



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

Special Report

Management Challenges at the Department of Energy

DOE/IG-0712

December 2005



Department of Energy

Washington, DC 20585

December 14, 2005

MEMORANDUM FOR THE SECRETARY

FROM:


Gregory H. Friedman
Inspector General

SUBJECT:

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

BACKGROUND

Annually, the Office of Inspector General provides the Department of Energy with a report on the agency's most significant management challenges. This effort highlights the agency's most demanding issue areas as well as key impediments to the fulfillment of the Department's critical functions. Our conclusions are based on an examination of the results of current Office of Inspector General audit, inspection and investigation efforts; consideration of emerging issues affecting Department operations; and, an assessment of the Department's progress in addressing previously identified challenges. We have also developed a separate "watch list" of operational or programmatic functions that, in our view, need to be closely monitored by Department management. Consistent with our mission, the overall goal is to focus attention on significant issues with the objective of enhancing the effectiveness of agency programs and operations.

RESULTS

In our judgment, the Department's most significant challenges are:

- National Security
- Environmental Cleanup
- Stockpile Stewardship
- Contract Administration
- Project Management
- Information Technology
- Financial Management and Reporting

These challenges relate to mission-critical activities and weaknesses in the Department's internal control structure. National security, environmental cleanup and stockpile stewardship represent risks that are associated with the Department's historic missions. The remaining challenges relate to management weaknesses affecting the Department's control structure. If not addressed, these challenges may affect the Department's ability to carry out its program responsibilities and to ensure the integrity of its operations. The report includes a "watch list" of three issues that do not meet the threshold of significant management challenges, yet warrant continued attention by Department managers: energy supply; worker and community safety; and, human capital.



In issuing its annual management challenges report, the Office of Inspector General recognizes that the Department's mission is complex, diverse, and is subject to many inherent programmatic risks, including some factors outside the Department's immediate control. Consequently, the matters addressed in this report, for the most part, are not amenable to simple, near-term solutions. They can only be resolved by a concerted, persistent effort over time.

To this end, the Department has taken a number of positive actions to strengthen its management processes. For example, the Department is actively addressing the President's Management Agenda to make the Federal Government more efficient, effective, results-oriented and accountable to the public. In fact, the Office of Management and Budget has ranked the Department as one of the top cabinet-level agencies in demonstrating progress in the implementation of the President's Management Agenda. Further, as was discussed in the report entitled, *Fueling Progress for America*, the Department has been recognized for leadership in management excellence. Your demonstrated commitment, and that of the Deputy Secretary, to address longstanding Department of Energy management issues should contribute significantly to resolving the challenges described in this report.

Attachment

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

SPECIAL REPORT ON MANAGEMENT CHALLENGES AT THE DEPARTMENT OF ENERGY

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Analysis of Management Challenges

Background

The Department of Energy (Department) is a multi-faceted agency that encompasses a broad range of national security, scientific, and environmental activities. To accomplish its mission, the Department receives an annual appropriation of approximately \$24 billion, employs approximately 120,000 Federal and contractor personnel and manages assets valued at more than \$128 billion, including a complex of national laboratories.

As required by the *Reports Consolidation Act of 2000*, the Office of Inspector General has identified what it considers to be the most significant management and performance challenges facing the Department. This effort, which is completed on an annual basis, reflects new work performed by the Office of Inspector General and assesses the agency's progress in addressing previously identified challenges, as well as emerging issues facing the Department.

Department Successes in Meeting the President's Management Agenda

In 2001, the Office of Management and Budget (OMB) issued the President's Management Agenda. The Agenda included five Government-wide initiatives for improving management and performance: strategic management of human capital, competitive sourcing, improved financial performance, expanded electronic Government, and budget and performance integration. OMB rated each agency as either "red" (indicating unsatisfactory performance), "yellow" (indicating mixed results), or "green" (indicating successful implementation of the initiatives). When OMB initially issued the scorecard, it rated the Department red on each of the five initiatives. However, the Department has since made significant improvements and was rated green on three of the five measures and yellow on the remaining two measures on the September 2005 scorecard.

For instance, the Department has made strides in overcoming challenges in performance management and was recognized by OMB for numerous best practices in this area. In July 2005, OMB recognized the Department's Performance Mapping Tool as a best-in-class practice for estimating the marginal cost of different levels of performance. The Department has also made meaningful improvements in its performance reporting and received the Association of Government Accountant's Certificate of Excellence in Accountability Reporting Award for its Fiscal Year (FY) 2004 *Performance and Accountability Report*. In 2003, recognizing the Department's improvements, the Office of Inspector General began reporting this subject on the watch list rather than as a management challenge. This year, we deleted performance management from

the watch list due to the Department's continuing success in this area.

The Department also made improvements in contract administration. The Agenda's competitive sourcing initiative was designed to generate significant savings and noticeable performance improvements by ensuring efficient and effective competition between public and private sources. In the 2004 *Competitive Sourcing Results Report*, OMB identified the Department's competitive sourcing program as a model for other Federal agencies. Furthermore, in its first three competitions, the Department reported a 25 percent or better annual savings for each function competed compared to its baseline costs. Despite the Department's progress in addressing contract administration, we continue to identify contract administration as a management challenge due to issues identified in our audits.

Management Challenges

Although the Department has made considerable progress in meeting the Agenda's initiatives, it continues to face the following challenges that require management attention: national security, environmental cleanup, stockpile stewardship, contract administration, project management, information technology, and financial management and reporting. These challenges represent both the risks inherent to the Department's complex operations and the risks related to the Department's management processes.

National Security

The Department plays a vital role in the Nation's security by ensuring nuclear weapons safety, promoting international nuclear safety, advancing nuclear non-proliferation, and providing safe and effective nuclear power plants for the U.S. Navy. As in previous years, we have identified national security as a management challenge due to both the importance of the Department's operations and the continuing nature of security threats.

During FY 2005, the Department made progress in addressing the management challenge on national security. For example, the Department completed site assistance visits for all but one of the Category I special nuclear material facilities. These assistance visits provided an evaluation of technological security options for addressing the Design Basis Threat. The last assessment is scheduled for the first quarter of FY 2006. Additionally, senior management continued to focus on actions needed to address the

Secretarial Security Initiatives. Presented in May 2004, the initiatives aim to improve security at Department facilities around the country.

Despite the Department's progress, our work and recent incidents underscore the need for continued vigilance and emphasis on security issues. For instance, our inspections highlighted problems with access controls at various facilities across the complex. At the Y-12 National Security Complex (Y-12), we found that foreign construction workers using false identification were improperly allowed access to a leased facility on multiple occasions. The improper access to the facility was a significant concern because information regarding the construction of the leased facility was considered Unclassified Controlled Nuclear Information and Official Use Only. Further, we determined that Y-12 access control procedures, intended to prevent unauthorized access, were either not implemented or ineffective (*Security Access Controls at the Y-12 National Security Complex*, DOE/IG-0691, June 2005).

The Department protects U.S. national security by ensuring the continued safety, security, and reliability of our Nation's nuclear deterrent, working to reduce the global danger from the proliferation of nuclear materials and other weapons of mass destruction, fulfilling the U.S. Navy's requirements for new nuclear propulsion plants that meet current and future national defense requirements, and providing the technical expertise in advancing Homeland Security.

The Department of Energy Strategic Plan, September 2003

An FY 2005 inspection at the Los Alamos National Laboratory (LANL) disclosed that more than 40 percent of the terminating employees in our sample did not follow out-processing procedures. As a result, there was no assurance that terminating employees turned in security badges, completed the required security statement, or had security clearances and access authorizations cancelled prior to departure. Further, there was no assurance that terminating employees accounted for classified holdings and personal property or cleared any outstanding financial obligations prior to departure. After completing our fieldwork, LANL revised its out-processing procedures to address some of the concerns raised during the inspection (*Security and Other Issues Related to*

Out-Processing of Employees at Los Alamos National Laboratory, DOE/IG-0677, February 2005).

Our reviews of the Department's protective forces identified needed improvements at some of its most critical national security sites. At the Oak Ridge Reservation, we confirmed an allegation that a security police officer was given credit for training that the officer did not receive. Of greater importance, we concluded that there were material shortcomings in the site's implementation of the protective force training program (*Protective Force Training at the Department of Energy's Oak Ridge Reservation, DOE/IG-0694, June 2005*). Our inspectors also concluded that additional measures could have been implemented to improve physical security of Strategic Petroleum Reserve (Reserve) sites. Specifically, we found that the Reserve's deadly force policy and protection level against the "insider threat" may not have been commensurate with its designation as part of the Department's critical infrastructure. In addition, opportunities existed for some protective force performance tests to be more realistic (*Review of Security at the Strategic Petroleum Reserve, DOE/IG-0693, June 2005*).

Environmental Cleanup

The Department is responsible for cleaning contaminated sites and disposing of radioactive waste resulting from nuclear weapons production, nuclear powered naval vessels, and commercial nuclear energy production. Due to the risks and hazards associated with this difficult and costly task, we have identified environmental cleanup as a significant management challenge.

During FY 2005, the Department made progress in reducing risks to its workers, the public, and the environment at several sites. For instance, at the Hanford Site, the Department completed moving spent nuclear fuel from basins located near the Columbia River to a dry storage facility. Also, the Department completed the shipping of transuranic waste from the Rocky Flats Environmental Technology Site and was on track to complete physical cleanup by the end of the year. However, our work revealed issues concerning the timeliness of the Department's ongoing cleanup efforts. For instance, abandoned and unused wells at the Hanford Site had not been decommissioned in a timely manner. Although Richland Operations Office (Richland) officials estimated that the site was capable of decommissioning between 104 and 150 wells per year, only 146 wells were decommissioned in the three year period from

FY 2002 through 2004 (*Well Decommissioning Activities at the Hanford Site*, DOE/IG-0670, January 2005).

We also concluded that the Department would not meet its commitments for removing transuranic waste from LANL. Based on the projections at the time of the audit, the Department was about 10 months behind schedule for removing all high-risk waste. Furthermore, we estimated that it was unlikely that the Department would remove the remaining legacy transuranic waste at the site until at least 2014, four years beyond the commitment date (*Transuranic Waste Management at Los Alamos National Laboratory*, DOE/IG-0673, February 2005).



Workers at the Los Alamos National Laboratory remove a drum containing transuranic waste

In 2002, the Department's Office of Environmental Management (EM) completed a program-wide review of its operations. It found that EM had not focused on a systematic approach to facility decontamination and decommissioning that emphasized the most expeditious means of addressing health risks and environmental concerns. Furthermore, in a recent report, *Improving Characterization and Treatment of Radioactive Wastes for the Department of Energy's Accelerated Cleanup Program* (NRC 2005), the National Research Council found that the Department was demolishing facilities that were neither contaminated nor in structural jeopardy. Similarly, a recent audit found that the Department's deactivation and decommissioning activities did not always reduce the risk posed to the environment, workers, or the public. Specifically, at the Savannah River Site, the Department performed deactivation and decommissioning activities on 55 facilities that posed no potential risk to the environment, workers,

or the public, and provided minimal reduction in surveillance and maintenance costs. Additionally, some of the facilities that did pose an environment, safety, and health risk were not scheduled for remediation (*Deactivating and Decommissioning Facilities at the Savannah River Site*, DOE/IG-0684, April 2005).

Stockpile Stewardship

The Department's Stockpile Stewardship Program is responsible for ensuring that the U.S. nuclear weapons stockpile is safe, secure, and reliable. This technically complex scientific program encompasses operations associated with manufacturing, maintaining, refurbishing, surveilling, and dismantling the stockpile. The program also involves activities associated with the research, design, development, simulation, modeling, and non-nuclear testing of nuclear weapons.

The Department has faced project management issues related to the cost, schedule, and scope of various projects supporting its stockpile stewardship mission. For instance, our work found that the National Nuclear Security Administration (NNSA) was at risk of not achieving the first production unit for the B61 refurbishment within the original schedule and scope specifications. Although NNSA experienced unforeseen technical problems that delayed the design and testing of certain components, other delays were avoidable. Further, NNSA reduced the project scope in response to an intra-Department of Defense request, but did not obtain formal approval from the responsible interagency group. Project and customer personnel expressed concerns regarding whether the scope reduction would affect weapon utility (*The National Nuclear Security Administration's Refurbishment of the B61*, DOE/IG-0697, August 2005).

Our work also found that LANL did not complete all hydrotests at the Dual Axis Radiographic Hydrodynamic Test Facility as planned. Fifteen hydrotests were scheduled in FY's 2002 through 2004. Of these, six were completed as scheduled, six were delayed up to two years, and three had not been completed as of April 2005. This impacted the availability of the data necessary to make decisions concerning weapon primaries, computer models, aging or remanufactured components, and stockpile reliability (*The Los Alamos National Laboratory Hydrodynamic Test Program*, DOE/IG-0699, September 2005).



The Dual Axis Radiographic Hydrotest Facility's Hydrotest Firing Site under construction

In addition, our audit work disclosed project management issues in the construction of NNSA's Pit Disassembly and Conversion Facility. We found that, despite the project's importance and high priority, NNSA would not meet the schedule and cost parameters detailed in the Department's February 2002 *Report to Congress*. At the time of our review, NNSA's estimate for completion of the Conversion Facility had been delayed four years to 2013. Furthermore, NNSA's costs will likely increase substantially beyond the original estimate of \$1.7 billion. While international policy issues played a role in the construction delays, we noted that NNSA experienced difficulty in modifying Conversion Facility equipment from prototype to full-scale production. In addition, NNSA had not identified an approach for disposing of the waste generated by the Conversion Facility and the Mixed Oxide Fuel Fabrication Facility (*National Nuclear Security Administration's Pit Disassembly and Conversion Facility*, DOE/IG-0688, May 2005).

Contract Administration

The Department places significant reliance on contractors and grantees to accomplish its mission. In fact, most of the Department's operations are carried out through contracts that consume about three-fourths of its budget. Thus, effective contract oversight is an essential component for the Department's management of its programs. Contracts and grants are awarded to industrial companies, academic institutions, and nonprofit

organizations that operate a broad range of Department of Energy scientific, industrial, and production facilities.

Our reviews in FY 2005 concluded that contract oversight needed improvement in certain areas. For instance, we found that Bechtel BWXT Idaho, the Idaho National Laboratory contractor, did not manage financial management activities of the technology transfer and commercialization program consistent with its contract terms. Specifically, Bechtel did not properly recognize royalties due from licensing activities and did not monitor expenditures to ensure they were within established administrative limits (*Management Controls Over the Technology Transfer and Commercialization Program at the Idaho National Laboratory*, OAS-M-05-07, June 2005).

Further, in an audit of the Monticello Mill Site restoration project, we found that the Department's monitor and control efforts over certain aspects of the project were not completely effective. Specifically, the Department did not ensure that funds provided to the city of Monticello were used for long-term maintenance. This occurred because the Department did not properly structure the cooperative agreement with Monticello and did not require strict compliance with certain terms of the agreement. However, the Department contended that the use of a cooperative agreement allowed the city flexibility to meet the Department's regulatory requirements and also meet its recreational needs (*Restoration of the Monticello Mill Site at Monticello, Utah*, DOE/IG-0665, October 2004).



Erosion at the Monticello Mill Site

Inadequate oversight of contract costs has also been a long-standing management issue. To illustrate, our audit work disclosed instances where contractors sought and were reimbursed for approximately \$255,000 in questionable meal expenses. The Department paid for these costs because it had not developed or implemented specific guidance regarding contractor meals. Further, we found no evidence that the contracting officers had reviewed and approved contractor written policies. The Department indicated that its meal expense policy mirrors the Government-wide policy. Nonetheless, the Department responded to our audit report by issuing an Acquisition Letter addressing meal expenses incurred by its Management and Operating contractors (*Management Controls Over Meal Expenses at Management and Operating Contractors*, OAS-M-05-04, April 2005).

In a separate review, we found that the Department did not always ensure that reimbursements to contractors for their home office expenses were limited to their equitable share. Our review of five National Laboratory contracts disclosed that the Department agreed to provide fees, fixed payments, and/or reimbursements for actual home office expenses that were potentially duplicative, not adequately documented, improperly calculated, and/or for specifically unallowable items (*Department of Energy Contractor Home Office Expenses*, DOE/IG-0676, February 2005).

To its credit, the Department developed a comprehensive strategy to improve contract management and address issues raised by the Office of Inspector General and the Government Accountability Office (GAO). This strategy included requirements for writing contract management plans, increasing contract competition, using more effective performance objectives and measures, and instituting professional development requirements for contract management officials.

Project Management

The Department's numerous multi-million dollar projects support its scientific and technologically complex work. In response to criticisms in past years concerning weaknesses in project management, the Department made several improvements in managing capital asset projects. For instance, in its July 2005 document, *Achieving Green in Improved Financial Performance*, OMB used the Department's Earned Value Management as an example of an initiative accepted as a green standard.

Although we recognize the tremendous strides the Department has made in improving project management, there are still improvements that need to be made. For example, in *Progress in Improving Project Management at the Department of Energy: 2003 Assessment* (NRC, 2004), the National Academies of Science recognized the Department's substantial progress, but indicated that there were still a few areas of concern. Among the concerns was the amount of capital the Department invested in human resource development for project management compared to other Federal agencies or private corporations. Another concern was that there were too few qualified project directors and project management support for the number and complexity of projects.

During FY 2005, the Office of Inspector General identified a number of problems in the area of project management. For example, at the Hanford Site, we found that sludge removal operations on the Spent Nuclear Fuels Project had not commenced according to schedule. In addition, our review disclosed that the project had experienced significant cost overruns since FY 2003. While technical difficulties with the sludge removal contributed to the delays, we determined that neither the Department nor the contractor responsible for managing the project focused adequate attention on the sludge removal portion of the project during the critical planning phase. As a result, project milestones were missed and cost overruns could negatively impact the Department's ability to further accelerate cleanup work at the Hanford Site (*Sludge Removal Operations at the Hanford Site's K Basins*, DOE/IG-0698, September 2005).



Sludge and debris in the K East Basin at the Hanford Site

Additionally, in an Office of Inspector General "Special Report," we examined the Department's strategy for deactivating, decontaminating, and decommissioning the Fast Flux Test Facility (FFTF) at the Hanford Site. We found that the Department had a unique opportunity to re-evaluate its closure plan for the facility. Changes to the project's operating environment had occurred and the Department's project plan and acquisition strategy may not have been the most effective approach to shutting down the facility. Specifically, the final end state of FFTF remained uncertain and the State of Washington questioned the priority of decommissioning work on the facility. We noted that these and other issues should be thoroughly examined as part of a comprehensive re-evaluation of the Department's future plans to deactivate, decontaminate, and decommission FFTF (*Fast Flux Test Reactor: Re-evaluation of the Department's Approach to Deactivation, Decontamination, and Decommissioning*, DOE/IG-0683, March 2005).

Our work also disclosed project management issues related to the Department's critical role in protecting national and economic security through the reliable delivery of energy. For instance, we found that the Western Area Power Administration (Western) was unable to furnish all planned transmission services to its Central Valley Project customers by January 2005. We noted that a majority of critical project tasks were behind schedule, including those related to power billing, systems integration, and power scheduling. Furthermore, Western had not developed contingency plans to ensure continued operations in the event that critical project tasks were not completed as scheduled. As a result, Western would likely encounter billing and scheduling challenges and incur increased costs that may be passed on to its customers (*Management Controls Over Western Area Power Administration's Central Valley Project Transmission Services*, OAS-M-05-02, February 2005).

To its credit, the Department has recognized the need to pay close attention to project management issues. For example, in response to concerns that key facilities at the Hanford Site's Waste Treatment Plant may not withstand a severe earthquake, the Department formed a Headquarters-based team to examine baseline, technical, contract, and management issues related to the Hanford project.

Information Technology

Information technology is vital to help the Department fulfill its mission and provide efficient and effective services to the American people. As a result of its important role in the Federal Government, OMB included information technology as part of the President's Management Agenda.

As in past years, Office of Inspector General reports have highlighted internal control weaknesses impacting the improvement of information technology systems and security. For example, our annual evaluation of the Department's unclassified cyber security program noted weaknesses that could compromise critical systems if left uncorrected. We found problems with ensuring that: (1) only authorized individuals could access information resources; (2) duties and responsibilities for processing financial transactions were properly segregated; and, (3) modifications to applications and systems were authorized and properly controlled. In addition, the Department had not completed contingency planning for several systems, including mission critical systems, to ensure continuing or resuming operations in an emergency or disaster.

Rather than considering information technology as an end in itself, the President's Management Agenda refocused information technology as a business investment that supports the accomplishment of the Department's mission.

*U.S. Department of Energy e-Government
Progress Report Fiscal Year 2005, June 2005*

These problems persisted for several reasons. First, the Department did not provide adequate oversight to ensure that previously reported problems were promptly corrected. Second, the Department did not provide adequate oversight to ensure field offices (including contractors) properly implemented all Federal cyber security requirements. To its credit, senior-level Departmental management officials have focused their attention on improving cyber security posture. This promising action, when coupled with existing initiatives, should help to ensure that the Department continues to improve in this important area (Evaluation Report on *The Department's Unclassified Cyber Security Program – 2005*, DOE/IG-0700, September 2005).

Under the *Clinger-Cohen Act of 1996*, the Department must implement an enterprise architecture to reduce costs and achieve efficiencies through sound business processes and technology investment management. However, we found that despite significant effort, the Department had not fully defined its current or future information technology requirements. Additionally, the Department had not taken the necessary steps to ensure that program office architectures were complete, compatible with, and supported the agency's overall architecture design. The Department's development efforts were incomplete because it had not defined the roles, responsibilities, and authorities necessary to develop and implement a Department-wide architecture. Further, the Department had not established the scope, schedule, and cost of the development effort (*Development and Implementation of the Department's Enterprise Architecture*, DOE/IG-0686, April 2005).

In addition to computer systems, the Department's information technology includes telecommunication services needed to facilitate its many activities. We found that the Department had only limited assurance that mobile communications devices and services were used and managed in a cost-effective manner. At three of the eight sites visited, our audit work disclosed that the Department could have saved as much as \$1.12 million annually by adopting more efficient methods for using and managing communication devices and services. In particular, our review noted opportunities for improvement at the Department's Headquarters, Lawrence Livermore National Laboratory, and Y-12 National Security Complex (*Use and Management of Mobile Communications Services*, DOE/IG-0669, December 2004).

Financial Management and Reporting

The Office of Inspector General has identified financial management and reporting as a new challenge. In April 2005, the Department implemented the Standard Accounting and Reporting System (STARS) – an accounting and financial reporting system. The Department's implementation of STARS, combined with the October 2004 stand-up of a restructured financial services organization, raised many challenges that adversely impacted the financial management and reporting capabilities of the Department, and the FY 2005 financial statement audit.

STARS is the financial management segment of the Department's Integrated Management Navigation System (I-MANAGE). The I-MANAGE system was designed to consolidate and streamline the

Department's business systems by integrating management information related to financial and cost accounting, travel, payroll, budget formulation and execution, procurement and contracts management, facilities management, human resources, and research and development.

Prior to the Department's implementation of STARS, we identified a number of challenges that the Department needed to address in order to successfully integrate the new system (*The Department's Implementation of I-MANAGE STARS*, OAS-L-04-19, August 2004). These challenges included resource issues resulting from simultaneously implementing STARS and reorganizing a significant portion of the accounting function. Specifically, we noted that the Department had not completed testing the system interface and data crosswalk, analyzed and resolved the user acceptance test errors, and identified users to be trained. In a follow-up audit, we determined that although progress had been made, significant issues remained. In particular, two separate accounting systems were needed to produce the FY 2005 consolidated financial statements; OMB-imposed accelerated reporting schedules provided only limited time to correct implementation problems; and, the burden of auditing two separate systems of control severely stressed both accounting and auditing resources (*Financial System Faces Continued Challenges*, OAS-L-05-02, January 2005).

Despite devoting substantial effort to implementing STARS, the Department encountered significant problems impacting its financial management and reporting, and the annual financial statement audit. These issues included reporting difficulties, system posting errors, unreconciled accounting data, and data conversion challenges from the accounting system used for the first half of FY 2005 to STARS. For example, as of the end of FY 2005, many basic financial management reports, including those needed for audit, had not been developed or had not produced reliable or intended results. In addition, the Department encountered problems in reconciling STARS data to the accounting data generated from many of its major contractors and reconciling certain data to subsidiary ledgers. As a result of these unresolved issues, the FY 2005 financial statement audit resulted in a disclaimer of opinion.

To its credit, the Department has taken steps to address the initial challenges associated with the FY 2005 stand-up of the financial services organization and implementation of the new accounting and financial reporting system. For example, it has addressed

many of the transaction processing backlogs experienced in the initial start-up of the new system. In addition, the Department initiated key reconciliations to ensure system data integrity and is taking corrective actions to resolve data conversion issues. Further, the Department established a Chief Financial Officer Issue Resolution Tiger Team to develop an executable, integrated plan of action and milestones in the financial control and reporting area. The team's report is due to the Deputy Secretary by mid-December.

Watch List

The watch list consists of management issues that do not meet the threshold of major management challenges, yet warrant continued attention by senior Department managers. Watch list issues may include management challenges identified in previous years for which the Department has implemented corrective actions or has achieved positive outcomes. In addition, the watch list may include emerging issues that require Department action. Last year, our watch list addressed three areas: energy supply, worker and community safety, and performance management. This year, we removed performance management from our watch list due to the Department's improvements in this area. However, energy supply and worker and community safety remain on the watch list, joined by human capital, as functions that need to be closely monitored by Department management.

Energy Supply

One of the Department's strategic goals is to promote the development and deployment of energy systems that will provide the Nation with clean, efficient, economical, and reliable energy. In achieving this goal, the Department is taking steps to improve energy conservation and efficiency given that the demand for energy in the U.S. is rising much faster than the projected increase in domestic energy production. The Department must also address environmental challenges such as greenhouse gas reduction. Given U.S. reliance on foreign energy sources and the significant impact that energy supply disruptions can have on the Nation's economy and security, energy supply is an ongoing issue that Department management must watch closely. It is important to note that the risks of disruption in energy supply are not restricted to foreign oil imports. For instance, in 2005, Hurricanes Katrina and Rita shut down oil refineries and most of the natural gas and oil production in the Gulf of Mexico.

In 2004, the shortfall between energy demand and domestic supply was 27 percent and was projected to increase to nearly 40 percent by 2025. Consequently, dependence on energy supplied by foreign sources, especially petroleum imports from the Persian Gulf region, will continue to increase as it has for the past several decades. To alleviate the growing energy crisis, Congress passed the Energy Policy Act of 2005, establishing a comprehensive, long-range energy policy. The Act: (1) increased the amount of

biofuel that must be mixed with gasoline sold in the U.S.; (2) increased coal use as an energy source; (3) required the Department to study existing natural energy resources; (4) required Federal reliability standards regulating the electrical grid; and, (5) authorized the Department to build a nuclear reactor to generate both electricity and hydrogen.

To lead the national effort to modernize the electrical grid, the Department established the Office of Electricity Delivery and Energy Reliability in 2003. Although this was a positive step in enhancing the security and reliability of the energy infrastructure, much needs to be done in the broad area of energy supply. For instance, we found that the Bonneville Power Administration did not always provide for efficient utilization of transmission capacity. Specifically, certain customers scheduled more transmission than they needed, or exceeded their planned transmission amounts (*Management Controls Over Electricity Transmission Scheduling and Usage for Memo Schedule Customers of the Bonneville Power Administration*, OAS-M-05-01, January 2005). In addition, we found that the Department could not ensure that selected critical monitoring and control systems could continue or resume operation with minimal disruption in the event of an emergency (*Management Controls Over Critical Monitoring and Control Systems*, OAS-M-05-06, June 2005).

Worker and Community Safety

Worker and community safety is a high priority for the Department. The large-scale facilities and the dangerous materials that are an integral part of the Department's operations represent safety risks to workers and local communities. Safety incidents may potentially destabilize, delay, and disrupt the Department's critical activities, and have intangible costs such as a negative public perception of the Department. We retained this critical area on our watch list because the Department must continue to give high priority to mitigate safety and health risks.

Although the steps that the Department took to address worker and community safety issues prompted us to remove it from the management challenges list in FY 2003, our work continues to identify safety issues that need management attention. For instance, in a 2001 report, we concluded that the Department's biological select agent activities lacked organization, coordination, and direction. Specifically, the Department's activities did not

have appropriate Federal oversight, consistent policy, and standardized implementing procedures. These shortcomings result in greater risk to workers and others from exposure to biological select agents and select agents material. As a result of our review, the Department created the Biosurety Working Group to examine mechanisms to improve oversight, coordination, and consistency within the Department, and to improve communication and coordination with other agencies (*Inspection of Department of Energy Activities Involving Biological Select Agents*, IG-0492, February 2001). However, our FY 2005 work found that the Biosurety Working Group was disbanded and the Department had not established an orderly mechanism for coordinating its biological select agent research and development activities (*Coordination of Biological Select Agent Activities at Department of Energy Facilities*, IG-0695, July 2005).

Human Capital

In the 2001 President's Management Agenda, OMB recognized strategic management of human capital as one of the Government's "most glaring problems." The Agenda specifically outlined concerns that the Department's staff lacked adequate project and contract management skills required to oversee large projects. The Department undertook an effort to perform a critical skills gap analysis where program offices reviewed and validated specific critical skills needs. However, due to a shortage of employees with certain skills, particularly in project and program management, our office added human capital to the watch list.

In 2005, GAO reported that although NNSA contractors' efforts to recruit and retain employees were generally effective, the pool of technically trained potential employees was shrinking (*NNSA: Contractors' Strategies to Recruit and Retain a Critically Skilled Workforce are Generally Effective*, GAO-05-164, February 2005). Similarly, our work disclosed that the Department faced a shortage of trained project and program managers. Specifically, we found that over half of the Energy Efficiency and Renewable Energy cooperative agreements we reviewed did not receive adequate management attention. This occurred because the project office did not have sufficient staff to manage the agreements under its cognizance (*Selected Energy Efficiency and Renewable Energy Projects*, IG-0689, May 2005).

**TABLE COMPARING MANAGEMENT CHALLENGES
REPORTED BY VARIOUS GROUPS**

IG	GAO¹	DOE²
Environmental Cleanup	Cleanup of Radioactive & Hazardous Waste	Environmental Cleanup
		Nuclear Waste Disposal
National Security	Security Threats and Problems	Security
Stockpile Stewardship	Nuclear Weapons Stockpile	Stockpile Stewardship
Contract Administration	Contract Management	Oversight of Contractors
Project Management		Project Management
Information Technology Management		Information Technology Management
		Safety and Health
		Human Capital Management
	Revitalize Infrastructure	
	Leadership in Meeting Nation's Energy Needs	
Financial Management and Reporting		
		Unclassified Cyber Security

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

²DOE's self-identified "Management Challenges and Significant Issues" according to *U.S. Department of Energy Performance and Accountability Report*, FY 2005 (November 2005).

RELATED REPORTS ISSUED IN FISCAL YEAR 2005

National Security

Inspection Report on Concerns Regarding the Department of Energy's Counterintelligence Inspection Program (DOE/IG-0671, January 18, 2005).

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Appendix 3 (continued)

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- Audit Report on *The Los Alamos Neutron Science Center* (DOE/IG-0666, November 30, 2004).
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- Audit Report on *Management Controls over Meal Expenses at Management and Operating Contractors* (OAS-M-05-04, April 20, 2005).
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- Evaluation Report on *The Department's Unclassified Cyber Security Program – 2005* (DOE/IG-0700, September 27, 2005).

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- Audit Report on *Selected Energy Efficiency and Renewable Energy Projects* (DOE/IG-0689, May 12, 2005).
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- Audit Report on *Limited Live Component Exchange Program* (OAS-L-05-12, August 8, 2005).

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