39

## 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

A. The purpose of this modification is to obligate funds to CLIN 0001 (Reimbursable Work Commercial) in accordance with SRNS FINPLAN 18. Funds in the amount of \$10,185.39 are hereby obligated to CLIN 0001, thereby increasing it from \$4,651,730,110.96 to \$4,651,740,296.25.

B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,051,458,454.69 to \$6,051,468,640.08.

C. The contract estimated value and all other terms and conditions remain unchanged.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

James Lovett

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

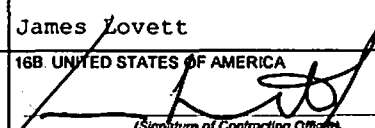
06/25/2013

**CONTINUATION SHEET**REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0366PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES											
				1	2										
2. AMENDMENT/MODIFICATION NO. 0367		3. EFFECTIVE DATE 06/28/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002235											
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802											
CODE 00901		CODE 00901													
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)											
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470											
				10B. DATED (SEE ITEM 13) 01/10/2008											
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required)															
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> <tr> <td style="text-align: center;">X</td> <td>Section I, DEAR 970.5211-1 Work Authorization (May 2007)</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:		D. OTHER (Specify type of modification and authority)	X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).														
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:														
	D. OTHER (Specify type of modification and authority)														
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)														
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)															
A. The purpose of this modification is to incorporate the Contract Work Authorizations listed below:  1) No. SR091701, Rev 1, for In Situ Decommissioning Technology Development and Demonstration, Attachment A 2) No. 410003, Rev 4, for Packaging and Certification Program and Packaging and Transportation, Attachment B 3) No. WW-410003-13, for Wind and Hydropower Technologies Program Agreement #25716, Attachment C 4) No. KC/SR1/3, Rev 3, for Basic Energy Sciences - Energy Frontier Research Centers, Attachment D Continued ...															
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.															
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)													
		James Lovett													
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA											
(Signature of person authorized to sign)				 (Signature of Contracting Officer)											
				16C. DATE SIGNED 06/28/2013											

## CONTINUATION SHEET

REFERENCE NO. OF L IENT BEING CONTINUED  
DE-AC09-08SR22470/0367PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>5) No. IN13012, Rev 4, for Energy and Threat, Attachment E</p> <p>6) No. IN13049, for Energy and Threat, Attachment F</p> <p>The above reference contract work authorizations are provided as attachment A through F, hereto. Funds were allocated under FINPLAN numbers 16, and 18 for Fiscal Year 2013, by separate modifications.</p> <p>B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 4	
2. AMENDMENT/MODIFICATION NO. 0368		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No change in accounting and appropriation data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) DEAR 970.5228-1 Insurance-Litigation and Claims (JUL 2013)/DEAR 931.205-33 Professional and consultant

**E. IMPORTANT:** Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ 0 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to add Clause I.62 DEAR 931.205-33 Professional and consultant service costs, delete clause Clause I.48 DEAR 970.5228-1 Insurance - Litigation and Claims (MAR 2002) (DEVIATION) and replace it with DEAR 970.5228-1 Insurance-Litigation and Claims (JUL 2013) shown on page 2 and 3.

B. All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) James Lovett	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 06/28/2013

**SF30 Block 14**

**DEAR 931.205–33 Professional and consultant service costs**

(g) If the clause at 48 CFR 952.231–71 or the clause at 48 CFR 970.5228–1 is included in the contract, or the contract is a non-management and operating contract exceeding \$100,000,000 that includes cost reimbursable elements exceeding \$10,000,000 (for example, contracts with both fixed-price and cost-reimbursable line items where the cost-reimbursable line items exceed \$10,000,000 or time and materials contracts where the materials portions exceed \$10,000,000), litigation and other legal costs are only allowable if both: incurred in accordance with 10 CFR part 719, Contractor Legal Management Requirements; and not otherwise made unallowable by law, regulation, or the terms of the contract.

(End of clause)



**SF30 Block 14**

**DEAR 970.5228-33 Insurance—Litigation and Claims (JUL 2013)**

(a) The contractor must comply with 10 CFR part 719, Contractor Legal Management Requirements, if applicable.

(b)(1) Except as provided in paragraph (b)(2) of this clause, the contractor shall procure and maintain such bonds and insurance as required by law or approved in writing by the Contracting Officer. (2) The contractor may, with the approval of the Contracting Officer, maintain a self-insurance program in accordance with FAR 28.308; provided that, with respect to workers' compensation, the contractor is qualified pursuant to statutory authority. (3) All bonds and insurance required by this clause shall be in a form and amount and for those periods as the Contracting Officer may require or approve and with sureties and insurers approved by the Contracting Officer.

(c) The contractor agrees to submit for the Contracting Officer's approval, to the extent and in the manner required by the Contracting Officer, any other bonds and insurance that are maintained by the contractor in connection with the performance of this contract and for which the contractor seeks reimbursement. If an insurance cost (whether a premium for commercial insurance or related to self-insurance) includes a portion covering costs made unallowable elsewhere in the contract, and the share of the cost for coverage for the unallowable cost is determinable, the portion of the cost that is otherwise an allowable cost under this contract is reimbursable to the extent determined by the Contracting Officer.

(d) Except as provided in paragraph (f) of this clause, or specifically disallowed elsewhere in this contract, the contractor shall be reimbursed— (1) For that portion of the reasonable cost of bonds and insurance allocable to this contract required in accordance with contract terms or approved under this clause, and (2) For liabilities (and reasonable expenses incidental to such liabilities, including litigation costs) to third persons not compensated by insurance without regard to the clause of this contract entitled "Obligation of Funds."

(e) The Government's liability under paragraph (d) of this clause is subject to the availability of appropriated funds. Nothing in this contract shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet deficiencies.

(f)(1) Notwithstanding any other provision of this contract, the contractor shall not be reimbursed for liabilities to third parties, including contractor employees, and directly

associated costs which may include but are not limited to litigation costs, counsel fees, judgments and settlements—

(i) Which are otherwise unallowable by law or the provisions of this contract, including the cost reimbursement limitations contained in 48 CFR part 31, as supplemented by 48 CFR 970.31;

(ii) For which the contractor has failed to insure or to maintain insurance as required by law, this contract, or by the written direction of the Contracting Officer; or

(iii) Which were caused by contractor managerial personnel's— (A) Willful misconduct; (B) Lack of good faith; or (C) Failure to exercise prudent business judgment, which means failure to act in the same manner as a prudent person in the conduct of competitive business; or, in the case of a non-profit educational institution, failure to act in the manner that a prudent person would under the circumstances prevailing at the time the decision to incur the cost is made. (2) The term "contractor's managerial personnel" is defined in the Property clause in this contract.

(g)(1) All litigation costs, including counsel fees, judgments and settlements shall be segregated and accounted for by the contractor separately. If the Contracting Officer provisionally disallows such costs, then the contractor may not use funds advanced by DOE under the contract to finance the litigation. (2) Punitive damages are not allowable unless the act or failure to act which gave rise to the liability resulted from compliance with specific terms and conditions of the contract or written instructions from the Contracting Officer. (3) The portion of the cost of insurance obtained by the contractor that is allocable to coverage of liabilities referred to in paragraph (f) of this clause is not allowable.

(h) The contractor may at its own expense and not as an allowable cost procure for its own protection insurance to compensate the contractor for any unallowable or non-reimbursable costs incurred in connection with contract performance.

(End of clause)

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0369		07/03/2013		13EM002294	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				x	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified

**12. ACCOUNTING AND APPROPRIATION DATA (If required)** Net Decrease: -\$6,600,000.00

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

The purpose of this modification is to correct clerical error under modifications 365 and 366; and de-obligate funds from CLIN 0001, as cited below:


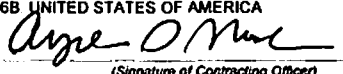
A. Under Mods 365 and 366, the following corrections are applicable:

1) Mod 365, paragraph 14(A), last amount as read "\$4,651,730,110.96, is changed to \$4,651,730,110.86."

2) Mod 366, paragraph 14(A), the from amount as read "\$4,651,730,110.96," is changed to read \$4,651,730,110.86.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
L.C. Clevinger II Manager, Contracts		Angela S. Morton	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
 (Signature of person authorized to sign)	7/3/2013	 (Signature of Contracting Officer)	07/03/2013


## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0369PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

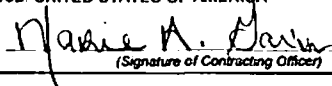
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>The total funding in Sections 14( B) of both Mods is correct.</p> <p>B. The purpose of this modification is to de-obligate funds from CLIN 0001 (Department of Energy (DOE)) in accordance with SRNS FINPLAN 19. Funds in the amount of *(-\$6,600,000.00) are hereby de-obligated from CLIN 0001, thereby decreasing it from \$4,651,740,296.25 to \$4,645,140,296.25.</p> <p>*Reference FIN PLAN 19, funds will be re-allocated under separate modification to CLIN 0001 with Reimbursable Work Commercial funds.</p> <p>C. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$6,051,468,640.08 to \$6,051,458,454.69.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged. FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES	
				1	2
2. AMENDMENT/MODIFICATION NO. 0370		3. EFFECTIVE DATE 07/03/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002294	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)		(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9B. DATED (SEE ITEM 11)			
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
		10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)      Net Increase:      \$6,600,000.00					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
The purpose of this modification is to correct clerical error under modifications 369; and obligate funds to CLIN 0001, as cited below:					
A. Under Mods 369, paragraph 14(C) last line as read "from \$6,051,468,640.08 to \$6,051,458,454.69, " should read "from \$6,051,468,640.08 to \$6,044,868,640.08."					
B. Reimbursable Work Commercial Funds in the amount of *\$6,600,000.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,645,140,296.25 to \$4,651,740,296.25.					
*Reference FIN PLAN #19, this action complete the reallocation of funds de-obligated under Mod 369.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		Marie A. Garvin			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				16C. DATE SIGNED 07/03/2013	


NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>C. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,044,868,640.08 to \$6,051,468,640.08.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.            FOB: Destination</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1 CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2 AMENDMENT/MODIFICATION NO.</b>		<b>3 EFFECTIVE DATE</b>		<b>4 REQUISITION/PURCHASE REQ NO</b>	
0371		07/17/2013		13EM002404	
<b>6 ISSUED BY</b>		<b>CODE</b>		<b>5 PROJECT NO (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7 ADMINISTERED BY (If other than Item 6)      CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)</b>				<b>9A AMENDMENT OF SOLICITATION NO</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B DATED (SEE ITEM 11)</b>	
				x	
				<b>10A MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12 ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
				Net Increase: \$18,264,275.63	
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A					
B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF					
D OTHER (Specify type of modification and authority)					
X Clause 1 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office					
<b>14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)</b>					
<p>A. The purpose of this modification is to obligate funds to CLIN 0001 (Department of Energy (DOD) funds), in accordance with SRNS FINPLAN 20. Funds in the amount of \$18,264,275.63 are hereby obligated to CLIN 0001, thereby increasing it from \$4,651,740,296.25 to \$4,670,004,571.88.</p> <p>B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,051,468,640.08 to \$6,069,732,915.71.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A NAME AND TITLE OF SIGNER (Type or print)</b>			<b>16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>		
			Marie A. Garvin		
<b>15B CONTRACTOR/OFFEROR</b>		<b>15C DATE SIGNED</b>		<b>16B UNITED STATES OF AMERICA</b>	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				<b>16C DATE SIGNED</b> 07/17/2013	
NSN 7540-01-152-8070 Previous edition unusable			STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243		






<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1   2	
2. AMENDMENT/MODIFICATION NO. 0372		3. EFFECTIVE DATE 07/17/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002404	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470 10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)		Net Increase: \$21,359.20			
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  D. OTHER (Specify type of modification and authority) X Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to obligate funds to CLIN 0001 (Reimbursable Work for Other Federal Agency, Department of State funds), in accordance with SRNS FINPLAN 20. Funds in the amount of \$21,359.20 are hereby obligated to CLIN 0001, thereby increasing it from \$4,670,004,571.88 to \$4,670,025,931.08.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,069,732,915.71 to \$6,069,754,274.91.					
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			Marie A. Garvin		
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				16C. DATE SIGNED 07/17/2013	
NSN 7540-01-152-8070 Previous edition unusable			STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243		

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0372

PAGE	OF
2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES 1      2												
2. AMENDMENT/MODIFICATION NO. 0373		3. EFFECTIVE DATE 07/18/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002404		5. PROJECT NO. (If applicable)											
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901											
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)			9A. AMENDMENT OF SOLICITATION NO.										
							9B. DATED (SEE ITEM 11)										
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470										
							10B. DATED (SEE ITEM 13) 01/10/2008										
CODE 798861048		FACILITY CODE		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS													
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.																	
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$569,598.33											
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> <tr> <td>X</td> <td>Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF		D. OTHER (Specify type of modification and authority)	X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A																
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).																
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF																
	D. OTHER (Specify type of modification and authority)																
X	Clause I 53 - DEAR 970.5232-4 Obligation of Funds (Dec 2000)																
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.																	
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)																	
A. The purpose of this modification is to obligate funds to CLIN 0001 (Reimbursable Work Commercial funds), in accordance with SRNS FINPLAN 20. Funds in the amount of \$569,598.33 are hereby obligated to CLIN 0001, thereby increasing it from \$4,670,025,931.08 to \$4,670,595,529.41.																	
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,069,754,274.91 to \$6,070,323,873.24.																	
C. The contract estimated value and all other terms and conditions remain unchanged.																	
Continued ...																	
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.																	
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)													
				James Lovett													
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED											
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		07/18/2013											
NSN 7540-01-152-8070 Previous edition unusable				STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243													

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0373	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

## AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1

1

2 AMENDMENT/MODIFICATION NO

0374

3. EFFECTIVE DATE

See Block 16C

4. REQUISITION/PURCHASE REQ. NO.

13EM002426

5. PROJECT NO. (If applicable)

6 ISSUED BY

CODE

00901

7. ADMINISTERED BY (If other than Item 6)

CODE

00901

Savannah River Operations  
U.S. Department of Energy  
Savannah River Operations  
P.O. Box A  
Aiken SC 29802

Savannah River Operations  
U.S. Department of Energy  
Savannah River Operations  
P.O. Box A  
Aiken SC 29802

8 NAME AND ADDRESS OF CONTRACTOR (No. , street, county, State and ZIP Code)

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC  
Attn: LLOYD CLEVINGER  
203 LAURENS ST SW  
AIKEN SC 298012421

(x) 9A AMENDMENT OF SOLICITATION NO

9B DATED (SEE ITEM 11)

X 10A MODIFICATION OF CONTRACT/ORDER NO  
DE-AC09-08SR22470

10B DATED (SEE ITEM 13)

CODE 798861048

FACILITY CODE

01/10/2008

## 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

## 12 ACCOUNTING AND APPROPRIATION DATA (If required)

## 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE  
XA THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT  
ORDER NO. IN ITEM 10A  
DEAR 970.5243-1 - Change (Dec 2000)

B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

## 14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

A. The purpose of this modification is to add Appendix P to Section J -List of Attachments, the appendix is a list of Contracting Officer Representatives for Contract No. DE-AC09-08SR22470, see attachment, hereto.

B. All other terms and conditions of the contract remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A NAME AND TITLE OF SIGNER (Type or print)

16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

James Lovett

15B CONTRACTOR/OFFEROR

15C DATE SIGNED

16B UNITED STATES OF AMERICA

16C DATE SIGNED

Signature on File

07/24/2013

(Signature of person authorized to sign)

(Signature of Contracting Officer)

Section J- List Attachments APPENDIX P  
Contracting Officer Representatives (CORs)

Savannah River Nuclear Solutions  
Contracting Officer Representatives (CORs)  
Contract No. DE-AC09-08SR22470

<b>COR NAME</b>	<b>TYPE OF COR</b>	<b>AREA OF AUTHORITY</b>	<b>DATE OF DESIGNATION</b>	<b>COR'S DOE POSITION</b>
Douglas Dearolph	Special Area COR NNSA Only	Site Office Mgr. NNSA SRSO Only	07/09/2009	Site Office Mgr. NNSA SRSO
Michelle M. Ewart	Alternate, PDCF, NNSA Only	PDCF, NNSA Only	11/21/2008	PDCF Deputy FPD, NNSA SRSO
Scott C. Cannon	Special Area COR NNSA Only	PDCF, FPD, NNSA Only	10/17/2011	PDCF FPD, NNSA SRSO
Christina T. Edward	Special Area COR NNSA Only	NNSA only – Region 3 Regional Response Coordinator, Radiological Assistance Program, NNSA	05/21/2008	Region 3 Response Coordinator, NNSA
Clay H. Ramsey	Special Area COR NNSA Only	NNSA only – MOX integrated Project Division, NNSA	05/01/2008	MOX integrated Project Div. NNSA
N. Carroll McFall	Special Area COR NNSA Only	NNSA only – NNSA SRSO	07/09/2009	NNSA – SRSO Asst Mgr – Mission
Thomas Z. Cantey	Special Area COR NNSA Only	NNSA issues only	11/21/2008	FPD, Waste Solidification Bldg
James W. McCullough	Special Area COR NNSA Only	NNSA only – PDC Project SRSO	02/18/2010	PDC Lead Project Engineer NNSA SRSO
M. Roxanne Jump	Special Area COR NNSA Only	SRSO Facilities and Projects – NNSA only	07/09/2009	NNSA SRSO Asst Manager Facilities and Projects

William D. Clark	Special Area COR NNSA Only	NNSA Project Integration Division only	05/01/2008	Manager, Project Integration Division NNSA
Margaret G. Schwenker	Alternate, for William D. Clark NNSA Only	Alternate, for William D. Clark NNSA Project Integration Division only	10/06/2009	Project Integration Division NNSA SRSO
Sachilo W. McAlhany	Special Area COR NNSA Only	NNSA only – PDC Sr Tech Advisor, NA-26	04/19/2011	PDC Sr Tech Advisor, NA-26
Robert O. Baker	Special Area COR NNSA Only	NNSA only – PDC Const. Project Lead SRSO	02/18/2010	PDC Const. Project Lead SRSO
Richard W. Boyd	Special Area COR NNSA Only	NNSA only – PDC Project Lead for Ops, SRSO	02/18/2010	PDC Project Lead for Ops, SRSO
Thomas Z. Smith	Special Area COR	EM issues only	10/17/2011	EM Dep. Site Mgr., SRO
Douglas E. Hintze	Primary COR	EM Mission Support	05/01/2008	Asst. Mgr. for Mission Support
Terrel J. Spears	Special Area COR	EM Waste Disposition Projects Only	05/01/2008	Asst. Mgr. for Waste Disposition Project
James L. Folk	Special Area COR	EM Alternate, for Waste Disposition Projects Only	03/25/2009	Deputy Asst. Mgr. for Waste Disposition Project
Patrick McGuire	Special Area COR	EM Nuclear Material Stabilization Projects only	05/01/2008	Asst. Mgr. for Nuclear Material Stabilization Project
Carl Lanigan	Special Area COR	EM Nuclear Material Stabilization Project only	11/21/2008	FPD Nuclear Material
Karen L. Hooker	Special Area COR	EM Office of Laboratory Oversight issues Only	12/07/2010	Director, Off of Lab Oversight
Patrick Jackson	Special Area COR	EM Office of Laboratory Oversight WFOs issues Only	12/07/2010	Senior Program Manager, Off of Lab Oversight
Ron Bartholomew	Special Area COR	EM OSSES issues only - Safeguards, Security & Emergency Services, Management	09/26/2011	Director, Safeguards, Security & Emergency Services,

Brenda G. Mills	Special Area COR	EM OSQA issues only - Safety and Quality Assurance	06/27/2011	Director, Safety and Quality Assurance
Timothy Armstrong	Special Area COR	EM Organizational Property Management Officer only	06/10/2009	Contract Organizational Property Management Officer
R. Kevin Rorer	Special Area COR For ARRA	SRNS ARRA Property Manager issues only	02/18/2010	Property Management Specialist
Lucy Knowles	Special Area COR	EM Site Chief Counsel for legal issues only	06/26/2013	Chief Counsel
Marlenia Murray	Special Area COR	Financial issues only	11/01/2012	Financial Acquisition Analyst
Irie W. Clarke	Special Area COR	Counterintelligence – IN 30 issues only	06/15/2012	Procurement Specialist, IN-30




<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT D CODE		PAGE OF PAGES	
						1      2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
0375		07/25/2013		13EM002467			
6. ISSUED BY		CODE		7. ADM NISTERED BY (If other than Item 6)		CODE	
		00901				00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470			
				10B. DATED (SEE ITEM 13)			
CODE 798861048		FACILITY CODE		01/10/2008			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNT NG AND APPROPRIATION DATA (If required)							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to incorporate the Contract Work Authorizations listed below:							
1) No. HQ091101, Rev 3, for Advanced Simulation Capability for Environmental Management (See Attachment 1, A)							
2) No. KC/SR1/3, Rev 4, for Basic Energy Sciences - Energy Frontier Research Centers (See Attachment 1, B)							
3) No. SRO71801, Rev 5, for Center for Sustainable Groundwater and Soil Solutions: Attenuation-Based Remedies for the Subsurface Applied Field Research Initiative (ABRS AFRI) (See Attachment 1, C)							
4) No. IN13012, Rev 5, for Energy Threat (See Attachment 1, D)							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				Signature on File		07/26/2013	
				(Signature of Contracting Officer)			

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/0375	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>5) No. IN13021, Rev 2, for Energy and Threat (See Attachment 1, E)</p> <p>6) No. IN13049, Rev 1, for Energy and Threat (See Attachment 1, F)</p> <p>7) No. 89X0319, Rev 6, for Fuel Cycle Technologies (See Attachment 1, G)</p> <p>8) No. HI-410003-13, Rev 4, for Fuel Cell Technologies (See Attachment 1, H)</p> <p>9) No. 410003-Tech Supt, Rev 1, SRNL Technical Support (See Attachment 1, I)</p> <p>The above reference contract work authorizations are provided as Attachment 1-A through Attachment 1-I, hereto. Funds were allocated under FINPLAN numbers 16, and 20 for Fiscal Year 2013, by separate modifications.</p> <p>B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1   2	
2. AMENDMENT/MODIFICATION NO. 0376		3. EFFECTIVE DATE 07/30/2013		4. REQUISITION/PURCHASE REQ. NO. 13NA002289		5. PROJECT NO. (If applicable)	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">           (x) 9A. AMENDMENT OF SOLICITATION NO.             9B. DATED (SEE ITEM 11)             X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470             10B. DATED (SEE ITEM 13) 01/10/2008         </div> <div style="width: 45%; border-left: 1px solid black; padding-left: 5px;">           CODE 798861048      FACILITY CODE         </div> </div>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  D. OTHER (Specify type of modification and authority) X Section I, DEAR 970.5211-1 Work Authorization (May 2007)						
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
A. The purpose of this modification is to realign funds under program/Budget and Reporting (B&R) classification codes FS2101010, FS210200, M000101010 and M00200000, per DOE-SR Headquarters direction, see SRNS Financial Plan #21, FY 2013, as cited below:  1) Program/B&R FS2101010 (-\$3,150,000.00) 2) Program/B&R FS2102000 (-\$1,651,859.00) 3) Program/B&R M00101010 \$3,150,000.00 4) Program/B&R M00200000 \$1,651,859.00  The above realignment (de-obligation/re-obligation) reflects a Net \$0.00 change.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Scott D. Langston			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		07/30/2013	

**CONTINUATION SHEET**

REFERENCE NO. C DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0376

PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

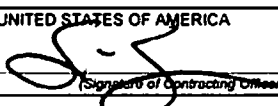
ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	B. The contract estimated value and all other terms and conditions remain unchanged.				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2									
2. AMENDMENT/MODIFICATION NO. 0377		3. EFFECTIVE DATE 08/12/2013		4. REQUISITION/PURCHASE REQ NO. 13EM00258									
5. PROJECT NO. (If applicable)		6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)									
CODE 798861048      FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO DE-AC09-08SR22470		10B. DATED (SEE ITEM 13) 01/10/2008									
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>													
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. <b>FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.</b> If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.													
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule													
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td>X</td> <td>D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:	X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.												
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)												
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:												
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)												
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.													
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)													
A. The purpose of this modification is to incorporate the Contract Work Authorizations listed below:  1) No. HQ1001, Rev 5, for Energy Employees Occupational Illness Compensation Program (EEOICPA), (See Attachment 1, A) 2) No. HQTd1004, Rev 1, for Improved Vitrification Capacity (See Attachment 1, B) 3) No. HQTd1005, Rev 3, for Increased Waste Loading (See Attachment 1, C) 4) No. HQTd1001, Rev 1, for Waste Retrieval and Closure Technologies (See Attachment 1, D) 5) No. WW-410003-13, Rev 1, for Wind and Hydropower Technologies Program (See Attachment 1, E)													
Continued ...													
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.													
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		16C. DATE SIGNED									
		James Lovett		08/12/2013									
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA									
(Signature of person authorized to sign)				(Signature of Contracting Officer)									
NSN 7540-01-152-8070 Previous edition unusable		STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243											

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/0377	PAGE 2	OF 2
---------------------------	---	-----------	---------

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>The above reference contract work authorizations are provided as Attachment 1-A through Attachment 1- E, hereto. Funds were allocated under FINPLAN #20 for Fiscal Year 2013, by separate modifications.</p> <p>Note: Supporting Documentation - pages 8, 10, and 22 of FIN PLAN No. 20 is provided as attached F.</p> <p>B. This modification formally incorporates the above referenced contract work authorizations as part of the contract. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2 AMENDMENT/MODIFICATION NO 0378		3 EFFECTIVE DATE 08/08/2013		4 REQUISITION/PURCHASE REQ. NO.	
5 PROJECT NO. (If applicable)		7. ADMINISTERED BY (If other than Item 6)		CODE 00901	
6 ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A AMENDMENT OF SOLICITATION NO.	
				9B DATED (SEE ITEM 11)	
		X		10A MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12 ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A				
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
X	D. OTHER (Specify type of modification and authority) Section I, DEAR 970.5211-1 Work Authorization (May 2007)				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to incorporate the Contract Work Authorizations cited below:					
1) No. 11C-FY13, Rev 4, for SR-0011C NM Stabilization and Disposition - 2035, Fund Code 01264					
2) NO. 12-FY 13, Rev 4, for SR-0012 SNF Stabilization and Disposition Fund Code 01265					
3) No. 13-FY13, Rev 4, for SR-0013 Solid Waste Disposition					
4) No. 14C-FY13 Support, Rev 4, for SR Services and Contract Interface					
5) No. 20-FY13, Rev 4, for SR-0020 Safeguards and Security					
6) No. 30-FY13, Rev 4, for SR-0030 Soil and Ground Water Remediation Fund Code 01267					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect					
15A NAME AND TITLE OF SIGNER (Type or print)			16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			Scott D. Langston		
15B CONTRACTOR/OFFEROR		15C DATE SIGNED		16B UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				16C DATE SIGNED 08/08/2013	

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0378

PAGE 2 OF 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>B. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>C. The contract estimated value and all other terms and conditions remain unchanged.</p>				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 1	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0379		08/21/2013		13EM002738	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b>		<b>FACILITY CODE</b>			
798861048					

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

See FIN PLAN 24 for recast of Reimbursable Work Other Federal Agency Funds

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☒ is not, ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to recast FY 2013, Reimbursable Work Other Federal Agency Code, the following apply:

Reimbursable Work Other Federal Agency is recast from "3F (01055)" to "3T (00910)," fund code, in according to SRNS FY 2013 Financial Plan #24.

B. The contract estimated value and all other terms and conditions remain unchanged.

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	08/21/2013

\*\* Draft Finplan \*\*

Contract Modification Number: \*\* No MOD \*\*

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

Site: SR

\*\*\* DRAFT \*\*\*

## SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	00910	3T	1720292	400403109	25400	0000000	0000000	0411159		0.00	0.00	72,816.00	72,816.00	72,816.00
AY 2013 - WFO: 0411159 SRAFAB4 SRAF-AB4 F3KTK83095G001 per HQ directions funds are recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411192		0.00	0.00	58,160.00	58,160.00	58,160.00
AY 2013 - WFO: 0411092 SRDOD-Y1 LR-120497 per HQ directions funds are recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411161		0.00	0.00	12,000.00	12,000.00	12,000.00
AY 2013 - WFO: 0411161 SRFBI-AB1 SRFBI-AB1 LTR A3I303958 per HQ directions funds are recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411162		0.00	0.00	1,000,000.00	1,000,000.00	1,000,000.00
AY 2013 - WFO: 0411162 SRFBI-AB2 SRFBI-AB2 LTR A3I303957 per HQ directions funds are recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411163		0.00	0.00	45,000.00	45,000.00	45,000.00
AY 2013 - WFO: 0411163 SRDOD-AB3 SRDOD-AB3 LTR F3KTK73093G001 per HQ direction funds are recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411164		0.00	0.00	325,243.00	325,243.00	325,243.00
AY 2013 - WFO: 0411164 SRDOD-AA9 SRDOD-AA9 LTR 130511 per HQ direction funds are recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411131 11131		0.00	0.00	104,034.00	104,034.00	104,034.00
AY 2013 - WFO: 0411131 SRFBI-Z6 IAA-A3I302475 obligate fund type 3T (00910) this was a HQ directed recast from fund type 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411137 11137		0.00	0.00	64,000.00	64,000.00	64,000.00
AY 2013 - WFO: 0411137 SRFBI-Z7 SRFBI-Z7 A3I303624 obligate funds to fund type 3T (00910) per HQ directed recast from fund type 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411142 11142		0.00	0.00	1,500,000.00	1,500,000.00	1,500,000.00
AY 2013 - WFO: 0411142 SRDOD-Z9 SRDOD-Z9 LTR-HHM402-0315 funds were recast to Fund Type 3T (00910) from Fund Type 3F (01055) per HQ direction														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411143 11143		0.00	0.00	250,000.00	250,000.00	250,000.00
AY 2013 - WFO: 0411143 SRDOD-AA1 SRDOD-AA1 LTR-HHM402-13-0421 per HQ directions funds are recast to Fund Type 3T (00910) from Fund Type 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0411152 11152		0.00	0.00	47,204.75	47,204.75	47,204.75
AY 2013 - WFO: 0411152 SRFBI-AA5 A3I303952 per HQ direction funds recast to fund type 3T (00910) from 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0410858 DOD-J4		0.00	0.00	750,000.00	750,000.00	750,000.00
AY 2013 - WFO: 0410858 SRDOD-J4 LR-809844 obligate to fund type 3T (00910) per HQ directed recast from fund type 3F (01055)														
410003	00910	3T	1720352	400470000	25400	0000000	0000000	0410978 DOD-P4		0.00	0.00	6,000,000.00	6,000,000.00	6,000,000.00
AY 2013 - WFO: 0410978 SRDOD-P4 LR-101954 obligated to fund type 3T (00910) HQ directed recast from fund type 3F (01055) to 3F (00910)														
Total for Program Parent/Control Point: 400000000										0.00	0.00	10,228,457.75	10,228,457.75	10,228,457.75
Total for Fund: 00910										0.00	0.00	10,228,457.75	10,228,457.75	10,228,457.75

\*\* Draft Finplan \*\*

Contract Modification Number: \*\* No MOD \*\*

Rpt Entity: SR Savannah River Nuclear Solutions, LLC

## Financial Plan Report - Detail

Site: SR

\*\*\* DRAFT \*\*\*

Report: RFP0001

SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	BA			Total Available
											Previous	Change	Revised	
410003	01055	3F	1720292	400403109	25400	0000000	0000000	0411159		0.00	72,816.00	-72,816.00	0.00	0.00
AY 2013 - WFO: SRAFAB4 SRAF-AB4 F3KTK83095G001 de-obligate and re-obligate in Fund Type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411092		66,272.59	58,160.00	-58,160.00	0.00	66,272.59
AY 2013 - WFO: SRDOD-Y1 LR-120497 de-obligate and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411161		0.00	12,000.00	-12,000.00	0.00	0.00
AY 2013 - WFO: SRFBI-AB1 SRFBI-AB1 LTR A31303958 de-obligate and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411162		0.00	1,000,000.00	-1,000,000.00	0.00	0.00
AY 2013 - WFO: SRFBI-AB2 SRFBI-AB2 LTR A31303957 de-obligate from fund type 3F (01055) and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411163		0.00	45,000.00	-45,000.00	0.00	0.00
AY 2013 - WFO: 0411163 SRDOD-AB3 SRDOD-AB3 LTR F3KTK73093G001 de-obligate from fund type 3F (01055) and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411164		0.00	325,243.00	-325,243.00	0.00	0.00
AY 2013 - WFO: 0411164 SRDOD-AA9 SRDOD-AA9 LTR 130511 de-obligate from fund type 3F (01055) and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411131 11131		0.00	104,034.00	-104,034.00	0.00	0.00
AY 2013 - WFO: SRFBI-Z6 IAA-A31302475 de-obligate funds are to be re-obligated under fund type 3T (00910) this is part of HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411137 11137		0.00	64,000.00	-64,000.00	0.00	0.00
AY 2013 - Work For Others (WFO): SRFBI-Z7 SRFBI-Z7 A31303624 to de-obligate funds and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411142 11142		0.00	1,500,000.00	-1,500,000.00	0.00	0.00
AY 2013 - WFO: SRDOD-Z9 SRDOD-Z9 LTR-HHM402-0315 de-obligate and re-obligate to fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411143 11143		0.00	250,000.00	-250,000.00	0.00	0.00
AY 2013 - WFO: SRDOD-AA1 SRDOD-AA1 LTR-HHM402-13-0421 de-obligate and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0411152 11152		0.00	47,204.75	-47,204.75	0.00	0.00
AY 2013 - WFO: SRFBI-AA5 A31303952 de-obligate and re-obligate in fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0410858 DOD-J4		343,763.18	750,000.00	-750,000.00	0.00	343,763.18
AY 2013 - WFO: SRDOD-J4 LR-809844 de-obligate funds and re-obligate against fund type 3T (00910) per HQ directed recast														
410003	01055	3F	1720352	400470000	25400	0000000	0000000	0410978 DOD-P4		1,339,166.57	6,000,000.00	-6,000,000.00	0.00	1,339,166.57
AY 2013 - WFO: SRDOD-P4 LR-101954 Funds are being de-obligated to be recast to Fund Type 3T (00910)														
Total for Program Parent/Control Point: 400000000										1,749,202.34	10,228,457.75	-10,228,457.75	0.00	1,749,202.34
Total for Fund: 01055										1,749,202.34	10,228,457.75	-10,228,457.75	0.00	1,749,202.34
Total for Recipient Code: SR										1,749,202.34	10,228,457.75	0.00	10,228,457.75	11,977,660.09
Total for Reporting Entity: 410003										1,749,202.34	10,228,457.75	0.00	10,228,457.75	11,977,660.09



## Financial Plan Report - Detail

SR22470 - Savannah River Nuclear Solutions (SRNS)

Rpt Entity	Fund Code	Leg FT	Program	Legacy B&R	Obj. Class	Local Use	Project	WFO	Legacy Order Number	Beginning Uncosted Obs	Previous	BA Change	Revised	Total Available
Total for SR22470 - Savannah River Nuclear Solutions (SRNS)										1,749,202.34	10,228,457.75	0.00	10,228,457.75	11,977,660.09

## Financial Plan Report - Detail

Site: SR

Page 4 of 4

Report: RFP0001

\*\*\* DRAFT \*\*\*

SR22470 - Savannah River Nuclear Solutions (SRNS)

---

### *Agency Sub-Report*


<u>Agency</u>	<u>Obligation Change Amount</u>
Work for Others Funds Associated with Federal Agencies:	0.00
Total DOE Funds:	0.00
Total Non-Appropriated Funds:	0.00
Grand Total:	0.00

---

### *TAS Sub-Report*

DOE Funding:	DOE Funding Nets Zero
Reimbursable Funding:	
Other	56X6142

---

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1      2											
2. AMENDMENT/MODIFICATION NO. 0380		3. EFFECTIVE DATE 08/28/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002857		5. PROJECT NO. (If applicable)											
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901											
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)													
				9A. AMENDMENT OF SOLICITATION NO.													
				9B. DATED (SEE ITEM 11)													
				10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470													
CODE 798861048      FACILITY CODE				10B. DATED (SEE ITEM 13) 01/10/2008													
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>																	
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.																	
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase: \$32,944,336.88													
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> <tr> <td style="text-align: center;">X</td> <td>I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:		D. OTHER (Specify type of modification and authority)	X	I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.																
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).																
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:																
	D. OTHER (Specify type of modification and authority)																
X	I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)																
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.																	
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b> A. The purpose of this modification is to obligate funds to CLIN 0001 (Department of Energy (DOE)), in accordance with SRNS FINPLAN 25. Funds in the amount of \$32,944,336.88 are hereby obligated to CLIN 0001, thereby increasing it from \$4,670,595,529.41 to \$4,703,539,866.29.  B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,070,323,873.24 to \$6,103,268,210.12.  C. The contract estimated value and all other terms and conditions remain unchanged. Continued ... Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.																	
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)													
				James Lovett													
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED											
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		08/28/2013											

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0380	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0380	2	2

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0380	2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 0381		3. EFFECTIVE DATE 08/28/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002857	
5. PROJECT NO. (If applicable)		7. ADMINISTERED BY (If other than Item 6)		CODE 00901	
6. ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		CODE 00901		7. ADMINISTERED BY (If other than Item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
CODE 798861048		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)      Net Increase:      \$8,345,596.59					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to obligate funds to CLIN 0001 (Reimbursable Work Commercial), in accordance with SRNS FINPLAN 25. Funds in the amount of \$8,345,596.59 are hereby obligated to CLIN 0001, thereby increasing it from \$4,703,539,866.29 to \$4,711,885,462.88.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,103,268,210.12 to 6,111,613,806.71.					
C. The contract estimated value and all other terms and conditions remain unchanged.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			James Lovett		
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				(Signature of Contracting Officer)	
				08/28/2013	
NSN 7540-01-152-8070 Previous edition unusable					
STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243					





REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0381

PAGE	OF
2	2

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1      2	
2. AMENDMENT/MODIFICATION NO. 0382		3. EFFECTIVE DATE 08/28/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002857	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  x 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470  10B. DATED (SEE ITEM 13) 01/10/2008			
CODE 798861048		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)      Net Decrease:      -\$38,856.74					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) X I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to de-obligate funds from CLIN 0001 (Reimbursable Work for Other Federal Agency), in accordance with SRNS FINPLAN 25. Funds in the amount of (-\$38,856.74) are hereby de-obligated from CLIN 0001, thereby decreasing it from \$4,711,885,462.88 to \$4,711,846,606.14.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to decrease the total amount of funds obligated to the contract from \$6,111,613,806.71 to \$6,111,574,949.97.					
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)  L.C. Clevinger II Manager, Contracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  Marie A. Garvin			
15B. CONTRACTOR/OFFEROR   (Signature of person authorized to sign)		15C. DATE SIGNED  8/29/13		16B. UNITED STATES OF AMERICA   (Signature of Contracting Officer)	
				16C. DATE SIGNED  08/28/2013	
NSN 7540-01-152-8070 Previous edition unusable		STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243			

**CONTINUATION SHEET**

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0382

PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 0383		3. EFFECTIVE DATE 09/03/2013		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

- ☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO. (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	Section I, DEAR 970.5211-1 Work Authorization (May 2007)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return \_\_\_\_\_ 1 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

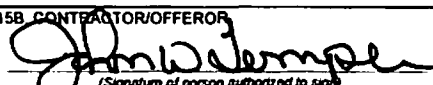
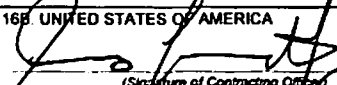
The purpose of this modification is to extend the Period of Performance of the Nuclear Nonproliferation Multi-year PBI, and incorporate six contract work authorizations. Accordingly the following applies:

A. The Nuclear Nonproliferation Multi-year PBI incorporated into the contract by Modification No. 280 is hereby modified to change the Period of Performance from "October 1, 2009 through September 30, 2013," to read "October 1, 2009 through September 30, 2015."

B. Contract work authorizations as cited below are hereby incorporated as attachment 1 through 6:

Continued ...


Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE John W. Temple, Senior Vice President Contracts Management		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) James Lovett	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 9/4/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 9/4/13

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/0383	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>1) No. 89X0319, Rev 7, for Fuel Cycle Technologies</p> <p>2) No. 410003, Rev 5, for the Packaging and Certification Program and Packaging and Transportation Operations Support</p> <p>3) NO. HQTD1004, Rev 2, for Improved Viatrificatrion Capacity</p> <p>4) No. HQTD1005, Rev 4, for Increased Waste Loading</p> <p>5) No. SR091701, Rev 2, for In Situ Decommission Technology Development and Demonstration</p> <p>6) No. HQTD1003, for Advance Unit Operations and Scaling</p> <p>C. Funding for the above contract work authorizations was allocated by separate modifications under FIN PLAN #20 and 25, FY 2013. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.</p>				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1      2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0384		09/05/2013		13EM002925	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6)      CODE      00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>				<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				(x)	
				<b>9B. DATED (SEE ITEM 11)</b>	
				x	
				<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b> DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b> 01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<b>12. ACCOUNTING AND APPROPRIATION DATA (If required)</b>					
No Change to accounting data					
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
<b>CHECK ONE</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X      Section I, DEAR 970.5211-1 Work Authorization (May 2007)					
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return _____ 1 _____ copies to the issuing office.					
<b>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</b>					
The purpose of this modification is as follows:					
A. Pursuant to DOE Order 412.1A Work Authorization, and Contract Clause I.53 Obligation of Funds, all Technology Development and Deployment Work outlined in Attachment 1, FY13 Technical Task Plan, are hereby extended through 9/30/2014; subject to the availability of funds.					
B. All other Terms and Conditions remain the same.					
Note: This modification provides guidance regarding availability of funds and the Period of Performance only. Contract work authorizations for FY 2014, will be incorporated by Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>			
L.C. Clevinger II Manager, Contracts		James Lovett			
<b>15B. CONTRACTOR/OFFEROR</b>		<b>15C. DATE SIGNED</b>		<b>16B. UNITED STATES OF AMERICA</b>	
		9/10/13		Signature on File	
(Signature of person authorized to sign)				(Signature of Contracting Officer)	
				<b>16C. DATE SIGNED</b> 09/09/2013	

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC09-08SR22470/0384	2	2

NAME OF OFFEROR OR CONTRACTOR  
 SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	separate modifications. Funds for work authorizations will continue to be allocated upon availability of funds under SRNS FIN PLANS for FY 2014, in accordance to the terms and conditions of subject contract.				



**FY13 TECHNICAL TASK PLAN STATUS**  
**COSTS POSTED THRU 07/31/13 ME**

Attachment 1

DESCRIPTION				FUNDING		STATUS	
				Actual SR Funding Received			
Alternative Projects B&R EY4049110				New Funding			
TTP TITLE	FY02 TTP	Project	PI	CARRYOVER	Fin Plan # 23	BALANCE	POP
<b>FY07 Alternative Projects</b>							
Roadmap Implementation Plan	HQ-07-11-01	0003934	Griffin	101.81		101.81	POP 9/30/2013
Eng & Tech Planning & Integration	SR-07-21-01	0003941	Wilmarth	364.96		364.96	POP 9/30/2013
<b>Total FY07 EM30</b>				<b>466.77</b>	<b>-</b>	<b>466.77</b>	
Dev Next Generation Characterization Tech	SR-07-17-01	0003924	Eddy-Dilek	1,914.75		647.84	POP 9/30/2013
Center for Sustainable GroundWater	SR-07-18-01	0003925	Aylward	15,138.97	490,062	188,470.71	POP 9/30/2013
PPPO Tech Supt Activities	SR-07-23-01	0003945	Aylward	3,398.80	(2,871)	527.80	POP 9/30/2013
<b>Total FY07 EM32</b>				<b>20,452.52</b>	<b>487,191</b>	<b>189,646.35</b>	
<b>FY07 Alternative Projects Totals</b>				<b>31,271.75</b>	<b>476,838</b>	<b>190,113.12</b>	
<b>FY08 Alternative Projects</b>							
Improved Strontium & Actinide Separations	SR-08-13-01	0003952	D. Hobbs	5,455.58	(5,455)	0.15	POP 9/30/2013
<b>Total FY08 EM31</b>				<b>5,637.62</b>	<b>(5,637)</b>	<b>0.15</b>	
Characterization	SR-08-16-01	0003956	C. Eddy-Dilek	4,565.50		1,414.95	POP 9/30/2013
Scientific Basis for Attenuation Based Remedies for Metal GW	SR-08-17-01	0003957	Denham	133,105.54		59,491.40	POP 9/30/2013
<b>Total FY08 EM32</b>				<b>246,876.86</b>	<b>(109,206)</b>	<b>60,906.35</b>	
In-Situ Decommissioning Strategy / Williamson IPA	HQ-TD-01-00	0003199	Gladden	278,481.89		278,481.89	POP 9/30/2013
<b>Total FY08 EM44</b>				<b>293,294.58</b>	<b>(14,813)</b>	<b>278,481.89</b>	
<b>FY08 Alternative Projects Totals</b>				<b>545,809.06</b>	<b>(129,656)</b>	<b>339,388.39</b>	
<b>FY09 Alternative Projects</b>							
Pretreatment Pilot Platform	SR-09-15-01	0004024	McCabe	35,971.89	(19,168)	1,615.22	POP 9/30/2013
<b>Total FY09 EM31</b>				<b>145,298.70</b>	<b>(128,495)</b>	<b>1,615.22</b>	
Advance Subsurface Computing for EM (ASCEM)	HQ-09-11-01	0004017	Seitz/Looney	26,037.10	240,758	109,297.18	POP 9/30/2013
Dev of NDA Calibration Standards	SR-09-12-01	0004010	Chandler	3,633.88	(3,634)	0.00	POP 9/30/2013
Hot Cell Characterization and D&D	SR-09-13-01	0004011	Farfan	9,967.90		6,903.96	POP 9/30/2013
In-Situ Decommissioning Tech Dev & Demo	SR-09-17-01	0004030	Serrato	383,020.52	229,714	116,104.56	POP 9/30/2013
<b>Total FY09 EM44</b>				<b>396,622.30</b>	<b>226,080</b>	<b>123,008.52</b>	
<b>FY09 Alternative Projects Total</b>				<b>567,958.10</b>	<b>338,343</b>	<b>233,920.92</b>	
<b>FY10 Alternative Projects</b>							
Tech Planning, Intergration & Risk Mgmt	HQ-TD-1000	0004261	Griffin	112,756.20	603,025	110,802.91	POP 9/30/2013
Cementitious Materials Studies( CRADA)	HQ-TD-1001	0004262	Griffin	216,642.03	600,000	489,920.23	POP 9/30/2013
Enhanced Waste Pretreatment	HQ-TD-1002	0004263	Griffin	18,997.77	130,000	43,119.06	POP 9/30/2013
Improved Vitrification Capacity	HQ-TD-1004	0004265	Griffin	49,657.88	45,000	34,798.97	POP 9/30/2013
Increased Waste Loading	HQ-TD-1005	0004266	Griffin	76,614.28	238,098.00	75,312.91	POP 9/30/2013
<b>FY10 Alternative Projects Total</b>				<b>474,668.16</b>	<b>1,616,123</b>	<b>753,954.08</b>	
<b>Tech Solutions B&amp;R EY4049130</b>							
<b>FY07 Tech Solutions</b>							
Risk Mngt Review and Assessment	SR-07-12-03	0003931	Gladden	5,043.11	(5,043)	0.11	POP 9/30/2013
Dev D&D Design Guidance	SR-07-11-03	0003927	Gladden	-	310	9.51	POP 9/30/2013
<b>FY07 Tech Solutions Totals</b>				<b>5,043.11</b>	<b>(4,733)</b>	<b>9.62</b>	
<b>Alternative Projects Totals</b>				<b>1,629,864.56</b>	<b>2,291,491</b>	<b>1,517,376.51</b>	
<b>Tech Solutions Totals</b>				<b>5,043.11</b>	<b>(4,733)</b>	<b>9.62</b>	
<b>EY40 Total</b>				<b>1,634,907.67</b>	<b>2,286,758.00</b>	<b>1,517,386.13</b>	



## FY13 TECHNICAL TASK PLAN STATUS

COSTS POSTED THRU 07/31/13 ME

DESCRIPTION				FUNDING		STATUS	
Alternative Projects B&R EY4049110				Actual SR Funding Received			
TTP TITLE	FY02 TTP	Project	PI	CARRYOVER	New Funding Fin Plan # 23	BALANCE	POP
NOTE: EMSP TTPs have transferred to KP13 B&R on Minor B&R Spreadsheet							
EY40 Total				3,921,665.67			
ORP Funding B&R EY71441410							
Waste Retrieval and Closure Tech	HQ-TD-1001	0004262	Griffin	2,091.56		2,091.56	POP 9/30/2013
Cementitious Materials Studies( CRADA)PTS02	HQ-TD-1001	0004262	Griffin	7,563.52		928.91	POP 9/30/2013
Enhanced Waste Pretreatment	HQ-TD-1002	0004263	Griffin	4,615.43		4,615.43	POP 9/30/2013
Advanced Unit Ops and Scaling	HQ-TD-1003	0004264	Griffin	287.78		287.78	POP 9/30/2013
Improved Vitification Capacity	HQ-TD-1004	0004265	Griffin	21,207.66		21,207.66	POP 9/30/2013
Increased Waste Loading	HQ-TD-1005	0004266	Griffin	6,373.78		6,373.78	POP 9/30/2013
EY71144141 Total				42,139.73	-	35,505.12	
ORP Funding B&R EY71441470							
Waste Retrieval and Closure Tech	HQ-TD-1001	0004262	Griffin	11,181.41		11,181.41	POP 9/30/2013
Tech Planning,Intergration & Risk Mgmt	HQ-TD-1000	0004261	Griffin	-		0.00	POP 9/30/2013
ALT. Waste Pretreatment	HQ-TD-1002	0004263	Griffin	99,788.59		86,829.10	POP 9/30/2013
Advanced Unit Ops and Scaling	HQ-TD-1003	0004264	Griffin	13,677.72		5,818.74	POP 9/30/2013
Improved Vitification Capacity	HQ-TD-1004	0004265	Griffin	586.19		586.19	POP 9/30/2013
Increased Waste Loading	HQ-TD-1005	0004266	Griffin	27,803.13		1,528.20	POP 9/30/2013
EY71144147 Total				153,037.04	-	105,943.64	

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0385		09/05/2013		13EM002927	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901	
				Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421					
		<b>x</b>		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change to Accounting and appropriation Data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
<b>X</b>	<b>D. OTHER (Specify type of modification and authority)</b> Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**


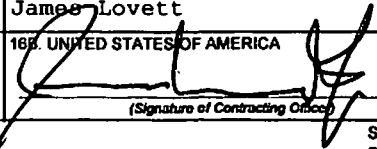
The purpose of this modification is as follows:

A. Pursuant to DOE Order 412.1A Work Authorization, and Contract Clause I.53 Obligation of Funds, all Clean Energy Work outlined in Attachment 1, SRNL Minor B&R for FY13, are hereby extended through 9/30/2014; subject to the availability of funds.

B. All other Terms and Conditions remain the same.

Note: This modification provides guidance regarding availability of funds and the Period of Performance only. Contract work authorizations for FY 2014, will be incorporated by separate modifications. Funds for work authorizations will continue to be allocated upon Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b> John W. Temple, Senior Vice President Contracts Management		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b> James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>  (Signature of person authorized to sign)	<b>15C. DATE SIGNED</b> 9/5/13	<b>16B. UNITED STATES OF AMERICA</b>  (Signature of Contracting Officer)	<b>16C. DATE SIGNED</b> 09/05/2013

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0385

PAGE 2 OF 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	availability of funds under SRNS FIN PLANS for FY 2014, in accordance to the terms and conditions of subject contract.				

## SRNL Minor B&amp;R Cost vs Approved Fin-Plan

FY2013

Costs Posted thru 07/31/2013 Month Ending

Attachment 1

TERMINAL B&R NUMBER	B&R TITLE	Approved Financial Plan # 23			Balance	POP
		C/O Funds	FY13 Funding	Total		
AA30100000	Greenhouse Gas Control - 2010	98,532.48		98,532.48	63,782.93	POP 09/30/13
AF04400000	INEC-Multilateral Policy Support(CN)	2,788.81		2,788.81	2,788.81	POP 09/30/13
AF58051000	CS/SR/LN Waste Form Perf	57,491.60	1,345,185.00	1,402,676.60	25,805.84	POP 09/30/13
AF58100000	Spent Fuel Cell Design	3,804.30		3,804.30	2,307.90	POP 9/30/13
AF58300200	SITE	1,817.23		1,817.23	1,196.04	POP 9/30/13
AF58310400	IPSC Separations & Safeguards	7,016.20		7,016.20	3,541.79	POP 9/30/13
AF58320100	System Engineering	167,968.39		167,968.39	(41,406.94)	POP 9/30/13
AF58320200	System Analysis	6,899.15	228,225.00	235,124.15	149,058.53	POP 09/30/13
AF58320300	Tech Integration	2,322.09	267,125.00	269,447.09	38,283.76	POP 09/30/13
AF58650100	Used Fuel R&D		1,199,614.00	1,199,614.00	383,082.69	POP 09/30/13
AF58650200	Storage and Transport		925,000.00	925,000.00	429,631.97	POP 09/30/13
AF58650000	Site	331,220.06	0.00	331,220.06	0.00	POP 09/30/13
AT60103010	MAGNETIC FUSION ENERGY	13,301.17		13,301.17	2,401.21	POP 09/30/13
CJ01000000	Methane Opport for Veh Energy(ARPA)	1,650,082.16		1,650,082.16	1,327,027.65	POP 09/30/15
BM02040100	Algal Conversion Technologies(20884) 22905	270,660.47		270,660.47	5,312.44	POP 9/30/13
EB21010100	Fundamental Corrosion Studies(25683)	581,725.00		581,725.00	16,441.93	POP 9/30/13
EB21010100	Low cost metal Hydride Thermal Storage (25835)	418,275.00		418,275.00	(79,852.48)	POP 9/30/13
SL01000000	Fundamental Corrosion Studies(25683)		797,018.00	797,018.00	299,692.35	POP 09/30/13
SL01000000	Low cost metal Hydride Thermal Storage (25835)		488,011.00	488,011.00	196,928.03	POP 09/30/13
WW02000000	Wind Turbine Testing Facilities (25716)		400,000.00	400,000.00	400,000.00	POP 9/30/13
EB25010100	Low Wind Speed Tech(21114)(24628)	453,401.03		453,401.03	112,739.76	POP 9/30/13
EB25010100	Wind Turbine Testing Facilities (25716)	250,000.00		250,000.00	94,240.42	POP 9/30/13
EB25020100	System Integration (20659) 19995	354.85		354.85	354.85	POP 9/30/13
EB42090000	FC Performance & Durability(18601)16053)	99.25		99.25	99.25	POP 9/30/13
HT02010000	Fuel Cell Tech Prog1 Prod and Del R&D(18560)13443	108,431.57	300,000.00	408,431.57	16,911.29	POP 09/30/13
HT02010000	Fuel Cell Tech Program1 Hybrid Sulfur Cycle(26126)		300,000.25	300,000.25	264,686.57	POP 09/30/13
HT02020000	Fuel Cell Tech Prog2 Storage(21252) 24099	1,167,418.16	1,400,000.00	2,567,418.16	1,286,912.41	POP 09/30/13
HT02020000	Eng Center of Excellence(18670) 18360	(1,013,630.63)		(1,013,630.63)	(1,056,759.73)	POP 09/30/13
	<b>Re-cast Sub Total</b>	<b>153,787.53</b>	<b>1,400,000.00</b>	<b>1,553,787.53</b>	<b>230,152.68</b>	
HT02020000	Fuel Cell Tech Prog2 Storage(21252) 22275	258,773.33	320,000.00	578,773.33	296,140.44	POP 09/30/13
HT02020000	System Support(LTTA) (21252)/ 22275)	(59,450.39)		(59,450.39)	(59,461.30)	POP 09/30/13
	<b>Re-cast Sub Total</b>	<b>199,322.94</b>	<b>320,000.00</b>	<b>519,322.94</b>	<b>236,679.14</b>	
HT02020000	Fuel Cell Tech Prog2 Storage(21253) 22272	291,049.85	400,000.00	691,049.85	187,603.76	POP 09/30/13
HT02020000	Recharging (21253)/ 22272	(39,849.71)		(39,849.71)	(39,849.71)	POP 09/30/13
HT02020000	Hydrogen Storage R&D(18670) / 8372	(58,715.64)		(58,715.64)	(58,715.65)	POP 09/30/13
	<b>Re-cast Sub Total</b>	<b>192,484.50</b>	<b>400,000.00</b>	<b>592,484.50</b>	<b>89,038.40</b>	
HT05000000	SRNL Tech Support(18752)(24132)	88,710.13	349,999.75	438,709.88	241,727.63	POP 09/30/13
	<b>Total HT</b>	<b>742,736.67</b>	<b>3,070,000.00</b>	<b>3,812,736.67</b>	<b>1,079,195.71</b>	
KC02010300	Elucidation of Hydride Interaction#SCW-0090	208,533.16		208,533.16	(36,096.77)	POP 9/30/13
KC02070100	Energy Frontier Res. Centers#SW0055	93,235.25		93,235.25	(4,238.12)	POP 9/30/13
KC02020500	Elucidation of Hydride Interaction#SCW-0090		430,000.00	430,000.00	128,577.04	POP 09/30/13
PP01460000 (ZI)	Bioethanol Collaborative(20519) 20282	1,436.98		1,436.98	1,436.98	POP 9/30/13
TD50061500	H2 DEMO PROJECTS(LH2DMPRJA)	3,069.53		3,069.53	2,178.93	POP 9/30/13
VT12010000	Vehicle Technologies(24420)(18503)	211,165.17		211,165.17	8,078.20	POP 9/30/13
	<b>Total Clean Energy</b>	<b>6,227,861.28</b>	<b>8,974,196.78</b>	<b>15,202,058.06</b>	<b>4,715,327.98</b>	



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0386		09/05/2013		13EM002929	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>5. PROJECT NO. (If applicable)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>			
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x)			
		<b>9B. DATED (SEE ITEM 11)</b>			
		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>			
		DE-AC09-08SR22470			
		<b>10B. DATED (SEE ITEM 13)</b>			
		01/10/2008			
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change to Accounting and Appropriation Data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</b>
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
<b>X</b>	<b>D. OTHER (Specify type of modification and authority)</b> Section I, DEAR 970.5211-1 Work Authorization (May 2007)

**E. IMPORTANT:** Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**


The purpose of this modification is as follows:

A. Pursuant to DOE Order 412.1A Work Authorization, and Contract Clause I.53 Obligation of Funds, all Environmental Stewardship Work outlined in Attachment 1, SRNL Minor B&R for FY13, are hereby extended through 9/30/2014; subject to the availability of funds.

B. All other Terms and Conditions remain the same.

Note: This modification provides guidance regarding availability of funds and the Period of Performance only. Contract work authorizations for FY 2014, will be incorporated by separate modifications. Funds for work authorizations will continue to be allocated upon Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b> John W. Temple, Senior Vice President Contracts Management		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b> Scott D. Langston	
<b>15B. CONTRACTOR/OFFEROR</b>  (Signature of person authorized to sign)		<b>15C. DATE SIGNED</b> 9/5/13	
<b>15D. UNITED STATES OF AMERICA</b>		<b>16B. DATE SIGNED</b> 09/05/2013	

## CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0386PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR

SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	availability of funds under SRNS FIN PLANS for FY 2014, in accordance to the terms and conditions of subject contract.				

# SRNL Minor B&R Cost vs Approved Fin-Plan

FY2013

Costs Posted thru 07/31/2013 Month Ending

TERMINAL B&R NUMBER	B&R TITLE	Approved Financial Plan # 23			Balance	POP
		C/O Funds	FY13 Funding	Total		
EW10012090	EW 10 International Program	14,582.80		14,582.80	14,582.80	POP 09/30/13
EW100120K0	DOE-HQ Communication & Tech Program	5,263.66		5,263.66	5,263.66	POP 09/30/13
EY551712B0	ID-0012B-D.01 SNF STAB-DISP	308,782.93		308,782.93	2,002.77	POP 09/30/13
EY520113A0	RL0013C SW STAB&DIS-0003896	0.00	580,000.00	580,000.00	580,240.08	POP 09/30/13
EY52024100	RL-0041.O1 Packaging Certification		1,000,000.00	1,000,000.00	(19,556.31)	POP 09/30/13
EY55171310	ID-0013 SW STAB&DIS OPER	724.02		724.02	724.02	POP 09/30/13
EY652713B0	OR-0013B	20,000.00		20,000.00	1,266.63	POP 09/30/13
EY804910A0	Assist to HWT&I Plant	401,408.36		401,408.36	48,569.36	POP 09/30/13
EY804910D0	EM2.2ISM/OP Oversight	43,942.88		43,942.88	43,942.88	POP 09/30/13
EY804910G0	EM10 Logisticd & wst Disp Enhancement	576.38		576.38	576.38	POP 09/30/13
EY804910H0	Packaging Work at SRNL	10,619.23		10,619.23	3,020.63	POP 09/30/13
EY804910K0	EM 13 FED Disposition(0004074)	0.00	174,194.85	174,194.85	17,736.05	POP 09/30/13
EY804910K0	EM 13 FED Disposition(0004202)	0.00	105,000.00	105,000.00	13,867.27	POP 09/30/13
EY804910K0	EM 13 FED Disposition	53,834.51		53,834.51	71.90	POP 09/30/13
EY804910A0	EM 13 FED Disposition(0004074)		110,000.00	110,000.00	110,000.00	POP 09/30/13
EY804910A0	US/Japan Workshop Fukushima(0004123)		30,000.00	30,000.00	30,000.00	POP 09/30/13
EY804910A0	Tech Support to EM11 (0004502)		5,845.00	5,845.00	5,845.00	POP 09/30/13
EY804910M0	International Program	571,387.25		571,387.25	189,553.34	POP 09/30/13
EY804910M0	Asset Revitalization	39,135.33	167,305.77	206,441.10	2,823.75	POP 09/30/13
EY804910M0	External Tank Reviews	108,101.67	(64,085.22)	44,016.45	44,005.82	POP 09/30/13
EY804910M0	Energy Park Initiative(EPI) SITE)	191,806.94	(103,220.55)	88,586.39	38,722.78	POP 09/30/13
EY81000000	CDA-Environment Mgmt	45,975.15		45,975.15	21,783.07	POP 09/30/13
EY86481110	Packaging Certification(0001761)(FT05)		485,920.00	485,920.00	485,920.00	POP 09/30/13
EY86481210	Packaging Certification(0001762)(FT06)		67,195.00	67,195.00	67,195.00	POP 09/30/13
EY86481300	Packaging Certification(0001763)(FT07)		104,835.00	104,835.00	104,835.00	POP 09/30/13
EY86483000	Packaging Certification(0001766)(FT08)		122,050.00	122,050.00	122,050.00	POP 09/30/13
EY87481410	SRNS Section J Supt. (0001764)(TP)		150,000.00	150,000.00	150,000.00	POP 09/30/13
EY87481410	Tech Expert Group(EM-TEG)	9,281.12		9,281.12	3,246.09	POP 09/30/13
EY87481410	Technetium Removal from SRS Tank Farm	100,000.00		100,000.00	4,891.97	POP 09/30/13
EY90098010	In-Situ Decom Tech Del & Dem Proj SR091701	22,451.67		22,451.67	5,871.54	POP 09/30/13
EY90098010	Packaging Certification	300,000.00		300,000.00	5,490.89	POP 9/30/13
KP15040100	Terrestrial Carbon Proc(Supt SCW-0030)	317.40		317.40	317.40	POP 9/30/13
KP17020100	Environmental Processes SCW0033 FY10	14,275.08	25,000.00	39,275.08	29,939.90	POP 09/30/13
KP17020300	Iodine Env Microbiology(SCW-0052)	764.60		764.60	764.60	POP 9/30/13
KP17020300	Subsurface Biogeochemical Research (SCW0083)	31,854.59	57,000.00	88,854.59	14,391.04	POP 09/30/13
KP17020300	Fate of Uranium during Transport (SCW0091)	48,219.71	131,000.00	179,219.71	69,673.05	POP 09/30/13
KP17020300	Iodine Env Radiochemistry(SCW-0052)	3,832.71	108,639.52	112,472.23	86,670.45	POP 09/30/13
KL10010000	2013 Summer Term SULI Participant		1,273.50	1,273.50	1,273.50	POP 09/30/13
KL10020000	2013 CCI Participant		1,273.50	1,273.50	1,273.50	POP 09/30/13
	<b>Total Environmental Stewardship</b>	<b>2,365,814.16</b>	<b>3,240,587.04</b>	<b>5,606,401.20</b>	<b>2,308,882.65</b>	



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1   2	
2. AMENDMENT/MODIFICATION NO. 0387		3. EFFECTIVE DATE 09/05/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM002943	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 798861048		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470	
				10B. DATED (SEE ITEM 13) 01/10/2008	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <span style="float: right;"><input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.</span> Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)		Net Increase:		\$13,910.00	
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) X I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
A. The purpose of this modification is to obligate funds to CLIN 0001 (Department of Energy (DOE)), in accordance with SRNS FINPLAN 26. Funds in the amount of \$13,910.00 are hereby obligated to CLIN 0001, thereby increasing it from \$4,711,846,606.14 to \$4,711,860,516.14.					
B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,111,574,949.97 to \$6,111,588,859.97.					
C. The contract estimated value and all other terms and conditions remain unchanged. Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		16B. UNITED STATES OF AMERICA	
		James Lovett			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16C. DATE SIGNED	
(Signature of person authorized to sign)				09/05/2013	
		(Signature of Contracting Officer)			



**CONTINUATION SHEET**

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC09-08SR22470/0387

PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	FOB: Destination				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>		<b>PAGE OF PAGES</b>	
				1 2	
<b>2. AMENDMENT/MODIFICATION NO.</b>		<b>3. EFFECTIVE DATE</b>		<b>4. REQUISITION/PURCHASE REQ. NO.</b>	
0388		09/05/2013		13EM002943	
<b>6. ISSUED BY</b>		<b>CODE</b>		<b>7. ADMINISTERED BY (If other than Item 6)</b>	
Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		00901		CODE 00901	
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>		<b>(x)</b>		<b>9A. AMENDMENT OF SOLICITATION NO.</b>	
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421				9B. DATED (SEE ITEM 11)	
		<b>x</b>		<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>	
				DE-AC09-08SR22470	
				<b>10B. DATED (SEE ITEM 13)</b>	
				01/10/2008	
<b>CODE</b> 798861048		<b>FACILITY CODE</b>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)** Net Increase: \$155,704.91

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority)</b> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
	<b>D. OTHER (Specify type of modification and authority)</b>
X	I.53 DEAR 970.5232-4 Obligation of Funds (Dec 2000)

**E. IMPORTANT:** Contractor ☒ is not. ☐ is required to sign this document and return \_\_\_\_\_ 0 \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to obligate funds to CLIN 0001 (Reimbursable Work Commercial), in accordance with SRNS FINPLAN 26. Funds in the amount of \$155,704.91 are hereby obligated to CLIN 0001, thereby increasing it from \$4,711,860,516.14 to \$4,712,016,221.05.

B. As a result of this modification, Part I - Schedule, Section B, Supplies or Services and Price/Cost, paragraph B, entitled "Obligation of Funds," is hereby revised to increase the total amount of funds obligated to the contract from \$6,111,588,859.97 to \$6,111,744,564.88.

C. The contract estimated value and all other terms and conditions remain unchanged.  
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b>		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b>	
		James Lovett	
<b>15B. CONTRACTOR/OFFEROR</b>	<b>15C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
(Signature of person authorized to sign)		(Signature of Contracting Officer)	09/05/2013



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 0398		3. EFFECTIVE DATE 09/24/2013		4. REQUISITION/PURCHASE REQ. NO. 13EM003185	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802		7. ADMINISTERED BY (If other than Item 6) CODE 00901 Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC Attn: LLOYD CLEVINGER 203 LAURENS ST SW AIKEN SC 298012421		(X) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 798861048 FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC09-08SR22470		10B. DATED (SEE ITEM 13) 01/10/2008	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

No Change to Accounting and Appropriation Data

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

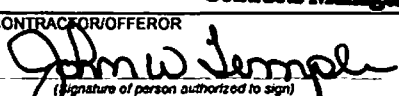

The purpose of this modification is to correct the extended Period of Performance for GD B&Rs under Modification 0397, and incorporate four contract work authorizations. Accordingly, the following applies:

A. Under Modification 0397 the work authorizations associated with GD B&Rs, is changed from "9/30/2014" to read "08/31/2014" for Attachment 2 work authorizations only, subject to the availability of funds. The period of performance for Mod 0397, Attachment 1 work authorizations remains at 9/30/2014.

B. The contract work authorizations listed below are hereby incorporated, as attachments 1 through 4, hereto.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) <b>John W. Temple, Senior Vice President Contracts Management</b>		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) James Lovett	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 9/25/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 9/25/13

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-AC09-08SR22470/0398	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR  
SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>1) No. IN13012, Rev 7, for Energy Threat (See Attachment 1)</p> <p>2) No. 89X0319, Rev 9, for Fuel Cycle Technologies (See Attachment 2)</p> <p>3) No. PC410003, Rev 6, for Packaging and Certification and Packaging and Transportation Operation Support (See Attachment 3)</p> <p>4) No. 410003-TechSup, Rev 3, SRNL Technical Support (Attachment 4)</p> <p>Funds were previously allocated under FINPLAN numbers 25 and 27 for Fiscal Year 2013 for contract work authorizations 2, 3 and 4, by separate modifications. In addition, the IN Contract Work Authorization provides direction only, regarding the use of funds previously obligated under the contract.</p> <p>C. This modification formally incorporates the above referenced contract work authorizations as part of the contract. As stated under DEAR 970.5211-1 Work Authorization (May 2007), paragraph (b), the work authorization, whether issued bilaterally or unilaterally shall become a part of the contract.</p> <p>D. The contract estimated value and all other terms and conditions remain unchanged.</p>				