



U.S. Department of Energy
Office of Inspector General
Office of Audit Services

Special Report

Management Challenges at the Department of Energy

DOE/IG-0832

December 2009



Department of Energy
Washington, DC 20585

December 11, 2009

MEMORANDUM FOR THE SECRETARY

FROM: 
Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Special Report on "Management Challenges at the Department of Energy"

BACKGROUND

Responsible for some of the Nation's most important and technically advanced missions, the Department of Energy faces an array of challenges that are more wide-ranging and complex than at any time in its history. While its origins can be largely traced to the Manhattan Project, the Department has evolved into a multi-faceted agency that encompasses a broad range of scientific, environmental, and national security activities. Since its creation under the *Department of Energy Organization Act* in 1977, the Department has shifted its emphasis and priorities over time as the energy and security needs of the Nation have changed. The Department has recently refocused these efforts, adding particular emphasis on the science and renewable energy components of its portfolio. In this regard, the Department has taken a lead role in the implementation and execution of the energy technology initiatives related to the *American Recovery and Reinvestment Act of 2009* (Recovery Act).

As a means of accomplishing these initiatives, the Department received a substantial increase in its annual appropriation, rising from nearly \$25 billion in 2008 to approximately \$34 billion in 2009 as a result of additional funding in the Department's loan program and numerous science, energy, and national security initiatives. In addition, the Department was provided more than \$36 billion in Recovery Act funding to be used over a two to three year period. Further, the Department, through existing authorities and those expanded by the Recovery Act, has been authorized to provide more than \$100 billion in loan guarantees for innovative, clean energy technologies. To accomplish its vital missions, the Department employs approximately 115,000 Federal and contractor personnel and manages assets valued at more than \$189 billion, including the 17 national laboratories at the heart of its science program.

On an annual basis, the Office of Inspector General is required to identify what it considers to be the most significant management challenges facing the Department. Our effort addresses new or emerging issues and evaluates the Department's progress in resolving previously identified challenges. The challenges identified by this process represent risks inherent in the Department's wide ranging and complex operations, as well as those related to problems with specific management processes. As noted in past reports, we recognize that often these challenges cannot be resolved in a single year and must, therefore, be addressed through a concentrated, persistent

effort over time. Consistent with our mission, the overall goal is to focus attention on significant issues with the objective of working with Department managers to enhance the effectiveness of agency programs and operations.

RESULTS

During the past year, the Department has taken a number of actions to promote its ongoing strategy of resolving the management challenges identified in our prior reports. There have been many notable advances. However, in our judgment, on the basis of the results of our work during the past year and other risk assessment tools, the following management challenges remain for Fiscal Year (FY) 2010:

- Contract Administration
- Cyber Security
- Energy Supply
- Environmental Cleanup
- Safeguards and Security
- Stockpile Stewardship

In addition, we have identified a "watch list," consisting of issues that do not currently meet our threshold of being classified as management challenges, but warrant continued attention by Department management. This year, the watch list includes: Infrastructure Modernization and Worker and Community Safety. As noted above, the basis for these challenges is formed, in large part, from the reports we have issued over the past year, which can be viewed at: <http://www.ig.energy.gov/>.

As with a number of Federal agencies, the Department received an unprecedented infusion of funds as a result of the Recovery Act. These funds, along with the overarching goals set forth in the Act, were transformative in nature. On a positive note, the Department and its staff have been energized by the new and evolving programmatic initiatives resulting from the Recovery Act. However, as would be expected in an effort of this magnitude, the Department has experienced significantly increased management stresses and strains, impacting virtually every program and operation. In fact, the essentially unavoidable burden placed on existing human capital and other resources has, in our judgment, affected the Department's ability to resolve its existing management challenges, at least in the near term. To capture these emerging factors, as part of this report, we have added two additional Departmental management challenges:

- Recovery Act Implementation
- Human Capital Management

Recovery Act Implementation

Signed by the President on February 17, 2009, the Recovery Act seeks to strengthen the U.S. economy through the creation of new jobs, aiding State and local governments with budget shortfalls, and investing in the long-term health of the Nation's economic prosperity. Intended to have an immediate stimulative impact, the Department's stated goal is to ensure that these funds

are spent as expeditiously as possible. This effort, along with the necessity of providing effective management in subsequent years, represents a substantial increase in workload for virtually all Department programs and will undoubtedly strain existing resources.

In addition to injecting a significant amount of funding into Department programs, the requirements for agencies to implement unprecedented levels of transparency and accountability will present challenges that even the most well-managed programs may find daunting. Under these circumstances and based on past experience, we identified a number of activities that need to be closely managed to help ensure that they satisfy Recovery Act goals. These areas include funding accountability and reporting, awarding and monitoring of grants and cooperative agreements, contract management, and management of loan programs.

Shortly after the signing of the Recovery Act, the Office of Inspector General issued a report entitled, "The American Recovery and Reinvestment Act and the Department of Energy" (<http://www.ig.energy.gov/documents/OAS-RA-09-01-New508-G.pdf>), the primary aim of which was to provide the Department with "lessons learned" and risks that should be considered as activities progressed. Our review outlined the immediate impact that the Recovery Act would have on the inherent risks associated with operating the Department's sizable portfolio of missions and activities. If these challenges are to be met successfully, all levels of the Department's structure and its many constituents, including the existing contractor community; the national laboratory system; state and local governments; community action groups and literally thousands of other contract, grant, loan and cooperative agreement recipients throughout the Nation will have to strengthen existing or design new controls to safeguard Recovery Act funds.

A subsequent review revealed that the Department had taken a number of positive and proactive steps designed to help ensure that Recovery Act funds were properly managed. While the internal controls detailed in our "Special Report on the Department of Energy's Efforts to Meet Accountability and Performance Reporting Objectives of the American Recovery and Reinvestment Act" (<http://www.ig.energy.gov/documents/OAS-RA-09-04.pdf>) were promising, we found that additional identified actions and sustained effort are necessary to ensure that the Department can satisfy all reporting, transparency, and accountability requirements. In particular, at the time of our review, reporting systems capacity and accuracy had not been verified, recipient reporting capabilities had not been determined, job creation estimating methods had not been coordinated across all programs, and a significant portion of Recovery Act performance measures were not quantifiable.

Most recently, in a report entitled "Selected Department of Energy Program Efforts to Implement the American Recovery and Reinvestment Act" (<http://www.ig.energy.gov/documents/OAS-RA-10-03.pdf>), the Office of Inspector General sought to determine whether the Department's major program elements had developed an effective approach for identifying and mitigating risks related to achieving the goals and objectives of the Recovery Act. We recognized that the Department had initiated a number of efforts to help ensure that it achieves the transparency and accountability objectives of the Recovery Act. In particular, the Department is actively involved in identifying program and activity-specific risks and has developed plans to address those risks. In addition, the Department developed program and project-level operating plans for each of its

major program elements detailing its risk mitigation strategies, internal controls, performance measures, and methods for the collection and reporting of data. As with our previous reports in this critical area, additional effort is necessary to help ensure that all funds are properly and promptly obligated and expended for their intended purposes.

The Recovery Act will undoubtedly continue to have a significant impact on the operations and activities of the Department and, in turn, the Office of Inspector General. The passage of this legislation makes this an eventful period for the Department, particularly in the area of scientific discovery and innovation. Given the importance of the Recovery Act's initiatives and the sheer amount of funding provided, the successful implementation and management of the Recovery Act is of paramount importance and represents a significant management challenge for the foreseeable future.

Human Capital Management

For a number of years, strategic management of human capital has been recognized by various government authorities and oversight organizations as one of the Government's most glaring problems. In the past, officials have recognized that the Department's staff lacked adequate project and contract management skills required to oversee large projects. Subsequently, the Department undertook an effort to perform a critical skills gap analysis to review and evaluate specific needs. These actions led to our removal, in FY 2009, of the human capital focus area from our management challenges. With the passage of the Recovery Act and the increased workload associated with its implementation, the Department faces a significant workforce deficit and must move to address the challenge of maintaining a highly skilled workforce with the technical knowledge to perform its new and expanded mission. As such, we believe that the risks in this area have increased substantially and that it has once again become a critical area that will challenge all major program elements.

A specific area of concern, particularly in light of the rapid infusion of funds under the Recovery Act, centers on the Department's acquisition workforce. As a follow-up to a September 2007 review, the Office of Inspector General issued a report in March entitled, "The Department of Energy's Acquisition Workforce and its Impact on Implementation of the American Recovery and Reinvestment Act of 2009" (<http://www.ig.energy.gov/documents/IG-RA-09-02.pdf>). The general conclusion of our 2007 review was that the Department's budget, procurement obligations, and the number of procurement actions had risen steadily in recent years, while the number of contract specialists to oversee and execute these functions had remained relatively constant. As a result of the Recovery Act and its significant impact on Department operations, we decided to update our analysis through 2008 to determine if the size of the procurement workforce had changed in the intervening period.

We found that since our initial review the Department had, in fact, increased the number of contract specialists by 20 percent. However, as was the case at the time of our original review, procurement obligations within the Department have continued to rise steadily in recent years, increasing demands on the procurement workforce. In the environment currently facing the Department, ensuring transparency, accountability, and high quality program management requires the services of experienced, well-trained contract specialists. Over the last two years, the

Department has made progress in expanding its roster of professionals in this field. We concluded that the Department staffing efforts should continue and, in fact, be intensified. Given the Department's almost total reliance on the acquisition process (contracts, grants, cooperative agreements, etc.) to carry out its mission, enhanced focus on contract administration and, specifically, the work performed by Federal acquisition officials is of vital importance as the unprecedented flow of funds continues under the Recovery Act.

According to the Department, it will need to hire more than 5,000 new employees in the next four years to maintain its workforce. In a number of program areas, problems with identifying, attracting, and maintaining the staff necessary to complete Recovery Act-related functions have been identified as significant programmatic risks. These shortages are not limited to Federal staff, but extend to contractors and peer reviewers needed to process and evaluate the many applications for the use of Recovery Act funds. The simple act of hiring a significant number of new employees is a challenge in itself. Successfully acquiring the caliber of employee necessary to accomplish the Department's diverse set of missions poses an even greater challenge. As a result, human capital management will continue to be a significant challenge area that will, at a minimum, require significant attention for the term of the Recovery Act program design and execution.

Attachments

cc: Deputy Secretary
Under Secretary for Science
Under Secretary for Energy
Administrator, National Nuclear Security Administration
Chief Financial Officer
Chief of Staff

Challenge Areas and Significant Issues Reported by Various Groups

OIG Management Challenge	GAO Challenge Area ¹	Significant Issues Identified by the Department ²
Environmental Cleanup	Cleanup of Radioactive & Hazardous Waste	Environmental Cleanup
		Nuclear Waste Disposal
Safeguards and Security	Security Threats and Problems	Security
Stockpile Stewardship	Nuclear Weapons Stockpile	Stockpile Stewardship
Contract Administration	Contract Management	Contract and Project Administration
		Acquisition Process Management
Recovery Act Implementation		
Cyber Security		Cyber Security
Energy Supply	Leadership in Meeting Nation's Energy Needs	
Human Capital Management		Human Capital Management
OIG Watch List		
Infrastructure Modernization	Revitalize Infrastructure	
Worker and Community Safety		Safety and Health

¹According to *Major Management Challenges and Program Risks*, Department of Energy (GAO-03-100, January 2003).

²The Department's self-identified "Leadership Challenges" according to *U.S. Department of Energy Agency Financial Report*, FY 2009 (November 2009).

Relevant Reports Issued in Fiscal Year 2009

Recovery Act Implementation

- Audit Report on "Department of Energy Efforts to Meet Accountability and Performance Reporting Objectives of the American Recovery and Reinvestment Act," (OAS-RA-09-04, September 4, 2009).
- Audit Report on "Department of Energy Efforts to Manage Information Technology Resources in an Energy-Efficient and Environmentally Responsible Manner," (OAS-RA-09-03, May 27, 2009).
- Special Report on "The Department of Energy's Acquisition Workforce and its Impact on Implementation of the American Recovery and Reinvestment Act," (IG-RA-09-02, March 30, 2009).
- Special Report on "The American Recovery and Reinvestment Act at the Department of Energy," (OAS-RA-09-01, March 20, 2009).

Contract Administration

- Inspection Report on "Yucca Mountain Purchase Card Programs," (INS-O-09-04, August 20, 2009).
- Audit Letter Report on "Revenue Sharing at the Great Plains Synfuels Plant," (OAS-L-09-13, July 24, 2009).
- Audit Letter Report on "Implementation of the Cooperative Audit Strategy by National Nuclear Security Administration Managed Contractors," (OAS-L-09-11, July 23, 2009).
- Audit Letter Report on "Closure of Subcontracts at the Oak Ridge National Laboratory and East Tennessee Technology Park," (OAS-L-09-10, June 24, 2009).
- Audit Letter Report on "Audit of Closure of Subcontracts at the Savannah River Site," (OAS-L-09-09, June 24, 2009).
- Audit Report on "The Audit of National Security Technologies, LLC Costs Claimed under Department of Energy Contract No. DE-AC52-06NA25946 for Fiscal Year 2007," (OAS-FC-09-01, May 18, 2009).
- Audit Report on "Management Controls over the Use of Service Contracts at the Office of River Protection," (OAS-M-09-02, April 29, 2009).
- Audit Letter Report on "Review of the Department of Energy's Contract with AHTNA Government Services Corporation Contract No. DE-AC52-04NA25282," (OAS-L-09-01, October 30, 2008).

Cyber Security

- Audit Report on "The Management of the National Nuclear Security Administration's Classified Enterprise Secure Network Project," (IG-0823, September 11, 2009).

- Audit Report on "Protection of the Department of Energy's Unclassified Sensitive Electronic Information," (IG-0818, August 4, 2009).
- Audit Report on "Cyber Security Risk Management Practices at the Bonneville Power Administration," (IG-0807, December 9, 2008).
- Audit Report on "Cyber Security Risk Management Practices at the Southeastern, Southwestern, and Western Area Power Administrations," (IG-0805, November 20, 2009).

Energy Supply

- Audit Report on "Bonneville Power Administration's Acquisition of Transmission-Related Materials and Equipment," (IG-0824, September 29, 2009).
- Audit Report on "Management of Energy Savings Performance Contract Delivery Orders at the Department of Energy," (IG-0822, September 10, 2009).
- Audit Report on "The Department of Energy's Opportunity for Energy Savings Through the Use of Setbacks in its Facilities," (IG-0817, July 20, 2009).
- Audit Letter Report on "Controls over Royalty Oil Exchanges," (OAS-L-09-07, April 30, 2009).
- Audit Report on "The Department of Energy's Loan Guarantee Program for Innovative Energy Technologies," (IG-0812, February 17, 2009).

Environmental Cleanup

- Audit Letter Report on "Mixed Low-Level Waste Disposal within the Department of Energy," (OAS-L-09-17, September 28, 2009).
- Audit Report on "Potential Uses for Depleted Uranium Oxide," (IG-0810, January 9, 2009).

Human Capital Management

- Inspection Letter Report on "Allegations of Improper Hanford Workers' Compensation Payments," (INS-L-09-07, August 27, 2009).
- Audit Letter Report on "Contractor Severance Plans at the Department of Energy," (OAS-L-09-04, February 12, 2009).

Safeguards and Security

- Inspection Report on "Lawrence Livermore National Laboratory Protective Force Authority," (IG-0820, September 4, 2009).
- Inspection Report on "Personal Property Management at Lawrence Livermore National Laboratory," (INS-O-09-03, May 28, 2009).
- Inspection Letter Report on "Security Weakness in the Handling of Unclassified Printers and Copiers at the Oak Ridge National Laboratory," (INS-L-09-06, May 22, 2009).
- Audit Report on "Office of Secure Transportation DC-9 Aircraft Refurbishment," (IG-0815, May 6, 2009).

- Inspection Letter Report on "Selected Aspects of the Department of Energy's Activities Involving the Foreign Intelligence Surveillance Act," (INS-L-09-05, May 6, 2009).
- Inspection Report on "Internal Controls over Accountable Classified Removable Media at Oak Ridge National Laboratory," (INS-O-09-02, April 30, 2009).
- Inspection Letter Report on "Y-12 National Security Complex Accountable Classified Removable Electronic Media Program," (INS-L-09-03, March 16, 2009).
- Audit Report on "The Department's Management of Nuclear Materials Provided to Domestic Licensees," IG-0813, February 18, 2009).
- Audit Report on "Management Controls over the Department's Excess Weapons Inventories and Selected Sensitive Equipment used by Protective Forces," (OAS-M-09-01, January 22, 2009).
- Inspection Report on "Pantex Laser Perimeter Awareness," (IG-0809, January 2009).
- Inspection Report on "Security Clearances at Lawrence Livermore National Laboratory and Sandia National Laboratory," (INS-O-09-01, December 11, 2008).
- Inspection Report on "40 MM Grenade Launcher Qualification Requirements at Department of Energy Sites," (IG-0806, November 25, 2008).
- Inspection Letter Report on "Department of Energy Activities Involving the President's Surveillance Program," (INS-L-09-01, November 6, 2008).
- Audit Summary Report on "The National Nuclear Security Administration's Use of Innovative Technologies to Meet Security Requirements," (OAS-L-09-02, October 31, 2009).

Stockpile Stewardship

- Audit Letter Report on "Follow-Up Audit of the Stockpile Surveillance Program," (OAS-L-09-16, August 20, 2009).
- Audit Letter Report on "Storage Capacity at the Pantex Plant," (OAS-L-09-02, January 30, 2009).
- Inspection Summary Report on "Issues Related to the Production of Components for the W76 Weapon," (November 2008).
- Audit Report on "The Resolution of Significant Finding Investigation Recommendations," (IG-0804, November 18, 2008).

Worker and Community Safety

- Inspection Report on "Fire Suppression and Related Services at Los Alamos National Laboratory," (IG-0821, September 11, 2009).
- Audit Report on "Fire Protection Deficiencies at Los Alamos National Laboratory," (IG-0816, June 23, 2009).
- Audit Report on "The Procurement of Safety Class/Safety Significant Items at the Savannah River Site," (IG-0814, April 23, 2009).

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