



U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE

February 22, 2016

TO: Members, Subcommittee on Oversight and Investigations

FROM: Committee Majority Staff

RE: Hearing entitled “DOE for the 21st Century: Science, Environment, and National Security Missions”

On Wednesday, February 24, 2016, at 11:30 a.m. in 2322 Rayburn House Office Building, the Subcommittee on Oversight and Investigations will hold a hearing entitled “DOE for the 21st Century: Science, Environment, and National Security Missions.” The Subcommittee will hear from the co-chairmen of two advisory panels that were requested by Congress to examine respectively: (a) the structure, mission, and management of the nuclear security enterprise and (b) the mission and management of the Department of Energy’s (DOE) national laboratories. The hearing will examine the advisory panels’ findings and recommendations concerning the governance, management, and accountability necessary for DOE to perform its most critical missions.

I. WITNESSES

- The Honorable Norman R. Augustine, Co-Chairman, Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise, former chairman and CEO Lockheed Martin Corp.;
- Admiral Richard W. Mies, U.S. Navy (Retired), Co-Chairman, Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise, former Commander in Chief of U.S. Strategic Command;
- Dr. Jared L. Cohon, Co-Chairman, Commission to Review the Effectiveness of the National Energy Laboratories, President Emeritus, Carnegie Mellon University; and
- The Honorable TJ Glauthier, Co-Chairman, Commission to Review the Effectiveness of the National Energy Laboratories, former Deputy Secretary, Department of Energy.

II. BACKGROUND

The U.S. Department of Energy, with responsibility for the nation’s nuclear weapons and related nuclear security programs, conducts some of the most critical national security-related missions. The Department traces its origins and core nuclear weapons, scientific, and technological missions to the World War II Manhattan Project and subsequently, to the Atomic

Energy Act of 1946, amended in 1954,¹ which established the Atomic Energy Commission and the nation's policy of civilian control of nuclear energy. DOE was established as a Cabinet agency in 1977 pursuant to the Department of Energy Organization Act. The new agency consolidated the core nuclear security and R&D programs and responsibilities of predecessor agencies with various other Federal energy-related agencies into a single department² under the authority of a single Cabinet Secretary.

Although DOE currently engages a broad range of national security, scientific, and environmental activities across the agency,³ a large portion of its operations are dedicated to its nuclear security mission. This is largely conducted through the Department's National Nuclear Security Administration (NNSA). This mission includes the management and security of the nation's nuclear weapons, nuclear nonproliferation, and naval reactor programs. It also includes response to nuclear and radiological emergencies in the United States and abroad.

In total, DOE's nuclear security activities account for more than 40 percent of the agency's nearly \$30 billion budget. Add the environmental cleanup of the former atomic weapons sites and the agency's atomic energy defense activities surpass 65 percent of the DOE's budget. Of the DOE's 17 National Laboratories, NNSA's 3 nuclear weapons design labs—Los Alamos National Laboratory, Lawrence Livermore National Laboratory, and Sandia National Laboratories—account for nearly half of laboratory budgets at about \$6.4 billion, followed by the Office of Science's 10 laboratories at about \$5.4 billion, and the 4 applied energy laboratories, at about \$2 billion.⁴

Chronic mission management and performance issues: Many of the troublesome and well-publicized challenges confronting DOE's mission fulfillment – project delays and billion-dollar cost overruns, safety and security problems, oversight failures – relate to the essential structure and organizational philosophy of the agency. The majority of DOE missions are performed in the field by contractors, who manage and operate the National Laboratories, weapons production facilities, and cleanup sites.⁵ These contractors conduct the agency's often high-risk, technically unique, and complex projects. As a result, the challenges concerning mission fulfillment have required constant, disciplined vigilance on the part of DOE as it has transformed its operations and facilities to execute post-Cold War national policies. Unfortunately, the vigilance has not always kept up with the challenges, as serious security breaches and safety problems in the 1990s demonstrated, particularly in the nuclear weapons complex.⁶

¹ See Atomic Energy Act of 1954 (42 U.S.C. § 2011 et seq.).

² See Department of Energy Organization Act (August 4, 1977); see also 42 U.S.C Chapter 84.

³ For links to the offices and descriptions of activities, see DOE Program Offices, Labs & Technology Centers, Power Marketing Administration, Operations Offices, Other Agencies and Staff Offices.

⁴ FY2014 total budgets from Securing America's Future: Realizing the Potential of the Department of Energy's National Laboratories, Final Report of the Commission to Review the Effectiveness of the National Energy Laboratories, Volume 2, at page 3.

⁵ Use of contractors also stems from the development of Manhattan project, in which the federal government sought to harness the scientific, engineering, and management expertise of academia and industry that did not exist in the Federal government.

⁶ See, for example, the series of Energy and Commerce Committee hearings held on April 20, 1999, June 22, 1999, July 13, 1999, July 20, 1999, and October 26, 1999.

In 1999, as a result of serious security lapses and other management failures across the nuclear weapons complex, Congress created the NNSA to manage nuclear weapons research and production activities, as well as other defense-related national security and nuclear non-proliferation activities of the Department.⁷ The NNSA was established as a semi-autonomous agency within DOE, subject to “the authority, direction, and control” of the Secretary of Energy.⁸ The concept was that “semi-autonomy” would improve governance over the nuclear security missions and establish an effective operational management and oversight system that would reduce cost-overruns, safety and security failures, and burdensome oversight of the missions, leading to improved performance.

Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise:
In the decade following the formation of NNSA, there have been persistent project management, security, and safety problems within the nuclear weapons complex. Accidents and nuclear safety violations contributed to the temporary shutdown of facilities at both Los Alamos and Lawrence Livermore laboratories in 2004 and 2005, respectively, costing taxpayers hundreds of millions of dollars in lost productivity.⁹

More recent issues concerning cost-overruns, cancelled projects, and oversight failures¹⁰ prompted Congress in January 2013 to establish an advisory panel of distinguished individuals “to examine options and make recommendations for revising the governance structure, mission, and management of the nuclear security enterprise.”¹¹

That panel, co-chaired by Mr. Norman Augustine and Admiral Richard Mies, reported its findings and unanimous recommendations in December 2014. The panel found that the structure of NNSA “semi-autonomy” has not established the effective operations system that Congress intended for DOE’s nuclear mission. As the final report, “A New Foundation for the Nuclear Enterprise,” notes:

One unmistakable conclusion is that NNSA governance reform, at least as it has been implemented, has failed to provide the

⁷ DOE continued to manage separately Environmental Management sites and programs and energy-related research and development activities and sites operated by the Office of Science, which to some extent overlap with some NNSA site and facility operations.

⁸ See Section 202 c (3) of the DOE Organization Act, also available at [42 U.S.C. 7132](#).

⁹ Accidents and nuclear safety violations contributed to the temporary shutdown of facilities at both Los Alamos and Lawrence Livermore in 2004 and 2005, respectively, costing taxpayers hundreds of millions of dollars in lost productivity. See for example, “Nuclear and Worker Safety: Actions Needed to Determine the Effectiveness of Safety Improvement Efforts at NNSA’s Weapons Laboratories,” GAO, October 2007. [GAO-08-73](#).

¹⁰ Subcommittee hearings in 2012, 2013, and 2015 highlighted DOE’s current oversight and contractor management challenges, which were most notably demonstrated by the serious security breach at the Y-12 National Security Complex in July 2012 and the oversight failures behind a radiological incident involving Los Alamos Laboratory in 2014. See Subcommittee on Oversight and Investigations hearings on [September 12, 2012](#), [March 13, 2013](#), [July 24, 2013](#), and [June 12, 2015](#).

¹¹ Section 3166 of the [Fiscal Year 2013 National Defense Authorization Act](#) established the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise and tasks the advisory panel to offer recommendations “with respect to the most appropriate governance structure, mission, and management of the nuclear security enterprise.”

effective, mission-focused enterprise that Congress intended. The necessary fixes will not be simple or quick, and they must address systemic problems in both management practices and culture that exist across the nuclear enterprise:

- First, a lack of sustained national leadership focus and priority, starting with the end of the Cold War, has undermined the foundation for nuclear enterprise governance and contributes to virtually all of the observed problems;
- Second, inadequate implementation of the legislation establishing NNSA as a separately organized sub element of DOE has resulted in overlapping DOE and NNSA headquarters staffs and blurred ownership and accountability for the nuclear enterprise missions;
- Third, the lack of proven management practices, including a dysfunctional relationship between line managers and mission-support staffs, has undermined the management culture within NNSA;
- Fourth, dysfunctional relationships between the government and its Management and Operating (M&O) site operators has encouraged burdensome transactional oversight rather than management focus on mission execution;
- Fifth, insufficient collaboration between DOE/NNSA and DOD weapons customers has generated misunderstanding, distrust, and frustration.¹²

To address the systemic problems identified, the panel made recommendations along 5 themes:

- Strengthen national leadership focus, direction, and follow through;
- Solidify the Secretary's leadership of the mission;
- Adopt proven management practices to build a culture of performance, accountability, and credibility;
- Maximize the contribution of the management and operating (M&O) organizations to the safe and secure execution of the mission; and
- Strengthen customer collaboration to build trust and shared view of mission success.¹³

Notably, the panel examined NNSA governance reforms and recommended that Congress, rather than increase NNSA autonomy, should reorganize this program within DOE in an appropriate manner to strengthen Secretarial ownership and accountability and to eliminate duplication, which would help ensure mission performance. These themes and recommendations, particularly those involving Congressional action and oversight, and what to expect of DOE, may be explored at the hearing.

¹² See "[A New Foundation for the Nuclear Enterprise: Report on the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise](#)," November 2014, at page xii.

¹³ *Id.* at page xix.

The Commission to Review the Effectiveness of the National Energy Laboratories:
In 2014, Congress established the “Commission to Review the Effectiveness of the National Energy Laboratories.”¹⁴ The Commission, co-chaired by Mr. TJ Glauthier and Dr. Jared Cohon, was charged with evaluating the 17 DOE National Laboratories in terms of alignment with DOE’s strategic priorities, duplication, ability to meet future energy and national security challenges, size, and support of other Federal agencies, among other topics.¹⁵

Issued in October 2015, the Commission’s report, “Securing America’s Future: Realizing the Potential of the Department of Energy’s National Laboratories,” found in general that the DOE laboratories are performing effectively, but that current oversight models and contracting arrangements could be reformed to enhance mission success. The Commission issued some 36 recommendations across a number of themes, including “rebuilding trust,” “maintaining alignment and quality,” “maximizing impact,” and “managing effectiveness and efficiency.”

Notably, many of the Commission’s recommendations relating to the relationship of DOE, the contractors managing the laboratories, and the laboratory management, align with recommendations in the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise. Questions at the hearing exploring the cross-cutting lessons, particularly between the management and oversight of the 10 science labs by DOE’s office of Science and the 3 weapons design labs by the NNSA, may help illuminate issues of oversight the Subcommittee has been examining in recent years.

III. ISSUES

The following issues may be examined at the hearing:

- What is the appropriate structure of nuclear enterprise governance and accountability within the Department of Energy?
- What are the most essential management reforms necessary for improving oversight and mission performance of the nuclear security enterprise and DOE’s national laboratories?
- What have been DOE’s actions in response to the recommendations of the 2 panels?

IV. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Peter Spencer or John Ohly of the Committee staff at (202) 225-2927.

¹⁴ See Section 319 of the [Consolidated Appropriations Act, 2014](#).

¹⁵ See [“Securing America’s Future: Realizing the Potential of the Department of Energy’s National Laboratories: Final Report of the Commission to Review the Effectiveness of the National Energy Laboratories.”](#) Vol I and II.