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Before the

Subcommittee on Oversight

Committee on Science, Space, and Technology

U.S. House of Representatives

FOR RELEASE ON DELIVERY

2:00 PM

March 14, 2013

Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to testify today on the major challenges facing the Department of Energy as viewed through the prism of the Office of Inspector General (OIG).

The Department of Energy is a multi-faceted agency responsible for executing some of the Nation's most complex and technologically advanced missions. These missions include cutting edge work in basic and applied science, clean energy innovation, energy efficiency and conservation, environmental cleanup, medical applications, nuclear weapons stewardship, and efforts to enhance national security. In order to execute this diverse portfolio, the Department receives an annual appropriation approaching \$30 billion, employs nearly 110,000 Federal and contractor personnel, and manages assets valued at over \$180 billion.

The underpinning of virtually all Departmental missions is related to science and technology. Its complex of 17 national laboratories, 16 of which have been designated as Federally Funded Research and Development Centers (FFRDC), and its extensive financial assistance for research in independent settings underscore the Department's status as a leader for science in the United States.

The OIG provides independent oversight of the Department's operations through a robust program of audits, inspections and investigations designed to promote economy and efficiency, and to detect and prevent fraud, waste, abuse, and mismanagement. Because of the prominence of and the resources committed to the Department's science and technology mission, a substantial portion of our work focuses on these important areas. A full inventory of related reports can be found at: <http://energy.gov/ig/calendar-year-reports>. It is this body of work that forms the basis of my testimony today.

Department of Energy Management Challenges

Annually, the OIG identifies what it considers to be the most significant management challenges facing the Department. We have a unique, independent perspective, which allows us to provide management, the Congress, and the citizenry with an unfiltered view of Departmental operations.

For FY 2013, our list of significant management challenges and our watch list of emerging issues included:

Management Challenges

- Operational Efficiency and Cost Savings
- Contract and Financial Assistance Award Management
- Cyber Security
- Energy Supply
- Environmental Cleanup
- Human Capital Management
- Nuclear Waste Disposal
- Safeguards and Security
- Stockpile Stewardship

Watch List

- Infrastructure Modernization
- Loan Guarantee Program
- Worker and Community Safety

These challenges impact virtually all of the Department's mission activities. They are not easily resolved and must, therefore, be addressed through a concerted, persistent effort over time.

Anticipating tight Federal budgets in the future, as part of the process of developing our list of management challenges for FY 2012, we stepped out of our comfort zone and presented the Department with five suggestions for reducing its cost of operations and enhancing agency efficiency. I would like to provide an overview of the management challenges and then focus specifically on the area of Operational Efficiency and Cost Savings.

Contract and Financial Assistance Award Management

The Department of Energy is the most contractor-dependent agency on the civilian side of the Federal government. The Department provides massive amounts of funding through contracts and other financial assistance awards to its own laboratories, for-profit companies, academic institutions, and non-profit organizations. In fact, the vast majority of Departmental funding is distributed through a combination of contracts, grants, cooperative agreements, and other financial assistance awards. Under these circumstances, successful contract management is essential. Numerous OIG reports have documented the barriers and missteps associated with successfully managing the Department's contracting process. Widely publicized concerns with the management of a number of major, multi-million dollar projects, all under the auspices of the Department's contractors, reflect the depth of this issue. For these reasons, Contract and Financial Assistance Award Management remains 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, protecting cyber assets has become a crucial aspect of the Department's overall security posture. As a whole, the Department invests about \$2.1 billion each year in information technology. Although the Department has implemented numerous countermeasures in recent years, security challenges and threats to the Department's information systems continue and are constantly evolving. As such, it is critical that cyber security protective measures keep pace with these growing threats. As a result of the inherent risks associated with the sensitivity of much of the Department's work, we have identified Cyber Security as a continuing management challenge.

Energy Supply

Fundamental concerns related to the availability of energy in the U.S. have had a dramatic impact on consumers and the economy, with implications on national security. Through its role in areas of scientific discovery and innovation, 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 a reliable, affordable, and environmentally sound Energy Supply represents a

significant management challenge for the Department, which will require both short-term and long-term solutions.

Environmental Cleanup

In the 1980's, the Department began an expedited process to dispose of large volumes of radioactive, hazardous, and mixed waste resulting from many years of nuclear defense and energy research work. This involves remediation efforts covering millions of acres of land in 35 states, the engagement of more than 30,000 Federal and contractor employees, and an unfunded Federal remediation liability of approximately \$268 billion. The entire effort, perhaps the largest and most complex of its kind ever undertaken, will continue well into the future. While there have been a number of notable programmatic successes, significant difficulties have been encountered. As a result, Environmental Cleanup remains a management challenge that warrants attention by the Department's senior leadership.

Human Capital Management

Strategic management of human capital, recognized as one of the Government's most significant challenges, directly affects the Department of Energy. This applies both to the Federal and contractor workforces. The Department has endeavored to address these concerns. To cite one example, recognizing the importance of enhancing staff project management skills, the Department analyzed critical skills gaps in this area and developed a specific strategy to fill those needs. However, Human Capital Management remains a challenge for several reasons: (1) the Department and its contractors face a significant "baby boomer" retirement turnover resulting in the loss of highly skilled employees; (2) the reality of the current Federal budget environment will lead to potential job losses – again having an impact on the Department's skilled workforce; and, (3) the intense public/private sector demand for a competent workforce has made job recruitment and retention a continuing concern for the Department and its contractors. This challenge represents a critical area that will affect nearly all of the Department's programs going forward.

Nuclear Waste Disposal

Under the Nuclear Waste Policy Act of 1982, the Department is responsible for the management and safe disposal of high-level defense and commercial nuclear waste. For a number of years, the development of the Yucca Mountain Nuclear Waste Repository in Nye County, Nevada, was the centerpiece of this effort. The Department's FY 2010 budget request, however, included no funding for the Yucca Mountain Project, effectively terminating the project and the work of the Office of Civilian Radioactive Waste Management. Since that time, the Blue Ribbon Commission on America's Nuclear Future, created by the President and the Secretary, issued its findings and suggested new policies for managing the back end of the nuclear fuel cycle. However, despite the work of the Commission, solutions for the nuclear waste disposal issue have not yet been fully defined or approved and, at best, will take decades to implement. Given the importance of a nuclear waste disposal strategy that protects public health, safety, and the environment and the current uncertainties associated with such a strategy, Nuclear Waste Disposal remains a significant challenge facing the Department.

Safeguards and Security

The Department is responsible for safeguarding some of the Nation's most sensitive facilities and materials, including the nuclear weapons complex, the national laboratory system, a variety of sensitive materials, and other critical infrastructure assets. Recent events, including those at the Y-12 National Security Complex, have highlighted the need for a robust security apparatus with effective Federal oversight. Consequently, we have elevated Safeguards and Security to the list of significant management challenges.

Stockpile Stewardship

The Department is responsible for the reliability of the Nation's nuclear weapons stockpile. To help ensure that these assets are mission ready, the Department, using a science-based strategy, conducts stockpile surveillance and engineering analyses, refurbishes and updates selected nuclear systems, and maintains the ability to restore its aging weapons production infrastructure. This massive National Nuclear Security Administration (NNSA) undertaking involves the administration of three defense laboratories, management of the weapons production complex, and frequent interactions with the U.S. Department of Defense on related matters. Both OIG and

Government Accountability Office reports have identified concerns with project management, delays in refurbishment efforts, and facility safety and security, all in an era of declining budgets. Even though the Department and NNSA have taken steps to address these issues, the Stockpile Stewardship challenge persists.

Operational Efficiency and Cost Savings

As part of our Management Challenges report for FY 2012, we concluded that Federal budgetary concerns made finding ways to optimize agency operations and reduce costs the preeminent management challenge facing the Department.

In this context, our Management Challenges report suggested a series of large-scale, high-impact operational efficiency and cost reduction initiatives. Intended to provide a starting point for further discussion and examination, these proposals include:

- Applying the Quadrennial Technology Review strategic planning concept to the Department's entire science and technology portfolio;
- Eliminating costly duplicative NNSA functions;
- Evaluating, consolidating, and/or rightsizing the Department's laboratory and technology complex;
- Reprioritizing the Department's environmental remediation efforts with the goal of funding the work on a risk basis; and
- Realigning the current structure of the Department's physical security apparatus.

Additional details follow:

Expand the Quadrennial Technology Review (QTR) strategic planning concept to the Department's entire science and technology portfolio: In September 2011, the Department released its inaugural QTR, in essence a research and development strategic plan. In his message prefacing the report, the Secretary referred to the hard budget choices and fiscal challenges facing the Department, concluding that the Department must find ways to intelligently choose between the many technically viable activities it could pursue. The QTR, advanced as a

mechanism to guide these difficult choices, provided quality analysis and important information. However, as beneficial as it may be, the scope was limited to the Department's energy-related technology sector. We concluded that the discipline of the QTR process should be applied to the Department's entire set of science and technology activities. This type of large-scale planning effort would enable the Department to better evaluate its multi-billion dollar per year science effort to determine whether its science initiatives are aligned with current priorities; identify metrics to help decision makers confirm that research dollars are used for the highest and best purposes; and, determine whether the work of its separate system of 16 FFRDCs are properly integrated.

Eliminate duplicative NNSA functions: Created in response to national security concerns, NNSA was established as a separately organized agency within the Department of Energy under the Defense Authorization Act of 2000. NNSA maintains a set of distinctly separate overhead and indirect cost operations that often duplicate existing Departmental functions. These include human resources, general counsel, congressional and public affairs, procurement and acquisition, and information technology. These expenses are significant and parallel functions that exist at Headquarters as well as a number of field sites where Department and NNSA activities are co-located. In addition to cost considerations, these redundancies can complicate communications and program execution and cause different interpretations of core Departmental policy. The sustainability of this arrangement in the current budget environment is highly questionable. We recommend that the alignment be closely examined with the goals of consolidating overlapping efforts, preserving scarce resources, and improving operations.

Establish a "BRAC-style" commission to analyze the Department's laboratory and technology complex: The Department operates 16 FFRDCs at an annual cost of more than \$10 billion.¹ Of this amount, nearly \$3.5 billion was spent on functions including executive direction, human resources, procurement, legal, safeguards and security, utilities, logistics support, and information services. In our view, the proportion of scarce science resources diverted to administrative, overhead, and indirect costs for each laboratory may be unsustainable in the current budget environment. We recommended that the Department, using a BRAC-style

¹ This figure excludes the sizeable "Work for Others" programs at the Department's national laboratories.

formulation, analyze, realign, and consolidate laboratory operations to reduce indirect costs and, as a result, provide greater funds for science and research.

Reprioritize the Department's environmental remediation efforts: The Department's current unfunded environmental remediation liability is approximately \$268 billion. As a result of more than 50 years of nuclear defense and energy research work, the Department spends about \$6 billion per year on its environmental remediation activities. In doing so, program costs are largely "driven" by 37 individually negotiated Federal Facility Agreements (FFA) at key Department sites across the Nation. The FFAs involve no less than 350 milestones at these sites. The FFAs are augmented by numerous other local agreements with their own set of actions, requirements, milestones and due dates. The existing structure needs to be modified to reflect the realities of significant reductions in the Department's environmental cleanup budget. Consequently, we recommended that the Department revise its current remediation strategy and address environmental concerns on a national, complex-wide risk basis. This would result in a form of a complex-wide environmental remediation triage, funding only high-risk activities that represent imminent or near term danger to health and safety, or further environmental degradation.

Re-evaluate the current structure of the Department's physical security apparatus: The Department spends more than \$1 billion per year providing physical security for its facilities and related materials and data. Of this amount, nearly \$700 million per year is spent on a complex-wide protective force staff of nearly 4,000 highly trained professionals. The protective force staff is made up exclusively of contractor personnel retained through different mechanisms. These arrangements, which lack uniformity and consistency, result in at least 25 separate contract instruments, all with costly overhead burdens. We concluded the new budget realities require change and we recommended an in-depth evaluation of available options. These include a "master contract" to provide security at all Department facilities or consolidating protective force contracts by region or Departmental entity. Perhaps of greatest importance, in our judgment, Federalizing the protective force is an option that needs to be on the table. Protective force contract realignment or some form of Federalization may reduce security costs and improve the Department's physical security posture.

Observations

The Department of Energy faces a number of management challenges that require rigorous and sustained efforts. In our view, current and prospective Federal budget levels will likely make the job of resolving these challenges even more difficult. For this reason, we believe that the Department needs to undertake a comprehensive analysis of its operations with the goals of increasing efficiency and reducing cost. We are mindful of the fact that the proposals we have made in this regard are difficult to implement, highly controversial, and politically challenging. Further, to achieve long-term cost reduction, some near-term infrastructure investments may be necessary. We look forward to working with program officials, agency management, and the Congress in our effort to resolve the challenges facing the Department and protect the interests of the U.S. taxpayer.

Mr. Chairman, this concludes my statement and I would be pleased to answer any questions that the Subcommittee may have.