



U.S. Department of Energy  
Office of Inspector General  
Office of Audits and Inspections

# Audit Report

## Implementation of the Recovery Act at the Savannah River Site



OAS-RA-L-11-12

September 2011



**Department of Energy**  
Washington, DC 20585

September 29, 2011

MEMORANDUM FOR THE MANAGER, SAVANNAH RIVER OPERATIONS OFFICE

FROM: *Daniel M. Weeber*  
Daniel M. Weeber, Director  
Environment, Technology, and Corporate Audits Division  
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on "Implementation of the Recovery Act at the Savannah River Site"  
Audit Report Number: OAS-RA-L-11-12

BACKGROUND

The American Recovery and Reinvestment Act of 2009 (Recovery Act) provided the Department of Energy (Department) \$5.1 billion for Defense Environmental Cleanup. These funds have afforded the Department's Office of Environmental Management (EM) the opportunity to reduce its operational footprint and associated life cycle costs by accelerating the completion of environmental goals at EM's nuclear weapons cleanup sites. At the Savannah River Site (SRS), in Aiken, South Carolina, the Department allotted more than \$1.6 billion in Recovery Act funds to accelerate the completion of existing EM projects. EM plans to expend all Recovery Act funding at SRS by December 2012. The mission objectives of the Savannah River Recovery Act Program are to accelerate:

- Decontamination and decommissioning of inactive nuclear facilities and the remediation of contaminated soil and groundwater;
- Disposal of transuranic (TRU) and low-level radioactive waste; and,
- Infrastructure improvements to the liquid waste system to support the disposal of tank waste.

In light of the importance of these activities and the amount of funding involved, we initiated this audit to determine whether the Department is effectively and efficiently achieving Recovery Act goals and objectives at the SRS.

CONCLUSIONS AND OBSERVATIONS

Overall, our review of Recovery Act activities at SRS found that the site generally complied with Recovery Act requirements we tested, such as reporting, ensuring the flow down of requirements to subcontracts, and segregation of funds. According to SRS officials, Recovery Act projects are

on schedule, are within estimated costs, and goals and objectives are being met. We did, however, identify a concern regarding the accurate distribution of costs associated with staff augmentation<sup>1</sup> contractors working on Recovery Act Projects.

### Recovery Act Goals

We found that the five Recovery Act Projects funded at SRS supported the Department's overall goals to reduce EM's operational footprint and accelerate the disposal of radioactive waste. EM utilized two existing SRS contractors to execute the projects: Savannah River Nuclear Solutions, LLC, (SRNS) and Savannah River Remediation, LLC (SRR). To reduce the SRS footprint, SRNS planned the in-situ disposition of three nuclear reactors and completion of area cleanup activities, including demolition of inactive facilities and remediation of contaminated soil. To support the accelerated disposal of the SRS radioactive waste inventory, SRNS planned to dispose of 5,000 cubic meters of legacy TRU waste and SRR planned to enhance the Liquid Waste System infrastructure and accelerate integration with the Salt Waste Processing Facility.

### Project Cost and Schedule Performance

Our review of SRS Monthly Project Reviews, SRNS and SRR supporting documentation, and discussions with project management, disclosed that, overall, the SRS Recovery Act funded projects are expected to be completed on time and within budget. At the time of our audit, approximately \$1.2 billion of the \$1.6 billion in Recovery Act funds had been expended. As of July 13, 2011, the Federal officials responsible for the Savannah River Recovery Act Program reported the following status for major activities under the five projects funded by the Recovery Act:

- The P&R Area Completion Project is on track to be completed on schedule. SRNS has completed 81 percent of the overall project and expended \$297 million of the allotted \$418 million. The P-Area and R-Area ash basins were remediated and capped ahead of schedule. Also, the in-situ disposition of the P and R Reactors are essentially complete with debris disposal continuing on schedule.
- The M&D Area Completion Project is progressing as planned. SRNS has completed 82 percent of the project and expended \$18 million of the allotted \$24 million. In fact, the closure of M-Area in October 2010, was EM's first area closure using Recovery Act funds.
- The Site-Wide Completion Project, which included the May 2010 demolition of the K-Reactor Cooling Tower and the in-situ disposition of the Heavy Water Components Test Reactor, is on schedule and within budget. SRNS has completed 91 percent of the project and expended \$189 million of the allotted \$236 million.
- The Liquid Waste Systems Recapitalization Project is also on schedule and within cost. SRR has completed 77 percent of the project and expended \$153 million of the allotted \$200 million.

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<sup>1</sup> Staff augmentation is a mechanism for temporarily increasing staffing on an as needed basis by subcontracting for individuals with specific labor skills.

- The Solid Waste and Accelerated TRU Waste Disposition Project is on track to be completed on schedule. SRNS has completed 76 percent of the project and expended \$491 million of the allotted \$738 million. As of July 2011, the Federal Project Director of the TRU waste portion of the project reported that SRNS has dispositioned, or prepared for dispositioning, approximately 2,000 cubic meters of the legacy TRU waste and is on track to complete remediation and characterization to prepare the remaining 3,000 cubic meters for shipment by December 2012.

### Cost Distribution

Our analysis of a judgmental sample of cost transactions disclosed that SRNS did not always properly distribute costs invoiced under staff augmentation contracts to Recovery Act Project accounting codes. Specifically, of the \$107,622 in staff augmentation cost distribution transactions included in our review, we identified \$17,236 of invoiced costs, in 7 of 24 transactions, that were not charged to the appropriate project activity codes. The system used to track staff augmentation invoices allowed approving personnel to distribute costs by manhours worked according to selected timesheets; however, the system did not have controls in place to ensure that all timesheets for the invoiced period were selected for inclusion in the distribution calculation. Additionally, the system did not take into account the difference between standard and overtime rates in distributing costs to manhours. As a result, invoiced costs were not always accurately distributed to correct project activity codes.

When we brought this matter to SRNS's attention, we were informed that steps had been taken to correct some misapplied distributions and prevent future errors. SRNS management indicated that it planned to implement a new accounts payable system effective October 1, 2011, that would automate the process and better align staff augmentation invoicing with cost distribution to Recovery Act Projects.

### Path Forward

We believe that management's planned actions appear reasonable. However, until the new system is in place, we suggest that SRNS and Departmental management review manual adjustments to the current system, as necessary, to ensure the accuracy of staff augmentation cost distributions.

No formal recommendations are being made in this report; therefore, a response is not required. We appreciate the cooperation of your staff and the various SRS elements that provided information or assistance.

Attachment

cc: Deputy Secretary  
Associate Deputy Secretary  
Under Secretary for Nuclear Security  
Chief of Staff  
Acting Assistant Secretary for Environmental Management

## **OBJECTIVE, SCOPE AND METHODOLOGY**

### **OBJECTIVE**

The objective of this audit was to determine whether the Department of Energy (Department) effectively and efficiently achieved American Recovery and Reinvestment Act of 2009 (Recovery Act) goals and objectives at the Savannah River Site (SRS).

### **SCOPE**

This audit was performed between August 26, 2010, and July 22, 2011, at the Department's SRS in Aiken, South Carolina. The scope of our audit included a review of Office of Environmental Management (EM) projects at SRS funded by the Recovery Act.

### **METHODOLOGY**

To accomplish the objective of this audit, we:

- Reviewed the Recovery Act legislation and related laws, regulations, Federal guidance and Departmental policies and procedures;
- Assessed the relevance of findings from prior Recovery Act audits and reviews;
- Reviewed modifications to the Savannah River Nuclear Solutions, LLC (SRNS) and Savannah River Remediation, LLC (SRR) contracts related to Recovery Act Project activities;
- Identified specific goals and objectives related to the SRS Recovery Act Projects;
- Examined SRS Recovery Act Project plans, including baselines, performance parameters, and risk mitigation strategies;
- Interviewed key personnel with EM's Savannah River Recovery Act Program, SRNS and SRR;
- Performed transaction testing on a judgmental sample of project costs including a limited review of related SRNS and SRR subcontracts; and,
- Reviewed the current status of SRS's five major Recovery Act Projects.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objective. We also found that the Department had established

performance measures in accordance with the *Government Performance and Results Act of 1993*. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We assessed the reliability of computer-processed data used to identify the population of project costs selected for transaction testing and the reliability of project reports and determined that they were sufficiently reliable to achieve the objectives of our audit. Management waived an exit conference.

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