



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

Audit Report

Performance of Recovery Act Funds at the Waste Isolation Pilot Plant



OAS-RA-L-11-09

July 2011

Memorandum

DATE: July 7, 2011

Audit Report Number: OAS-RA-L-11-09

REPLY TO

ATTN OF: IG-35 (A10RA037)

SUBJECT: Report on "Performance of Recovery Act Funds at the Waste Isolation Pilot Plant"

TO: Manager, Carlsbad Field Office, Environmental Management

INTRODUCTION AND OBJECTIVE

The Department of Energy's (Department) Carlsbad Field Office (Carlsbad) manages the transuranic (TRU) waste activities of the Waste Isolation Pilot Plant (WIPP) and the National TRU Program. The WIPP, located outside Carlsbad, New Mexico, is the final repository for contact-handled and remote-handled TRU waste, and manages the final disposal of waste received from the Department's waste generator sites. The National TRU program manages both characterization and certification through mobile characterization units and contracts for transportation of TRU waste. Baseline funding for these activities was \$230 million in Fiscal Year (FY) 2009. The American Recovery and Reinvestment Act of 2009 (Recovery Act) increased Carlsbad funding by \$172.4 million to accelerate the Department's TRU waste disposal goals.

Carlsbad established specific goals for its Recovery Act work, including creating or retaining 400 jobs; enhancing WIPP infrastructure to accommodate increased waste shipments; adding transportation capabilities to increase waste shipments from 24 to 35 per week; and, increasing the cumulative amount of waste certified for disposal as of the end of FY 2011 by 10,000 cubic meters which, according to management, represented the maximum capability of the National TRU Program. The Department's Office of Environmental Management (EM), in general, is planning to expend all Recovery Act funding and complete the associated work scope by September 30, 2011, ahead of the 2015 appropriation lapse specified by the Recovery Act.

Due to the integral role played by Carlsbad in the accelerated cleanup of TRU waste and the significant increase in funding, we initiated this audit to determine whether the Department is achieving its performance goals for the use of Recovery Act funds.

CONCLUSIONS AND OBSERVATIONS

Our audit found that, while Carlsbad reported that certain Recovery Act provisions for providing jobs have been met, Carlsbad had not consistently met its waste shipment transportation and certification performance goals. In addition, we noted

that some of the goals used in Carlsbad's Earned Value Management System (EVMS) to measure performance did not provide management with meaningful information on performance.

Performance Goals

Carlsbad had not consistently met its transportation and waste certification goals. Carlsbad planned to increase its goal for waste shipments to WIPP from 24 per week to a "nominal throughput" of 35 per week. Carlsbad's acceleration plan also provided for a maximum surge capacity of 41 shipments per week. However, from May 2009 through December 2010, Carlsbad averaged only 24 shipments to WIPP per week and attained its goal of 35 shipments per week only twice. While this performance represented a 26 percent increase over its pre-Recovery Act average of 19 actual shipments per week, it was 31 percent below the rate of performance that Carlsbad planned to achieve. Similarly, Carlsbad had not achieved its Recovery Act goal of increasing TRU waste certified for disposal at WIPP by 10,000 cubic meters before October 2011. In March 2010, Carlsbad decreased that goal to 8,570 cubic meters. The goal was again reduced to 6,255 cubic meters late in 2010 with an interim goal of 2,490 cubic meters by December 31, 2010. At the time of our review, Carlsbad was unlikely to achieve even the reduced goal because it was behind schedule for waste certification and had only certified 1,736 cubic meters through December 2010.

Carlsbad acknowledged that its shipment and waste certification goals have not consistently been met. According to Carlsbad management, inaccurate waste estimates, regulatory delays, inclement weather, and operational constraints in preparing sufficient waste for certification and shipment at waste generator sites contributed to its inability to meet Recovery Act goals. In December 2010, Carlsbad implemented a new acceleration plan with corrective actions intended to improve performance of its TRU program. Under this plan, for example, Carlsbad will increase resources at generator sites to increase certification capabilities. However, it cannot yet be determined whether this new initiative will succeed in meeting the 6,255 cubic meter goal within the limited time that remains before EM's September 2011 deadline for completion of Recovery Act activities.

Performance Measurement

Even though Carlsbad did not consistently meet its waste shipment and certification goals, it reported it was fully on track in meeting certain EVMS transportation and certification metrics. The Department requires the use of EVMS to evaluate project and contractor performance on work performed, citing its effective use as critical to ensuring success. However, instead of measuring performance on work accomplished with its Recovery Act funding, two Carlsbad EVMS metrics reported on having the extra trucks and drivers available for transportation and the personnel deployed to different sites for waste certification. Since these resources were paid for with Recovery Act funds, Carlsbad reported success because it had made Recovery Act-funded resources available for use, as opposed to measuring performance based on the actual utilization of those resources.

In discussing this issue, management stated that Carlsbad is required to provide sufficient resources to handle the maximum planned capacity for certification, shipments, and disposal. Accordingly, Carlsbad must pay for such resources regardless of whether or not they are used. However, we noted that reporting to senior management favorable EVMS scores that measured availability of shipping resources rather than accomplishments presented an inaccurate picture of performance and utilization of resources. Management also asserted that in addition to its monthly reporting of EVMS performance measures, Carlsbad separately reports shipping and certification rates to EM. Based on our observations, the separate reporting on these other performance measures typically showed performance was behind schedule. However, the benefit of using EVMS as a management tool is to measure and assess progress in accomplishing work relative to a planned schedule and actual costs incurred so that corrections can be made if progress falls short.

SUGGESTED ACTION

As noted in DOE Guide 413.3-10, *Earned Value Management System*, use of EVMS is a best practice for project management and the Department's preferred method for reporting performance. Accurately reporting performance in the EVMS enables management to identify when goals are not being met and take corrective action to identify, analyze, and resolve impediments to performance. Since the Department had been authorized to spend \$172.4 million to accelerate waste operations at WIPP, it is especially important that Carlsbad accurately measure performance in the EVMS to ensure that resources are fully utilized. Accordingly, we suggest that the Manager, Carlsbad Field Office, ensure that future performance metrics created in the EVMS are designed in a manner to provide feedback on actual work accomplished relative to money spent.

No formal recommendations are being made in this report and a response is not required. We appreciate the cooperation of your staff that provided assistance on this audit.



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, Carlsbad Field Office

SCOPE AND METHODOLOGY

The audit was performed from April 2010 to April 2011, and included fieldwork at the Carlsbad Field Office (Carlsbad) in Carlsbad, New Mexico. The audit covered project documents from the Department of Energy's (Department) field office, as well as documents from Washington TRU Solutions, LLC; Los Alamos National Security, LLC; Sandia National Laboratories Carlsbad Operations; Navarro Research and Engineering, Inc.; and Visionary Solutions, LLC. To accomplish the objective of this audit, we:

- Reviewed laws and regulations and Office of Environmental Management policies and procedures relevant to the management of the American Recovery and Reinvestment Act of 2009 (Recovery Act) funding;
- Reviewed contracts and contract modifications for prime contractors and sampled contracts for their subcontractors;
- Held discussions with Department officials and their prime contractors;
- Reviewed monthly performance and jobs created reports;
- Judgmentally sampled transactions from prime contractors for Recovery Act transactions;
- Evaluated the rate Recovery Act funds were obligated and expended, and;
- Reviewed acceleration and project plans prepared by Carlsbad and its contractor related to management of funds received through the Recovery Act.

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 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. We assessed the significant internal controls and found no significant weaknesses. 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. Finally, we did not rely on computer-processed data to accomplish our audit objective.

An exit conference was held with officials from the Carlsbad Field Office on June 17, 2011.

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