

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

Savannah River Site TRU & Solid Waste Recovery Act Project

Project Operating Plan

BACKGROUND

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

Recovery Program Plan: EM - Defense

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LEADS

Implementation: Savannah River Site

Breakthrough: N/A

Laboratory: N/A

I. SUMMARY & OBJECTIVES

Summary:

This American Recovery and Reinvestment Act (Recovery Act) Project supports the mission of DOE and the Office of Environmental Management (EM) by transporting and disposing of legacy transuranic (TRU) wastes in a safe and cost effective manner to reduce risk.

By the end of fiscal year 2011, the project will reduce the solid waste footprint by 75%, including characterization and/or off-site disposal of the legacy TRU waste, and reconfigure/relocate/replace impacted systems that are required to support remaining site operations. The required funding for this work is \$541M. This Recovery Act Project accelerates work that is scheduled in the SRS existing baseline. An update to the project baseline will be required.

In particular, the project will disposition approximately 4,500 cubic meters of legacy TRU waste stored in E Area at SRS including in excess of 1,500 miscellaneous non-drum containers and over 1,000 containers stored under earthen cover containing over 250,000 curies of plutonium

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

238. Additionally, the project will compliantly dispose of the substantial quantities of wastes generated by SRS Recovery Act project deactivation, decommissioning, demolition and environmental restoration activities. These wastes include low level radioactive wastes for on- or off-site disposal, sanitary wastes, and the treatment and offsite disposition of mixed and hazardous wastes. Large quantities of Recovery Act project generated low-level radioactive waste will be disposed of in newly constructed slit trenches in E Area. The slit trenches will be closed with earthen covers following completion of disposal activities and monitored to ensure the continued protection of groundwater and compliance with performance requirements.

This Recovery Act work ties to the following DOE and EM Strategic Goals and Themes:

DOE Strategic Goal 4 –Environmental Responsibility – Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.

DOE Strategic Goal 5 – Management and Excellence – Enabling the Department’s mission through sound management and business practices.

EM Goals – To safely disposition large volumes of nuclear waste; safeguard materials that could be used in nuclear weapons; deactivate and decommission thousands of contaminated facilities no longer needed by the Department to carry on its current mission; EM is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.

Public Benefits:

Numerous on-site jobs will be created and/or retained by implementing this project, bolstering the local economy. In South Carolina, the unemployment rate is 11 percent. Major types of workers required for this work include construction labor, engineer, heavy equipment operator, field technician, truck driver, and administrative support worker. The large number of workers trained by completing this project will be available for future missions, including the energy park initiative planned for the SRS. Personnel brought in for this initiative could also provide a critical source of employees to support completion of the EM mission at the site necessitated by the current aging SRS workforce and attrition associated with the expanding nuclear industry. Surrounding area businesses will also experience a job creation benefit from this work scope initiative. Additional off-site jobs will likely be created in the surrounding communities due to the in flux of new workers.

Removal of the depleted uranium oxide (DUO) drums from the F Area storage facilities will remove a significant inventory of hazardous materials. The storage facilities, once emptied, will either be transfer to the National Nuclear Security Administration (NNSA) for future reuse or will be decontaminated and decommissioned.

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

Recovery Act Project Impacts:

Investment in this project will accelerate the disposition of more than 4,500 cubic meters of legacy TRU waste and eliminate a significant source of potential hazardous material exposure to workers and members of the public. The waste will be remediated, repackaged, characterized and either be shipped or will be characterized for off-site shipment to the Waste Isolation Pilot Plant (TRU waste) or the Nevada Test Site (treated mixed low-level waste), thus completing the SRS legacy TRU waste project. This project will create or retain many new jobs for the skilled workforce currently available in the surrounding area to execute this project. In addition, this work will reduce overall site risk and risk to workers, as well as reduce out year site maintenance costs.

II. COST & SCHEDULE

Budget

Table 1a: Budget Implementation 12 Week Obligations (\$M) [ENTER INTO SHAREPOINT DIRECTLY]

	Week of ARRA Activities (Beginning Week of March 9)												
	1	2	3	4	5	6	7	8	9	10	11	12	
Savannah River Site TRU & Solid Waste Recovery Act Project 2002153													

Table 1b: Budget Implementation 12 Week Expenditures (\$M) [ENTER INTO SHAREPOINT DIRECTLY]

	Week of ARRA Activities (Beginning Week of March 9)												
	1	2	3	4	5	6	7	8	9	10	11	12	
Savannah River Site TRU & Solid Waste Recovery Act Project 2002153													

Table 2a: Budget Implementation Monthly & Yearly Obligations (\$M) [ENTER INTO SHAREPOINT DIRECTLY]

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1			
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Savannah River Site TRU & Solid Waste Recovery Act Project 2002153	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept			
	FY 2012			FY 2013			FY 2014			FY 2015

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

Table 2b: Budget Implementation Monthly & Yearly Expenditures (\$M) [ENTER INTO SHAREPOINT DIRECTLY]

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1					
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec			
Savannah River Site TRU & Solid Waste Recovery Act Project 2002153	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept			
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept					
	FY 2012			FY 2013			FY 2014			FY 2015		

Funds Returned and Offsetting Collections

N/A

Table 3: Funds Returned and Offsetting Collections (\$M)[ENTER INTO SHAREPOINT DIRECTLY]

	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15

Indirect Costs

This work will be performed by an existing M&O contractor using an approved indirect rate structure. The estimated percent of Recovery Act Project indirect costs is approximately 20%.

In accordance with the general principles of the Recovery Act, DOE Savannah River Site will take the following steps to minimize the impacts of indirect costs and enhance transparency and accountability of project:

- (a) Clearly identify the estimated full cost of projects to include total direct and indirect costs, indirect costs rates, and adjust existing indirect cost rate to account for the material infusion of funds provided in the Recovery Act;
- (b) Ensure all funds transferred to contractors/subcontractors are completed using the Approved Funding Program process described in Chapter 12 of the Accounting Handbook; and
- (c) The Federal Administrative Charge (FAC) of three percent is waived on reimbursable work funded by the Recovery Act and performed by DOE federal offices or the site contractor.

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

Changes to Baseline Budget

Table 4: Changes to Baseline Budgets (\$M) [ENTER INTO SHAREPOINT DIRECTLY]

Changes to Baseline Budget	Increase/Decrease	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Project Acceleration and less remaining scope after FY11	Decrease							

There will be significant decrease in the out years (after FY15) from the certified life cycle baseline based on the acceleration of the legacy TRU waste disposition. This out-year decrease is estimated to be up to \$160M.

Milestones

Table 6 provides milestones and performance measures based on the best available information about Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and associated end-states, interim milestones, and performance measures. These all assume Recovery Act funding availability in the second quarter of fiscal year 2009. As detailed estimates and resource-loaded schedules (using Primavera 6.2) are developed, there likely will be some change to these estimates for costs, milestones and performance measures.

This scope will be integrated into the Savannah River Site contractor performance baseline (but tracked and reported separately and uniquely). Therefore, DOE-SR will use the internal DOE-approved change control process for all Recovery Act project scope. It is assumed there will also be a future DOE-HQ change control process associated with costs, milestones and performance measures that have been reported to date and included in this plan.

Table 5: Delivery Schedule for Capital Asset Projects [ENTER INTO SHAREPOINT DIRECTLY] N/A (until OEM and EM agree on the 413.3A graded approach)

Program/OECM Milestone	Delivery (End) Date	Comments
Develop capital asset projects Integrated Project List	N/A	N/A
Develop Parametric Performance Baseline (Individual Projects)	N/A	N/A
If < \$100 M Perform IPR, > \$100 M Perform EIR (Individual Projects)	N/A	N/A
Approve Performance Baseline	N/A	N/A
Approve Start of Construction	N/A	N/A
Approve Project Completion	N/A	N/A

III. PERFORMANCE

Performance Measures

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

The Project will regularly report on all aspects of project cost including indirect cost rate, schedule, performance, results and impacts. Reporting of the estimation of jobs created and retained will also be made.

Within 90 days after effective date of the contract modification, the contractor shall propose to the Contracting Officer a Contract Performance Baseline, including a supplemental Performance Evaluation and Measurement Plan to accommodate the Recovery Act project scope.

The period of performance for the Recovery Act work begins April XX, 2009 through September 30, 2011.

The following reporting procedure will apply to submission of monthly cost reports for Recovery Act work specified in the accelerated work scope baseline.

- (a) DOE will conduct a review of the contractor's proposed EVMS for compliance with ANSI/EIA-748 according pursuant to DOE Order 413.3A. The contractor shall submit an EVMS Certification Plan to DOE by April 30, 2009, and receive EVMS certification no later than September 30, 2009.
- (b) The contractor shall certify in each monthly report that the costs included in the report for Recovery Act work were incurred only to accomplish the Recovery Act work in accordance with the accelerated work scope.

Table 6: Project Performance Targets [ENTER INTO SHAREPOINT DIRECTLY]

Recovery Act Project Identification Code	Savannah River Site TRU & Solid Waste Recovery Act Project 2002153
Linkage To S-1 Priorities	National Security and Legacy - Accelerate disposition of more than 4,500 cubic meters of legacy TRU waste.
Linkage to Current Program Goal (if applicable)	EM Goals – Environmental responsibility to protect the environment; and to safely disposition large volumes of nuclear waste
Three-Year Outcome-Oriented Performance Measure	By the end of fiscal year 2011 - Accelerate the disposition of more than 4,500 cubic meters of legacy TRU waste and, reduce the site's solid waste footprint by 75%
First Year Performance Target (2009)	Complete retrievable legacy Contact Handled (CH)-TRU drum program by dispositioning 2,200 TRU waste drums
Q3 - Project-Level Quarterly Performance Milestone(s)	Mobilize TRU Pad 1 soil cover removal, Initiate WIPP characterization of Standard Waste Boxes TRU waste inventory
Q4 - Project-Level Quarterly Performance Milestone(s)	Award Depleted Uranium Oxide (DUO) 16,000 drum disposition subcontract, , Definitize PEMP/ Award Fee Plan vis formal contract modification, Initiate TRU container remediation/repackaging in F- and/or H-Canyons, Approve Closure Plan for 710-B hazardous waste storage facility

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

Second Year Performance Target (2010)	Complete disposition of all DUO (16,000 drums) and TRU Pad 1 soil cover and waste removal
Q1 - Project-Level Quarterly Performance Milestone(s)	Initiate RCRA Closure of B-Area hazardous waste storage facility
Q2 - Project-Level Quarterly Performance Milestone(s)	Complete CH TRU Waste Polybox repackaging (800 boxes), Start field construction of E-Area Low Level Waste (LLW) disposal capacity expansion
Q3 - Project-Level Quarterly Performance Milestone(s)	Complete DUO disposition (16,000 drums), Complete TRU Pad 1 soil cover and waste removal
Q4 - Project-Level Quarterly Performance Milestone(s)	Complete E-Area LLW capacity expansion, Complete repackaging of 25 Large Steel Boxes (1050 cubic meters) of TRU waste
Third Year Performance Target (2011)	Accelerate disposition of more than 4,500 cubic meters of legacy TRU waste and reduce the site's solid waste footprint by 75%
Q1 - Project-Level Quarterly Performance Milestone(s)	Complete construction of the TRUPACT III loading facility
Q2 - Project-Level Quarterly Performance Milestone(s)	Complete WIPP training and certification for TRUPACT III container loading
Q3 - Project-Level Quarterly Performance Milestone(s)	Complete TRU drum remediation, Complete remediation of TRU waste boxes, Complete Standard Waste Box (SWB) and Standard Large Box (SLB) TRU waste repackaging, Approve Closure Plan for N Area storage facilities
Q4 - Project-Level Quarterly Performance Milestone(s)	All the Legacy TRU Waste will be disposed or characterized for off-site disposal

The following reporting procedure will apply to submission of monthly cost reports for Recovery Act work specified in the accelerated work scope baseline.

- (a) The contractor will separately identify costs that pertain to the Recovery Act work. The contractor will provide a monthly report that identifies the total amount drawn on the letter of credit. This monthly report shall separate and identify Recovery Act costs associated with each appropriation at the Recovery Act program and project levels.
- (b) The contractor shall certify in each monthly report that the costs included in the report for Recovery Act work were incurred only to accomplish the Recovery Act work in accordance with the accelerated work scope.

National Strategic Benefits

Table 7: National Strategic Benefits [ENTER INTO SHAREPOINT DIRECTLY]

1. Carbon Emission Reductions: Estimated 5-year undiscounted CO ₂ reduction (in metric tones of CO ₂ equivalent) are [NA]
2. Oil Consumption Reductions: Estimated 5-year reduction in undiscounted oil consumption (in barrels of oil equivalent) is [NA]

IV. MANAGEMENT

Secretarial-level Items

The initiatives outlined in this plan support the following Secretary of Energy’s priorities:

- Economic Prosperity
- National Security and Legacy

Table 8: Secretary's Priorities [ENTER INTO SHAREPOINT DIRECTLY]

Secretary’s Priorities	Project Impacts (Qualitative)	Project Impacts (Quantitative)
Science and Discovery		
Clean, Secure Energy		
Economic Prosperity	Job creation and/or retention	
National Security and Legacy	Reduce nuclear material footprint	4,500 m ³ TRU waste 75% Solid Waste footprint reduction
Climate Change		

Collaboration and Coordination

There will be waste shipments to Waste Isolation Pilot Plant (WIPP) in New Mexico. Of particular interest for the success of this project is that the DOE Carlsbad Field Office (which is responsible for WIPP operations) makes a timely decision on the acceptability of the TRUPACT III for WIPP shipments and that the U.S. Nuclear Regulatory Commission certifies the TRUPACT III shipping container by mid-2010. To streamline the waste certification process, a WIPP waste characterization Project Office at SRS will be established.

The DOE Nevada Test Site, EnergySolutions in Utah, and other commercially-operated waste treatment/ storage/disposal Facilities will be needed to support treatment and disposal of waste generated during the Recovery Act Project. Coordination with these interfaces already exists however will be enhanced throughout this project. Maintaining continuity of available disposal capacity for Class A and Greater-Than Class A Mixed Low Level Radioactive Waste is important to the project.

The DOE-SR Office of Acquisition Management will continue to work closely with DOE-EM and DOE-MA to insure timely business clearance approval for procurement actions that exceed local authority.

DOE-SR will work with DOE-EM and other headquarters organization to revise or provide clarification to DOE Order 5400.5 (DOE Rad Release Criteria) to facilitate material disposition.

The Savannah River National Laboratory will continue to provide the technical and research core competency capabilities, provide analytical services, and support Performance Assessment completion for the solid waste trenches.

Training programs and/or courses may be set up in the local universities and/or technical colleges for identified positions which may require additional training outside of standard site training courses.

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

There are many external interfaces associated with the normal operations at SRS. These include:

- **Regulatory** SRS Citizens Advisory Board, Environmental Protection Agency, South Carolina Department of Health and Environmental Control, Department of Transportation, Nuclear Regulatory Commission, and Defense Nuclear Facilities Safety Board
- **Community** Central Savannah River Area Counties, Surrounding States, Nevada, New Mexico, and Utah
- **Industry** Environmental Engineering/Remediation, Waste Management, Construction, Cement, Container, Transportation, Housing, Utilities, etc.
- **Other** Other SRS Contractors, Labor Unions, Parent Companies, Local Universities/Colleges

Federal Infrastructure Investments

There are no infrastructure investment project activities associated with the Portsmouth Recovery Act Project.

These facilities contain hazardous or radiological material. Accelerating the removal and proper disposal reduces risk of releases of this material to the environment

Line Management

DOE-SR intends to use existing EM site systems and practices to effectively monitor and report on the Recovery Act Project activities, including:

- Fully implement all Recovery Act transparency and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue applying project management principles to Recovery Act Project execution, including reviewing and validating EM project cost and schedule baselines consistent with DOE Order 413.3 and identifying project risks and strategies for managing them.
- Continue use of industry standard Earned Value Management System (EVMS) to compare actual project scope, cost, and schedule performance against planned performance as depicted in the baseline.
- Continue monitoring of the contractors' EVMS reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Hold monthly management reviews to provide updates on the Recovery Act Project to EM's senior-most executives.
- Secure support service contractors to provide limited augmentation of federal procurement, budget and finance, project controls, and technical oversight capabilities for the Recovery Act Project.

Project Operating Plan – 2002153 Savannah River Site TRU & Solid Waste

- Assign appropriately qualified staff to the Recovery Act Project to provide technical and programmatic oversight of the contractors performing the work and be the day-to-day governmental interface and manager for the project.
- Use an Integrated Project Team (IPT) of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project – including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Develop detailed risk management plans for the Recovery Act Project to identify and mitigate risks, and assign roles and responsibilities for managing the risks.

Needs from Staff Offices

None

1) Human Capital

DOE Savannah River Operations Office (DOE-SR) intends to use support service contractors to provide limited augmentation to federal staff in the areas of procurement, budget and finance, project controls, and technical oversight. DOE-SR is nearly staffed to the DOE Environmental Management program's "Best In Class" federal staffing levels for both acquisition and project controls. In addition, DOE-SR is currently in the process of hiring additional federal Facility Representative technical and safety oversight staff. Therefore, execution of this Recovery Act Project requires no additional federal hires, or details of federal staff, and therefore requires no hiring or retention incentives. Priority execution of security clearance requests may be required.

Table 9: Information on Hiring Under the Recovery Act **[ENTER INTO SHAREPOINT DIRECTLY]**

# & Type of Positions (Title, Series and Grade)	Location (HQ or Field – w/location)	Federal or Contractor	Timeframe (1-6mos; 6+mos; other; specify date needed if possible)
N/A	N/A	N/A	N/A