FY2018 Fee Determination Scorecard

Contractor: Savannah River Nuclear Solutions (SRNS), LLC
Contract: DE-AC09-08SR22470
Award Period: October 1, 2017 - July 31, 2018
Basis of Evaluation: Performance and Evaluation Plan (PEMP) for FY2018
The FY2018 PEMP for this contract is available at: https://srcontracts.srs.gov/

Award Fee Scorecard:

Overall SRNS Subjective and Objective Performance Review for FY 2018

SRNS Subjective Fee (Award Fee) Criteria Summary Table

Criteria	Maximum Available Fee	Adjectival Rating	Fee Determined from Adjectival Ratings	
			Percentage	Fee Amount
1.0 Overall SRNS Subjective: Provide a monthly assessment of SRNS work performance noting any trends and improvements in technical, cost, schedule performance and business relations / management activities as documented in the individual work group self assessments found in the Scorecard tool	**$2,995,525**	**Very Good**	**79%**	**$2,353,627**
2.0 Contractor Assurance System Subjective: The Contractor shall implement a DOE approved CAS, which demonstrates program effectiveness of the CAS that includes: 1. A method for validating the effectiveness of assurance system processes; 2. Rigorous, risk-informed, and credible self-assessment and feedback and improvement activities; 3. A structured issues management system that is formally described and documented; 4. Timely and appropriate communication; 5. Continuous feedback and improvement, including worker feedback mechanisms; and; 6. Metrics and targets to assess the effectiveness of performance.	**$3,209,491**	**Very Good**	**82%**	**$2,631,783**
Total	**$6,205,016**			**$4,985,410**

Overall SRNS Subjective Performance Review for FY 2018

Achievements:

Safety Programs:

- Recognized by the South Carolina Manufacturers Alliance for excellence in safety performance. This is the 9th consecutive year since 2008 that SRNS has received this recognition.
- Exceptional support to the National Institute for Occupational Safety and Health related to the Energy Employee Occupational Illness Compensation Program Act.
- SRNS continues to develop new approaches to raise safety awareness for all site tenants. Recent example was the release of the "SRS 2018 Safety Kickoff" video.
- Injury/Illness rates remain well below EM established goals.
    - Goal: TRC 1.10, DART 0.60.
    - Aggregated actual: TRC 0.25 DART 0.02
- SRNS has approved and implemented Manual 1B 4.03 Remote Worker Procedure for virtual posting of the current active Soil Contamination Areas across the Site.
- SRNS collaboration with SRR to discuss methods for mercury monitoring. Excellent utilization of local resources to gain knowledge of methods for dealing with mercury vapors
- SRNS launched a new web-based SRNL-Hazard Analysis System. It is designed to satisfy requirements for Conduct of R&D.
- Recertified for the 3rd time as DOE Voluntary Protection Program (VPP) Star Site (2017). Also awarded the DOE-VPP Star of Excellence for the 9th consecutive year under the SRNS contract.
- The DOE Laboratory Accreditation program on-site assessment of the internal dosimetry program was completed with no programmatic deficiencies or concerns identified.
- Health Physics Instrumentation Calibration Laboratory developed a process and procedure for use on portable tritium monitors for the U.S. Air Force.
- SRNS Operations and Construction was one of twenty-six South Carolina businesses selected for the Palmetto Shining Star Award by the South Carolina Department of Labor, Licensing and Regulation (SC LLR).

Operational Excellence/Quality Assurance

- Hiring and Recruiting:
    - Hired 400 new employees to maintain the required technical competencies to support SRS Missions.
    - SRNS Training Department continuing development of partnerships with local technical colleges has created positive results in hiring technical staff.
    - Hired 60 new EM Operators.
    - Onboarded 178 interns this year from 56 universities in 28 states.
    - Initiated contingent offers to rising seniors.
    - SRNS is well positioned to meet the challenge of anticipated retirements.
    - Talent Management & Education Outreach: Quarterly presentations at Ft. Gordon and contact with other military bases is a win-win for future veterans and SRNS.
- GET Training: SRNS worked with HR, Centerra & Site Badging to provide all "onboarding" for new employees in A-Area. This effort will provide a significantly improved onboarding experience for new employees and reduce the time required to get new personnel to their worksite.
- Training Department has been able to meet the increased demand for training new hires in the areas of Site maintenance, regulatory, and Radiological Protection.
- SRNS coordinated with SRR and DOE to complete the final corrective actions to resolve the Records Management issue.
- Created and steadily worked towards completing the Software Quality Assurance Implementation Plan.

Site Engineering

- Enhancements in the SRS Commercial Grade Dedication (CGD) Program by Material Acquisition Engineering (MAE) Team has allowed better cost effectiveness. MAE is now proficient in using all NQA-1 allowed dedication options (i.e., Methods 1, 2, 3 and 4) during commercial grade dedications (CGD) which will allow reduced costs, CGD development time, and dedication efforts for items requiring commercial grade dedication.
- SRNS Engineering supported the response to the failures of both A-Area steam boilers. Engineering led mechanical, electrical and process control troubleshooting efforts on the biomass boiler and provided timely design improvements to facilitate returning the biomass boiler to service prior to anticipated freezing conditions.
- Process Control and Automation Engineering completed upgrade of Site SmartPlant Foundation (SPF) engineering application software to Version 6.0. Preliminary testing of performance indicates a performance increase of about 50%.
- Facilities and Systems Engineering (F&SE) successfully supported K-Area and L-Area Reliable Power Project by supporting construction completion milestones to allow replacement of the K-Area and L-Area Electrical Switchgear several months ahead of schedule.

Nuclear Materials Stabilization

- H Canyon began processing three Uranium streams for the first time. (MTR spent nuclear fuel in 6.1D, HFIR spent nuclear fuel in 6.4 D, and Target Residue Material in tank 8.8)
- The K Area repacking effort to support Phase I of the removal of Plutonium from SC was executed safely and efficiently resulting in completion 6 weeks ahead of schedule and under budget.
- Numerous challenges and unpredictable conditions were encountered and successfully overcome with the activities leading up to the initiation of MAR removal from the PuFF facility in Building 235-F.
- The partnering efforts of SRNS and DOE-SR to avoid an overly conservative fire protection strategy for the K Interim Glovebox optimization effort resulted in over $2M in savings to the optimization project.
- HB-Line layup activities where effectively coordinated among multiple nuclear facilities which supported the downgrade of HB-Line to a security category III facility.
- The K and L Area multi-year reliable power projects were completed ahead of schedule and under budget.

Solid Waste Disposition

Most of the work with the Solid Waste Program was Level of Effort work throughout FY2018, SRNS Solid Waste Met Requirements.

- Exceeded the 50% Recycling Goal for FY2018 set by Executive Order.

Assistant Manager for Infrastructure and Environmental Stewardship - Site Services

- Vigorously examined via VSAs to improve (1) Packaging and Transportation of outbound shipping process, and (2) warehouse material receipt, identification, evaluation, and processing. Marked improvement noted via documented assessments.
- Completed the complex K and L High Voltage Switchgear projects safely and on schedule
- Developed and communicated an excellent traffic control plan with all Site tenants to safely accomplish the FY18 Roadway renovation work with minimal disruption to Site operations
- Demonstrated disciplined plan execution of the FY18 Common Infrastructure Improvement Plan that achieved all 73 planned projects budgeted over $12M under cost and on schedule

Assistant Manager for Infrastructure and Environmental Stewardship - Area Completion Project (ACP)

- Met all regulatory and Federal Facility Agreement (FFA/ Resource Conservation and Recovery Act (RCRA) Permit milestones (71) and commitments on or ahead of schedule

- Successfully partnered with EPA, SCDHEC, and DOE-HQ to ensure regulatory negotiations were timely and beneficial in furthering execution of the environmental cleanup scope. Several significant negotiations were key to positioning the Site to continue progress:
- Provided 2 D-Area groundwater remediation milestones to successfully negotiate a LW tank milestone suspension with Regulators
- Gained Regulator agreement for siting the P-Area Groundwater Permeable Reactive Barrier at the most effective location saving program costs
- Accelerated the Dunbarton Bay ash removal project to 2019
- Effectively and efficiently managed the D-Area Ash Project (DAAP)
- Received state regulatory approval to terminate the 488-4D Solid Waste Landfill Permit signifying closure of one of 4 waste units
- Achieved cost savings by using an alternative liner material for the geosynthetic cover
- Managed and mitigated risks associated with water management
- Maintained excellent cost and schedule control with a cumulative SPI and CPI above 0.95 with projected carryover
- Executed all work safely with an overall safety performance that included zero recordable injuries

Assistant Manager for Infrastructure and Environmental Stewardship- Environmental Compliance (EC)

- Provided comprehensive oversight/support to all SCDHEC regulatory compliance inspections (over 15 regulator inspections in FY18). Examples include: (1) Quarterly Landfill Inspections, (2) Annual RCRA Groundwater CME Inspection, (3) Annual UST Inspection and (4) Air Inspection. No findings or deficiencies noted.
- Collected, analyzed and reported results of over 10,000 samples for the environmental monitoring program on and off the SRS (i.e. air, water, vegetation, soils, dairy, fish and wildlife) while maintaining laboratory certifications.
- Positive actions taken to reverse 2017 negative NOV trend (i.e. development of compliance matrices and crosswalks for new regulations, programmatic risk-based self-assessments, SRNS Corporate Reviews on compliance issues, reorganization to improve facility compliance, and evaluation of a new environmental permit software linking tool). No NOVs in CY 2018.
- Completed Environmental Management System Tri-Annual Certification Audit to new ISO 14001 Standards, no findings.
- Provided extensive NEPA and environmental compliance support to multiple NNSA initiatives: Surplus Plutonium Disposition, Japan Atomic Energy Agency Fast Critical Assembly, Pit Production Implementation Plan, and Removal of Plutonium (1MT) from South Carolina.

Office of Safeguards, Security and Emergency Services

Vulnerability Assessments/Physical Security/Security Maintenance

- SRNS provided excellent S&S support to site missions in three major areas: DOE Order 470.3C (Design Basis Threat (DBT)) implementation, S&S infrastructure upgrades, and plutonium disposition. SRNS completed a vulnerability analysis under the DBT for Category II Special Nuclear Material transportation to enable an SRS mission requiring transfer of plutonium. SRNS fully implemented the DBT in the L-Area to resolve outstanding S&S issues. SRNS completed S&S infrastructure upgrades to assure the effective of the S&S backup power systems in the H-Area (automatic transfer switch and Uninterruptible Power Supply (UPS)) and L-Area (UPS). In addition, SRNS procured new microwave and infrared sensors for the K-area and L-Area Perimeter Intrusion Detection and Assessment Systems. Finally, SRNS supported the SRS mission to disposition surplus plutonium through preliminary vulnerability analysis of the Criticality Container Overpack storage facility which resulted in S&S system design enhancements. SRNS initiated DBT vulnerability analysis of this facility and of the entire K-Area.

Emergency Services

- During this reporting period SRNS used the newly developed severe weather response procedure which involved detailed advance preparations that ensured an effective response to the recent hurricanes that impacted the site.

Cyber and Information Technology (IT)

M&O Enterprise Systems Solutions Accomplishments:

- Recognized by Industry (Oracle/ PeopleSoft) for best practices in the management and modernization of Enterprise Resource Planning (ERP) software and correlating business processes.

M&O Information Technology Accomplishments:

- Office 365 Deployment (118 days ahead of schedule)
- Replacement Telephone Project (RTP)
    - 3-year project that was accelerated to complete in 2 years and upgraded the obsolete 20-year old telephone switching equipment with new Avaya Aura Communication Manager while using existing wiring and analog handsets.

Office of Integration and Planning

- The SRNS Continuous Improvements cost savings realized for FY18 was $25.4 Million dollars, which exceeded the annual goal by $4M. They implemented 222 IDEAS in FY18 for a total savings of $696K.
- SRNS made significant achievements in the area of Real Property Asset Management. Throughout the year they worked tirelessly and made noteworthy improvements to both the Facility Information Management System (FIMS) database, and Asset Management Information System (AMIS) database.

Office of Acquisition Management

- SRNS significantly exceeded its Small Business awards goal (68% actual vs. 52% goal). SRNS also exceeded all socio-economic goals through proactive Management.
- The DOE Office of Small and Disadvantage Business Utilization (OSDBU) recognized:
    - SRNS Procurement Director as the "Facility Management Contract Procurement Director of the Year;"
    - SRNS Small Business Program Manager (SBPM) as the "FMC SBPM of the Year;"

Office of Chief Counsel

- Aggressively defended the "bellwether"" EEOICPA workers compensation cases

Office of External Affairs

- The SRS Tours Program and Education and Outreach Programs demonstrated sustained excellence during FY 2018. By hosting more than 150 tours and 1500 visitors including numerous high profile guests such as DOE Secretary, Under Secretary of Science, NNSA Administrator, and Deputy Secretary of Energy.
- Produced 12 Critical Skills videos to highlight the expertise needed to perform unique and important work at SRS. Videos were shared on social media, the SRS website, and with local academia.

Areas for Improvement:

Safety Programs

- Concerns (i.e., errors) were identified during several months of the rating period with respect to drug/alcohol testing (DAT) in support of the Human Reliability Program. DAT errors have resulted in decreased safety/security reliability (e.g., failure to remove personnel from the HRP in a timely manner), and have impacted site operations (e.g., employees being asked to return to the testing facility so that errors could be addressed). The DOE-SR recognizes performance improvements are being implemented by SRNS and expects to see improved performance during the next rating period; however, a five (5)

percentage point reduction was applied to the overall Health and Safety/Medical subjective performance fee for this rating period.

Operational Excellence/Quality Assurance

- The attention given to adjudicate Discrepant Condition (DC) material at receipt inspection has yielded positive results. Actions such as monthly feedback to suppliers, formally communicating expectations to suppliers, and disposition of legacy items has produced a decrease in DC materials. Substantial effort has been made to address the high numbers of DC, however, the actions to sustain improvement were not implemented until after July. DOE-SR still needs time to evaluate effectiveness of actions. This issue was not self-identified and a on-going issue resulting from an inadequate process.

Site Engineering

- During an April 2018 Emergency Preparedness drill, it was discovered that a Savannah River Site Operations Center computer system that is required to access the safety software Waste Information Tracking System (WITS) was updated to Windows 10 operating system. WITS cannot be used on computers running Windows 10 due to known compatibility issues. Software Configuration management needs improvement in this area.

Nuclear Materials Stabilization

- Some areas of negative performance were noted in conduct of operations, engineering and configuration management. In monitoring contractor actions, DOE noted that the contractor self-identified most issues and mitigated cost and schedule impacts with timely and thorough corrective actions.
- Organic PISA (hydrogen generation) – An initial extent of condition review based on issues realized in the HLW system failed to identify a hydrogen generation issue which resulted in a new PISA for tank 9.5 in the Canyon. However, noted by DOE was the confirmation by EA-10 during their independent enforcement assessment that the extent of condition review following the tank 9.5 PISA was excellent.
- Less than adequate engineering strategies for dealing with the H-Canyon exhaust tunnel structural integrity issues (e.g. electing not to obtain samples that could be crushed to obtain empirical data) resulted in the inability to defend the compressive strength values for the concrete. As a result, adjustments were required to the values used for the non-linear analysis and a corresponding 4-month delay in schedule was realized.
- A criticality safety block was not installed in L Basin as required and went undiscovered for approximately a year.
- A lack of configuration management for jumper installation resulted in Canyon Operations not implementing long term storage controls for criticality safety. However, the extent of condition review was thorough and resulted in no change to the baseline.

Office of Safeguards, Security and Emergency Services

- The recent Enterprise Assessment Report on SRS Emergency Management Exercise Program concluded that overall, the site, facilities, and the emergency response organization performs well. However, also documented in the report was SRNS need to strengthen communication links between facilities, incident scenes, the ERO, and responders to ensure that there is a common operating picture between all effected members. Additionally, SRNS needs to make better use of employing a questioning nature to maintain a proper level of situational awareness.

Cyber and Information Technology (IT)

- FY 2018 Enterprise Assessment (EA) and Mission Information Protection Program (MIPP) team evaluation indicated the need to modernize and evolve the administration of cyber posture of SRNS information systems.

Overall CAS Subjective Performance Review for FY 2018

Achievements:

Requirement Flow Down and Procedure Adequacy (PEMP Acceptance Criteria #1)

SRNS has taken positive actions resulting in improvements in ensuring flow down of requirements and procedure adequacy. The processes currently put in place and those identified for future application successfully implement this criteria and measure performance of this element. Although SRNS has made many improvements and those improvements are expected to resolve the identified issues, because these efforts are recent, a final determination of the effectiveness of these actions is indeterminate at this time.

Assessment Programs (PEMP Acceptance Criteria #2)

The assessment program was a major focus area for SRNS for fiscal year 2018 and substantial improvement has been made. SRNS has satisfactorily met the criteria for Assessment Programs.

Performance Measures (PEMP Acceptance Criteria #3)

Overall, metrics provide a reasonable picture of performance. A review of 75 metrics; 46 from the Performance Dashboard and 29 from CAS Health Performance Dashboard shows a full range of metrics in use across SRS by SRNS. SRNS has satisfactorily met the criteria for Performance Measures.

Trending Program (PEMP Acceptance Criteria #4)

Overall, SRNS has made substantial improvement in the Trending Program and is satisfactorily meeting the criteria for this CAS element.

Causal Analysis and Corrective Actions (PEMP Acceptance Criteria #5)

SRNS has made substantial effort in meeting the criteria associated with causal analysis and corrective actions, and it is expected these actions will be successful in resolving the issues identified in 2017, but due to implementation of actions for some of the major improvement initiatives being after or late in the evaluation period, further evaluation is required to conclusively determine effectiveness.

Lessons Learned (PEMP Acceptance Criteria #6)

SRNS is successfully meeting the criteria of a lessons learned program as described in DOE O 226.1B, Implementation of Department of Energy Oversight Policy.

Employee Engagement (PEMP Acceptance Criteria #7)

The CAS effectiveness review for fiscal year 2018, has determined that programs are still established to promote quality awareness and ownership at the worker level. The Employee Engagement Program continues to meet the criteria established for this element of CAS.

Areas for Improvement:

Requirement Flow Down and Procedure Adequacy

- Actions to address weaknesses identified in FY17 were late to be implemented.

Assessment Programs

- Assessor training does not include proficiency training and some assessors are going years without performing assessments. Proficiency training/qualifications is also an issue with causal analysis.
- Evaluation of self-assessment quality by SRNS needs to be more critical and the grading criteria adjusted.

Performance Measures

- Reporting of CAS Effectiveness to DOE-SR is mostly based on number of actions completed and programs in place and less about implementation of program and quality of data feeding and resulting from process.

- The ability of metrics to properly measure health and performance of some programs continues to be questionable. Metrics provide indication of SAT programs and will continue to do so even if there are issues in that area.
- Dashboard/Scorecard has not smoothly transitioned to the new program. DOE-SR has had issues with access to the program and saving entered data.

Causal Analysis and Corrective Actions

- Significance Categorizing is still not fixed. Last quarter all Sig Cat 1 and all Sig Cat 2s were DOE or ORPs. All SRNS Findings were minor Sig Cat 3 issues or less.
- Causal Analysis does not have a documented formal process (which includes documentation for Root Cause Analysis), an evaluation process, or adequate training/qualifications.
- Slow to develop and implement a process to properly categorize issues and therefore implement a graded approach that considers risk and prioritizes. Partnering sessions were held in July 2017 and piloting of process will not start until next month.

SRNS Objective Fee (Performance Based Incentives [PBI]) Criteria Summary Table

Metrics	Title	Maximum Available Fee	Fee Earned	%
1-33	Environmental Management Operations	$9,108,950	$9,108,950	100%
34-39	Solid Waste	$1,069,830	$1,069,830	100%
40-43	Area Completion Project	$2,139,661	$2,139,661	100%
44-77	Landlord Services	$2,659,183	$2,132,483	80%
Totals		$14,977,624	$14,450,924	96%

Savannah River National Laboratory Subjective & Objective Performance Review for FY 2018

SRNL Subjective Fee (Award Fee) Criteria Summary Table

Criteria	Maximum Available Fee	Adjectival Rating	Fee Determined from Adjectival Ratings	
			Percentage	Fee Amount
3.0 Savannah River National Laboratory Subjective: Provide a monthly assessment of SRNS work performance noting any trends and improvements in technical, cost, schedule performance and business relations / management activities as documented in the individual work group self-assessments found in the Scorecard tool	**$213,966**	**Good**	**70%**	**$149,776**
Total	**$213,966**			**$149,776**

Achievements:

- SRNL developed a return on investment (ROI) scorecard for Laboratory Directed Research & Development (LDRD) projects. The ROI aims to guide future investment decisions and accelerate accomplishments with respect to the lab's desired outcomes within its core competency, integrated capability, business unit, length of project, level of funding, staffing, and other relevant areas. The ROI was showcased to the Office of Science Labs through the SC LDRD Annual Review and communicated to other laboratories as a LDRD Best Practice.
- SRNL fostered Science, Technology, Engineering, and Math Programs to ensure the future delivery of innovative technical solutions and enhance core competencies that support the departments mission at SRNL. For example:
  - Established joint appointments with the University of South Carolina (corrosion, batteries, fuel cells, electrolysis, and sensors) and Clemson University (environmental remediation and radioactive waste disposal);
  - Established a joint speaker series "Science on Tap" at USC-Aiken, advising the Aiken County Public School District and Aiken Technical College on course content needed for a new 2-year Cyber Security Certificate Program;
  - Hosted on-site over thirty teachers from across the CSRA for National Science Week;
  - Awarded SRNL University Scholarships totaling $144,00 to 18 Clemson University students;
  - Donated corporate funds to numerous universities to establish SRNL University Scholars Programs;
  - Showcased research results of over 50 summer interns with hopes of attracting the next generation of engineers and scientist.

Areas for Improvement:

- SRNL exhibited less than adequate performance in key safety management programs (i.e., Conduct of Operations, Conduct of Research & Development, Radiations Protection, Training, and Work Planning & Control) documented in DOE's issuance of a Letter of Concern. While each individual incident and deficiency was characterized as having a low safety significance, on the whole, they represented a trend which pointed toward degrading safety management performance. Issues included:
  - Observed weaknesses in the Issue Investigation/Issue Review process (Extremity dose, Liquid in bags, Skin contamination, High air samples).

- Less than adequate work planning for cutting contaminated metal resulted in contamination outside of the hood.
- Less than adequate radiological controls resulted in extremity dose and exceedance of RWP suspension limits.
- Less than adequate radiological controls resulted in extremity dose and exceedance of RWP suspension limits.
- Inadequate procedure compliance resulted in liquid in waste bags when absorbent was not adequate for liquid volume.
- Lack of integrated system knowledge (i.e., 773-A Partial Loss of Ventilation)
- Lack of familiarity with transportation requirements (i.e., Transport of Uncoated Aluminum Powder)
- Distractions due to multitasking (i.e., B119 Item Out of Containment and RIAC Data Entry Error)
- Less than adequate hazard analysis (i.e., Lab B-143 Extremity Rate Exceedance of RWP Suspension Limits)
- Less than adequate management of legacy materials (i.e., D-0220 Depleted Uranium Spill, 776-A legacy material)

- Also considered in the evaluation were the impacts to Liquid Waste sample receipt and processing that resulted from the pause. While these impacts were negotiated with the Liquid Waste contractor and ultimately work-arounds agreed upon to ensure Liquid Waste contractor performance objectives were met, it represented work changes that would not have otherwise been needed.
- However, SRNL ownership and management attention in working to mitigate any impacts, the development & implementation of corrective actions to address the concern, and SRNL's approach to partnering with DOE throughout the corrective action process has been commendable and is factored into the fee determination. DOE has noted improvement with issue investigations (i.e., required attendance, required documents provided, issue analyst training), Research Operations/Research & Development work planning & control activities (including Hazards Analysis), and employee questioning attitude throughout the safety pause.

SRNL Objective Fee (Performance Based Incentives [PBI]) Criteria Summary Table

Metrics	Title	Maximum Available Fee	Fee Earned	%
78-104	Savannah River National Laboratory	$3,009,000	$2,989,000	99%
Totals		$3,009,000	$2,989,000	99%

SRNS and SRNL Combined Overall (Subjective and Objective) Fee Earned for FY 2018

PEMP Fee Type	Fee Amount/Range	Percent of Maximum Available Fee
Objective Criteria (PBI) Fee Earned	**$17,439,924**	**97%**
Subjective Criteria Award Fee Earned	**$5,135,186**	**80%**
TOTAL FEE EARNED	**$22,575,110**	**92%**