



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

# Special Report

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## Management Challenges at the Department of Energy

DOE/IG-0844

November 2010



**Department of Energy**  
Washington, DC 20585

November 16, 2010

MEMORANDUM FOR THE SECRETARY

FROM:   
Gregory H. Friedman  
Inspector General

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

BACKGROUND

On an annual basis, the Office of Inspector General (OIG) identifies what it considers to be the most significant management challenges facing the Department of Energy. This effort is designed to assess the agency's progress in addressing previously identified challenges and to consider emerging issues. The identified challenges represent risks inherent in the Department's wide ranging and complex operations as well as those related to specific management processes.

Since its creation in 1977, the Department's priorities have evolved, reflecting current energy and security needs of the Nation. Most recently, the implementation and execution of programs supported by the *American Recovery and Reinvestment Act of 2009* (Recovery Act) have been at the forefront of Departmental operations. Signed into law by the President on February 17, 2009, the Recovery Act provided the Department with \$36.7 billion in funding for the acceleration of a number of efforts, including investments in energy efficiency, renewable energy, transportation, carbon capture and storage, and a "smart" electric grid. In addition, Recovery Act funding was to be used to accelerate the cleanup of Cold War legacy nuclear sites and to support Departmental technological and scientific innovation efforts.

RESULTS

Given the extent to which Recovery Act-related funding has impacted the Department's portfolio, our Management Challenges Report for Fiscal Year (FY) 2010 categorized "Recovery Act Implementation" as a specific management challenge. The Department has now moved from implementation to execution of the legislation's goals and priorities. As such, Recovery Act implementation has been removed as a specific management challenge. However, Recovery Act execution remains a focus area that is integral to many of the management challenges outlined in this report.

With regard to the perennial concern with the Department's efforts to administer its massive contract portfolio, there has been a significant effort to address this issue. Consequently, the previously identified challenge of Contract Administration has been modified to more fully reflect the expanded number of grants and cooperative agreements administered by the Department, largely as part of the Recovery Act. As a result, the Contract Administration challenge area has been re-designated as Contract and Financial Assistance Award Management to better reflect the current status of Departmental operations.

With these considerations in mind and given the persistent nature of the previously identified management challenges, the OIG's management challenge list for FY 2011 includes the following:

- Contract and Financial Assistance Award Management
- Cyber Security
- Energy Supply
- Environmental Cleanup
- Human Capital Management
- Safeguards and Security
- Stockpile Stewardship

As noted in past reports, many of these challenges are not amenable to immediate resolution and must, therefore, be addressed through a concerted effort over time. However, this should not be interpreted as suggesting that the Department has failed to work to address deficiencies in program execution.

In addition, we have designated a "watch list," which consists of significant issues that do not meet the threshold of being classified as management challenges, yet warrant continued attention by Department officials. For Fiscal Year 2011, the watch list includes: Infrastructure Modernization, Nuclear Waste Disposal, and Worker and Community Safety.

#### *Contract and Financial Assistance Award Management*

As the largest civilian contracting agency in the Federal government, the Department awards contracts to industrial companies, academic institutions, and non-profit organizations that operate a broad range of Department facilities. In fact, a substantial portion of the Department's operations are carried out through contracts. With the addition of Recovery Act funding and initiatives, successful contract administration within the Department has taken on even greater importance. In addition to contracting, the Department administers and manages an array of grants and cooperative agreements, the number of which has increased sharply as a result of Recovery Act programs. Given the number of contracts handled by the Department and the complexity and importance of the Department's numerous multi-million dollar projects, combined with new challenges created by the Recovery Act, we believe that the area of Contract and Financial Assistance Award Management is a significant management challenge.

#### *Cyber Security*

Given the importance and sensitivity of the Department's activities, along with the vast array of data it processes and maintains, cyber security has become a crucial aspect of the Department's overall security posture. Although the Department has implemented numerous counter measures in recent years, security challenges and threats to the Department's information systems continue and are constantly evolving. Adversaries routinely attempt to compromise the information technology assets of the Department. As such, it is critical that cyber security protective measures keep pace with the growing threat. As a result of these inherent risks and the sensitivity of much of the Department's work, we have identified Cyber Security as a continuing and significant management challenge.

### *Energy Supply*

Fundamental concerns related to the availability of energy supply in the United States (U.S.) have had a dramatic impact on consumers and the U.S. economy in recent years, with implications for our national security. Through its role in areas of scientific discovery and innovation, the national laboratory complex, and the Loan Guarantee Program, there is an expectation that the Department will play a leadership role in ensuring that the Nation's energy needs are met through the development, implementation, and execution of sound energy policy. Providing the leadership to ensure reliable, affordable, and environmentally sound energy supply represents a significant management challenge for the Department. Addressing these issues will require both short-term and long-term solutions. For example, the Department is tasked with helping to modernize our national energy infrastructure; invest in clean energy technologies such as hydropower, wind, solar, and cellulosic biomass; and promote conservation in our homes and businesses. Along with provisions of the Energy Policy Act of 2005, the Recovery Act has had a significant impact on the Department's involvement and prioritization of these issues.

### *Environmental Cleanup*

Since its establishment, the Department has had an important environmental mission. With the end of the Cold War, this mission took on even greater importance as the agency began to dispose of large volumes of radioactive waste resulting from more than 50 years of nuclear defense and energy research work. This effort involves 2 million acres of land located in 35 states and employs more than 30,000 Federal and contractor employees, including scientists, engineers, and hazardous waste technicians. The disposal and cleanup costs associated with these efforts are projected to be in the hundreds of billions of dollars and will continue well into the foreseeable future. As outlined in other challenge areas, the Recovery Act has infused considerable funding in this vital area. As has been the case in previous years, Environmental Cleanup remains a management challenge that warrants attention on the part of Departmental management.

### *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 significant challenges. 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 critical skill needs. These actions led to our removal, in FY 2009, of the human capital focus area from our management challenges. With the increased workload associated with the implementation and execution of the Recovery Act, the Department must address the challenge of maintaining a highly skilled workforce with the technical knowledge to perform its new and expanded mission. As such, last year human capital management was once again added to our management challenges list. We continue to believe that this challenge represents a critical area that will affect nearly all major program elements. As a result, human capital management will continue to be a key challenge area that will, at a minimum, require considerable attention for the term of the Recovery Act program design and execution.

### *Safeguards and Security*

With the advancement of the Manhattan Project and the race to develop the atomic bomb during World War II, the origins of the Department are inexorably linked to national security. While the Department has shifted its focus over time as the needs of the Nation have changed, special emphasis on safeguards and security has remained a vital aspect of the Department's mission. The Department plays a vital role in the Nation's security by ensuring the safety of the country's nuclear weapons, advancing nuclear non-proliferation, and providing safe and efficient nuclear power plants for the United States Navy. In order to faithfully execute its mission, the Department employs numerous security personnel, protects various classified materials and other sensitive property, and develops policies designed to safeguard national security and other critical assets. Ensuring that these safeguards are both efficient and effective require continuing focus to address this critical challenge.

### *Stockpile Stewardship*

The Department is responsible for the maintenance, certification, and reliability of the Nation's nuclear weapons stockpile. To help ensure that our nuclear weapons continue to serve their essential deterrence role, the Department conducts stockpile surveillance and engineering analyses, refurbishes selected nuclear systems, and sustains the ability to restore the manufacturing infrastructure for the production of replacement weapons. Along these lines, the recent FY 2011 continuing resolution passed by Congress provides for a \$624 million funding increase for the purpose of beginning the planned modernization of the Department's nuclear weapons complex. While we recognize that the Department has taken steps in recent years to further enhance the safety and reliability of the Nation's nuclear weapons stockpile, additional action is necessary if the Department is to extend the life of aging warheads and sustain a viable weapon stockpile.

### Attachments

cc: Deputy Secretary  
Under Secretary for Science  
Acting 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 <sup>1</sup>	Significant Issues Identified by the Department <sup>2</sup>
Environmental Cleanup	Cleanup of Radioactive & Hazardous Waste	Environmental Cleanup
Safeguards and Security	Security Threats and Problems	Security
Stockpile Stewardship	Nuclear Weapons Stockpile	Stockpile Stewardship
Contract and Financial Assistance Award Management	Contract Management	Contract and Project Administration
		Acquisition Process Management
Cyber Security		Cyber Security
Energy Supply	Leadership in Meeting Nation's Energy Needs	
Human Capital Management		Human Capital Management
		Recovery Act
<b>OIG Watch List</b>		
Infrastructure Modernization	Revitalize Infrastructure	
Worker and Community Safety		Safety and Health
Nuclear Waste Disposal		Nuclear Waste Disposal

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

<sup>2</sup>The Department's self-identified "DOE Management Priorities" according to *U.S. Department of Energy Agency Financial Report*, FY 2010 (November 2010).

## Relevant Reports Issued in Fiscal Year 2010

### Contract and Grant Administration

- Audit Report "Status Report: The Department of Energy's State Energy Program Formula Grants Awarded under the American Recovery and Reinvestment Act" ([OAS-RA-10-17](#), September 21, 2010)
- Audit Letter Report "The Department of Energy's American Recovery and Reinvestment Act - Georgia State Energy Program" ([OAS-RA-L-10-06](#), September 15, 2010)
- Audit Letter Report "National Nuclear Security Administration's Contracts for the Down-Blending of Highly Enriched Uranium" ([OAS-L-10-08](#), August 23, 2010)
- Audit Report "The Department of Energy's Implementation of the Energy Efficiency and Conservation Block Grant Program under the Recovery and Reinvestment Act: A Status Report" ([OAS-RA-10-16](#), August 11, 2008)
- Special Report "Review of the Department's of Energy's Plan for Obligating Remaining Recovery Act Contract and Grant Funding" ([OAS-RA-10-15](#), August 4, 2010)
- Special Report "Resolution of Questioned, Unresolved and Potentially Unallowable Costs Incurred in Support of the Yucca Mountain Project" ([OAS-SR-10-02](#), July 29, 2010)
- Audit Report "The Department of Energy's Use of the Weatherization Assistance Program Formula for Allocating Funds Under the American Recovery and Reinvestment Act" ([OAS-RA-10-13](#), June 11, 2010)
- Audit Report "The Department of Energy's American Recovery and Reinvestment Act-Florida State Energy Program" ([OAS-RA-10-12](#), June 7, 2010)
- Preliminary Audit Report "Management Controls over the Commonwealth of Virginia's Efforts to Implement the American Recovery and Reinvestment Act Weatherization Assistance Program" ([OAS-RA-10-11](#), May 26, 2010)
- Audit Report "Accounting and Reporting for the American Recovery and Reinvestment Act by the Department of Energy's Funding Recipients" ([OAS-RA-10-06](#), April 1, 2010)
- Audit Report "Management Controls over the Department of Energy's American Recovery and Reinvestment Act- Louisiana State Energy Program" ([OAS-RA-10-09](#), May 3, 2010)
- Audit Letter Report "Progress in Implementing the Advanced Batteries and Hybrid Components Program under the American Recovery and Reinvestment Act" ([OAS-RA-L-10-04](#), April 27, 2010)
- Audit Letter Report "Audit of Fermi National Accelerator Laboratory's NOvA Project" ([OAS-RA-L-10-02](#), April 16, 2010)
- Special Report "Progress in Implementing the Department of Energy's Weatherization Assistance Program Under the American Recovery and Reinvestment Act" ([OAS-RA-10-04](#), February 19, 2010)
- Audit Report "The Office of Science's Management of Information Technology Resources" ([IG-0831](#), November 20, 2009)
- Audit Report "Work for Others Performed by the Department of Energy for the Department of Defense" ([IG-0829](#), October 26, 2009)

- Audit Special Report "The Department of Energy's Quality Assurance Process for Prime Recipients' Reporting for the American Recovery and Reinvestment Act of 2009" ([OAS-RA-10-01](#), October 21, 2009)
- Audit Report "The Department's Management of the ENERGY STAR Program" ([IG-0827](#), October 14, 2009)

### **Cyber Security**

- Audit Report "The National Nuclear Security Administration's Management of the Product Realization Integrated Digital Enterprise Program" ([IG-0836](#), July 22, 2010)
- Audit Report "Management Controls over the Development and Implementation of the Office of Energy Efficiency and Renewable Energy's Performance and Accountability for Grants in Energy System" ([OAS-RA-10-14](#), July 22, 2010)
- Audit Report "Management Controls over the Department's WinSAGA System for Energy Grants Management Under the Recovery Act" ([OAS-RA-10-05](#), March 25, 2010)
- Audit Evaluation Report "The Federal Energy Regulatory Commission's Unclassified Cyber Security Program - 2009" ([IG-0830](#), October 29, 2009)
- Audit Evaluation Report "The Department's Unclassified Cyber Security Program - 2009" ([IG-0828](#), October 16, 2009)

### **Energy Supply**

- Audit Letter Report "Office of Science's Energy Frontier Research Centers" ([OAS-RA-L-10-09](#), August 27, 2010)
- Audit Report "The Department of Energy's Opportunity for Energy Savings Through Improved Management of Facility Lighting" ([IG-0835](#), July 1, 2010)
- Inspection Letter Report "Alleged Procurement Irregularities Relating to the Clean Coal Power Initiative Gilberton Coal-to-Clean Fuels and Power Project" ([S10IS007](#), May 4, 2010)
- Audit Report "The Department of Energy's Program to Assist Federal Buyers in the Purchasing of Energy Efficient Products" ([OAS-RA-10-08](#), April 27, 2010)

### **Environmental Cleanup**

- Audit Letter Report "Decommissioning and Demolition Activities at Office of Science Sites" ([OAS-RA-L-10-05](#), August 12, 2010)
- Audit Report "Waste Processing and Recovery Act Acceleration Efforts for Contact-Handled Transuranic Waste at the Hanford Site" ([OAS-RA-10-10](#), May 25, 2010)
- Audit Letter Report "The Interim Treatment of Salt Waste at the Savannah River Site" ([OAS-L-10-04](#), May 3, 2010)
- Audit Letter Report "Audit of Moab Mill Tailings Cleanup Project" ([OAS-RA-L-10-03](#), April 23, 2010)
- Audit Report "Management Alert on Environmental Management's Select Strategy for Disposition of Savannah River Site Depleted Uranium Oxides" ([OAS-RA-10-07](#), April 9, 2010)



- Audit Report "The Disposition of Uranium-233 at Oak Ridge National Laboratory" ([IG-0834](#), February 18, 2010)
- Audit Letter Report "Processing of Sodium-Bearing Waste at the Idaho National Laboratory" ([OAS-L-10-03](#), February 4, 2010)

### **Human Capital Management**

- Inspection Letter Report "Allegations of Retaliation at a Department Site" ([S10IS013](#), September 29, 2010)
- Audit Special Inquiry "Review of Allegations Regarding Hiring and Contracting in the Office of Energy Efficiency and Renewable Energy" ([OAS-SR-10-04](#), September 22, 2010)
- Inspection Report "Severance Repayment at the Savannah River Site" ([INS-O-10-02](#), July 29, 2010)
- Audit Letter Report "Former Uranium Enrichment Workers: Questions Regarding Equity in Pension Benefits" ([OAS-L-10-06](#), July 9, 2010)
- Audit Letter Report "The National Nuclear Security Administration's Site Office Training and Staffing" ([OAS-L-10-05](#), June 8, 2010)
- Special Inquiry Report "Review of Allegations Involving Potential Misconduct by a Senior Office of Environmental Management Official" ([S09IS024](#), December 29, 2009)

### **Stockpile Stewardship**

- Inspection Report "Removal of Categories I and II Special Nuclear Material from Sandia National Laboratories-New Mexico" ([IG-0833](#), January 15, 2010)
- Audit Letter Report "Follow-up Audit of Test Readiness at the Nevada Test Site" ([OAS-L-10-02](#), October 21, 2009)

### **Safeguards and Security**

- Inspection Report "Internal Controls over Computer Hard Drives at the Oak Ridge National Laboratory" ([INS-O-10-03](#), August 16, 2010)
- Inspection Letter Report "Allegations Involving the National Nuclear Security Administration's National Security Vaults" ([INS-L-10-02](#), July 28, 2010)
- Audit Report "Management Controls over Selected Aspects of the Department of Energy's Human Reliability Program" ([OAS-M-10-01](#), November 13, 2009)
- Inspection Report "Employment Verification at Savannah River Site" ([INS-O-10-01](#), November 5, 2009)

### **Worker Health and Safety**

- Audit Report "Environment and Worker Safety Control Systems at the National Nuclear Security Administration's Kansas City Plant" ([IG-0839](#), September 20, 2010)
- Audit Report "Nuclear Safety: Safety Basis and Quality Assurance at the Los Alamos National Laboratory" ([IG-0837](#), August 10, 2010)
- Audit Letter Report "Integrated Safety Management at the Office of River Protection" ([OAS-L-10-07](#), July 21, 2010)

### **Infrastructure Modernization**

- Special Report "Need for Enhanced Surveillance During the Yucca Mountain Project Shut Down" ([OAS-SR-10-01](#), July 21, 2010)
- Audit Report "Management Controls over Warranties Involving Newly Constructed and Renovated Facilities at National Defense Laboratories" ([OAS-M-10-02](#), June 15, 2010)
- Audit Letter Report "The Department of Energy's Management of the NSLS-II Project" ([OAS-RA-L-10-01](#), April 6, 2010)
- Audit Letter Report "Seismic Design of Nuclear Facilities within the Department of Energy" ([OAS-L-10-01](#), January 8, 2010)

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