Savannah River Site D&D M & D Areas Recovery Act Project

Project Operating Plan

BACKGROUND

Recovery Act Project:	Savannah River Site D&D M & D Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002151
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	$130,000,000
Budget Authority:	06049, FD.05.12.00.0 - $130,000,000
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM - Defense
Management Office:	Jeffrey Allison, Manager, Savannah River Operations Office, Jeffrey.allison@srs.gov, 803-952-6337 Helen Belencan, SR Recovery Project Manager, Savannah River Operations Office, helen.belencan@srs.gov, 803-952-8696

LEADS

Implementation:	Savannah River Site
Breakthrough:	N/A
Laboratory:	N/A

I. SUMMARY & OBJECTIVES

Summary:

This American Recovery and Reinvestment Act Project supports the mission of DOE and the Office of Environmental Management (EM) by 1) completing deactivation and decommissioning (D&D) of facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup, 2) remediating sources of soil and ground water contamination with radioactive and hazardous constituents and 3) reconfiguring/relocating/replacing systems impacted by D&D that are required to support remaining site operations in a safe and cost effective manner to reduce risk.

D Area Completion

- Complete closure of D Area, former site of Heavy Water Production Facilities
- Complete deactivation and decommissioning of D-Area Powerhouse and 30 support facilities
- Complete remediation of 11 waste units
    - Remediate 210 acres and 117,000 cubic yards of tritium contaminated soils and concrete
    - Remediate 30 acre volatile organic contaminated groundwater plume

ASAP

M Area Completion

- Complete closure of M Area, former reactor fuel manufacturing area
- Complete remediation of 19 waste units
    - Remediate 45 acres of contaminated soils
    - Remove all known sources to a 1,500 acre groundwater plume

By the end of fiscal year 2011, reduce the Savannah River Site (SRS) operational footprint by 15% (approximately 47 square miles). The required funding for this work is $130M. This Recovery Act Project accelerates work that is scheduled in the SRS existing baseline. An update to the project baseline will be required.

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.

The 15% footprint released by EM from active SR operations at the perimeter of the Site will be available for other new industrial uses such as green energy development, community reuse and manufacturing plants.

ASAP

Removal of the D Area Facilities includes the dismantling and removing the associated steam lines. The steel in these steam lines is significant. Therefore, evaluation of this steel will be completed to see if it can be recycled, furthering the greening initiative.

Recovery Act Project Impacts:

Investment in this project will complete the soil and vadose zone remediation of M-Area, where nuclear fuel assemblies and targets were manufactured during the Cold War. Contaminated soil will be treated in-place by venting volatile organic solvents. The area will be in post-closure monitoring after the completion of this work. It will complete environmental cleanup in D-Area where heavy water was produced, and will decommission the 1950's vintage coal-fired power plant. Remediation will also include use of enhanced soil vapor extraction for volatile organic compound contamination and thermal extraction for tritium contamination. This project will create and/or retain many new jobs for the skilled workforce currently available in the surrounding area to execute this project. In addition, the EM footprint at the 310 square-mile SRS will be reduced by approximately 15%, enabling reuse of EM infrastructure for other energy missions or community reuse, and reducing life-cycle 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 D&D M & D Recovery Act Project 2002151												

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 D&D M & D Recovery Act Project 2002151												

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 D&D M & D Recovery Act Project 2002151									
	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

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 D&D M & D Recovery Act Project 2002151									
	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
[Provide description and amounts for Funds Returned and Offsetting Collections]							

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.

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 D and M Area Completion. This out-year decrease is estimated to be up to $19M.

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]

Program/OECM Milestone	Delivery (End) Date	Comments
Develop capital asset projects Integrated Project List	NA	NA

Develop Parametric Performance Baseline (Individual Projects)	NA	NA
If < $100 M Perform IPR, > $100 M Perform EIR (Individual Projects)	NA	NA
Approve Performance Baseline	NA	NA
Approve Start of Construction	NA	NA
Approve Project Completion	NA	NA

III. PERFORMANCE

Performance Measures

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 ninety days after the 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 March XX, 2009 through September 30, 2011.

The following reporting procedure will apply to the 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 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.

ASAP

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

Recovery Act Project Identification Code	Savannah River Site D&D M & D Recovery Act Project 2002151
Linkage To S-1 Priorities	National Security and Legacy - Accelerate decommissioning of nuclear facilities and contaminated areas in M & D Areas of SRS
Linkage to Current Program Goal (if applicable)	DOE Strategic Goal 4 –Environmental Responsibility – Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production EM Goals – Environmental responsibility to protect the environment; and to D&D contaminated facilities no longer needed to carry on current EM mission
Third-Year Outcome-Oriented Performance Measure	By the end of FY 2011, reduce the SRS operational footprint by 15% (approximately 47 square miles)
First Year Performance Target (2009)	Initiate procurement activities to remediate M area soils
Q3 - Project-Level Quarterly Performance Milestone(s)	
Q4 - Project-Level Quarterly Performance Milestone(s)	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
Second Year Performance Target	Achieve M Area Completion
Q1 - Project-Level Quarterly Performance Milestone(s)	
Q2 - Project-Level Quarterly Performance Milestone(s)	Complete construction of three D Area Operable Unit thermal detritiation treatment cells
Q3 - Project-Level Quarterly Performance Milestone(s)	Issue Request for Proposal (RFP) for D&D contract for D Area Powerhouse and 38 buildings
Q4 - Project-Level Quarterly Performance Milestone(s)	Achieve M Area Completion (first area completed under Recovery Act)
Third Year Performance Target	Achieve D Area Completion
Q1 - Project-Level Quarterly	Award D&D contract for D Area

Performance Milestone(s)	Powerhouse and 38 buildings ($30M)
Q2 - Project-Level Quarterly Performance Milestone(s)	
Q3 - Project-Level Quarterly Performance Milestone(s)	
Q4 - Project-Level Quarterly Performance Milestone(s)	Achieve D Area Completion

ASAP

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

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	EM footprint reduction	47 miles^2
Climate Change		

Collaboration and Coordination

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 Savannah River National Laboratory will continue to provide technical and research core competency capabilities and provide analytical services.

The Savannah River Ecology Laboratory (SREL) operated by the University of Georgia will continue to provide the support for the ecological risk assessments.

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.

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.

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

ASAP

- **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** SRS Citizens Advisory Board, Central Savannah River Area Counties, Surrounding States, Nevada, 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 this Recovery Act Project.

However, ancillary benefits will be achieved through the elimination of facilities resulting in reduced electrical power consumption and corresponding reduction of greenhouse gas emissions. Reuse/Recycle of excess materials could result in reduced consumption in fossil fuels required to process raw materials.

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.

ASAP

- 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

N/A

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

ASAP