



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

# Audit Report

## Management of the Tank Farm Recovery Act Infrastructure Upgrades Project



OAS-RA-L-11-03

February 2011

# Memorandum

DATE: February 9, 2011 Audit Report Number: OAS-RA-L-11-03  
REPLY TO  
ATTN OF: IG-34 (A10RA043)  
SUBJECT: Report on "Management of the Tank Farm Recovery Act Infrastructure Upgrades Project"  
TO: Manager, Office of River Protection

## INTRODUCTION AND OBJECTIVE

As part of the American Recovery and Reinvestment Act of 2009 (Recovery Act) the Department of Energy (Department) awarded Washington River Protection Solutions (WRPS) approximately \$324 million to accelerate completion of infrastructure upgrades for the Hanford Site's tank farms during the Fiscal Year (FY) 2009-2011 timeframe. These funds were applied by the Department's Office of Environmental Management to the existing contract with WRPS to manage the operations and construction activities necessary to store, retrieve, treat, and dispose of the 53 million gallons of Hanford tank waste. Some of the major activities included were to:

- Maintain and operate the 242-A Evaporator and 222-S Laboratory;
- Maintain safe and compliant operations of the tank farm infrastructure;
- Retrieve waste from the single-shell tanks and transfer it to the double-shell tanks; and,
- Plan and prepare for waste feed delivery to the Waste Treatment and Immobilization Plant (WTP).

In light of the importance of these activities and the amount of funding involved, we initiated this audit to determine whether the Department had used Recovery Act funds to achieve the goals and objectives for tank farm infrastructure upgrades.

## CONCLUSION AND OBSERVATIONS

Our review found that the Department selected projects for Recovery Act funding that supported the goal of upgrading the tank farm infrastructure and waste feed delivery systems. Additionally, the Department was on schedule to complete the Recovery Act upgrades by September 30, 2011, as planned, and at less than the estimated costs. Due to a lack of contract proposal detail, however, we were unable to verify whether all of the Recovery Act funded work represented an acceleration of overall work scope.

### Schedule and Cost Performance

Our review determined that WRPS was on schedule to complete the Recovery Act work scope and had spent \$22.4 million less than estimated for the work completed as of November 21, 2010. Specifically, according to WRPS's November 21, 2010, Contract Performance Report, WRPS had completed \$199 million of the total estimated work scope, at an actual cost of \$176.6 million. Our review of contract milestones specifically related to Recovery Act work found that of 73 milestones, WRPS had completed 34 with 11 milestones being completed 30 or more days early. Of the remaining 39 milestone, 15 are also projected to be finished 30 or more days early. Furthermore, WRPS projects that it will finish the current Recovery Act work scope at approximately \$9 million under budget. As a result, additional projects have been added through contract modification to utilize the remaining Recovery Act funds.

### Tank Farm Upgrades

We found that the projects selected for Recovery Act funding supported the goal of ensuring that infrastructure and waste feed delivery systems were upgraded. For example, several upgrades will be made to the 242-A Evaporator. This facility is a critical component in the operation of the double-shell tank system and the upgrades will help ensure continuity of operations and reduce risks that could otherwise jeopardize retrieval and waste delivery operations. The Office of Environmental Management had established the goal that work performed by WRPS must help ensure that critical infrastructure needed to deliver waste feed to WTP by 2019, was in place. Our review of individual project justifications determined that the projects selected for Recovery Act funding addressed this goal.

### Traceability of Individual Projects

Although the Recovery Act funded work was being delivered on schedule and under budget, we were unable to verify that the use of these funds actually accelerated overall project completion. Both the project interim baseline and WRPS's original contract proposal lacked sufficient detail to allow us to differentiate between original project work scope and any new work scope funded by the Recovery Act. For example, WRPS's contract proposal did not always provide a detailed description of the tasks to be performed. Instead, much of the proposal only contained a general description of the approach the contractor would take. Additionally, ORP was only able to provide documentation showing shifting of project costs from FY 2014 -2018 to FY 2009-2012, but could not show the specific project's work scope associated with those costs. Without additional project descriptions and costs, management could not support, and we were unable to determine whether the Recovery Act funded work represented an acceleration of work called for in the project baseline or contract proposal.

Because the level of detail necessary to trace project costs as needed for the Recovery Act was not foreseen when the original contract was awarded and cannot be objectively recreated at this time, we did not make any specific suggestions or recommendations with regard to it.

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

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

Attachment

cc: Assistant Director, Office of Risk Management, CF-80  
Team Leader, Office of Risk Management, CF-80  
Audit Resolution Specialist, Office of Risk Management, CF-80  
Audit Liaison, Office of Environmental Management, EM-4.1  
Audit Liaison, Office of River Protection

## SCOPE AND METHODOLOGY

The audit was performed between August 9, and December 1, 2010, at the Department of Energy's (Department) Office of River Protection (ORP) in Richland, Washington. The scope of our audit included a review of the Tank Farm Recovery Act Infrastructure Upgrades Project. To accomplish the objective of this audit, we:

- Obtained and reviewed laws and regulations relevant to the American Reinvestment and Recovery Act of 2009 (Recovery Act);
- Obtained and reviewed Department, ORP, and Washington River Protection Solutions (WRPS) policies and procedures related to Recovery Act;
- Reviewed findings from prior audits regarding Recovery Act activities;
- Reviewed the WRPS contract with the Department;
- Held discussions with Department and WRPS officials regarding Recovery Act activities involving tank farm infrastructure upgrades; and,
- Performed transaction testing for tank farm infrastructure upgrades transactions.

We conducted this performance audit in accordance with generally accepted Government audit standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. 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 also assessed performance measures in accordance with the Government Performance and Results Act of 1993 and found that the Department had established performance measures related to the use of Recovery Act funds for environmental management projects. We did not rely upon computer processed data to accomplish our audit objective.

Management at the Department's Office of River Protection waived the exit conference.

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