

ONE HUNDRED FOURTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
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**MEMORANDUM**

**June 10, 2015**

**To: Subcommittee on Oversight and Investigations Democratic Members and Staff**

**Fr: Committee on Energy and Commerce Democratic Staff**

**Re: Hearing on “Oversight Failures Behind the Radiological Incident at DOE’s Waste Isolation Pilot Plant”**

On Friday, June 12, 2015, at 9:45 a.m. in 2322 Rayburn House Office Building, the Subcommittee on Oversight and Investigations will hold a hearing titled “Oversight Failures Behind the Radiological Incident at DOE’s Waste Isolation Pilot Plant.” The hearing will focus on recent events at the Department of Energy’s Waste Isolation Pilot Plant (WIPP) and contractor oversight activities at both the Department and the National Nuclear Security Administration (NNSA).

**I. BACKGROUND**

Enhancing nuclear safety and security is a key part of the Department of Energy’s (DOE) mission through the development of nuclear weapons and the clean-up and management of resulting nuclear materials.<sup>1</sup> To conduct these activities, DOE relies on a host of management and operating (M&O) contractors to operate, maintain, or support government-owned or controlled facilities.<sup>2</sup>

**DOE’s Office of Environmental Management (EM)** directs the cleanup of Cold War-era nuclear weapons development and government-sponsored nuclear energy research.<sup>3</sup> This

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<sup>1</sup> Department of Energy, *Mission* (accessed June 5, 2015).

<sup>2</sup> Government Accountability Office, *National Nuclear Security Administration: Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation* (May 2015) (GAO-15-216).

<sup>3</sup> Department of Energy Office of Environmental Management, *About Us* (accessed June 5, 2015).

includes cleaning up dangerous radioactive sites with large amounts of radioactive waste, excess plutonium and uranium, thousands of contaminated facilities, and contaminated soil and groundwater. EM accounts for 20% of DOE's budget.<sup>4</sup>

**The National Nuclear Security Administration (NNSA)** was organized as a quasi-independent entity within DOE in 2000, to manage the country's nuclear weapons, nuclear nonproliferation programs, and naval reactor programs. NNSA currently maintains seven field offices that are responsible for providing day-to-day oversight of the activities of the M&O contractors at each of the eight sites in the nuclear security complex.<sup>5</sup> NNSA accounts for 40% of the total DOE budget.<sup>6</sup>

The Committee on Energy and Commerce, U.S. Government Accountability Office (GAO), the DOE-Inspector General (IG), and others have noted long-standing problems in DOE's management of contractors and stewardship of its nuclear missions. Some examples include:

- Between 1999 and 2007, the Oversight and Investigations Subcommittee held nearly a dozen hearings about security lapses at Los Alamos National Laboratory (LANL) in New Mexico. The Subcommittee found repeated security failures, including reports of lost and stolen classified material, computer breaches compromising employees' Social Security numbers, and transmission of classified materials via unclassified networks.<sup>7</sup>
- In 2008, GAO found security and protection of weapons-grade nuclear material severely lacking at Lawrence Livermore National Laboratory in Berkeley, California, due in large part to a deficiency in oversight by NNSA.<sup>8</sup>
- A 2012 GAO report found that ongoing efforts to construct and operate a waste cleanup plant in Hanford, Washington—the nation's largest former nuclear weapons site—had experienced significant delays and cost increases due to mismanagement by the DOE. There have also been reports that DOE and the contractor at Hanford have discouraged employees from raising technical and safety concerns. GAO found that the estimated

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<sup>4</sup> Department of Energy, *FY 2016 Congressional Budget Request*.

<sup>5</sup> See note 2.

<sup>6</sup> *Id.*

<sup>7</sup> Committee on Energy and Commerce, *Hearing on Continuing Security Concerns at Los Alamos National Laboratory*, 110<sup>th</sup> Cong. (Jan 30, 2007).

<sup>8</sup> Government Accountability Office, *Better Oversight Needed to Ensure That Security Improvements at Lawrence Livermore National Laboratory Are Fully Implemented and Sustained* (Mar. 16, 2009) (GAO-09-321).

construction costs grew from \$3.4 billion in 2000 to \$13.4 billion in May 2012, and the scheduled completion date had slipped nearly a decade to 2019.<sup>9</sup>

- The Subcommittee held hearings to investigate a July 2012 security breach at Y-12 National Security Complex in Oakridge, Tennessee.<sup>10</sup> Three protestors, including an 82-year-old nun, gained access to a secure area and vandalized the building. A DOE IG investigation found communications failures between NNSA and the contractors in managing the security system and personnel, and also revealed poorly maintained security measures.<sup>11</sup>

GAO has placed DOE's contract management for NNSA and EM on the Agency's High Risk List for government operations at high risk for fraud, waste, abuse, and mismanagement.<sup>12</sup> The high risk designation focuses on EM and NNSA's struggles to stay within cost and schedule estimates for most major projects.

## **II. THE WASTE ISOLATION PILOT PLANT**

### **A. Background**

The Waste Isolation Pilot Plant (WIPP), located in New Mexico, has operated since 1999 as the nation's only repository for the disposal of nuclear waste, known as transuranic (TRU) waste, generated from DOE's nuclear weapons research, production, and clean-up activities.<sup>13</sup> TRU waste, which consists of clothing, tools, rags, debris, soil, and other items contaminated with small amounts of plutonium and other man-made radioactive elements, is disposed of 2,150 feet underground in rooms mined from a salt bed.<sup>14</sup>

EM oversees WIPP through its Carlsbad Field Office, and a private contractor, Nuclear Waste Partnership, LLC (NWP), manages its operations. WIPP receives waste from throughout

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<sup>9</sup> Government Accountability Office, *DOE Needs to Take Action to Resolve Technical and Management Challenges* (Dec. 2012) (GAO-13-38); Rebecca Laflure, *Hanford nuclear cleanup slow, workers frustrated*, McClatchy DC (Nov. 18, 2013).

<sup>10</sup> Committee on Energy and Commerce, *Hearing on DOE's Nuclear Weapons Complex: Challenges to Safety, Security, and Taxpayer Stewardship*, 112<sup>th</sup> Cong. (Sept. 12, 2012); Committee on Energy and Commerce, *Hearing on DOE Management and Oversight of Its Nuclear Weapons Complex: Lessons of the Y-12 Security Failure*, 113<sup>th</sup> Cong. (Mar. 13, 2013).

<sup>11</sup> Department of Energy Office of Inspector General, *Inquiry into the Security Breach at the National Nuclear Security Administration's Y-12 National Security Complex* (Aug. 2012) (DOE/IG-0868).

<sup>12</sup> GAO, *High-Risk Series: An Update* (Feb. 2015) (GAO-15-290).

<sup>13</sup> Department of Energy, *WIPP Recovery, WIPP Update* (May 28, 2015).

<sup>14</sup> *Id.*

DOE's nuclear research and development laboratories, production plants, and other facilities managed by NNSA and EM across the country.<sup>15</sup>

## **B. WIPP Incidents and Accident Investigation Board Findings**

In February 2014, two isolated events occurred at WIPP. Waste disposal operations at the facility have been suspended since that time. On February 5, a truck caught fire, forcing an evacuation of workers and a shutdown of the underground portion of WIPP. On February 14, there was an unrelated underground radiological release from a waste container that contaminated the facility and released contamination into the air above ground. After the two events, DOE established two Accident Investigation Boards (AIBs) to conduct independent reviews "to assess the WIPP safety systems programs and processes at the federal and contractor levels."<sup>16</sup>

The accident investigations found that both incidents were preventable.<sup>17</sup> The truck fire accident was found to be caused by leaky fluids due to inadequate cleaning and maintenance.<sup>18</sup> The radiological release was found to be the result of a chemical reaction that burst an incorrectly loaded waste drum from LANL. Due to an erroneously revised procedure, this drum used organic (instead of inorganic) cat litter as an absorbent, leading to the chemical reaction.

The AIBs identified the systemic root cause of the radiological accident as failures by the Los Alamos Field Office and National Transuranic Program/Carlsbad Field Office to ensure that LANL had adequately developed, implemented, or reviewed procedures for safely processing and packaging waste being sent to WIPP. In addition, WIPP's delayed response and inadequate ventilation systems allowed radiation to be released into the outside environment.<sup>19</sup>

DOE devised a recovery plan for WIPP to resume limited waste disposal operations by the first quarter of 2016.<sup>20</sup> The plan incorporates measures to decontaminate the underground facilities, strengthen safety programs, increase ventilation, and ensure regulatory compliance.

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<sup>15</sup> *Id.*

<sup>16</sup> Department of Energy, *What Happened At WIPP in February 2014* (Mar. 4, 2015).

<sup>17</sup> Department of Energy, *Accident Investigation Report: Underground Salt Haul Truck Fire at the Waste Isolation Pilot Plant, February 5, 2014* (Mar. 2014); Department of Energy, *Accident Investigation Report: Phase I Radiological Release Event at the Waste Isolation Pilot Plant, February 14, 2014* (Apr. 2014); Department of Energy, *Accident Investigation Report: Phase 2 Radiological Release Event at the Waste Isolation Pilot Plant, February 14, 2014* (Apr. 2015).

<sup>18</sup> Department of Energy, *Accident Investigation Report: Underground Salt Haul Truck Fire at the Waste Isolation Pilot Plant, February 5, 2014* (Mar. 2014).

<sup>19</sup> Department of Energy, *Accident Investigation Report: Phase I Radiological Release Event at the Waste Isolation Pilot Plant, February 14, 2014* (Apr. 2014).

<sup>20</sup> Department of Energy, *Waste Isolation Pilot Plant Recovery Plan* (Sept. 30, 2014).

The full recovery project may not be complete until the second quarter of 2018. The plan estimated costs of up to \$550 million for restoring WIPP to full operations.<sup>21</sup>

In response to the accident, DOE reduced 2014 award fees for LANL's contractor—Los Alamos National Security, LLC (LANS)—by \$57 million dollars (or 90%) and the duration of the management contract by one year.<sup>22</sup> NWP's award fee for the management of WIPP was reduced by \$7 million dollars (over 90%).<sup>23</sup>

### **C. Oversight Failures by DOE and M&O Contractors**

In addition to the immediate causes of the incidents, the accident reports highlight various oversight failures by both M&O contractors (LANS and NWP), both field offices, and DOE headquarters. The report found that LANS's contractor assurance system (CAS) failed "to identify weaknesses in the processes for operating procedure development; hazard analysis and control; and review," which resulted in an inadequate procedure for processing certain waste and the shipping of noncompliant waste drums to WIPP.<sup>24</sup> The reports also found that "NWP has not fully developed an integrated contractor assurance system that provides assurance that work is performed compliantly, risks are identified, and control systems are effective and efficient."<sup>25</sup>

The accident reports made over 100 recommendations, including that (i) DOE address deficiencies in its headquarters and field office oversight, and that (ii) the contractors develop effective contractor assurance systems capable of identifying and correcting safety-related issues.<sup>26</sup>

## **III. GAO REPORT RAISES MAJOR CONCERNS ABOUT NNSA'S ABILITY TO OVERSEE CONTRACTORS**

### **A. NAP-21 Policy Framework for Contractor Oversight**

Effective contractor assurance should provide both the contractor and the federal oversight staff with the necessary data to manage and oversee contract performance.<sup>27</sup> In

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<sup>21</sup> Department of Energy, *WIPP Recovery Workshop* (Jan. 14, 2015).

<sup>22</sup> W. J. Hennigan and Ralph Vartabedian, *Los Alamos Lab Contractor Loses \$57 Million Over Nuclear Waste Accident*, Los Angeles Times (Jan. 11, 2015).

<sup>23</sup> Department of Energy, *FY14 NWP Fee Determination Scorecard* (Oct. 1, 2013-Sep. 30, 2014).

<sup>24</sup> Department of Energy, Office of Environmental Management, *Accident Investigation Report: Phase 2 Radiological Release Event at the Waste Isolation Pilot Plant, February 14, 2014* (Apr. 2015).

<sup>25</sup> See note 22.

<sup>26</sup> See note 20.

<sup>27</sup> *Id.*

February 2011, NNSA issued a policy document, called “NAP-21,” to provide direction to NNSA officials and M&O contractors regarding development of a new framework for contractor oversight.<sup>28</sup> Under NAP-21, NNSA directed its contractors to implement contractor assurance systems (CAS) that NNSA could also leverage for oversight purposes and thereby improve efficiency — a CAS is a contractor-designed and utilized system used to assess performance; provide data for management decision-making processes; and more effectively manage processes, resources, and outcomes.

## **B. GAO Review of NAP-21 Policy and NNSA Response to Review**

In light of the host of problems found at NNSA’s weapons production and cleanup sites, the committee asked the US Government Accountability Office (GAO) to review NNSA’s implementation of the new contractor assurance system framework proposed in NAP-21.

In its review, GAO found several major deficiencies in the implementation of the framework.<sup>29</sup> Specifically, GAO determined that NNSA had not fully established policies or guidance for using information from CAS to effectively oversee its contractors. Consequently, NNSA lacks standards for ensuring that contractors are overseen consistently. GAO also found that NNSA had not determined whether it had sufficient, qualified people to use CAS data to oversee or evaluate contractor performance. NNSA field office officials have also raised concerns that staffing levels and the mix of staff skills may not be adequate to conduct independent oversight in the future, and that this may result in overreliance on information from CAS without the ability to ensure that this information is of sufficient quality.

GAO’s report recommended, among other things, that NNSA: (i) develop guidance to use the information from CAS to monitor and oversee M&O contractors; (ii) reinstitute a process to evaluate effectiveness of their oversight; and (iii) study its staffing needs to determine whether it has sufficient, qualified personnel to conduct oversight activities.<sup>30</sup>

NNSA concurred with all of GAO’s recommendations. According to its comment letter in response to the GAO report, NNSA plans to address these recommendations by issuing a new corporate policy that will form a comprehensive framework for contractor assurance systems.<sup>31</sup>

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<sup>28</sup> Government Accountability Office, *National Nuclear Security Administration: Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation* (May 2015) (GAO-15-216). NAP-21 is a policy letter entitled “Transformational Governance and Oversight,” which lays out a framework for, among other things, how NNSA would conduct oversight over its M&O contractors. Under the framework, when appropriate, NNSA is to place greater reliance on information from contractor assurance systems and focus scarce federal oversight resources on areas of highest risk or weakest contractor performance. NAP-21 also envisions a role for information from CAS to be used in NNSA’s annual evaluation of contractors’ performance.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

The Agency also plans to assess staffing needs and develop a staffing strategy.

#### **IV. WITNESSES**

The following witnesses have been invited to testify:

**Madelyn R. Creedon**

Principal Deputy Administrator  
National Nuclear Security Administration

**Mark Whitney**

Assistant Secretary for Environmental Management  
Department of Energy

Accompanied by:

**Theodore A. Wyka**

Chairperson  
Accident Investigation Board, and  
Chief Nuclear Safety Officer  
Office of Environmental Management  
Department of Energy

**Allison B. Bawden**

Acting Director  
Natural Resources and Environment  
U.S. Government Accountability Office