PSRP Name: The Office of Environmental Management (EM) Defense Environmental Cleanup		
PSRP Lead Program Office and/or Laboratory/Site Office: The Office of Environmental Management		
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1. Objectives

Program Purpose

This PSRP has been updated from previous versions in compliance with Management Procedures Memorandum No. 2010-06, dated May 2010 and reflects progress on milestones and performance measures in the Department of Energy (DOE) Office of Environmental Management (EM) program.

The DOE EM program defense funding is used for the environmental cleanup of multiple sites across the country that comprise the former nuclear weapons complex. The applicable sites are as follows: Hanford Site, Washington State (managed through the Richland Operations Office and the Office of River Protection); Savannah River Site, South Carolina; Idaho National Laboratory, Idaho; Oak Ridge National Laboratory and Y-12, Tennessee; Los Alamos National Laboratory and the Waste Isolation Pilot Plant (WIPP), managed through the Carlsbad Field Office in New Mexico; Nevada Test Site, Nevada; the Separations Process Research Unit, New York; and Mound Site, Ohio.

EM defense-funded Recovery Act work will accelerate completion of existing environmental protection and site cleanup goals, including decontamination and decommissioning (D&D) excess nuclear facilities and disposal of radioactive waste from the EM sites, in many cases much earlier than originally planned. In addition, this work will reduce environmental threats to areas surrounding the sites. Recovery Act funded work will produce a significant number of jobs.

Public Benefits

Public benefits resulting from Recovery Act funding range from job creation, to cost savings over the life-cycle of the EM program, to enhanced environmental protection due to the cleanup and closure of the EM sites from the former nuclear weapons complex. High-risk facilities, such as nuclear reactors and other structures, will be deactivated and demolished reducing potential safety and health risks.

Recovery Act funding will be used by EM site contractors to accelerate cleanup of the former weapons complex and nuclear research facilities. The site contractors and subcontractors will hire workers to perform the additional soil and groundwater remediation, decontamination and decommissioning, and waste processing activities. Types of jobs created include well drillers,

soil excavation personnel, construction and demolition personnel, waste processors and handlers, railroad train crews and waste truck drivers. The additional jobs are expected to extend through the entire period of Recovery Act activities in EM (through September 30, 2011).

2. Projects and Activities
Kinds and Scope of Projects and Activities to be Performed

EM has demonstrated success in transuranic and solid waste disposition, soil and groundwater remediation, and facility decontamination and decommissioning. EM will effectively spend the $6 billion in Recovery Act funding because these cleanup activities are associated with:

- Proven technologies—on-the-shelf plans and projects ready to be implemented
- Regulatory infrastructure in place—established regulatory framework with regulator and community support
- Acquisition structure in place—flexible contract vehicles allow quick expansion of environmental cleanup workforces
- Project Management structure in place—ability to track and measure performance

EM has identified opportunities at 11 sites in 8 states that meet Recovery Act principles.

The Hanford Site, Richland Operations Office will use Recovery Act funds to demolish nuclear and support facilities, remediate waste sites, remediate contaminated groundwater, and retrieve solid waste from burial grounds. Specifically, ARRA funds will result in accelerating completion of existing environmental protection and site cleanup goals, including deactivation, decontamination, decommissioning, and demolition of excess nuclear facilities and remediation of contaminated soil. Execution of scope will accelerate demolition and deactivation by 5 to 20 years depending on the individual project and accelerate remediation of various waste sites by 5 to 20 years.

ARRA funds at Hanford will also be used to provide resources to complete installation of existing groundwater remedies for the River Corridor and Central Plateau and decommissioning of the groundwater wells in the Central Plateau outer zone. ARRA funding provides the ability to accelerate the completion of this work by up to five years; from 2016 to 2011. Project work will accelerate the drilling and installation of new groundwater remediation systems in the 200 West and 100 H Areas by approximately 4 years. Additionally, it will accelerate demolition of wells by approximately 5 years. Implementing this ARRA scope supports footprint reductions activities of the Central Plateau and River Corridor and is considered the final remedy for groundwater operable units located in the 100 and 300 areas.

Also at Hanford, ARRA funds are being used to retrieve suspect transuranic waste from the 200 Area burial grounds, repacking waste as required to meet Waste Isolation Pilot Plant (WIPP) Waste Acceptance Criteria (WAC) requirements and treating the backlog of current legacy mixed low level waste at Hanford in many cases much earlier than originally planned. The Hanford disposal capacity needs are increasing at faster-than planned rates due to the acceleration of workscope funded by ARRA. This project provides for the construction of super cells 9 and 10 at the Environmental Restoration Disposal Facility (ERDF) providing for the

increased disposal capacity in a timely manner. Also, ARRA funds will include the characterization of burial ground trenches containing radioactive and hazardous constituents and also initiates remediation of certain trenches.

The Office of River Protection will use Recovery Act funds to accelerate the design and construction of the infrastructure and systems to transfer radioactive liquid waste from aging underground tanks to a waste treatment facility for immobilization and disposal beginning in 2019. This project accelerates completion of existing environmental protection and site cleanup, thus immobilizing high-level waste (HLW) at the Hanford Site and mitigating environmental threats to the Columbia River.

The Savannah River Site (SRS) Recovery Act funds will accelerate decommissioning of nuclear facilities and contaminated areas throughout the site, including in-situ decommissioning of two nuclear materials production reactors. Specifically, ARRA funds will support accelerating the completion of EM mission activities in key industrial areas of the SRS (area completion). SRS ARRA funds will contribute to EM's programmatic initiatives of footprint reduction and accelerated solid radioactive waste disposal. Specifically, the scope of this Recovery Act Project contributes to the overall reduction of EM's operational footprint by greater than 50%.

SRS Recovery Act work also includes accelerated transuranic (TRU) Waste disposition project of 5,000 cubic meters of legacy transuranic waste off the SRS site. The majority of the TRU waste is currently stored in non-shippable, aged, deteriorating containers that must be repackaged and remediated before shipment to the Waste Isolation Pilot Plant (WIPP) located in Carlsbad, New Mexico.

SRS Recovery Act-funded investment in this project will upgrade the tank farm and support facility infrastructure required to provide the tank waste feed from the tank farms to the Salt Waste Processing Facility (SWPF) and to receive resultant treated waste streams from SWPF into Saltstone and the Defense Waste Processing Facility (DWPF) for treatment and disposal.

The Idaho National Laboratory (INL) Recovery Act funds will be used to complete the construction of two new facilities for retrieval of targeted waste and accelerate retrieval of buried targeted waste. Accelerated remediation work scope for the in-situ grouting of mobile radionuclide sources will be completed as well. This will result in completing an approximate 0.91 acres with ARRA funds. In addition, ARRA funds will be used to D&D surplus nuclear, radiological, and industrial facilities that no longer have a mission.

The Oak Ridge Recovery Act funds will be provided to the Oak Ridge National Laboratory (ORNL) and Y-12 sites. At Y-12 Recovery Act funds will render the highest risk excess facility ready for decontamination & demolition (D&D) by removing all legacy material; remediating the most significant source of mercury contamination to surface water at Y-12; and demolishing five dilapidated, contaminated buildings. At ORNL, Recovery Act funds will support the mission of the Department of Energy Office of Environmental Management by demolishing surplus contaminated facilities and remediating contaminated soil. Recovery Act funds will also supports the EM mission by providing additional CH TRU Debris waste and RH TRU Debris waste processing capability. The waste is processed so that it meets the waste acceptance criteria

at the Waste Isolation Pilot Plant (WIPP). By September 30, 2011, more than 800 cubic meters of CH TRU will be processed and over 200 cubic meters of RH TRU will be processed.

At Los Alamos National Laboratory (LANL), ARRA support the efforts to remediate Material Disposal Area (MDA) B and install groundwater monitoring wells and plug abandon wells. Recovery Act funding will be used to excavate, characterize, package and dispose of the waste in MDA-B.

In addition, LANL ARRA funds contain scope for the D&D of a large number of inactive facilities. Specifically, this work involves D&D to grade of large DP West buildings and smaller ancillary structures, comprising approximately 89,000 square feet. Buildings in DP East were used for polonium, actinide, and tritium research. D&D of DP East involves demolition of two large buildings and three smaller structures totaling approximately 50,000 square feet, sub-grade soil remediation, and site restoration.

ARRA funding to the Carlsbad Field Office (CBFO) will result in the disposition of defense-generated TRU waste which involves three primary operations activities: characterization/ certification, transportation, and disposal. This work will facilitate the safe de-inventory and footprint reduction of defense-generated TRU waste at TRU waste generator sites and interim storage sites across the United States. ARRA funding will accelerate legacy TRU waste characterization and shipment preparation as well as increase TRU shipments to the Waste Isolation Pilot Plant (WIPP) repository from four large quantity sites (SRS, Hanford, LANL, and ORNL)) and many small quantity sites including, Bettis Atomic Power Laboratory (Pennsylvania); NRD, LLC (NRD) (New York): Knolls Atomic Power Laboratory-Nuclear Fuel Services (KAPL-NFS) (Tennessee); General Electric Vallecitos Nuclear Center, Lawrence Berkeley National Laboratory, and Lawrence Livermore National Laboratory (California); Argonne National Laboratory (Illinois); Nevada Test Site (Nevada); and Sandia National Laboratories (New Mexico).

At three locations within the Nevada Test Site, soil will be analyzed to identify its composite waste characteristics and groundwater monitoring wells will be installed to provide additional data on groundwater contamination to support future cleanup work. Three major facilities and two smaller structures will be decontaminated and demolished.

At the Separations Process Research Unit (SPRU) facility in New York, ARRA funds will be used for the cleanup of legacy contamination resulting from historic weapons development activities, which is a central component of the EM mission. The 15 acres of land to be remediated comprises about 50% of the contaminated soil footprint at SPRU, and completion of the North Field Land Area Remediation completes contaminated soil removal at SPRU.

At the Mound Site (Ohio), ARRA funds will be used for remediation of Operable Unit 1 (historic landfill).

The following table lists the amount of funding by project and presents associated activities:

Site	Project	Funding	Activity Categories

Site	Project	Funding	Activity Categories
Hanford	Hanford Central Plateau D&D Recovery Act Project	$701,516,000	Accelerate and complete decontamination and decommissioning (D&D) of additional facilities located in the Central Plateau
	Hanford River Corridor D&D Recovery Act Project	$383,889,000	Accelerate D&D of facilities in the River Corridor
	Hanford River Corridor Soil and Groundwater Recovery Act Project	$72,432,000	Complete construction of additional groundwater remediation systems
	Hanford TRU Waste Recovery Act Project	$241,160,000	Accelerate certification and shipment of remote handled transuranic waste (RH-TRU) Accelerate retrieval and repackaging of contact handled transuranic waste (CH-TRU) Complete treatment of legacy mixed low level waste (MLLW) in the 200 Area
	Hanford Central Plateau Soil and Groundwater Recovery Act Project	$235,503,000	Complete construction of additional groundwater remediation systems
	Subtotal, Hanford	$1,634,500,000	
Office of River Protection	Office of River Protection Recovery Act Project	$326,035,000	Accelerate infrastructure upgrades to support radioactive liquid tank waste operations
Savannah River Site (SRS)	SRS TRU & Solid Waste Recovery Act Project	$541,000,000	Accelerate disposition of TRU and low level waste
	SRS D&D P & R Areas Recovery Act Project	$478,400,000	Complete D&D of facilities located in the P & R Areas
	SRS D&D M & D Areas Recovery Act Project	$104,000,000	Complete D&D of facilities located in the M & D Areas
	SRS D&D, Soil & Groundwater Activities Site-wide Recovery Act Project	$292,000,000	D&D, soil remediation, and groundwater remediation of A-, C-, F-, G-, H-, K- and N-Areas
	Liquid Waste Tank Infrastructure	200,000,000	Develop infrastructure to support tank waste retrieval
	Subtotal, Savannah River Site	$1,615,400,000	
Idaho National Laboratory (INL)	INL Recovery Act Project	$207,875,000	Accelerate and complete D&D of additional excess nuclear facilities
	INL TRU Waste Recovery Act Project	$137,000,000	Increase retrieval and processing of TRU waste Accelerate additional shipments of CH TRU waste from smaller DOE sites to the Advanced Mixed Waste Treatment Facility
	INL Soil and Groundwater Recovery Act Project	$123,000,000	Accelerate completion of waste retrievals
	Subtotal, Idaho National Laboratory	$467,875,000	

Site	Project	Funding	Activity Categories
Oak Ridge	Oak Ridge Defense Y-12 D&D Recovery Act Project	$280,000,000	Prepare the highest risk excess facility at Y-12 (Alpha-5) for accelerated D&D
	Oak Ridge Defense ORNL D&D Recovery Act Project	$132,610,000	Demolish surplus contaminated facilities at the Oak Ridge National Laboratory (ORNL) and perform soil remediation
	Oak Ridge Defense TRU Waste Recovery Act Project	$145,500,000	Process CH-TRU and RH-TRU at an accelerated rate
	Subtotal, Oak Ridge	$558,110,000	
Los Alamos	D&D Acceleration	$64,200,000	Accelerate D&D of additional facilities
	Soil and Groundwater	$132,800,000	Cleanup of a major former original landfill, Material Disposal Area (MDA) B
	Subtotal, Los Alamos	$197,000,000	
Carlsbad	WIPP Recovery Act Project	$172,375,000	Increase the amount of TRU certified and shipped to the Waste Isolation Pilot Plant (WIPP)
Nevada Test Site	Nevada Recovery Act Project	$44,325,000	Remove contaminated soil from corrective action units Install groundwater monitoring wells Demolish additional facilities
Separations Process Research Unit (SPRU)	SPRU Recovery Act Project	$56,775,000	Remove contaminated soil Accelerate completion of D&D of facilities
Mound	Mound Operable Unit 1 Recovery Act Project	$19,700,000	Complete remediation of Operable Unit 1
Headquarters and Field	Program Direction	$25,635,000	Provide program direction for Recovery Act projects
Headquarters	Management Reserve	$9,270,000	Management reserve for Recovery Act projects
	TOTAL	**$5,127,000,000**	

3. Characteristics

Types of Financial Awards To Be Used

EM does not contemplate significant activity in the area of financial assistance. Some limited amount of funds provided under the Recovery Act may be awarded via financial assistance instrument. The awards will largely be limited to supplementing existing financial awards on current projects through additional task orders. The additional awards will support increased levels of activity resulting from acceleration of work.

Type of Recipient

Not applicable to the EM Defense Program.

Type of Beneficiary

Not applicable to the EM Defense Program.

4. Major Planned Program Milestones

The original milestones in Section 4 of the May 2009 PSRPs represented preliminary work scope proposed by the EM Sites in the early part of the ARRA program prior to contracts being awarded, negotiated, or definitized. Many of these early milestones were focused on project initiation, hiring, contracting and early concepts of how and when the work would be completed. The sites have achieved the majority of the May 2009 PSRP milestones related to project startup and contracting as shown in the following table. All projects are executing the approved scope and nearly all contracts were fully definitized by September 2009

Milestones for the major projects are listed below:

Milestone Type	Milestone Description	Date	Actual Date
Procurement	Hanford – Initiate procurement activities for River Corridor Soil and Groundwater	September 30, 2009	June, 2009
Execution	Hanford – Initiate remediation of 618-10 Trench	March 31, 2010	Re-scheduled to be executed in June, 2011
Execution	Hanford – Complete remediation of 618-10 Trench	September 30, 2011	
	Hanford – Complete procurement actions for River Corridor D&D	September 30, 2009	July, 2009
Execution	Hanford – Complete demolition of 10 facilities at 100K Area	September 30, 2010	
Execution	Hanford – Complete 10 waste sites at 100K Area	September 30, 2010	
Execution	Hanford – Complete ERDF Cell 9	September 30, 2011	
Execution	Hanford – Complete demolition of 20 facilities at 100K Area	September 30, 2011	
Execution	Hanford – Complete 70 waste sites at 100K Area	September 30, 2011	
Execution	Hanford – Initiate construction of pump and treat system for 100 D/H Areas	March 31, 2010	July, 2009
Execution	Hanford – Initiate construction of pump and treat system for 200 West Area operable units	March 31, 2010	November, 2009
Execution	Hanford – Complete construction of final remedies for groundwater in the River Corridor and Central Plateau	September 30, 2011	
Execution	Hanford – Complete disposition of 4 facilities	December 31,	November,

Milestone Type	Milestone Description	Date	Actual Date
	within the Central Plateau	2009	2009
Execution	Hanford – Complete disposition of 4 facilities within the Central Plateau	March 31, 2010	March, 2010
Execution	Hanford – Complete disposition of 10 facilities within the Central Plateau	December 31, 2010	
Execution	Hanford – Complete disposition of 13 facilities within the Central Plateau	September 30, 2011	
Execution	Hanford – Initiate retrieval of RH TRU waste	September 30, 2010	
Execution	Hanford – Complete retrieval of 85% (~5,200 cubic meters) of CH TRU waste	September 30, 2011	
Execution	Hanford – Complete treatment of backlog of current legacy waste (~970 cubic meters)	September 30, 2011	
Execution	Hanford – Complete repackaging of 90% of CH TRU waste	September 30, 2011	
Execution	Hanford – Complete retrieval of 50% of RH waste	September 30, 2011	
Execution	Idaho – Exhumation/retrieval of 0.30 acres of buried waste	December 31, 2009	January 24, 2010
Execution	Idaho – Exhumation/retrieval of 0.39 acres of buried waste	March 31, 2010	March 31, 2010
Execution	Idaho – Exhumation/retrieval of 0.09 acres of buried waste	June 30, 2010	
Execution	Idaho – Exhumation/retrieval of 0.09 acres of buried waste	September 30, 2010	
Execution	Idaho – Exhumation/retrieval of 0.10 acres of buried waste	December 31, 2010	
Execution	Idaho – Exhumation/retrieval of 0.12 acres of buried waste	March 31, 2011	
Execution	Idaho – Exhumation/retrieval of 0.15 acres of buried waste	June 30, 2011	
Execution	Idaho – Exhumation/retrieval of 0.53 acres of buried waste	September 30, 2011	
Execution	Idaho – Ship additional 800 cubic meters of debris MLLW offsite	September 30, 2009	September 30, 2009
Execution	Idaho – Complete retrieval of an additional 1,200m3 of Transuranic Storage Area – Retrieval Area (TSA-RE) waste	September 30, 2009	September 30, 2009
Execution	Idaho – Ship additional 90m3 of organic MLLW offsite	September 30, 2009	September 30, 2009
Execution	Idaho – Ship additional 500m3 of Low Level Waste (LLW) debris	September 30, 2009	September 30, 2009
Execution	Idaho – Treat additional 190m3 problematic waste drums	September 30, 2009	September 30, 2009
Execution	Idaho – Complete retrieval of all legacy TRU & MLLW located in TSA-RE	September 30, 2010	
Execution	Idaho – Treat additional 1,000m3 of problematic waste drums at Advanced Mixed Waste	September 30, 2010	

Milestone Type	Milestone Description	Date	Actual Date
	Treatment Project (AMWTP)		
Execution	Idaho – Disposition 40m3 of organic MLLW offsite	September 30, 2010	
Execution	Idaho – Treat additional 1,500m3 of problematic waste drums at AMWTP	September 30, 2011	
Execution	Idaho – Disposition 40m3 of organic MLLW offsite	September 30, 2011	
Execution	Idaho – Disposition 92m3 of RH U-233 waste to Nevada Test Site (NTS)	September 30, 2011	
Execution	Idaho – TRA 630 Demo Complete TRA 661 Demo Complete TRA 632 Regulatory Documents Complete CPP 602 Regulatory Documents Complete Voluntary Consent Order (VCO) lines under Hot Cell Regulatory Documents Complete	September 30, 2009	This work is no longer being accomplished with Recovery Act funding
Execution	Idaho – MTR Building Interior Demo Complete TRA 604 Demo Complete TRA 610 Interior Demo Complete	December 31, 2009	This work was re-scheduled to be accomplished in September 2011.
Execution	Idaho – TRA 610 Exterior Demo Complete MTR Exterior Demo Complete	May 31, 2010	This work was re-scheduled to be accomplished in July 2011.
Planning	Idaho – Complete EBR II Readiness Assessment	July 31, 2010	
Execution	CPP 601 Exterior demo complete	July 31, 2010	
Execution	Idaho – TRA 632 Characterization Complete VCO Lines under Hot Cell Characterization Complete CPP 602 Characterization Complete	December 31, 2010	
Execution	Idaho – TRA 632 Interior Demo Complete VCO Lines under Hot Cell Demo Complete CPP 602 Interior Demo Complete	May 31, 2011	
Execution	Idaho – CPP 601/640 Fuel Reprocessing Demo Ready	July 31, 2011	
Execution	Idaho – CPP 601 final D&D Complete TRA 610 Demo Complete TRA 632 Exterior Demo Complete VCO Lines under Hot Cell Complete CPP 602 Exterior Demo Complete	September 30, 2011	
Execution	Oak Ridge – Complete demolition and disposal of 3026 Wooden Superstructure.	September 30, 2010	
Execution	Oak Ridge – Complete removal and disposal of	September 30,	

Milestone Type	Milestone Description	Date	Actual Date
	320 cubic meters contaminated soils.	2011	
Execution	Oak Ridge – Complete footprint reduction by 213,000 square feet.	September 30, 2011	
Execution	Oak Ridge – Complete capping of 7 acres of solid waste burial grounds.	September 30, 2011	
Execution	Oak Ridge – Complete removal and disposal of legacy materials from ~8,000 square feet.	September 30, 2011	
Execution	Oak Ridge – Expand EMWMF disposal facility by ~500,000 cubic years	September 30, 2010	
Execution	Oak Ridge - Complete removal and disposal of legacy materials from ~700,000 square feet.	September 30, 2011	
Execution	Oak Ridge – Complete removal and disposal of 31,000 cubic yards of scrap.	September 30, 2011	
Execution	Oak Ridge – Complete expansion of sanitary landfill.	September 30, 2011	
Planning	Oak Ridge – Transuranic Waste Processing - Hire 2nd operating shift personnel and initiate training	June 30, 2009	May 04, 2009
Planning	Oak Ridge – Transuranic Waste Processing - 2nd shift operations begin	September 30, 2009	September 14, 2009
Planning	Oak Ridge – Transuranic Waste Processing - Hire 3rd operating shift personnel and initiate training	December 31, 2009	December 14, 2009
Planning	Oak Ridge – Transuranic Waste Processing – 3rd shift operations begin	March 31, 2010	March 29, 2010
Execution	Oak Ridge – Complete processing 400 cubic meters of CH TRU Debris	September 30, 2011	
Execution	Oak Ridge – Complete processing 200 cubic meters of RH TRU Debris	September 30, 2011	
Execution	Savannah River Site – Initiate RCRA Closure of B-Area hazardous waste storage facility	September 30, 2009	February 8, 2010
Execution	Savannah River Site – Complete CH TRU Waste Polybox repackaging (800 boxes)	December 31, 2009	August 31, 2009
Execution	Savannah River Site – Complete DUO disposition (16,000 drums)	March 31, 2010	September 30, 2011
Execution	Savannah River Site – Complete repackaging of 25 large steel boxes (1,050 cubic meters) of TRU waste	June 30, 2010	
Execution	Savannah River Site – Complete disposition of all DUO (16,000 drums) and TRU Pad 1 soil cover and waste removal	September 30, 2010	This work was re-scheduled to be accomplished by September 2011.
Execution	Savannah River Site – Complete construction of the TRUPACT III loading facility	December 31, 2010	

Milestone Type	Milestone Description	Date	Actual Date
Execution	Savannah River Site – Disposition more than 4,500 cubic meters of legacy TRU waste and reduce the site's solid waste footprint by 75 percent	September 30, 2011	
Procurement	Savannah River Site – Issue Request for Proposal (RFP) for the D&D contract for 105-R Reactor building	June 30, 2009	January 18, 2010
Procurement	Savannah River Site – Definitize PEMP/Award Fee Plan vis formal contract modification	September 30, 2009	This activity was re-scheduled to be accomplished by July 31, 2010
Procurement	Savannah River Site – Award D&D subcontract for 105-P Reactor building closure ($80M), Award D&D subcontract for 105-R Reactor building closure ($80M)	December 31, 2009	March 31, 2010
Execution	Savannah River Site – Complete vegetation removal at P Ash Basin and P007 Outfall	March 31, 2010	This work was re-scheduled to be accomplished by August 18, 2010
Execution	Savannah River Site – Complete grouting of 106-P process water storage tanks and 109-P purge water storage basin	June 30, 2010	
Execution	Savannah River Site – Begin grouting of 105-P Reactor building	September 30, 2010	
Execution	Savannah River Site – Complete evaporation of water from the P Reactor Disassembly Basin (~4,000,000 gallons)	March 31, 2011	
Execution	Savannah River Site – Achieve P and R Area Completions	September 30, 2011	
Procurement	Savannah River Site – Issue Request for Proposal (RFP) for M Area Operable Unit Soil Remediation. Award contract for three (3) D Area Operable Unit Thermal Detritiation Treatment Cells Definitize PEMP/Award Fee Plan vis formal contract modification Award M Area OU soil remediation contract	September 30, 2009	September 10, 2009
Execution	Savannah River Site – Complete construction of three D Area Operable Unit thermal detritiation treatment cells	March 31, 2010	This work was re-scheduled to be accomplished by November 20, 2010
Procurement	Savannah River Site – Issue Request for	June 30, 2010	

Milestone Type	Milestone Description	Date	Actual Date
	Proposal (RFP) for D&D contract for D Area Powerhouse and 38 buildings		
Execution	Savannah River Site – Achieve M Area Completion (first area completed under Recovery Act)	September 30, 2010	
Procurement	Savannah River Site – Award D&D contract for D Area Powerhouse and 38 buildings ($30M)	December 31, 2010	
Execution	Savannah River Site – Achieve D Area Completion	September 30, 2011	
Procurement	Savannah River Site – Award A Area facility D&D contract	September 30, 2009	September 30, 2009
Procurement	Savannah River Site – Issue Request for Proposal (RFP) for demolition of 184-K Power House	September 30, 2009	This work no longer accomplished under ARRA
Procurement	Savannah River Site – Issue Request for Proposal (RFP) for the D&D of Heavy Water Components Test Reactor (770-U)	September 30, 2009	Self performed no RFP issued
Procurement	Savannah River Site – Issue Request for Proposal (RFP) for demolition of 185-3K Cooling Tower	September 30, 2009	August 10, 2009
Procurement	Complete demolition of 292-F Stack adjacent to 235-F	June 25, 2010	May 28, 2010
Procurement	Savannah River Site – Award contract for demolition of 184-K Power House, Award contract for demolition of 185-3K Cooling Tower	December 31, 2009	December 8, 2009
Execution	Savannah River Site – Complete removal of Chemical, Metals, and Pesticides Pits Waste Unit above ground remediation system	March 31, 2010	This work was re-scheduled to be accomplished by July 29, 2010
Execution	Savannah River Site – Complete construction of H Area groundwater base injection system	June 30, 2010	
Execution	Savannah River Site – Complete D&D of F A-Line (221-F) Building, Complete demolition of 185-3K Cooling Tower	September 30, 2010	
Execution	Savannah River Site – Complete characterization of four A Area waste units, Complete D&D of K-Area Powerhouse (184-K)	December 31, 2010	
Execution	Savannah River Site – Complete D&D of F/H groundwater treatment facilities, Complete D&D of 728-N Cask Repair Facility, 645-N Storage Facility for non-radioactive hazardous	March 31, 2011	

Milestone Type	Milestone Description	Date	Actual Date
	waste, and 690-N Process Heat Exchanger Repair Facility		
Execution	Savannah River Site – Complete D&D of Heavy Water Components Test Reactor (770-U), Complete D&D of 261-H Consolidated Incinerator Facility (CIF)	September 30, 2011	

5. Monitoring and Evaluation

The Department of Energy and the Office of Environmental Management will monitor and evaluate the performance of the program in two major areas; corporate control at the Department level, and EM Processes at the Office of Environmental Management level.

I. Corporate Controls

Recovery Leadership & Operations

The DOE Recovery Office is the central point for implementation and execution of Recovery Act activities. A recovery operations team will oversee implementation management such as monitoring project status, evaluating cost and schedule progress, ensuring thorough reporting, coordinating with external entities, and holding monthly performance and review meetings with senior departmental managers on the implementation status of specific recovery projects.

Recovery Funding Oversight, Performance

In addition to DOE's standard funds control mechanisms, Recovery Act funds are subject to additional process controls to ensure funds are not co-mingled, are tracked to enable reporting, and are spent responsibly. DOE recovery funds are released for implementation in a staged approach. Programs develop initial project plans that include performance metrics and require management approval.

Office of Internal Review (OIR)

DOE's OIR helps programs ensure that internal controls are in place, effective, and support the risk-based approach to managing Recovery Act activities. OIR programs are being implemented or expanded to ensure the Recovery Act objectives are met and DOE managers and partners are both held accountable for successful execution and have the appropriate tools to ensure that success. These programs include coordinating DOE's "Internal Control Acknowledgment" program, conducting agency wide assessments and analyses, and performing oversight of Recovery Act programs, including site and field visits. OIR worked with key impacted programs to produce initial vulnerability assessments identifying potential program specific and cross-cutting risks to ensure successful execution.

II. EM Processes

EM has chartered an integrated project team (IPT), the EM Recovery Act Team, to ensure proper planning and execution of Recovery Act funds. The IPT is led by the program manager and has ultimate responsibility and accountability for delivering the project successfully. The program manager is a member of the federal Senior Executive Service and possesses the executive core competencies required to lead the project through this period of government transformation. The program manager is supported by Federal Project Directors (FPD) who have satisfied the certification requirements prescribed in the Department's Project Management Career Development Program (PMCDP), and have been certified by the PMCDP Certification Review Board. The FPDs are senior federal managers and are seasoned project directors certified by the PMCDP Certification Review Board. The IPT members are experts in the areas of safety/operational readiness, planning, project management, budget, contracting, regulatory compliance, and communications. The team is actively engaged with the field office sites in all elements of Recovery Act implementation

EM has assigned Recovery Act Site Representatives to support the field offices. These individuals will streamline communications and decision-making between Headquarters and the field sites, while facilitating the integration, rapid sharing of lessons learned, and compliance with Recovery Act requirements.

As a prerequisite to receiving Recovery Act funds, the site offices have been required to submit to Headquarters checklist items that ensure each site is in a state of readiness and has implemented measures that prevent waste, fraud, and abuse. The checklist items verify that each site office has the necessary systems and processes in place for safety, oversight, contracting, change control, reporting, risk management, and regulator and stakeholder involvement.

At Headquarters, EM is engaging with other offices such as General Counsel, the Chief Financial Officer, the Office of Management and Administration, the Office of National Environmental Policy Act Compliance and others to ensure all appropriate requirements for the use of Recovery Act funds are met. Independent assessments have been conducted for the EM Recovery Act projects.

At the EM sites, the vast majority of the work will be executed through the expansion of existing contracts. This approach greatly reduces the risk associated with project performance. Appropriate funding modifications will be enacted to implement and segregate the Recovery Act funds for reporting purposes. All projects will be executed by the contractors according to DOE Order 413.3A, Program and Project Management, where applicable and with appropriate performance measurement baselines and DOE oversight. Acceptable performance on these projects will also be measured using performance metrics (e.g., cost, schedule, and scope) as established in baselines; cost and schedule performance indicators (cost performance index and schedule performance index) according to DOE-approved Earned Value Management Systems will be used as required by DOE Order 413.3A.

In addition, the EM Headquarters Integrated Project Team has conducted on-site reviews to examine the readiness to execute the EM Recovery Act scope and assist in understanding of guidance and requirements.

6. Measures

EM major performance measures include square miles or acres of land that will be cleaned up, percentage of the site footprint reduction that will be achieved, waste that will be removed off-site (by waste type), and D&D square footage that will be achieved. EM manages all of its work using project management protocols and will apply the same rigor in managing the Recovery Act projects. Projects will also regularly report monthly, quarterly, and project-to-date project performance measures include cost and schedule variances, cost and schedule performance indexes, contingency use, milestone status reports, risk register updating/status reporting, indirect cost rate, results, and impacts. EM will make project review information available to the public through the EM website, as appropriate.

Measure Text	Measure Type	Measure Frequency	Unit of Measure	Explanation of Measure	Year	Original (June 2009) ARRA Program Target	Revised (May 2010) ARRA Program Target	Target to Date	Actual to Date	Goal Lead
Nuclear Facility Completion (Demolished)	Output	Monthly	Each	Each EM facility is accounted for in the Facility Information Management System (FIMS). When the facility is demolished, it is recorded in FIMS as demolished. Demolition is usually removal of all structures and equipment down to the foundation.	2009 – 2011	2	35	9	12	Cynthia Anderson
Radiological Facility Completions (Demolished)	Output	Monthly	Each	Each EM facility is accounted for in the Facility Information Management System (FIMS). When the facility is demolished, it is recorded in FIMS as demolished. Demolition is usually removal of all structures and equipment down to the foundation.	2009 – 2011	60	79	19	20	Cynthia Anderson
Industrial Facility Completions (Demolished)	Output	Monthly	Each	Each EM facility is accounted for in the Facility Information Management System (FIMS). When the facility is demolished, it is recorded in FIMS as demolished. Demolition is usually removal of all structures and equipment down to the foundation.	2009 – 2011	176	83	23	25	Cynthia Anderson

Measure Text	Measure Type	Measure Frequency	Unit of Measure	Explanation of Measure	Year	Original (June 2009) ARRA Program Target	Revised (May 2010) ARRA Program Target	Target to Date	Actual to Date	Goal Lead
Remediation Complete	Output	Monthly	Each	The number of waste sites where all active (soil and groundwater) remediation activities are complete	2009 – 2011	82	81	14	6	Cynthia Anderson
CH TRU Waste Dispositioned	Output	Monthly	Cubic meters	The number of cubic meters of contact-handled transuranic waste (CH-TRU) dispositioned from inventory	2009-2011	4,525	7,906	713	845	Cynthia Anderson
RH TRU Waste Dispositioned	Output	Monthly	Cubic Meters	The number of cubic meters of remote-handled transuranic waste (RH-TRU) dispositioned from inventory	2009-2011	100	440	31	33	Cynthia Anderson
LLW and MLLW disposed (Legacy and NGW)	Output	Monthly	Cubic meters	Disposal of LLW and MLLW from non-Comprehensive Environmental Response, Compensation, and Liability Act activities	2009 – 2011	27,729	72,662	13,069	13,666	Cynthia Anderson
Footprint Reduction	Output	Monthly	Acres	Reduction in EM's active cleanup area	2009 – 2011	117,130	279,861	0	0	Cynthia Anderson
D&D Debris and Remediated Soil Disposed	Output	Monthly	Cubic meters	Cubic meters of radiologically contaminated debris and soil disposed as the result of D&D and soil remediation activities	2009-2011	N/A	1,096,871	379,488	254,986	Cynthia Anderson
Depleted and Other Uranium packaged for disposition	Output	Monthly	Metric tons	Metric tons (1,000 kilograms) of uranium packaged for disposition	2009-2011	N/A	11,646	11,646	4,036	Cynthia Anderson

Measure Text	Measure Type	Measure Frequency	Unit of Measure	Explanation of Measure	Year	Original (June 2009) ARRA Program Target	Revised (May 2010) ARRA Program Target	Target to Date	Actual to Date	Goal Lead
Facility Square Footage De-Inventoried	Output	Monthly	Square Feet	The building floor space deinventoried as a result of D&D activities.	2009-2011	N/A	963,908	70,298	120,550	Cynthia Anderson
Facility Square Footage Demolished	Output	Monthly	Square Feet	The building floor space demolished as a result of D&D activities.	2009-2011	3,244,420	2,449,816	405,636	436,778	Cynthia Anderson
Groundwater Wells Installed	Output	Monthly	Each	Groundwater monitoring and remediation wells installed	2009-2011	N/A	400	169	188	Cynthia Anderson
Office of River Protection Upgrades[1]	Output	Monthly	Each	Tank Equipment, Instrument, Facility, Structure, and System at the Office of River Protection tank farm	2009-2011	N/A	481	65	97	Cynthia Anderson
Savannah River Site Tank Waste[2]	Output	Monthly			2010-2011	N/A				Cynthia Anderson

[1] The ORP Recovery Act Project accelerates upgrades necessary to support the startup and efficient operations needed for final disposition of waste through the Waste Treatment Plant. The measure reported in this PSRP table reflects the total number of upgrades to be completed in the following areas: Tank Farm Infrastructure Upgrades; Other Infrastructure Upgrades; Facility Upgrades; Waste Feed Infrastructure Upgrades; and Waste Feed Transfer Line Upgrades.

[2] The SRS Liquid Waste Operations Project features 33 sub-projects supporting early accomplishment and programmatic risk reduction associated with key elements of the Savannah River Liquid Waste Program to include: Waste Removal and Tank Closure; Facility Base Operations supporting Liquid Disposition; Waste Treatment; and Programmatic Support for Critical Procurements, Design and Field activities.
Key activities are:
Waste Removal and Tank Closure: Install Tank 5 and 6 containment huts for pump removal; removal of Tank 5 and installation on Tank 6 annulus cleaning; complete Tank 4 bulk waste removal; obtain samples and perform characterization of Tanks 18 & 19 waste in support of waste determination; Tank 13 upgrades for sludge.
Facility Base Operations: Complete preliminary design for tank 50 shielding; complete designs for Effluent Treatment Plant (ETP) Saltstone Tank 50 Return to Service (RTS).
Waste Treatment: Complete design, procurement, and fabrication for enhanced waste treatment throughput and improved system reliability.

7. Transparency and Accountability

DOE leverages its existing corporate systems to track and report on Recovery Act activities and to ensure effective funds management. The DOE's iManage Data Warehouse (IDW) is a corporate enterprise system integrating financial, budgetary, procurement, and program information to monitor project execution. Each Recovery Act program is tracked using unique Treasury Appropriation Fund Symbols (TAFS); each component project is identified by a unique Project Identification Code (PIC).

IDW is a central data warehouse linking common data elements from each of the Department's corporate business systems and serving as a "knowledge bank" of information about portfolios, programs or projects including budget execution, accumulated costs, performance achieved, and critical milestones met. The IDW contains information from multiple corporate systems and will be a tool used to meet information needs for Recovery Act oversight and reporting to Recovery.gov.

The Performance Measure Manager (PMM) is the Department's performance tracking system. PMM tracks high-level budgetary performance and is being expanded to accommodate Recovery Act performance tracking needs. Performance evaluations will be organized and reported along with results from the Department's annual budgetary activities in the Annual Performance Report (APR). Performance results will be uploaded into the IDW for required agency reporting.

DOE's Agency Wide Recovery Plan for additional information on DOE's financial and performance tracking mechanisms. The plan can be found here: www.energy.gov/recovery.

At the EM Sites, appropriate funding modifications will be enacted to implement the Approved Funding Programs and segregate the Recovery Act funds for reporting purposes. Separate budget and accounting codes have been established for Recovery Act work in order to manage, implement, measure and account for these funds. To ensure adequate controls only 80 percent of Recovery Act funds are being allotted to the sites for obligation against contracts. The remaining 20 percent is being held at Headquarters and will be released after the projects are demonstrating adequate performance. Additionally, only 24 percent (i.e., 30 percent of the 80 percent) of Recovery Act funds can incur costs until all contractor baseline plans have been submitted, reviewed, and approved. At the sites, EM manages all of its activities using strict project management principles. Federal Project Directors responsible for managing the Recovery Act projects are required to be trained and certified for the magnitude and total cost of each project.

- Certification Level 4: Total Project Cost (TPC) exceeding $400 million (M)
- Certification Level 3: TPC greater than $100M and equal to or less than $400M
- Certification Level 2: TPC greater than $20M and equal to or less than $100M
- Certification Level 1: TPC greater than $5M and equal to or less than $20M

If a Federal Project Director is managing a portfolio of projects, the required Federal Project Director certification level is determined by the project with the highest TPC dollar value. EM may assign lower or higher required project management certification levels than may be

indicated by the TPC alone to cleanup projects of various complexity, risk, and visibility per coordination with the Certification Review Board (CRB). Likewise, when new hires or reassigned incumbents assume Federal Project Director positions, their certification level may be higher or lower than that indicated by the TPC dependent on a project's degrees of complexity, risk, or visibility.

Annual performance goals for all federal managers executing Recovery Act work will be developed. The managers' success in meeting these goals will be assessed as part of their annual performance reviews.

8. Federal Infrastructure Investments

Not applicable to the EM Defense Program.

9. Barriers to Effective Implementation:

A number of barriers to successful implementation of EM Defense funded Recovery Act activities were identified by the Sites in the Office of Environmental Management (EM) complex including:

- Project planning and management
- Contract management and performance
- Staffing shortages which affect ability to oversee the Recovery Act work
- Personnel to be trained in a timely manner
- Compliance with Safety requirements in aging facilities
- Transportation impacts
- Continued need to have effective interaction with stakeholders and regulators as Recovery Act work progresses.

The risk mitigation to these barriers at the Sites include the establishment of Federal Project Directors responsible for managing the Recovery Act projects who are trained and certified for the magnitude and total cost of each project. At EM Headquarters, an Integrated Project Team has been established for the management and oversight of Recovery Act work at the EM Sites. In addition, separate budget and accounting codes have been established for Recovery Act work in order to manage, implement, measure and account for these funds. EM Headquarters will hold in reserve 20 percent of funding from the sites in order to ensure acceptable performance is met. All projects subject to the requirements of DOE Order 413.3A will be executed by the contractors according to DOE Order 413.3A with appropriate performance measurement baselines and Department of Energy oversight. Independent assessments and monthly monitoring reviews have been conducted for the EM Recovery Act projects. Contractor performance evaluations/information will be conducted in accordance with FAR 42.15, Contractor Performance Information. Also, FAR Subpart 15.3, Source Selection, covers the use of past performance information during source selection.

Regarding staffing shortages and personnel training, EM Sites are actively recruiting resources to perform this work and in the interim may be using qualified subcontractors to execute Recovery

Act work as well as ensure proper work practices are followed. All workers will need to meet appropriate training and qualification requirements before work can begin.

To ensure safety requirements are met, the EM Sites will review and supplement as necessary safety documentation before work proceeds. DOE staff will ensure the proper safety measures are in place. Oversight of this work will be accomplished by qualified, experienced Federal staff.

EM Recovery Act work is a continuation of work already identified and may be part of already established environmental compliance agreements with our stakeholders and regulators. EM is also aware of a continued need to work with our stakeholders and regulators on meeting our current environmental compliance agreements as well as transportation requirements including routes, and has been in ongoing dialogue with our stakeholders and regulators on Recovery Act work since enactment of this law in February 2009.

10. Environmental Review Compliance

Funding from the Defense Environmental Cleanup account is predominantly being used for ongoing projects and activities for which NEPA reviews; Comprehensive Environmental Response, Compensation and Liability Act documentation; and compliance with other environmental requirements are complete. Where compliance is not complete, DOE will incorporate appropriate actions into its project planning and implementation.

End of text of PSRP Template to be transmitted to OMB