

OVERSIGHT FAILURES BEHIND THE RADIO-
LOGICAL INCIDENT AT DOE'S WASTE ISOLA-
TION PILOT PLANT

HEARING
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND
INVESTIGATIONS
OF THE
COMMITTEE ON ENERGY AND
COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTEENTH CONGRESS
FIRST SESSION

JUNE 12, 2015

Serial No. 114-54



Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

97-612 PDF

WASHINGTON : 2015

For sale by the Superintendent of Documents, U.S. Government Publishing Office
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¹ The Department of Energy provided a joint response to questions submitted to Secretary Ernest Moniz.

² Mr. Wyka did not offer an oral or written statement for the record.

³ The information has been retained in committee files and also is available at <http://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=103595>.

OVERSIGHT FAILURES BEHIND THE RADIOLOGICAL INCIDENT AT DOE'S WASTE ISOLATION PILOT PLANT

FRIDAY, JUNE 12, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:47 a.m., in Room 2322, Rayburn House Office Building, Hon. Tim Murphy [chairman of the subcommittee] presiding.

Members present: Representatives Murphy, Burgess, Blackburn, Bucshon, Brooks, Mullin, Collins, Upton (ex officio), DeGette, Green, Welch, and Pallone (ex officio).

Also present: Representative Luján.

Staff present: Charles Ingebretson, Chief Counsel, Oversight and Investigations; John Ohly, Professional Staff Member, Oversight and Investigations; Chris Santini, Policy Coordinator, Oversight and Investigations; Dan Schneider, Press Secretary; Peter Spencer, Professional Staff Member, Oversight and Investigations; Jessica Wilkerson, Oversight Associate; Christine Brennan, Democratic Press Secretary; Jeff Carroll, Democratic Staff Director; Ryan Gottschall, Democratic GAO Detailee; Christopher Knauer, Democratic Oversight Staff Director; Elizabeth Letter, Democratic Professional Staff Member; and Timothy Robinson, Democratic Chief Counsel.

OPENING STATEMENT OF HON. TIM MURPHY, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

Mr. MURPHY. All right. Good morning. I apologize for the delay, but we are here now. This is the hearing on the "Oversight Failures Behind the Radiological Incident at DOE's Waste Isolation Pilot Plant."

Today we will review a costly series of oversight failures at two important Department of Energy sites. These failures contributed to a radiological leak last year at one of the sites, the Waste Isolation Pilot Plant, known as WIPP, which serves to dispose in mined salt caverns certain types of radiological waste from our Nation's nuclear weapons programs.

This leak, along with a separate truck fire the week before, exposed management and oversight shortcomings both at WIPP and at one of the Nation's premier national laboratories, the Los Ala-

mos National Laboratory. Los Alamos, it turns out, was the source of the radiological material and the errors that caused a reaction in the material that burst a container in WIPP's underground facility.

Since the incident, WIPP has been shut down, and the Department has embarked on remediation, training, and rebuilding that will cost taxpayers an estimated \$240 million just to restart limited operations next year. All told, it may ultimately cost more than \$500 million before full operations are estimated to commence in 2018, and there are reports of DOE fines or settlements of some \$73 million.

This was no small oversight failure, and the issues we will examine today raise broader questions about the state of the Department's oversight framework for operations and its various cleanup at nuclear sites.

The root cause of the radiological incident was established in a DOE report this past April. Basically, hundreds of containers were inappropriately packaged for WIPP disposal by workers at Los Alamos. They packaged waste mixtures with organic absorbants, which created reactive and ignitable waste forms.

The specific culprit was off-the-shelf organic kitty litter, and the use of this organic material was traced to someone writing down "organic" instead of "inorganic"—a simple human error. But this is more than what happens when you don't pay attention in high school chemistry and spelling classes. This failure to catch an error reflected a much larger systemic failure.

Two years before the incident, Los Alamos actually stopped work that had been mixing waste with organics precisely because of the reactivity and ignition risks. The lab's so-called Difficult Waste Team, along with Federal site officials, directed a safety process change that would use inorganics as absorbants.

The problem was, over the next year and a half, no one in management or among Federal overseers made sure the new procedures were followed, so what they thought was fixed wasn't. And no one in management or at the Federal level reviewed the process to determine why workers had been creating dangerous mixtures in the first place—a basic practice of an effective safety system.

As the Los Alamos Lab's own review noted, the fact that so many critical management, safety, and oversight mechanisms all failed simultaneously over an extended period of time are of significant concern.

Also of significant concern are patterns of oversight failure found to have occurred at the WIPP site. For example, at WIPP, both the contractor and Feds failed to identify or fix shortcomings in equipment and degraded conditions in the mine over a period of years. These errors led to the environmental release and added tens of millions to the cost of recovery operations.

The failures at these sites contribute to a long story of DOE struggles to conduct adequate oversight of its management and operating contractors, which are responsible for much of the core activities of the Department.

Just over 2 years ago, DOE and National Nuclear Security Administration, NNSA, officials came before this committee to explain security failures at the Y-12 National Security Site in Tennessee.

The failures were notoriously exposed when several elderly peace activists penetrated the security perimeter of the most secure section of the site.

What was clear from that incident sounds very familiar today: What the Feds thought was working wasn't. Site officials trusted that contractors were doing what they were supposed to do without checking. Federal line oversight had failed.

We were told then that the successful reliance on department contractors depends on strong and clear lines of accountability and on meaningful and consistent measurement of contractor performance. We were promised that actions would be taken to address the shortcomings. Yet we have again learned from GAO that the DOE and NNSA have yet to make significant progress to make the necessary reforms with regard to measurement of contractor performance, and this is not acceptable.

Today we will hear from department officials and the GAO, all of whom can explain the costly oversight failures at WIPP and Los Alamos, what is being done, and what must be done to fix these problems at the sites and across the complex. I hope this hearing helps to identify what is necessary for DOE to develop an oversight system that can effectively identify, address safety issues and security issues before they become costly mistakes.

[The prepared statement of Mr. Murphy follows:]

PREPARED STATEMENT OF HON. TIM MURPHY

Today we will review a costly series of oversight failures at two important Department of Energy sites. These failures contributed to a radiological leak last year at one of the sites, the Waste Isolation Pilot Plant, known as WIPP, which serves to dispose in mined salt caverns certain types of radiological waste from our nation's nuclear weapons programs.

This leak, along with a separate truck fire the week before, exposed management and oversight shortcomings both at WIPP and at one of the nation's premier national laboratories—the Los Alamos National Laboratory. Los Alamos it turns out was the source of the radiological material and the errors that caused a reaction in the material that burst a container in WIPP's underground facility.

Since the incident, WIPP has been shut down and the Department has embarked on remediation, training, and rebuilding that will cost taxpayers an estimated \$240 million just to restart limited operations next year. All told, it may ultimately cost more than \$500 million before full operations are estimated to commence in 2018.

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The specific culprit was off-the-shelf organic kitty litter. And the use of this organic material was traced to someone writing down "organic" instead of "inorganic"—a simple human error. Yet the failure to catch this error reflected a much larger systemic failure.

Two years before the incident, Los Alamos actually stopped work that had been mixing waste with organics precisely because of the reactivity and ignition risks.

The lab's so-called "difficult waste team" along with Federal site officials directed a safety process change that would use "inorganics" as absorbents.

The problem was, over the next year and one-half, no one in management or among Federal overseers made sure the new procedures were followed. So what they thought was fixed wasn't. And no one in management or at the Federal level reviewed the process to determine why workers had been creating dangerous mixtures in the first place—a basic practice of an effective safety system.

As the Los Alamos Lab's own review noted "the fact that so many critical management, safety, and oversight mechanisms all failed simultaneously over an extended period of time are of significant concern."

Also of significant concern are patterns of oversight failure found to have occurred at the WIPP site. For example, at WIPP, both the contractor and feds failed to identify or fix shortcomings in equipment, and degraded conditions in the mine—over a period of years. These errors led to the environmental release and added tens of millions to the cost of the recovery operations.

The failures at these sites contribute to a long story of DOE's struggles to conduct adequate oversight of its management and operating contractors, which are responsible for much of the core activities of the Department.

Just over two years ago, DOE and National Nuclear Security Administration (NNSA) officials came before this committee to explain security failures at the Y-12 National Security Site in Tennessee. The failures were notoriously exposed when several elderly peace activists penetrated the security perimeter of the most secure section of the site.

What was clear from that incident sounds very familiar today: what the Feds thought was working wasn't. Site officials trusted the contractors were doing what they were supposed to do, without checking. Federal line oversight had failed.

We were told then that the successful reliance on Department contractors depends on strong and clear lines of accountability and on meaningful and consistent measurement of contractor performance. We were promised that actions would be taken to address the shortcomings.

Yet we have again learned from GAO that the DOE and NNSA have yet to make significant progress to make the necessary reforms with regard to measurement of contractor performance. This is not acceptable.

Today, we'll hear from Department officials and the GAO, all of whom can help explain the costly oversight failures at WIPP and Los Alamos, what is being done and what must be done to fix those problems, at the sites and across the complex.

I hope this hearing helps to identify what is necessary for DOE to develop an oversight system that can effectively identify and address safety and security issues before they become costly mistakes.

Mr. MURPHY. I now recognize the ranking member from Colorado, Ms. DeGette, for 5 minutes.

OPENING STATEMENT OF HON. DIANA DEGETTE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Ms. DEGETTE. Thank you very much, Mr. Chairman.

And, again, I want to thank you for your comity in holding the hearing till I got here. As you know, the President was briefing the Democratic caucus, and I felt like I owed him to listen to what he had to say.

And I am particularly glad you waited for me because when I heard your opening statement it was *deja vu* all over again to me, because I have been on this O&I panel for most, if not all, of the incidents that you discussed.

We have had over a dozen hearings since I have been here to examine oversight failures and contractor mismanagement at the DOE NNSA Nuclear Complex. A perusal of the GAO testimony today reveals a string of mishaps and management failures over the last decade involving these sites. And that is why, for years, DOE and NNSA have remained on the agency's high-risk list for Federal programs highly susceptible to mismanagement and waste.

The problems have been costly and disruptive. For example, in 2004, which was over a decade ago, there were so many incidents at Los Alamos that the lab director shut down the entire facility for several weeks to address them. A few years later, at a hearing on lab security, our beloved chairman emeritus, John Dingell, observed, quote, "I feel a little bit like this is the movie 'Groundhog

Day.' For some reason or another, DOE has proven itself incapable of managing this critical security and preventing recurring problems." That was in 2007.

Now, as you mentioned, in July 2012, the DOE NNSA complex was in the news again because these protestors with basic tools managed to cut the fence at Y-12 and gain access to the area surrounding a highly enriched uranium storage facility. This was supposed to be one of the most secure facilities in the country, but, as you said, a small group of aging activists, including an 82-year-old nun, were able to access the compound uninterrupted by security. And if you haven't seen those videos, just watch them. It is chilling.

As I said in a hearing about that incident, without good oversight, serious issues won't be identified and fixed, and the results could be disastrous. I can't think of any reason why we would want to decrease our oversight of these facilities, inhibit the ability of oversight to review site actions, or reduce accountability for those responsible for keeping the nuclear sites safe. That was in 2012.

Now, we quickly learned that the Y-12 fiasco was not an isolated event. Last year, a waste drum packed by a Los Alamos contractor managed to burst open and contaminate the Nation's only transuranic waste repository. Called the Waste Isolation Pilot Plant, or WIPP, this facility is supposed to house most of the Nation's low-level, cold-war-generated nuclear waste. This incident resulted in closing the facility perhaps for years. It will also cost the taxpayer millions of dollars to clean up.

In the last several decades, we have seen the DOE use a range of strategies to oversee their contractors. And I do want to say I think the DOE has made some efforts. After concerns that hands-on oversight was burdensome and ineffective, DOE and NNSA adopted a less intrusive oversight strategy. The new model, which had reliance on contractor assurance systems, was supposed to let contractors assess performance and provide data for Federal oversight efforts.

Nonetheless, since the implementation of this strategy 5 years ago, we continue to have incidents that make me question this approach. I mentioned the security incident at Y-12. Y-12 was one of the first facilities NNSA affirmed as having in place an effective and mature contractor assurance system capable of identifying risks and weaknesses. But this system failed, and the committee had several hearings to see what went wrong. We received assurances from the DOE that they had learned lessons from the past and were committed to implementing the new management and performance measures. Nonetheless, the more recent incidents involving WIPP suggest this oversight framework is not where it needs to be.

So where are we now? I think it is safe to say this new oversight framework needs major retooling. Mr. Chairman, I don't know if we are back to square one. I certainly hope we are not. But, at a minimum, we need to establish a clear path forward. I hope DOE and NNSA will share some ideas so they can actually make progress in implementing the new framework. If excessive transactional oversight is not the answer and reliance on a contractor assurance system is not the answer, then what is the answer?

And we need to figure this out pronto, Mr. Chairman, not just because of these two incidents but because the missions at NNSA sites are critical to our Nation's security.

In response to the GAO report, NNSA outlined plans for a new corporate policy that will form a comprehensive framework for a contractor assurance system. I don't even know what that means, Mr. Chairman, but I hope we can get some answers today about how that new policy will result in significant and effective changes at the agency.

We have been going in circles, and we have to stop doing that. So I hope we can see some changes come out of the WIPP accident investigations and GAO's latest report. We are going to be vigilant, but I have to be honest, I am not overly optimistic.

Thanks, and I yield back.

Mr. MURPHY. The gentlelady yields back.

I now recognize the gentlewoman from Tennessee and the vice chair of the full committee, Mrs. Blackburn, for 5 minutes.

OPENING STATEMENT OF HON. MARSHA BLACKBURN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mrs. BLACKBURN. Thank you, Mr. Chairman.

And I am not going to take 5 minutes, and I will yield the time to whomever would like it. But I am going to pick up right where Ms. DeGette left off, talking about Y-12.

And as we conducted that hearing and the assurances that we were given that things were going to be more closely watched, and now we find ourselves, as Chairman Murphy said, looking at a hearing where someone either wasn't paying attention in spelling class or science class or didn't know the difference and went on to inappropriately use an organic kitty litter.

The problem for us is, not only is this expensive—you are talking about \$551 billion being the estimate to clean this up, to clean it up, and to get the facility operational—you also look at the impact that this has on nuclear-generated power and on storing that waste.

And in Tennessee, where Y-12 is located—and I was up at Oak Ridge the week before last and over at TVA and out at the Watts Bar Plant. And the safe storage of that nuclear waste, as we bring the second Watts Bar reactor on line—it is about 95 percent complete right now—this is something of tremendous concern.

So we are looking for answers. And I think, more than just answers, we are looking for responsible action and a way to solve this so that best practices and protocols are in place and we are not finding ourselves back at a hearing saying, well, we learned a lesson, but we really didn't learn a lesson, and we took no actions from the lesson we were supposed to learn.

With that, Mr. Chairman, I will yield to the gentleman from Texas.

Mr. BURGESS. I thank the gentlelady for yielding.

I have been on this subcommittee for over 10 years now. This has been a recurrent theme that comes up over and over again. So I want to echo what other members have said, that it is important to get this right and to get this solved. We are talking about the

Nation's nuclear secrets. This should be the most closely guarded and where the greatest attention to detail should be placed to security issues, and we keep having to come here and discuss breaches.

I do want to acknowledge the help of the Government Accountability Office and, in particular, Allison Bawden, who is one of our witnesses today, who has been enormously helpful to our staff through this and other issues.

And, Mr. Chairman, I will yield back the balance of my time.

Mr. MURPHY. The gentleman yields back.

We are waiting for the ranking member, Mr. Pallone, to come in, but while we are waiting for him, I thought I would at least take the time to introduce the witnesses, unless anybody else on this side wants the rest of his time? I suspect not.

All right. We will save some time here.

Today's panel is the Honorable Madelyn Creedon, the Principal Deputy Administrator for the National Nuclear Security Administration.

Welcome.

Mark Whitney, the Acting Assistant Secretary for the Office of Environmental Management at the Department of Energy.

Mr. Whitney is also accompanied by Theodore Wyka—did I pronounce that correctly?—the Chairperson of the Accident Investigation Board and the Chief Nuclear Officer in DOE's Office of Environmental Management.

We also have Allison Bawden, the Acting Director of the Natural Resources and Environment team at the Government Accountability Office.

Maybe I will just proceed, if that is OK with you, Ms. DeGette—

Ms. DEGETTE. Yes.

Mr. MURPHY [continuing]. Just to go ahead and start with the swearing in?

Ms. DEGETTE. Yes.

Mr. MURPHY. All right. So let's do that.

So you are aware that the committee is holding an investigative hearing and, when doing so, has the practice of taking testimony under oath. Do any of you have an objection to testifying under oath?

Everyone agrees to do that.

The Chair then advises you that, under the rules of the House and rules of the committee, you are entitled to be advised by counsel. Do any of you desire to be advised by counsel today?

All the witnesses say no.

In that case, if you will please rise and raise your right hand, and I will swear you in.

[Witnesses sworn.]

Mr. MURPHY. The witnesses have answered "yes," so you are now under oath and subject to the penalties set forth in Title 18, section 1001 of the United States Code.

I will let our first witness start a 5-minute summary. At any point, we may have the ranking member then give—so I will recognize you now, Ms. Creedon, for 5 minutes.

If you want to turn on the mic, pull it close, and watch the lights in front of you.

Thank you.

STATEMENTS OF MADELYN CREEDON, PRINCIPAL DEPUTY ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY; MARK WHITNEY, ACTING ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF ENERGY, ACCOMPANIED BY THEODORE A. WYKA, CHIEF NUCLEAR SAFETY ADVISOR FOR THE DEPUTY ASSISTANT SECRETARY FOR SAFETY, SECURITY, AND QUALITY PROGRAMS, OFFICE OF ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF ENERGY, AND FORMER CHAIRMAN, ACCIDENT INVESTIGATION BOARD, DEPARTMENT OF ENERGY; AND ALLISON B. BAWDEN, ACTING DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, GOVERNMENT ACCOUNTABILITY OFFICE

STATEMENT OF MADELYN CREEDON

Ms. CREEDON. Thank you, Mr. Chairman, Ranking Member DeGette, and members of the subcommittee. I want to thank you for the opportunity today to discuss the radiological release at the Waste Isolation Pilot Plant, or WIPP.

I am pleased to be joined today by Mark Whitney, the Acting Assistant Secretary of Energy for Environmental Management. We have provided written testimony to the subcommittee and respectfully ask that it be submitted for the record.

On February 14, 2014, a radiological release occurred in the Waste Isolation Pilot Plant in New Mexico when a drum, which had been shipped from Los Alamos National Laboratory, experienced an exothermic reaction that led to overpressurization and breach, causing a release of a portion of the drum's contents.

The specifics of this radiological release at WIPP and the subsequent restart activities will be addressed by Mr. Whitney.

While the Department of Energy's National Nuclear Security Administration, NNSA, holds the overall management and operating contract for the Los Alamos National Laboratory, the Department of Energy's Office of Environmental Management is the program lead for legacy waste cleanup activities performed at LANL and for the operation of WIPP. NNSA is, however, responsible for the overall site operations.

That said, I want to assure you all that all of us at DOE take this unintentional release of radioactive material very seriously, as we do all significant events.

What is most troublesome about this event is that, as the accident investigation determined, it was preventable. It will also be costly to fix and has left us without a true waste repository for an indeterminate period of time. And this is simply unacceptable.

Today I will focus on the actions that the NNSA has taken since the event and highlight a few ongoing initiatives we are pursuing to improve the governance and oversight at NNSA sites.

NNSA and the Office of Environmental Management have taken corrective actions in response to the WIPP incident. This includes both long-term and short-term compensatory measures. These measures will address the underlying issues and problems that contributed to the errors in packaging the legacy waste.

NNSA and EM, working with the other components of the Department of Energy, have realigned the Federal program and oversight responsibility for legacy waste materials. The responsibility has been transferred from the local NNSA field office to a newly established environmental management field office.

We have also held our management and operating contractor at the Los Alamos National Laboratory responsible and accountable for their part in allowing conditions to develop that led to this event. The M&O's fee for operating the laboratory was reduced drastically. We did not grant a year of award term, and we took back a year of award term that had previously been awarded. Award term is a year of the contract. So we did not give them an additional year on the contract, and we took back a previously awarded additional year on their contract. We are also in the process of modifying this M&O contract to allow EM to have more direct control over their work at Los Alamos in the near term and then to modify their contracting strategy in the long term.

NNSA is also working on several fronts to improve our overall approach to site governance. We have kicked off two specific initiatives. The first is to examine our contracting strategy to ensure that we incentivize the right behaviors while also holding our labs and sites accountable. The second initiative is to better define the NNSA site governance model, with specific attention to identifying clear expectations regarding contract management and oversight and clarifying the roles and responsibilities between the NNSA field and headquarters elements and, in the case of Los Alamos, the Office of Environmental Management as well.

In conclusion, I want to assure you that the Department understands the seriousness of this event. We have taken numerous concrete and aggressive actions to address the specific events and are also looking at governance generally. These actions will help us ensure that we do not repeat the mistakes that gave rise to this incident and help improve operations across the entire NNSA enterprise.

With that, I thank you, and I look forward to your questions.
[The prepared statement of Ms. Creedon follows:]

**Testimony of Madelyn Creedon
Principal Deputy Administrator
National Nuclear Security Administration
U.S. Department of Energy
Before the
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Waste Isolation Pilot Plant Public Hearing**

June 12, 2015

Chairman Murphy, Ranking Member DeGette and members of the subcommittee, thank you for the opportunity to discuss the radiological release at the Waste Isolation Pilot Plant (WIPP).

On February 14, 2014 a radiological release occurred at the Waste Isolation Pilot Plant (WIPP) when a drum experienced an exothermic reaction that led to over-pressurization and breach, causing a release of a portion of the drum's contents. The specifics of the radiological release at WIPP and subsequent restart activities have been addressed by the acting Assistant Secretary of Energy for Environmental Management. While the Department of Energy's National Nuclear Security Administration holds the overall Management and Operating (M&O) contract with Los Alamos National Laboratory (LANL), the Department of Energy's Environmental Management is the program lead for legacy cleanup activities performed at LANL and for the operation of WIPP.

Although there is no expected health impact to workers, the public, or the environment, the Department takes any radiological release event very seriously. The release, which was

subsequently determined to have been avoidable, will be costly to fix, and has left us without a transuranic (TRU) waste repository for an indeterminate period of time.

I will address the actions the National Nuclear Security Administration (NNSA) has taken as a result of these events and highlight a few ongoing initiatives we are pursuing to improve the governance and oversight at NNSA sites generally.

I want to be clear that all of us at DOE take these events very seriously. I also realize that the February 14, 2014 release, and the events leading up to the release, when taken together erode our credibility with the public and reflect poorly on the Department.

Although federal and contractor staff at Los Alamos National Laboratory had noted negative trends in this specific area for some time these trends were not addressed. For several years NNSA leadership both at Headquarters and the site has been concerned about an overall negative trend in operational discipline across the laboratory, which we pointed out through our various contract oversight and performance evaluation activities.

Our M&O contractor at LANL has been held responsible and accountable for its part in allowing conditions to develop that led to the release at WIPP. NNSA took action in accordance with our contract performance evaluation process. The M&O's fee for operating the laboratory was reduced drastically, an available one-year contract term extension was not granted, and an additional one-year contract extension that had been previously granted was rescinded. Although the work of the laboratory was very good in other areas, particularly in the sciences and the work in support of the stockpile stewardship program, the ramifications of this event outweighed the areas of excellence.

At the time of the event, Los Alamos National Security, LLC (LANS), our M&O contractor, took immediate steps to isolate and safely secure all drums at LANL deemed similar to the breached drum. These drums are now overpacked in standard waste boxes and stored in a temperature-controlled environment equipped with filtered ventilation and continuous air monitoring. These actions were closely coordinated with the New Mexico Environment Department, EM and NNSA.

Since the event, LANS has performed extensive internal procedural reviews; conducted more than a thousand scientific experiments; strengthened the leadership teams; and has continued to develop specific corrective actions to address the findings from the internal and independent reviews.

In addition to its conclusions with respect to operations at LANL, the accident investigation also found that DOE had not exercised sufficient oversight. As a result, NNSA and EM, working with the other components of DOE, have realigned the federal program and oversight responsibility for legacy waste materials at Los Alamos National Laboratory. This responsibility has been transferred from the local NNSA Field Office to a newly established Environmental Management Field Office. We are also in the process of modifying the M&O contract to allow EM to have more direct control over their work scope at Los Alamos in the near term and to modify their contracting strategy in the long term.

Moving away from the WIPP events, I would like to discuss NNSA and our Los Alamos Field Office. Although we have historically had difficulty filling vacancies in key leadership positions and subject matter expert positions at the NNSA Los Alamos Field Office we have made progress recently. A long-standing vacancy for a senior scientific and technical advisor has been filled, and other key technical positions are in the process of being posted and filled.

We have also surged support from other field and headquarters organizations to cover vacant positions while we execute the hiring process. For example, by June 2015, seven new Federal employees will report for duties as assigned by the Field Office Manager, increasing the Federal staff from 71 to 78, up from May 2015. Most importantly, as of March 14, 2014, our office has been managed by one of our more experienced Field Office Managers who has worked at three of our laboratories and two of our production sites. Her top priorities are working to fill the critical positions and working with the laboratory management to improve operations.

At NNSA Headquarters we will continue the Administrator's drive to ensure that our staffing levels are sufficient to perform our mission, while keeping within our statutory caps. Since 2010, our federal staffing levels have been reduced from a high of 1935 FTEs to our current cap of 1690 FTEs. At the same time, the amount of work has increased substantially as we keep the stockpile safe, secure, and reliable without explosive nuclear testing.

More fundamentally, NNSA is working on several fronts to improve our approach to site governance. We have kicked off two specific initiatives. The first is an examination of our contracting strategy to ensure that we incentivize the right behaviors while also holding the Labs and Plants accountable. The second initiative is to better define the NNSA site governance model with specific attention to identifying clear expectations regarding contract management and oversight; and clarifying the roles and responsibilities between the NNSA field and HQ elements, and in the case of Los Alamos, EM as well. Both initiatives will strengthen the mission alignment between the parties on our M&O contracts and will improve the effectiveness of our interactions. These efforts are being led out of our newly formed Office of Policy.

Across the NNSA complex we are privileged to have world class scientists, engineers and technicians, both contractors and federal employees who work to support the security of our nation under technically demanding circumstances. Our people ensure our success and we need to support them.

In conclusion, I want to assure you that the Department understands the seriousness of this event. We have taken numerous, concrete and aggressive actions to address the specific events but are also pursuing several initiatives to examine the entire system. These actions will help ensure that we do not repeat the mistakes that gave rise to this event, and will help improve operations across the entire enterprise.

Thank you for your time.

Mr. MURPHY. Thank you.
Mr. Whitney, we will have you go next.

STATEMENT OF MARK WHITNEY

Mr. WHITNEY. Thank you, Mr. Chairman, Ranking Member DeGette, and distinguished members of the subcommittee. Thank you for the opportunity to share our commitment and vision on the Department of Energy's ongoing recovery of the Waste Isolation Pilot Plant.

Safe performance of work is our overriding priority, and the Department's first responsibility is to protect the workers, the public, and the environment. Safety first is the clear expectation behind all of our decisions and our activities. The Secretary and I continue to set the expectation for the EM workforce that safety is integral to accomplishing the mission.

WIPP's primary mission is to safely and permanently dispose of the Nation's defense-related transuranic waste, which is a byproduct of nuclear weapons research and production, facility dismantlement, and site cleanup.

On February 5, 2014, a vehicle used to transport salt caught fire in the WIPP underground. Workers were safely evacuated, and the underground portion of WIPP was shut down, but the fire resulted in minor smoke inhalation to six workers. It did not adversely, however, impact the public or the environment.

On February 14, 2014, a second unrelated event occurred when an air monitor measured airborne radioactivity close to the location where waste was being emplaced. No employees were underground at the time. The next day, low levels of airborne radioactive contamination were detected, the result of when a small amount of radioactivity leaked by the exhaust duct dampers through the unfiltered exhaust ducts and escaped aboveground.

As a result of these events, the WIPP repository is shut down and is currently not accepting waste shipments.

The Department established an Accident Investigation Board to fully investigate the event and understand the causes and factors that contributed to the radiological release. The AIB identified direct causes, root causes, and contributing causes to the radiological release.

While the investigation focused on the activities that contributed to the breached drum in the WIPP underground, the conclusions and analyses represent an opportunity to assess and benchmark all of our operations and apply lessons learned across the EM complex.

We have made considerable progress towards safely recovering WIPP over the last 16 months, including the immediate response to the incidents, our investigation to the incidents, the development of corrective action plans, and the issuance and implementation of the WIPP recovery plan.

We are strengthening safety management programs such as nuclear safety, fire protection, emergency management, and radiological control, reestablishing a bounding safety envelope, and responding to all of our oversight organizations' concerns.

Underground entries were necessarily limited in the weeks following the incidents, but they are now safely performed daily. Restoration of the underground includes radiological surveys, radio-

logical buffers in noncontaminated areas, ground control stability inspections, roof bolting, and equipment maintenance.

Work is being performed also safely in contaminated areas. Adequate ventilation is required, however, for habitability of the underground, including dust removal during mining and removal of exhaust fumes during diesel engine operations. Increasing ventilation capacity is a principal requirement for the safe underground operations, and our plan is to increase ventilation over the next year to support resumption of operations and ultimately to increase the airflow back to pre-incident rates, although that will take several years.

EM has worked diligently to improve oversight at the headquarters and field level. To ensure continued health and safety to the workers, the public, and the environment, the Department must provide effective, comprehensive oversight of work at every phase and level. EM is committed to strengthening Federal and contractor oversight competencies. Many of these actions have already been implemented.

In summary, WIPP is an important national resource that we are working hard to recover. DOE will resume disposal operations at WIPP but only when it is safe to do so. The safety of workers, the public, and the environment is first and foremost. And we continue to keep the community and stakeholders, including Congress, informed of WIPP recovery in a transparent manner.

Thank you.

[The prepared statement of Mr. Whitney follows:]

Testimony of Mark Whitney
Acting Assistant Secretary for Environmental Management
U.S. Department of Energy
Before the
Subcommittee on Oversight and Investigations
Energy and Commerce Committee
U.S. House of Representatives
Waste Isolation Pilot Plant Public Hearing

June 12, 2015

Good morning and thank you Mr. Chairman, Ranking Member DeGette, and distinguished members of the Subcommittee on Oversight and Investigations. I appreciate the opportunity to be here with you today to share our commitment and vision on the critically important topic of the Department of Energy's (DOE) ongoing recovery of the Waste Isolation Pilot Plant, otherwise known as WIPP, and the associated Accident Investigation Board (AIB) Reports and management improvement efforts.

I want to thank the Committee for their interest in WIPP recovery. As a result of the events at WIPP, the repository is currently shut down and is not accepting any transuranic waste shipments. I know we share a common goal of restarting WIPP operations as soon as we can safely do so. I appreciate the opportunity to be here today to discuss the important progress we are making in recovering WIPP.

Safety Focus

First, let me state that safe performance of work is our over-arching priority. It has been my commitment and has also been stated by the Secretary. This will not be compromised. The Department's first responsibility is to protect the workers, the public, and the environment in the cleanup mission. Safety first is the clear expectation behind every decision and activity we undertake in our WIPP recovery efforts.

Safety has been a core value and integral part of the Office of Environmental Management's (EM) vital mission from its inception. Our goal is to continuously improve our performance and operations in the spirit of integrated safety management. Having a healthy and proactive safety

culture in EM means our values and behaviors are modeled in our leaders and internalized by all employees. Safety first is imperative to our recovery efforts and this starts with the behaviors demonstrated by our managers at Headquarters and in the Field, both Federal and contractor. I continue to set the expectation for the EM workforce that safety is integral in the accomplishment of our mission.

WIPP Background

WIPP is a DOE facility designed and constructed to perform one primary mission — safely and permanently dispose of the Nation's transuranic waste materials generated by atomic energy defense activities. Transuranic waste is defined in the WIPP Land Withdrawal Act as waste containing alpha-emitting radionuclides with half-lives greater than 20 years, in concentrations of greater than 100 nanocuries per gram. This legacy waste is a by-product of nuclear weapons research and production, facility dismantlement, and site cleanup. Legacy transuranic waste inventories are located at five remaining large quantity sites - Hanford Site (Washington State), Idaho National Laboratory (Idaho), Los Alamos National Laboratory (New Mexico), Oak Ridge National Laboratory (ORNL), and Savannah River Site (South Carolina) - and 3 additional small quantity sites across the country. The DOE has completed cleanup and closure of one large quantity site, the Rocky Flats Environmental Technology Site (Colorado), and another 20 small quantity sites, with transuranic waste shipped and disposed of at WIPP.

WIPP is authorized to dispose of contact-handled and remote-handled transuranic waste (mixed waste contains hazardous as well as radioactive constituents). Contact-handled transuranic waste has an external radiation dose that is low enough to allow "hands on" container handling. Remote-handled transuranic waste radiation requires remote handling. WIPP is crucial to DOE for completing its cleanup and closure mission for transuranic waste.

What Happened and DOE's Response

Two separate events took place at WIPP in February 2014. On February 5, 2014, a vehicle used to transport salt caught fire in the underground. Workers were safely evacuated and the underground portion of WIPP was shut down. The fire resulted in minor smoke inhalation to six workers, but it did not adversely impact the public or the environment.

On February 14, 2014, a second unrelated event occurred when a continuous air monitor detected a radiological release in the underground. The underground ventilation system automatically switched to High Efficiency Particulate Air (HEPA) filtration and the HEPA fan damper was manually opened and adjusted to achieve designated airflow. The airflow was reduced from 425,000 cubic feet per minute to 60,000 cubic feet per minute. No employees were in the underground at the time. Redirecting the ventilation through the HEPA filters is designed to protect aboveground workers at the site and the public in the surrounding areas by minimizing radiation releases to the environment.

Actions were taken immediately following the incident to determine the extent of impact to WIPP personnel, the public, and the environment. Activities included radiological surveys across

the WIPP site and adjacent areas, as well as collection and analysis of environmental and personnel bioassay samples. Periodic air sampling downstream of the HEPA filters was conducted and publicized on the WIPP recovery website. Soil, surface water, sediment, animal, and vegetation sampling were performed. Slight amounts of off-site contamination were briefly detected at sampling locations immediately after the event. Since then, all samples show no detectable contamination. The Carlsbad Environmental Monitoring & Research Center, which conducts independent monitoring, has documented that all activity levels are below environmental or public concern.

After these events, the Department established two independent Accident Investigation Boards (AIB) to fully investigate the events in accordance with DOE Order 225.1B, *Accident Investigations*. DOE Order 225.1B prescribes organizational responsibilities, authorities, and requirements for conducting investigations of certain accidents occurring at DOE sites, facilities, areas, operations, and activities. The purpose of the accident investigation is to understand and identify the causes that contributed to the accident so those deficiencies can be addressed and corrected. This is intended to prevent recurrence and promote improved environmental protection and safety and health of the workers and the public. Moreover, accident investigations are used to promote the values and concepts of a learning organization, as part of the Department's Integrated Safety Management processes.

The AIB reports document the Judgments of Need. These are managerial controls, safety measures, or human performance improvements necessary to prevent or minimize the probability or severity of a recurrence of an accident. The responsible organization, Federal and/or contractor, prepares corrective actions, which are documented in Corrective Action Plans that are approved, completed and implemented to satisfy the Judgments of Need.

The AIB Board Chairman for both WIPP events was a member of the Senior Executive Service and had no line management responsibilities related to WIPP or the National Transuranic Program. The board members were subject matter experts in areas related to the accident, including knowledge of the Department's Integrated Safety Management directives. All of the AIB members were selected from different duty stations than the accident location. These professionals were also independent of the management chain of command responsible for the WIPP site.

The AIB's report on the haul-truck fire was released March 13, 2014. The report details a number of Judgments of Need that form the basis for corrective actions in the recovery plans, designed to prevent the recurrence of such an event. It also identified issues including maintenance, fire protection, training and qualifications, emergency response/preparedness, oversight, and included other areas where the Department should evaluate processes or procedures, and develop and implement corrective actions.

The AIB Phase I Report related to the radioactive material release event was issued on April 24, 2014, and focused on the site's response to the radioactive material release, including related exposure to above-ground workers and the response actions. The Phase I Report covered many of the safety management programs and systems, including nuclear safety (e.g. hazards analysis

and safety-significant classification), maintenance, radiological protection and controls, emergency management, integrated safety management, safety culture and oversight.

The AIB Phase II Report was issued April 16, 2015 and focused specifically on what caused the radiological release and how to prevent a reoccurrence. I will discuss this in more detail.

Recovery Status

We have made considerable progress towards safely recovering WIPP over the past 16 months, including immediate response to the incidents, evaluation and investigation into these events, approval and implementation of the Corrective Action Plans for the fire event and radiological release related to the Phase I findings and issuing the high-level WIPP Recovery Plan.

We will resume operations at WIPP when it is safe to do so. The Department's current target date to resume waste emplacement operations is in the first quarter of calendar year 2016. Prior to the resumption of operations, we will:

- Properly establish safety management programs;
- Upgrade the Documented Safety Analysis to the latest DOE standards; and
- Develop and implement a Corrective Action Plan to address the AIB Phase II Report.

Strengthening safety management programs is among the highest priorities within the Department and of great importance to the Secretary and to me. The AIBs identified a number of weaknesses in the safety basis and safety management programs at WIPP that are being addressed. DOE Headquarters, the Carlsbad Field Office (CBFO) and the WIPP management and operations contractor, Nuclear Waste Partnership LLC, (NWP) are implementing corrective actions documented in the Corrective Action Plans related to Phase I findings to strengthen WIPP's nuclear safety, fire protection, emergency management, oversight and radiological and maintenance programs.

We are methodically working through re-establishing safe operations, rigorously implementing training on new procedures and processes, and responding to concerns of the New Mexico Environment Department, the Environmental Protection Agency, the Defense Nuclear Facilities Safety Board, the Mine Safety and Health Administration, and the Department's Office of Enterprise Assessment. We are currently working on corrective action plans in response to the AIB Phase II Report. When these programs, procedures and safety basis are in place and the workers have completed ongoing training, we will then conduct a comprehensive review of operational readiness, which will include formal Operational Readiness Reviews, at both the contractor and Federal levels, to ensure that we are prepared to safely restart operations.

Underground entries, which were by necessity slow and limited in the weeks following the radiological event, are now safely performed on a daily basis, and we have been working multi-shift operations since February 2015. Restoration of the underground includes radiological surveys, radiological buffers in non-contaminated areas, ground control stability inspections, roof-bolting and equipment maintenance. To date, over 2,100 roof bolts have been installed,

which is essential to WIPP safety. We are finishing the cleaning of electrical equipment from smoke damage and we are approximately 80 percent complete. Restoration and maintenance of required equipment is ongoing. The waste hoist was returned to service in November 2014, allowing more personnel, larger equipment, and materials to be transported into the underground.

As an element of the formal accident investigation, we undertook an effort to perform a comprehensive video inspection of all waste stacks in Panel 7, Room 7, called Project Reach. Aerial videos over the waste stacks and between the waste stacks were recorded and completed in late January 2015. Photographic and video examination found no other breached drums. Successful completion of Project Reach allowed for issuance of the final AIB Phase II Report and the Technical Assessment Team Report. This was a critical step in continuing our recovery actions.

Work is being performed in contaminated areas. The decontamination approach for the walls is to apply a water mist to create a crust on salt surfaces, followed by a spray-on fixative for areas of higher activity. The sides, or ribs, of Rooms 1-6 in Panel 7 have been spray washed with water. Continued washing is in progress with the goal of downgrading Panel 7 from a potential airborne contamination area, based on radiological surveys. This will decrease the level of radiological protection necessary for workers, thereby increasing the efficiency for work in this panel.

Adequate ventilation is required for habitability of the underground including removal of dust during mining and removal of exhaust fumes during diesel engine operations. Increasing ventilation capacity is a principal requirement for safe underground operations. Additional ventilation is necessary because the facility is now, and has been since the incidents, operating in High Efficiency Particulate Air (HEPA) filtration mode, at a reduced airflow of 60,000 cubic feet per minute, as compared with 425,000 cubic feet per minute that is required for full underground operations. The reduced airflow significantly limits the number of workers in the underground and the number of diesel engines that can be operated at any one time. Our plan is to increase ventilation in three phases to support increased underground operations.

- Phase 1--Interim Ventilation: This ongoing first phase is the installation of two skid-mounted fans, which will allow increased activities requiring diesel engines, such as roof bolting, and will provide redundancy with the current HEPA filter system operations.
- Phase 2—Supplemental Ventilation: Additional fans will be added with ducting and bulkheads reconfigured. This reconfiguration allows for increased activities that create fumes and dust, including very limited mining and initial waste operations.
- Phase 3—Permanent Ventilation System: Required prior to resuming full operations, this last phase will restore WIPP to its pre-incident airflow capacity for mining and waste operations.

The initial closure of Panel 6 and Panel 7, Room 7, the underground areas containing the nitrate salt drums, is complete. This has been a priority for us and the New Mexico Environment Department, in order to permanently isolate the drums associated with the Los Alamos National Laboratory (LANL) waste that was the source of the radiological release. Other required activities included bolting in contaminated areas, construction and sealing of bulkheads, and movement of salt for Panel 6. The initial closure for the Panel 6 was completed on May 13, and closure of Panel 7 was successfully completed on May 29, ahead of schedule.

Accident Investigation Boards

The scope of the AIB's investigation was to identify relevant facts; analyze the facts to determine the direct, contributing, and root causes of the event; develop conclusions; and identify Judgments of Need for actions that, when implemented, should prevent recurrence of the accident. Facts relevant to the event were gathered through over 140 interviews and reviews of documents and other evidence, including photographs, videos, and other forensic evidence. The AIB also established a hotline at both WIPP and LANL to allow personnel to communicate concerns or other related information to the AIB. The Board analyzed the facts and derived causal factors (direct, root, and contributing causes) including those associated with human performance and safety management systems using event and causal factors analysis, barrier analysis, change analysis, and root cause analysis.

The AIB Phase 1 report identified the root cause of the release of radioactive material from underground to the environment to be NWP's and CBFO's management failure to fully understand, characterize, and control the radiological hazard. The cumulative effect of inadequacies in ventilation system design and operability compounded by degradation of key safety management programs and safety culture resulted in the release of radioactive material from the underground to the environment and the delayed/ineffective recognition and response to the release.

The AIB Phase II Report identified the direct cause of the radiological release to be an exothermic reaction of incompatible materials in LANL waste drum 68660 that led to thermal runaway, which resulted in over-pressurization of the drum, breach of the drum, and release of a portion of the drum's contents (combustible gases, waste, and wheat-based absorbent) into the WIPP underground. This was based on the AIB's extensive visual surveillance, chemical and radiological sampling, modeling, and source term calculations.

Root causes can be local (specific to the one accident), and/or systemic (common to a broad class of similar accidents). For this accident, the AIB identified both local and systemic root causes.

The AIB identified the local root cause of the radioactive material release in the WIPP underground to be the failure of LANL's management and operations contractor, Los Alamos National Security, LLC (LANS), to understand and effectively implement the LANL Hazardous Waste Facility Permit and CBFO-directed controls. Specifically, LANL's use of an organic wheat-based absorbent instead of the directed inorganic absorbent, such as kitty litter/zeolite clay

absorbent, in the glovebox operations procedure for nitrate salts resulted in the generation, shipment, and emplacement of a noncompliant, ignitable waste form.

The AIB identified the systemic root cause as failure by the Los Alamos Field Office and CBFO's National Transuranic Program to ensure that LANL had adequately developed and implemented repackaging and treatment procedures and requirements that incorporated suitable hazard controls and included a rigorous review and approval process.

Based upon the evidence obtained during this accident investigation, the AIB concluded that the release from the drum was preventable. The AIB identified 40 specific Judgments of Need requiring action by Headquarters and both the Federal offices and contractors at WIPP and Los Alamos. The Department is in the process of developing formal Corrective Action Plans in response.

The Department is not waiting for formal issuance of the Corrective Action Plan for Phase II and corrective actions are ongoing. Examples include the improvements to oversight of the transuranic program (e.g., planning for waste generator site reviews of transuranic waste processing systems); approval of all new and revised Acceptable Knowledge Summary Reports prior to certification; improving the quality of CBFO oversight at WIPP and at waste generator sites; increased reviews of procedure changes (e.g., changes that could lead to waste incompatibilities); improving interactions with generator site DOE offices to verify appropriate levels of oversight are provided; increasing oversight in the area of Acceptable Knowledge verification; and clarifications of roles and responsibilities.

Technical Assessment Team

In parallel with the AIB investigation, the Department established a Technical Assessment Team to determine the mechanisms and chemical reactions that may have resulted in the failure of the waste drum. The Technical Assessment Team was led by Savannah River National Laboratory and was composed of scientists from Savannah River National Laboratory and other DOE national laboratories, including Lawrence Livermore National Laboratory, Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Sandia National Laboratory and Idaho National Laboratory. The multi-laboratory composition of the Technical Assessment Team included scientific subject matter experts in many disciplines – sampling and analysis, forensic science, modeling, and reaction chemistry. This diversified team approach ensured that the appropriate expertise was available to assess the event and to support DOE's implementation of WIPP recovery actions. The participation of many scientists enabled the generation and peer-review of scientifically-based conclusions. The Technical Assessment Team maintained independent authority to direct all activities within its charter.

The team made key determinations in its final report that was released on March 26, 2015, concluding that the contents of the drum involved were chemically incompatible; the drum breached as the result of internal chemical reactions that produced heat and gas buildup; and LANL drum 68660 was the source of the radiological release in the WIPP underground.

The results of the Technical Assessment Team provide useful lessons learned and tools as WIPP continues to move toward resuming operations at the facility.

Accountability, Responsibility and Transparency

As previously stated, the purpose of the accident investigations was to gather and analyze the facts, determine why the incidents happened and if it was preventable, to identify causal factors and conclusions, and to provide clear recommendations to prevent recurrence of the event. The Accident Investigation did not seek to affix blame.

The AIB's reports identified weaknesses in understanding and effectively implementing controls at WIPP and LANL, and at the site offices and Headquarters in conducting effective line management oversight and holding personnel accountable for correcting repeat issues. The AIB also identified weaknesses in the execution of the NWP's Contractor Assurance System, which did not identify precursors to these events.

EM, the National Nuclear Security Administration (NNSA), NWP, and LANS are working to develop corrective actions to address the issues identified in the AIB Phase II Report.

In addition, the CBFO significantly reduced the total fee available to NWP following determinations by the AIB of NWP's level of culpability and poor response to the February 2014 fire and radiological release events. As a result, NWP earned a total fee of \$561,000, approximately 7 percent of the total \$8.2 million maximum available for Fiscal Year 2014.

Oversight Improvements

Since the WIPP truck fire and radiological release events, EM has been working diligently to improve oversight, both at the Headquarters and CBFO levels. To ensure the continued health and safety of the workers, the public and the environment, the Department must provide effective and comprehensive oversight of the work at every phase and level. All three of the AIB reports identified weaknesses in these areas. EM is committed to continuous improvement to strengthen federal and contractor oversight competencies. Many of these actions are being, or have already been, implemented.

Following the February 2014 events, the CBFO Manager conducted an evaluation of WIPP's organizational structure to identify specific staffing needs related to line management, technical discipline, current oversight functions, and overall performance and effectiveness. As a result of that evaluation, the Office of Operations Oversight was established. The objective was to segregate operations, safety, engineering and environmental oversight for WIPP facility operations from programmatic production activities to enhance oversight independence, particularly through the recovery phase. The newly-established Office of Operations Oversight is developing and implementing a new contractor oversight program that fully addresses the requirements of DOE Order 226.1B, *Implementation of the Department of Energy Oversight Policy*. The program will ensure that processes for planning, conducting and documenting oversight evaluations of NWP programs and activities are developed, issues are evaluated and

corrected to prevent recurrence and communicated to management in a timely manner; and CBFO oversight personnel are highly qualified and trained to perform their oversight function. The CBFO Manager, along with the Office Assistant Managers and Division Directors, are holding personnel accountable for implementation and operation of the oversight program by revising position descriptions for their staff to identify expected oversight functions for the position.

Additional steps the Department is taking to improve oversight include documenting the Headquarters and CBFO Corrective Action Plans to respond to the AIB's Judgments of Need. EM Headquarters has also increased oversight in the areas of safety programs and waste management. The EM Office of Safety, Security and Quality Programs has an increased level of oversight responsibility for coordinating the recruitment, logistics, and management of subject matter experts from offsite organizations to provide improved oversight of WIPP contractor activities in the areas of Operations, Radiological Protection, Maintenance, Nuclear Safety, Work Planning and Control, Safety System Engineering, and Management. EM Headquarters provides oversight of the emergency management program by working with the Federal site staff; attending, evaluating and completing more assist visits; and conducting "Assist and Assess Reviews." Approximately a dozen of these visits have taken place in 2014 and 2015.

Headquarters has also been providing critical reviews and comments of CBFO and the contractor's Corrective Action Plans developed in response to the Accident Investigation Board reports.

Additionally, in the area of waste management, the CBFO and EM Headquarters have increased oversight prior to the resumption of repackaging of transuranic waste. Examples include: the CBFO certification program is focusing additional efforts on understanding and validating waste stream information supporting Acceptable Knowledge, the Central Characterization Project interface agreement is being revised to ensure any anomalies on specific waste is directed through the proper channels; the reviews of procedure changes are being increased, amplified presence at waste generator sites and interactions with generator site DOE offices is being enhanced. Environmental Management Headquarters has initiated more comprehensive extent of condition reviews at the Oak Ridge, Argonne and Idaho transuranic waste sites to evaluate procedures. Planning for implementation of the revised DOE Order 435.1, *Radioactive Waste Management* enhanced oversight is ongoing.

DOE takes its oversight responsibilities seriously. We recognize that through the WIPP incidents, significant weaknesses have been identified. EM Headquarters, the CBFO and NWP are developing and implementing corrective actions and as a result of these actions the transuranic waste programs at WIPP and the waste generator sites will be stronger. This heightened attention on safety and improved oversight will be the normal course of business in the future. The improvements in the programs, policies and procedures will be permanent, ensuring they are sustained over the long term.

Actions taken to Prevent Recurrence

In order to prevent a reoccurrence of the kind of issues that led to the event at WIPP, improvements at WIPP and LANL, within both the Federal and contractor organizations, are occurring. These weaknesses are highlighted as Judgments of Need in the AIB Reports and corrections are being implemented. Each Judgment of Need is being addressed before operations at WIPP or LANL resume. For each Judgment of Need, the Department and/or, NWP, as appropriate, have developed, or are developing, corrective actions. These actions are, or will be, documented in formal, approved Corrective Action Plans before being implemented to ensure safety and accuracy. Adequate completion and validation of the pre-start actions and activities will address the root causes prior to restarting waste operations. Similarly, for the AIB Phase II Report, the EM Los Alamos Field Office and the contractor, LANS, are developing separate Corrective Action Plans for implementation.

EM has evaluated, and is continuing to evaluate procedures used to treat and/or remediate transuranic waste at the waste generator sites. These reviews will ensure the level of specificity, the quality assurance, the change management processes, and the level of required documentation is adequate to meet WIPP requirements and waste acceptance criteria. Prior to resumption of shipments to WIPP, the packaged waste will be reviewed against new TRU waste program requirements, programs and processes.

LANL Transition

Consistent with the Secretary of Energy's direction in late 2014, the Department transitioned the acquisition and management of legacy cleanup scope at LANL from NNSA to EM. The transition enables increased efficiencies in the environmental cleanup through employment of a specialized contractor (or contractors) and synergies with other EM operations. In addition, the focus of LANL M&O contractor on the core national security missions at the site is strengthened. EM established the Environmental Management Los Alamos Field Office (EM-LA) on March 22, 2015. EM-LA is led by a senior leader from EM Headquarters pending selection of a permanent Manager. A Memorandum of Understanding is being developed between NNSA and EM that identifies responsibilities, and sets the operating framework for safe and compliant operations.

A short-term contract, referred to as a "bridge contract" between EM and the existing management and operations contractor (LANS), is in final negotiations. A separate long-term procurement strategy is in development.

Summary

In summary, WIPP is an important national resource, and DOE is working hard to recover following this unfortunate incident. DOE will resume disposal operations at WIPP when it is safe to do so. The safety of workers, the public, and the environment is first and foremost. We will continue to keep the community and a wide range of stakeholders, including Congress, informed along the way of WIPP recovery in a transparent manner.

Thank you again for the opportunity to discuss the Department's recovery efforts. I would be happy to answer any questions you may have.

Mr. MURPHY. Thank you.

Mr. Wyka, we understand you are not testifying today but you are going to be available to answer questions. Thank you.

Ms. Bawden, you are recognized for 5 minutes.

STATEMENT OF ALLISON B. BAWDEN

Ms. BAWDEN. Chairman Murphy, Ranking Member DeGette, and members of the subcommittee, thank you for inviting me today to discuss GAO's report on the framework established by the Department of Energy and its National Nuclear Security Administration for overseeing management and operating contractors. These M&O contractors are trusted by the Government to achieve some of its most sensitive national security missions.

GAO has reported for decades on the management challenges DOE faces for contract administration and oversight. My testimony today highlights three findings from GAO's recently completed work on NNSA's framework for overseeing its M&O contractors, as well as preliminary observations from GAO's ongoing work that includes examining oversight of WIPP.

These findings from our work and the parallels drawn to oversight of WIPP are particularly important in light of two competing narratives about DOE oversight of M&O contractors.

On the one hand, there are the series of safety and security incidents on which GAO and others have reported for years. Many of these incidents have indicated the need for better oversight, such as the 2012 security incident at Y-12, 2008 security performance issues at Livermore, and safety and security performance issues at Los Alamos in 2004 and 2006.

On the other hand, there is discussion of Federal micromanagement of M&O contractors and excessive and burdensome requirements that affect productivity.

DOE's current oversight framework, which was established in 2011 to bridge these two narratives, requires M&O contractors to develop assurance systems, or CAS, that provide data to help contractors drive continuous improvement in their operations and that can be leveraged, when appropriate, to improve the efficiency of Federal oversight by relying on the contractor-generated information from CAS.

A 2011 NNSA policy elaborates on DOE's framework by identifying assessments Federal overseers should conduct to determine when it is appropriate to leverage CAS for oversight. These are: the risk of an activity, the maturity of the contractor's CAS or a way of thinking about the reliability of the information provided by the contractor systems, and the contractor's past performance.

NNSA's policy describes balancing the oversight approaches that can result from these assessments. On one side is transaction-based oversight or direct oversight, such as inspections and performance testing, particularly for high-risk or high-hazard activities. And on the other side is system-based oversight, where NNSA can rely on contractor-generated information it receives from contractor systems.

In our recently completed work regarding NNSA's implementation of the framework for overseeing M&O contractors, we found the following:

First, NNSA has not fully established policy or guidance for implementing its framework to oversee M&O contractors. Specifically, at the headquarters level, NNSA does not have guidance to fully support conducting the three assessments required by its policy. While NNSA has some guidance for assessing risk, it has no policy or guidance for assessing the maturity of CAS or for evaluating past performance. We concluded that, without this policy or guidance, oversight approaches could over-rely or under-rely on information from CAS.

Second, NNSA field offices have developed their own procedures for conducting assessments of risk, CAS maturity, and contractor past performance; however, these procedures are not complete and differ among field offices. We concluded that differences among these procedures affect NNSA's understanding at the enterprise level of how oversight is conducted. For example, when field offices use different procedures for assessing CAS maturity, it is difficult to compare the maturity of these systems.

Third, NNSA no longer uses the process it established in 2011 policy to review the effectiveness of oversight approaches in place at each contractor site and field office, including how CAS is being used for oversight. This process was discontinued after the Y-12 security incident and has not been replaced, in essence eliminating the one process NNSA had that would have allowed the agency to determine whether oversight approaches are consistently applied.

Regarding WIPP, our preliminary observations on oversight of WIPP underscore the importance of having clear guidance on when and how to rely on contractor information for oversight. Notably, according to DOE's Accident Investigation Board report, NNSA's Los Alamos field office, responsible for overseeing waste packaging, was over-reliant on CAS for environmental compliance oversight and that this reliance was not consistent with an NNSA review that observed CAS was still maturing.

Thank you again for having me today. I look forward to responding to your questions.

[The prepared statement of Ms. Bawden follows:]

United States Government Accountability Office



Testimony
Before the Subcommittee on
Oversight and Investigations,
Committee on Energy and Commerce,
House of Representatives

For Release on Delivery
Expected at 9:45 a.m. ET
Friday, June 12, 2015

DEPARTMENT OF ENERGY

Actions Needed to Improve DOE and NNSA Oversight of Management and Operating Contractors

Statement of Allison Bawden,
Acting Director,
Natural Resources and Environment

Chairman Murphy, Ranking Member DeGette, and Members of the Subcommittee:

Thank you for the opportunity to discuss our work on the policy framework the Department of Energy (DOE) and its National Nuclear Security Administration (NNSA) have put in place to oversee management and operating (M&O) contractors. M&O contracts, as recognized in the Federal Acquisition Regulation, are characterized by, among other things, the close relationship between the government and the contractor for conducting work of a long-term and continuing nature and requiring high levels of expertise and continuity of operations and personnel.¹ These contractors apply their scientific, technical, and management expertise to manage and operate government-owned sites. Eight such laboratory, production plant, and testing sites are overseen by NNSA—collectively known as the nuclear security enterprise²—to achieve its missions, including maintaining the safety, security, and reliability of the nation's nuclear weapons stockpile and modernizing its supporting infrastructure. NNSA maintains seven field offices that are responsible for providing day-to-day oversight of the activities at each site.³ DOE offices other than NNSA also oversee M&O contractors that manage and operate government-owned sites and similarly have colocated federal field offices. One such site is the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New

¹M&O contracts are agreements under which the federal government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or -controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting federal agency. Federal Acquisition Regulation § 17.601.

²Specifically, NNSA manages three national nuclear weapons design laboratories—Lawrence Livermore National Laboratory in California, Los Alamos National Laboratory in New Mexico, and Sandia National Laboratories in New Mexico and California; three nuclear weapons production plants—the National Security Campus in Kansas City, Missouri, the Pantex Plant in Texas, and the Y-12 National Security Complex in Tennessee; and the Nevada National Security Site, formerly known as the Nevada Test Site. NNSA also oversees management and operations of the tritium facilities at DOE's Savannah River Tritium Enterprise in South Carolina; tritium is a key radioactive isotope used to enhance the power of nuclear warheads.

³NNSA 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 enterprise. In 2012, NNSA combined its field offices at the Pantex Plant and Y-12 National Security Complex into one field office known as the NNSA Production Office. The NNSA Production Office is located in Oak Ridge, Tennessee, and maintains federal oversight staff at both the Pantex Plant and the Y-12 National Security Complex.

Mexico—the nation's only deep geologic repository for the permanent disposal of certain defense-related nuclear waste—which is overseen by DOE's Office of Environmental Management (EM).⁴ DOE established EM in 1989 in part to address management challenges in DOE's stewardship of its nuclear cleanup mission, and NNSA was established by Congress in 2000,⁵ in part to correct long-standing management challenges and security breakdowns in DOE's stewardship of its nuclear security mission.

Since the early 1990s when we first designated DOE's program and contract management as an area at high risk for fraud, waste, abuse, and mismanagement,⁶ we have reported on DOE's management and oversight challenges, particularly with respect to how DOE strikes a balance between relying on its contractors to identify and address performance deficiencies versus conducting hands-on oversight activities, such as through inspections or performance testing. For example, in 1993, we reported that DOE's approach was to give contractors that managed and operated federal facilities wide leeway in their activities under a philosophy of "least interference" but that DOE had been criticized by Congress and others for allowing contractors to dominate DOE's activities while eluding management and financial oversight.⁷ In contrast, in 2009, we reported that NNSA had plans to provide technical training to certain federal oversight officials in an effort to rely less on contractor-generated performance information and more on independent federal expertise to test and recognize performance.

In our recently released report,⁸ we evaluated DOE's and NNSA's framework for overseeing M&O contractors, which has been in place

⁴DOE EM oversees WIPP primarily through its Carlsbad Field Office (CBFO).

⁵Pub. L. No. 106-65 § 3211 (1999).

⁶GAO, *Government Financial Vulnerability: 14 Areas Needing Special Review*, GAO/OGC-90-1 (Washington, D.C.: Jan. 23, 1990). In this report, GAO found that DOE had a history of inadequate contractor oversight.

⁷GAO, *Department of Energy: Management Problems Require a Long-Term Commitment to Change*, GAO/RCED-93-72 (Washington, D.C.: Aug. 31, 1993).

⁸GAO, *National Nuclear Security Administration: Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation*, GAO-15-216 (Washington, D.C.: May 22, 2015).

since 2011.⁹ This DOE and NNSA framework describes an oversight approach that is tailored to take into account the risk and hazard of operations, as well as the maturity and operational performance of the contractor's programs and assurance systems. The oversight framework requires that contractors develop contractor assurance systems (CAS), management systems and processes designed and used by M&O contractors to oversee their own performance and self-identify and correct potential problems. Further, this framework was viewed as an opportunity to gain efficiencies in the conduct of oversight by leveraging information from CAS, when appropriate, allowing federal oversight resources to be prioritized where most needed. Recent safety and security incidents at DOE and NNSA sites—such as a February 2014 radiological release at WIPP—have caused some to question the extent to which information from CAS can be relied on for overseeing M&O contractors.

My testimony is primarily based on our May 2015 report that was recently released¹⁰ and preliminary observations from our ongoing work.¹¹ I will discuss deficiencies identified in our issued report on (1) NNSA's policy for implementing the DOE oversight framework, including for using information from CAS; (2) NNSA field office oversight procedures for implementing the oversight framework, including for using information from CAS; and (3) NNSA's process for evaluating oversight effectiveness. To conduct our work on NNSA's implementation of the oversight framework, including for using information from CAS, we surveyed all seven NNSA field offices and analyzed key policies and guidance on DOE's and NNSA's use of information from CAS. More details on our scope and methodology can be found in the full report. In addition, I will provide preliminary observations from our ongoing work that includes examining NNSA's and DOE's processes for oversight of WIPP. To conduct this work, we are analyzing NNSA and DOE policies and guidance on oversight and accident investigation reports completed by DOE and others. The work upon which this statement is based was

⁹DOE Policy 226.1B, *Department of Energy Oversight Policy* (Washington, D.C.: Apr. 25, 2011) and DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy* (Washington, D.C.: Apr. 25, 2011). See also NNSA Policy Letter-21, *Transformational Governance and Oversight* (Washington, D.C.: Feb. 28, 2011).

¹⁰ GAO-15-216.

¹¹We are performing this work in response to a report of the Senate Armed Services Committee that accompanied a bill for the Carl Levin National Defense Authorization Act for Fiscal Year 2015. S. Rep. No. 113-176, at 286 (2014).

conducted, or is being conducted, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Since 2000, we have identified problems ranging from significant cost and schedule overruns on major projects to ineffective oversight of safety and security at NNSA and EM sites, indicating that DOE and NNSA continue to face challenges in ensuring the effectiveness of their oversight efforts.¹² Examples, in chronological order, of the problems on which we have reported and where ineffective oversight was identified as a cause include the following:

¹²See, for example, GAO, *NNSA Management: Progress in the Implementation of Title 32*, GAO-02-93R (Washington, D.C.: Dec. 12, 2001); *Nuclear Security: NNSA Needs to Better Manage Its Safeguards and Security Program*, GAO-03-471 (Washington, D.C.: May 30, 2003); *National Nuclear Security Administration: Key Management Structure and Workforce Planning Issues Remain As NNSA Conducts Downsizing*, GAO-04-545 (Washington, D.C.: June 25, 2004); *Hanford Waste Treatment Plant: Contractor and DOE Management Problems Have Led to Higher Costs, Construction Delays, and Safety Concerns*, GAO-06-602T (Washington, D.C.: Apr. 6, 2006); *National Nuclear Security Administration: Additional Actions Needed to Improve Management of the Nation's Nuclear Programs*, GAO-07-36 (Washington, D.C.: Jan. 19, 2007); *Los Alamos National Laboratory: Long-Term Strategies Needed to Improve Security and Management Oversight*, GAO-08-594 (Washington, D.C.: June 13, 2008); *Nuclear Security: Better Oversight Needed to Ensure That Security Improvements at Lawrence Livermore National Laboratory Are Fully Implemented and Sustained*, GAO-09-321 (Washington, D.C.: Mar. 16, 2009); *Nuclear Weapons: NNSA Needs More Comprehensive Infrastructure and Workforce Data to Improve Enterprise Decision-making*, GAO-11-188 (Washington, D.C.: Feb. 14, 2011); *Modernizing the Nuclear Security Enterprise: Observations on the National Nuclear Security Administration's Oversight of Safety, Security, and Project Management*, GAO-12-912T (Washington, D.C.: Sept. 12, 2012); *Department of Energy: Concerns with Major Construction Projects at the Office of Environmental Management and NNSA*, GAO-13-484T (Washington, D.C.: Mar. 20, 2013); and *Nuclear Security: NNSA Should Establish a Clear Vision and Path Forward for Its Security Program*, GAO-14-208 (Washington, D.C.: June 30, 2014).

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- **2004:** a suspension—or stand-down—of operations at one NNSA laboratory to address systemic safety and security concerns identified after an undergraduate student was partially blinded in a laser accident and two classified computer disks were reported missing;¹³
 - **2006:** the discovery of a large number of classified documents and electronic files that had been unlawfully removed from an NNSA laboratory as a result of a drug raid on a private residence;¹⁴
 - **2007:** nearly 60 serious accidents or near misses including worker exposure to radiation, inhalation of toxic vapors, and electrical shocks at three nuclear weapons laboratories from 2000 through 2007;¹⁵
 - **2008:** the identification of significant protective force weaknesses (i.e., 13 specific deficiencies) during an independent physical security evaluation of an NNSA laboratory that included a force-on-force exercise to simulate an attack on a sensitive facility;¹⁶
 - **2012:** 11 public hearings held since 2002 to address concerns about DOE's safety practices by the Defense Nuclear Facilities Safety Board—an independent executive branch agency created by Congress to independently assess safety conditions and operations at defense nuclear facilities at DOE's sites, including NNSA and EM;¹⁷
 - **2012:** a serious security breach at an NNSA production plant—the Y-12 National Security Complex (Y-12) near Oak Ridge, Tennessee—in which three trespassers gained access to the protected area directly adjacent to one of the nation's most critically important nuclear weapon-related facilities before being interrupted by the security measures in place, resulting in the identification of multiple and unprecedented security system failures;¹⁸ and

¹³GAO, *Stand-Down of Los Alamos National Laboratory: Total Costs Uncertain; Almost All Mission-Critical Programs Were Affected but Have Recovered*, GAO-06-83 (Washington, D.C.: Nov. 18, 2005).

¹⁴ GAO-08-694.

¹⁵GAO, *Nuclear and Worker Safety: Actions Needed to Determine the Effectiveness of Safety Improvement Efforts at NNSA's Weapons Laboratories*, GAO-08-73 (Washington, D.C.: Oct. 31, 2007).

¹⁶ GAO-09-321 .

¹⁷GAO, *Nuclear Safety: DOE Needs to Determine the Costs and Benefits of Its Safety Reform Effort*, GAO-12-347 (Washington, D.C.: Apr. 20, 2012).

¹⁸ GAO-14-208.

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- **2014:** operations were shut down at WIPP following an underground fire involving a vehicle and, 9 days later, an unrelated radiological event occurred when a nuclear waste container breached underground at WIPP, contaminating a portion of the WIPP facility and releasing a small amount of contamination into the environment.

DOE and NNSA policies and orders concerning oversight of M&O contractors have evolved over time and now require that each DOE M&O contractor—including those overseen by NNSA and EM—have a CAS. In April 2002, in an internal memorandum, DOE outlined an approach for improving contract performance and promoting greater contractor accountability by, among other things, moving from an oversight approach focused on compliance with requirements contained in DOE orders and directives to relying on contractor management information provided through CAS to establish accountability and drive improvement. In 2005, DOE issued DOE Policy 226.1, Department of Energy Oversight Policy, and followed it with an associated implementing order requiring that assurance systems be implemented by DOE M&O contractors, among others, to encompass all aspects of the activities designed to identify deficiencies and opportunities for improvement. The focus of this DOE policy and order was to drive continuous improvement through contractor self-assurance and effective federal oversight. In March 2010, the Deputy Secretary of Energy announced a reform effort to revise DOE's safety and security directives and modify the department's oversight approach to "provide contractors with the flexibility to tailor and implement safety without excessive federal oversight or overly prescriptive departmental requirements." In the memorandum announcing this effort, the Deputy Secretary noted that oversight of contractors' activities at DOE and NNSA sites had become excessive and that burdensome safety requirements were affecting the productivity of work at DOE's sites. The memorandum stated that reducing this burden on contractors would lead to measurable productivity improvement. In February 2011, NNSA issued a policy (NAP-21) with the purpose of providing further direction to NNSA officials and M&O contractors about the framework for the oversight model.¹⁹ Later in 2011, DOE issued Policy

¹⁹NNSA Policies (NAP) impart policy and requirements unique to NNSA or provide short-term notices until more formal direction can be provided.

and Order 226.1B, which updated DOE's oversight policy.²⁰ While the previous DOE oversight policy and order were focused on driving continuous improvement, the 2011 versions—which are still in use—focus on improving the efficiency and effectiveness of DOE oversight programs by leveraging the processes and outcomes of CAS to reduce direct, hands-on oversight, when appropriate. Under the oversight framework, federal overseers are to continue to give additional oversight emphasis to high-hazard and high-risk operations, but where it can be determined that risk is lower and contractor-generated information in CAS is reliable, federal oversight can rely more on information from CAS.²¹

NAP-21, which similarly focuses on the oversight efficiencies that can be gained by appropriately leveraging information from CAS, specifically applies to NNSA and its M&O contractors and elaborates on the more general DOE oversight policy and order by (1) developing an approach for federal officials to use in determining the appropriate mix of oversight activities for different contractor-performed functions and (2) by establishing a process by which NNSA would affirm the effectiveness of both CAS implementation by the contractor and the federal oversight approach at each site in the nuclear security enterprise.

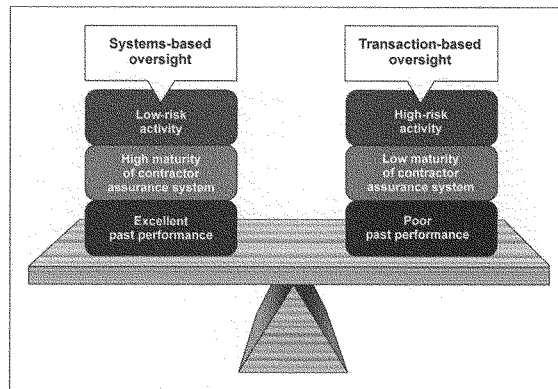
First, NAP-21 describes a spectrum of approaches that can be employed by NNSA officials to oversee M&O contractors. On one side of the spectrum is "transaction-based oversight," or direct, hands-on oversight activities to test or observe contractors' performance through such mechanisms as on-site reviews, facility inspections, and other actions that involve direct evaluation of contractor activities. On the other side of the spectrum is "systems-based oversight," where federal overseers rely on contractors' processes and information from their CAS. NAP-21 calls for NNSA to use a mix of systems-based and transaction-based oversight approaches in overseeing contractors' performance and provides a

²⁰DOE Policy and Order 226.1 issued in 2005 were superseded by DOE Policy and Order 226.1A issued in 2007. DOE Policy and Order 226.1B, issued in 2011 and still in use, superseded the 2007 versions.

²¹GAO-15-216. In that report and throughout this testimony, we use the phrase "information from CAS" to describe contractor-generated information made available to NNSA or DOE through any of an M&O contractor's management systems and processes that are considered part of its CAS. M&O contractors describe their CAS in CAS Description Documents that are approved by NNSA or DOE. Information from CAS stands in contrast to information about contractors' activities and performance that is developed by federal officials.

framework for determining the appropriate mix of these approaches based on the results of a three-pronged evaluation: (1) a risk assessment that analyzes the likelihood that an event will occur that adversely affects the achievement of mission or program objectives or harms human health or the environment; (2) a CAS maturity assessment that establishes the level of confidence NNSA officials have in the adequacy of performance information developed by the contractor and the ability of the contractor to effectively identify and address performance weaknesses; and (3) an assessment that considers the contractors' prior performance for a specific activity. NNSA's oversight framework allows for the oversight for any particular activity to range from primarily transaction-based oversight to primarily systems-based, or anywhere in between based on the outcome of these three assessments. Figure 1 shows the factors—as described in NAP-21—that should be considered by NNSA officials in determining an appropriate oversight approach. NAP-21 anticipates that, over time, as contractors' CAS mature, NNSA officials will use transaction-based oversight primarily for areas of highest risk and hazard, and systems-based oversight for lower risk and hazard activities where they can rely more heavily on a contractor's CAS.

Figure 1: National Nuclear Security Administration (NNSA) Factors for Determining an Appropriate Approach to Overseeing Management and Operating (M&O) Contractors



Source: GAO analysis of National Nuclear Security Administration policy on use of contractor assurance systems for oversight. GAO-15-662T

Note: Under systems-based oversight, contractors' processes and management systems and the information normally generated by those processes and systems are used, in part, to provide oversight of M&O contractors' performance. Under transaction-based oversight, such mechanisms as field offices' on-site reviews, facility inspections, and other actions that involve direct evaluation of contractor activities are used to provide direct or hands-on oversight of M&O contractors' performance.

Second, NAP-21 includes a process, known as "affirmation," designed for a federal assessment review team—composed of staff from NNSA program offices and field offices—to review each field office's mix of oversight approaches and practices, as well as implementation of each M&O contractor's CAS. The goal of the review is to affirm that each contractor has a fully implemented and reliable CAS and that each field office's approach to oversight is appropriate. According to senior agency officials, these affirmation reviews were envisioned as a crucial element in ensuring the effectiveness of NNSA's overall approach to contractor oversight across the nuclear security enterprise.

In addition, as the nation's only permanent disposal site for certain types of defense nuclear waste, key nuclear weapons missions depend on the

availability of DOE's WIPP in order to continue their own operations. WIPP's operations were suspended in February 2014 following the underground vehicle fire and unrelated radiological event. In April 2015, DOE formally determined that the nuclear waste container that breached resulting in the radiological event at WIPP was packaged at NNSA's Los Alamos National Laboratory (LANL). At the time of the 2014 incident at WIPP, waste packaging operations at LANL, were overseen by NNSA's Los Alamos Field Office in coordination with EM's CBFO,²² which provided additional verification by certifying packaged radioactive waste containers to ensure they met criteria set by CBFO for disposal in WIPP.²³ At WIPP itself, oversight of the M&O contractor is led by EM through the CBFO.

NNSA Has Not Fully Established Policy or Guidance for Using Information from CAS to Conduct Contractor Oversight

In our May 2015 report, we found that NNSA has not fully established policy or guidance to support determining appropriate approaches to overseeing its M&O contractors, including for using information from CAS. Specifically, we found that NNSA does not have complete policy or guidance to support the assessments NAP-21 requires for determining an effective approach to overseeing M&O contractors at each site. NAP-21 outlines the three-pronged evaluation framework NNSA officials are responsible to carry out in determining an appropriate mix of oversight approaches based on assessments of risk, CAS maturity, and past performance. However, NAP-21 does not provide detailed or comprehensive guidance to NNSA officials on how to conduct these assessments, and NNSA headquarters has not issued any additional guidance for this purpose. We found that DOE and NNSA have some policies and guidance that are relevant to conducting risk assessments for security and safety and, in some cases, for large construction projects. We did not, however, identify any headquarters-level policy or guidance for assessing CAS maturity, for assessing contractors' past performance

²²DOE has established an EM field office at LANL to take over responsibility for overseeing environmental cleanup of areas of the site contaminated in the past and that are no longer active. As part of this process, DOE is transitioning from conducting the work through LANL's M&O contract overseen by NNSA to new contracts specifically for the cleanup work overseen by EM.

²³WIPP is authorized for the permanent disposal of certain defense-related nuclear waste called transuranic (TRU) wastes. Typically, TRU waste consists of items such as rags, tools, and laboratory equipment contaminated with man-made elements such as plutonium. Other forms of TRU waste include the nitrate salts that were inside the drum that breached and leaked in WIPP.

to inform an oversight approach, or for assessing risk in other areas. Without such policy or guidance, NNSA officials responsible for conducting assessments may do so inconsistently, and thus treat similar risks differently. Further, we found that NNSA did not complete a chapter of NAP-21, which appears in the policy's table of contents with the title Requirements Analysis Process, but the corresponding page in the document simply notes that the details of the chapter would be developed at a later date. NNSA officials told us the content of this chapter was intended to establish a process for NNSA to identify requirements in DOE and NNSA orders and directives essential to support safe and effective mission accomplishment and that this identification could assist M&O contractors in identifying key performance measures that could be tracked in CAS to help contractors ensure their compliance with requirements.

As a result of our findings, we recommended that NNSA establish comprehensive oversight policies including for using information from CAS to conduct oversight of M&O contractors and describing how to conduct assessment of risk, CAS maturity, and the level of the contractor's past performance in determining an appropriate oversight approach. NNSA concurred with our recommendation and stated that it will cancel NAP-21 and instead issue a new corporate policy that will form a comprehensive framework for CAS in the context of ensuring safe, secure, and high-quality mission delivery. NNSA estimated it will complete this policy by September 30, 2015.

**NNSA's Field
Offices Developed
Procedures for
Determining
Appropriate Oversight
Approaches, but the
Procedures Are
Not Always Complete
and Differ**

In the absence of sufficiently detailed and comprehensive guidance from NNSA headquarters for determining an appropriate mix of oversight approaches, NNSA field offices responsible for day-to-day oversight of M&O contractors reported developing their own procedures for this purpose. As described in our May 2015 report, these officials reported that their field office procedures for assessing risk were complete, but that their procedures for assessing CAS maturity and past performance in determining an appropriate oversight approach were not always complete.²⁴ In addition, we found substantial differences among the procedures field offices had that may affect NNSA's ability to ensure consistent oversight of its contractors. For example, the five field offices that reported having complete procedures for assessing CAS maturity used different processes and scales for rating maturity. While each of these procedures may be effective for each field office's purposes, these differences could affect the consistency with which NNSA's field offices are determining an appropriate mix of oversight approaches across the nuclear security enterprise. We recommended that NNSA work with field office managers to establish field office procedures consistent with headquarters policy and guidance to support assessment practices for determining appropriate oversight approaches. NNSA concurred with our recommendation and stated that field offices will develop new or modify existing procedures, as appropriate, to support the new requirements and estimated the completion date for these activities is September 2016.

Furthermore, field office officials have raised concerns that staffing levels and the mix of staff skills may not be adequate to conduct appropriate oversight in the near future and that this may result in overreliance on information from CAS without the ability to ensure that this information is sufficiently reliable. For example, in response to our survey of field offices conducted for our May 2015 report, six of NNSA's seven field offices

²⁴We did not assess the quality of field offices' procedures largely because, as discussed above, neither DOE nor NNSA has provided the field offices with specific direction on these matters, beyond the framework laid out in NAP-21 and guidance for some risk assessment activities, which we could use as a source of comparison. We have defined "fully complete" to mean the procedures cover activities related to environment, safety and health; safeguards and security; mission; business operations; infrastructure; emergency management; and construction project management—and include steps for (1) assessing operational risk, CAS maturity, and past contractor performance and (2) using the results of these evaluations to plan annual line oversight priorities, or make real-time oversight decisions, such as monitoring the contractor, enhancing oversight by shadowing a contractor-led assessment, conducting an independent field office assessment, or taking a contract-related action.

responded that having fewer staff to implement NAP-21's approach to oversight is a challenge. Furthermore, five of seven field offices noted that not having certain subject matter experts is a challenge for oversight that could be exacerbated in the future as senior field office staff are expected to become retirement eligible. In a January 2013 report to DOE's Federal Technical Capability Panel, one field office reported that its staffing levels were less than the number required to perform the oversight identified as necessary.²⁵ This field office noted that staffing shortages were offset through support from other offices and increased reliance on contractor-generated information from CAS. The 2013 report did not indicate if the field office's increased reliance on information from CAS for oversight was supported by the field office's analysis of the risk of the activity, the maturity level of the contractor's CAS, and contractor performance in the area. We found that NNSA has not assessed whether it has sufficient, qualified personnel to implement the oversight framework described in NAP-21.

We recommended that NNSA assess staffing needs to determine whether it has sufficient qualified personnel to conduct oversight activities consistent with comprehensive policies and guidance, including use of information for CAS. NNSA concurred with our recommendation and stated that it will assess staffing needs by December 2016, to allow for field level policies and procedures to be considered in the development of the staffing strategy.

NNSA Discontinued the Process for Headquarters Review of Field Offices' Oversight Approaches

We also found that NNSA headquarters discontinued affirmation reviews (the process established by NAP-21 for reviewing the effectiveness of contractors' CAS implementation and field offices' oversight approaches) effectively eliminating the primary internal control activity that NAP-21 included for the agency to evaluate oversight effectiveness across the nuclear security enterprise. Prior to discontinuing this process, NNSA conducted affirmation reviews at three sites—Sandia National Laboratories, the Nevada National Security Site, and the Y-12 National Security Complex—and all three reviews resulted in affirmations of the effective implementation of the contractor's CAS and of the federal oversight approach. However, following the 2012 security incident at Y-

²⁵U.S. Department of Energy, *NNSA Annual Workforce Analysis and Staffing Plan Report as of December 31, 2012* Reporting Office: Los Alamos Field Office (Washington D.C.: Jan. 28, 2013).

12—which occurred after NNSA affirmed the implementation and reliability of the contractor's CAS and the effectiveness of the Y-12 field office's mix of oversight approaches—NNSA discontinued its affirmation review process. According to NNSA officials, after investigating the root causes for the security lapse at Y-12, NNSA determined that its affirmation reviews focused too heavily on affirming that a CAS existed and covered the five required attributes of a CAS as outlined in NAP-21.²⁶ According to NNSA officials, the affirmation reviews did not focus enough on evaluating the effectiveness of either the contractor's CAS or the field office's approach to determining the appropriate mix of systems- and transaction-based oversight.

After discontinuing the affirmation reviews, NNSA initiated an Oversight Improvement Project to focus on evaluating the effectiveness of contractors' CAS and field offices' oversight approaches. However, a senior NNSA official told us the project was never completed, and NNSA has not developed another process in lieu of affirmation reviews. Discontinuing affirmation reviews without replacing them with another form of validation eliminates the internal control activity in NAP-21 to provide NNSA with assurance of oversight effectiveness across the nuclear security enterprise. Further, continuing a process to review the effectiveness of oversight approaches would have provided information allowing for oversight practices to be compared across field offices and for differences among them to be evaluated. According to NNSA headquarters and field officials, there is no current mechanism for this to occur.

We recommended that NNSA reestablish a process for reviewing the effectiveness of field offices' oversight approaches, including their determinations for how and when to use information from CAS. NNSA concurred with our recommendation and stated that its new corporate

²⁶According to NAP-21, the five attributes that a CAS should include are: (1) assessments, where a contractor conducts assessments of its own activities on a recurring basis; (2) operating experience, where a contractor collects, analyzes, and uses information from operational events, accidents, and injuries to prevent them in the future; (3) issues and corrective action management, where a contractor systematically tracks and resolves issues identified for correction; (4) performance measures, where the contractor identifies, monitors, and analyzes data comprehensively demonstrating all aspects of performance; and (5) integrated continuous process improvement, where the contractor uses the results of performance measures and other CAS data to achieve improvements.

policy and guidance will outline such an approach for validating the effectiveness of the field office oversight activities and estimated the completion for the effort to be March 2016.

Preliminary Observations from Ongoing Work on DOE's Processes for Oversight of WIPP

Our preliminary observations on NNSA's oversight of waste packaging activities at LANL parallel two of the findings from our recently released May 2015 report. Our preliminary observations are based on our review of specific sections of DOE's Phase II accident investigation board report on the radiological release.²⁷

- First, with regard to our finding that NNSA has not fully established policies or guidance for using information from CAS to conduct oversight of M&O contractors, the accident investigation board report on WIPP found that NNSA's Los Alamos Field Office was overreliant on CAS for environmental compliance oversight. The accident investigation board report also found that the field office did not adequately conduct transactional assessments of the contractor in areas such as environmental compliance and operations of the LANL facility where the TRU waste container that breached was processed and packaged. According to the accident investigation board report, the NNSA field office's overreliance on the contractor-generated information in CAS was not consistent with a 2011 NNSA review that observed CAS was still maturing and that a strong NNSA field office oversight presence should continue. Moreover, the accident investigation board identified specific deficiencies in CAS such as inadequate contractor self-assessments regarding waste processing and packaging and concluded that CAS was not effective in identifying weaknesses that contributed to the incident. Under the oversight framework, determining that a CAS is not fully mature would result in a heavier reliance on transactions-based approaches to overseeing LANL's waste packaging operations.
- Second, with respect to our finding that NNSA field office officials have raised concerns that staffing levels and the mix of staff skills may not be adequate to conduct appropriate oversight—which may

²⁷U.S. 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. 15, 2015). In particular, our preliminary observations are based only on our review of sections 8 and 9 of the Phase II accident investigation board report, which describe the board's analysis and conclusions regarding the LANL contractor assurance system and the NNSA Los Alamos Field Office's oversight.

result in overreliance on information from CAS—according to the accident investigation board report on WIPP Los Alamos Field Office officials attributed their overreliance on the information in CAS for environmental compliance oversight to a lack of resources to directly perform this oversight. The report also found that the field office did not have senior technical expertise, such as organic chemistry expertise, necessary for conducting adequate technical reviews related to the contractor's processing of the TRU wastes, which were the source of the radiological release at WIPP.

Our preliminary observations on DOE's processes for overseeing the contractor responsible for managing and operating WIPP indicate that EM has not outlined an EM-specific policy framework for its field office officials to use in establishing and implementing effective oversight programs beyond the 2011 DOE oversight policy and order. However incomplete, NNSA developed NAP-21 in an effort to elaborate on DOE's policy and order by providing an NNSA-specific oversight policy framework that included a three-pronged evaluation framework for determining an appropriate oversight approach. EM headquarters officials told us that EM does not provide its field offices supplemental EM-specific policy or other formal direction on how to use the broad DOE oversight order but encourages them to use DOE's oversight guide focused on nuclear safety that provides suggested, not mandatory, approaches to designing and implementing field office oversight programs.²⁸ For example, this guide describes site-specific conditions that field offices should consider in establishing oversight priorities and allocating oversight resources, including consideration of the types of nuclear facilities and their hazards and the status and effectiveness of the contractor's CAS.²⁹ At this point in our ongoing review, we are not aware of examples of direction provided to EM field offices to oversee M&O contractors' performance in areas other than nuclear safety, such as

²⁸ DOE Guide 226.1-2A, *Federal Line Management Oversight of Department of Energy Nuclear Facilities* (Washington D.C.: Apr. 14, 2014).

²⁹The guide also identifies general attributes of effective oversight of a CAS that include evaluation of the quality and effectiveness of CAS processes, activities to assess nuclear safety elements, and regular assessment of the adequacy and effectiveness of the contractor's issues management and corrective action processes.

business operations or safeguards and security.³⁰ EM headquarters officials told us that EM provides field offices with evaluation guides that they can use to develop their evaluations of specific elements of a contractor's nuclear facility safety program, such as the WIPP's M&O contractor's CAS.³¹ We have not yet evaluated the DOE oversight guide, EM's reliance on it, or the evaluation guides EM has developed for its field offices, but we will do so as we complete our work.

In conclusion, GAO has reported for years on the management challenges DOE faces, as well as specific safety and security incident such as the recent accident at WIPP. DOE's management and oversight reform efforts have sought to address the conditions underlying safety and security failures, but recent events at WIPP show that more work is needed. Our recently released report concludes that NNSA does not have complete standards against which to measure whether oversight approaches are effective, including how information from CAS is being used for oversight. This is because NNSA does not have complete policy or guidance to implement the oversight framework and has discontinued its reviews intended to evaluate the effectiveness of field offices' oversight approaches; also, in the absence of headquarters policy or guidance, its field offices have developed procedures that are not fully complete and differ. As a result, NNSA runs the risk of not using its oversight resources effectively, either by underutilizing information from CAS and missing opportunities for efficiency, or by overrelying on information from CAS and possibly missing contractor performance issues that put safety, security, or mission accomplishment at risk. With respect to the recent events at WIPP, these issues concern DOE as well.

³⁰NAP-21 extends the oversight framework to mission-related and mission-support activities conducted by M&O contractors. Mission-related activities include those activities needed to accomplish an NNSA mission such as maintaining the nuclear weapons stockpile, nuclear nonproliferation, and naval reactors. Mission-support activities include those activities needed to ensure that missions are achieved in an efficient, safe, secure, legally compliant, and environmentally sound manner and include: environment safety and health; safeguards and security; business operations; infrastructure; emergency management and response; and construction project management.

³¹These evaluation guides are called Criteria Review and Approach Documents.

Chairman Murphy, Ranking Member DeGette, and Members of the Subcommittee, this completes my prepared statement. I would be pleased to answer any questions that you may have at this time.

**GAO Contacts and
Staff
Acknowledgments**

If you or your staff members have any questions concerning this testimony, please contact me at (202) 512-3841 or bawdena@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Other individuals who made key contributions include David Trimble, Director; Daniel Feehan, Assistant Director; David Bennett; Richard Burkard; John Delicath; Brian M. Friedman; Carly Gerbig; Christopher Pacheco; Eli Lewine; Rebecca Shea; Rajneesh Verma; and Kiki Theodoropoulos.

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Mr. MURPHY. Thank you.

I now recognize the ranking member of the full committee, Mr. Pallone, for his opening statement of 5 minutes.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman, for letting me, you know, go a little late here.

Today's hearing obviously focuses on oversight failures at the Department of Energy's Waste Isolation Pilot Plant, or WIPP. And the incidents there raise broader questions about how to conduct effective oversight across the DOE and NNSA Nuclear Complex.

On this committee, there has long been bipartisan support for congressional oversight to ensure that DOE is effectively managing its contractors and keeping the nuclear complex safe. And DOE and NNSA have shown repeatedly that our continued oversight is needed.

For nearly two decades now, this committee, GAO, and DOE's inspector general have identified a wide array of safety and security issues facing DOE at NNSA sites. I was going to mention them. Some of them, perhaps all of them, have already been mentioned, but I did want to mention again.

In 2004, Los Alamos National Laboratory suspended operations after a student was partially blinded in a laser accident and classified information went missing. In 2006, a drug raid in a mobile-home park found a large number of classified documents that had been removed from an NNSA lab. In 2007, a GAO report revealed that NNSA weapons laboratory workers had faced nearly 60 serious accidents or near misses over the previous 7 years. In 2008, GAO found security and protection of weapons-grade nuclear material severely lacking at Lawrence Livermore National Laboratory due in part to NNSA's deficient oversight. And then, in 2012, three trespassers managed to gain access to a secure area directly adjacent to some of the Nation's critically important weapon-related facilities at Y-12 National Security Complex in Oak Ridge, Tennessee.

This committee has held a number of hearings on these topics to understand what went wrong and what DOE and NNSA were doing to ensure this didn't happen again in the future. But now we find ourselves dealing with today's topic, which has been mentioned already, in February 2014, when WIPP experienced both an underground truck fire and a radiological release from a nuclear waste drum within a 9-day period, and operations at WIPP were subsequently shut down. The facility obviously has not reopened, and it may cost over half a billion dollars to make it fully operational again.

I just think it is an alarming record. The DOE and NNSA facilities guard some of the Nation's most dangerous nuclear materials, and for too long the DOE and NNSA have allowed mismanagement and oversight failures to continue, and we need answers today about how that will change.

Effective contractor oversight is a key component of those changes. DOE and NNSA rely heavily on contractors to carry out

their missions' activities. In 2010, DOE changed its system for contractor oversight to be more hands off, and they planned to rely on the contractor assurance systems developed by the contractors themselves to catch problems and provide data for Federal oversight efforts.

In our 2012 hearing on the Y-12 incident, the committee concluded that DOE and NNSA needed to do a better job of overseeing their contractors. Yet here we are today with recent documentation from GAO and DOE's own accident investigation boards that contractor assurance systems across the DOE and NNSA complex may not be capable of identifying risks and weaknesses.

Obviously, we have heard the GAO, and I hope to hear concrete plans from DOE and NNSA for amending their systems for contractor oversight.

I just want to close by talking about how many billions of dollars we have spent to fix these repeated problems across the DOE. DOE's Office of Environmental Management and NNSA have been on GAO's high-risk list for a long time, largely due to their struggles to stay within cost and schedule estimates for most major projects.

Regarding what happened at WIPP, NNSA's written testimony today says, and I quote, "The release, which was subsequently determined to have been avoidable, will be costly to fix and has left us without a transuranic waste repository for an indeterminate period of time," unquote.

The bottom line here is that, when these projects go off the rails, taxpayer dollars are at risk, and so are important projects that national security depends on. We need to make sure taxpayers' money is spent more wisely.

And I want to thank our witnesses and this panel.

You know, the committee spent decades doing oversight on these issues. Both of our chairmen and our Ranking Member DeGette have been involved in this for a long time, and we do intend to keep a close eye as we move forward. Thank you.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

Today's hearing will focus on oversight failures at the Department of Energy's Waste Isolation Pilot Plant—or WIPP. The incidents there raise broader questions about how to conduct effective oversight across the DOE–NNSA nuclear complex.

On this committee, there has long been bipartisan support for congressional oversight to ensure that DOE is effectively managing its contractors and keeping the nuclear complex safe. And DOE and NNSA have shown repeatedly that our continued oversight is needed.

For nearly two decades now, this committee, GAO, and DOE's Inspector General have identified a wide array of safety and security issues facing DOE and NNSA sites. Let me walk through just a few of those.

In 2004, Los Alamos National Laboratory suspended operations after a student was partially blinded in a laser accident and classified information went missing.

In 2006, a drug raid in a mobile home park found a large number of classified documents that had been removed from an NNSA lab.

In 2007, a GAO report revealed that NNSA weapons laboratory workers had faced nearly 60 serious accidents or near misses over the previous 7-year period.

In 2008, GAO found security and protection of weapons-grade nuclear material severely lacking at Lawrence Livermore National Laboratory, due in part to NNSA's deficient oversight.

In 2012, three trespassers managed to gain access to a secure area directly adjacent to some of the nation's most critically important weapon-related facilities at Y-12 National Security Complex in Oak Ridge, Tennessee.

This committee has held a number of hearings on these topics to understand what went wrong and what DOE and NNSA were doing to ensure this did not happen again in the future.

But now we find ourselves dealing with today's topic.

In February 2014, WIPP experienced both an underground truck fire and a radiological release from a nuclear waste drum within a nine-day period. Operations at WIPP were subsequently shut down. The facility has still not reopened, and it may cost over half a billion dollars to make it fully operational again.

This is an alarming record. The DOE and NNSA facilities guard some of the nation's most dangerous nuclear materials. And for too long, the DOE and NNSA have allowed mismanagement and oversight failures to continue. We need answers today about how that will change.

Effective contractor oversight is a key component of those changes. DOE and NNSA rely heavily on contractors to carry out their mission activities. In 2010, DOE changed its system for contractor oversight to be more hands-off. They planned to rely on the contractor assurance systems—developed by the contractors themselves—to catch problems and provide data for Federal oversight efforts.

In our 2012 hearing on the Y-12 incident, the committee concluded that DOE and NNSA needed to do a better job of overseeing their contractors. Yet here we are today with recent documentation from GAO and DOE's own accident investigation boards that contractor assurance systems across the DOE-NNSA complex may not be capable of identifying risks and weaknesses.

I look forward to hearing GAO share their findings today, and I hope to hear concrete plans from DOE and NNSA for amending their systems for contractor oversight.

I want to close by talking about how many billions of dollars we have spent to fix these repeated problems across DOE. DOE's Office of Environmental Management and NNSA have been on GAO's "high risk" list for a long time, largely due to their struggles to stay within cost and schedule estimates for most major projects.

Regarding what happened at WIPP, NNSA's written testimony today says, "The release, which was subsequently determined to have been avoidable, will be costly to fix, and has left us without a transuranic waste repository for an indeterminate period of time."

The bottom line here is that when these projects go off the rails, taxpayers' dollars are at risk and so are important projects our national security depends on. We need to make sure taxpayers' money is spent more wisely.

I want to thank all of our witnesses for being here today. This committee has spent decades doing oversight on these issues, and I assure you we will keep a close eye moving forward.

Thank you.

Mr. PALLONE. Thank you, Mr. Chairman.

Mr. MURPHY. Thank you.

The gentleman yields back.

I now recognize myself for 5 minutes of questions.

First of all, Mr. Wyka, you ran the Accident Investigation Board and determined that the radiological incident was preventable. Am I correct?

Mr. WYKA. Yes, sir.

Mr. MURPHY. And you also determined the systemic root cause was that site offices, or the Feds, I think you said failed to ensure that Los Alamos adequately implemented hazard controls in waste packaging. Is that correct?

Mr. WYKA. Close. It's that they inadequately developed and implemented the repackaging and treatment procedures that incorporated suitable hazard controls and included a rigorous review and approval process.

Mr. MURPHY. Thank you.

And that contributing cause was failure of oversight from line officers at headquarters; is that correct?

Mr. WYKA. There were several contributing causes, or what I would call missed opportunities. And those included the characterization and certification program and process itself, the land safety procedures that they use, the hazard identification and control mechanisms and processes that they used at the lab, as well as the training and qualification of both the workers and the first-level supervisors, the contractor assurance system, and oversight at all levels, including the Federal office and headquarters.

Mr. MURPHY. So multiple levels of failures of oversight.

Mr. WYKA. Yes, sir.

Mr. MURPHY. Thank you.

Ms. Creedon and Mr. Whitney, if you could answer this, too. Do either of you have any disagreements with the Department's Accident Investigation Board findings?

Ms. CREEDON. No, sir.

Mr. MURPHY. Mr. Whitney?

Mr. WHITNEY. No, sir.

Mr. MURPHY. So you agree that this incident was preventable if handled differently?

Ms. CREEDON. Yes, sir.

Mr. WHITNEY. Yes, sir.

Mr. MURPHY. Thank you.

Now, Ms. Creedon, you were confirmed for your position last July 2014, but you actually have long experience with DOE and NNSA and are generally familiar with the Department's oversight challenge. Is that a fair statement?

Ms. CREEDON. That's correct.

Mr. MURPHY. Thank you.

So testimony before this committee over the years has identified numerous security problems—you heard that stated by multiple members up here—but also safety process problems at Los Alamos which go back 15 years. And we heard a partial list in the GAO testimony this morning.

To take another example, in testimony just 2 years ago, we learned that the Los Alamos site office—the Feds had closed half of 62 safety system corrective actions without adequate verifications.

So is it truly any surprise to you that Los Alamos Feds did not know that workers spent a year and a half incorrectly mixing hundreds of barrels of radiological waste?

Ms. CREEDON. Mr. Chairman, one of the fundamental problems with this particular failure is that—well, there are many, as the report indicated, but one of them is clearly the failure of the CAS approach and the CAS system at Los Alamos. So Los Alamos did not have a mature CAS system, and it had not picked up these issues.

One of the primary weaknesses in the CAS system, as we have now gone back and looked at it, was it was inadequate with respect to overseeing subcontractors. And this is a fundamental problem.

The other problem—and this is a problem that we have begun to address already—is that the lines of oversight at Los Alamos were not clear. So one of the Secretary's initial actions and responses was to clarify these lines of authority and responsibility for oversight at Los Alamos.

And the first action that we took was to take the Environmental Management personnel who were imbedded in the NNSA field office and Mr. Whitney, at the direction of the Secretary, established a standalone EM field office. And then I will let him go into the details of that particular field office.

But the other thing that we are doing is also changing the way that they oversee the contract itself so they will have more authority and responsibility so these lines will be clearer in the future.

Mr. MURPHY. So, along those lines, let me probe a little bit deeper. So, from your experience, what is it that makes ensuring effective safety systems oversight so difficult to sustain at Los Alamos?

Ms. CREEDON. So one of the things that I think we have to look at is ensuring that the contractors really do have in place for their own purposes an internal oversight capability.

The Department historically and NNSA historically has focused on those very high-hazard activities of the criticality, safety, and those are the ones that have had the focus and attention. NNSA historically has had to balance some of its oversight responsibilities. So we have about 75 people in the Los Alamos and NNSA field office, and there are on the order of 12,000 contractor employees at Los Alamos. So, with that ratio, we have to make sure that our initial focus, our most intense focus is associated with those high-hazard activities.

And these activities that were associated with the repackaging of this legacy waste in this overarching construct were considered to be low-hazard activities. So for that, we rely on the systematic approach at Los Alamos.

Mr. MURPHY. So it being low—well, I see I am out of time. I will follow up with that later on. Thank you.

Ms. DeGette, you are recognized for 5 minutes.

Ms. DEGETTE. I want to thank all of our witnesses for coming today. And this is an issue that we have been grappling with for many years, as you heard in my opening statement.

I wanted to ask you, Ms. Bawden—I understand that DOE contract management, specifically EM and NNSA, have been on the high-risk list for a long time. Is that correct?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, that is a list that GAO places agencies and programs on that are at increased risk for waste and mismanagement; is that right?

Ms. BAWDEN. That's right.

Ms. DEGETTE. Now, in 2010, the Department launched an effort to reform its approach to oversight. I know you are familiar with this memo, the 2010 memo from Deputy Secretary Poneman called "Department of Energy Safety and Security Reform Plan"; is that right?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, in the safety reform section, it states that DOE will provide contractors with, quote, "the flexibility to tailor and implement safety programs in light of their situation without excessive Federal oversight or overly prescriptive departmental requirements."

Are you familiar with that section?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, it says the same thing for security reform. Is that right?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, Ms. Bawden, under this new system, NNSA was supposed to be able to rely on information from contractor assurance systems put into place by the M&O contractors, correct?

Ms. BAWDEN. Yes.

Ms. DEGETTE. And the NNSA was supposed to affirm that the systems were mature and effective. Is that right?

Ms. BAWDEN. That's correct.

Ms. DEGETTE. Now, one of the first NNSA sites to receive that affirmation was the Y-12 facility in Tennessee, correct?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, after that facility was affirmed, that is when we had the security fiasco where the nun and the other people were able to penetrate the compound. Is that right?

Ms. BAWDEN. Yes.

Ms. DEGETTE. So I understand that after that failure they scrapped the affirmation process, correct?

Ms. BAWDEN. Yes.

Ms. DEGETTE. And so, really, they had no way of affirming the maturity or usefulness of these systems.

Ms. BAWDEN. They do not have a current process in place.

Ms. DEGETTE. All right.

Now, let me talk to you for a minute about WIPP. I understand when the DOE conducted its accident investigation it found that the contractor assurance systems for the two M&O contractors affiliated with WIPP and Los Alamos failed to identify the risks associated with that disaster. Is that right?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, your team just completed a comprehensive audit, and you found that the NNSA doesn't have the capability to evaluate which sites have viable contractor assurance systems capable of giving the agency the data that it needs to oversee the contractors that run these critical facilities, correct?

Ms. BAWDEN. They do not have policies in place. That's correct.

Ms. DEGETTE. OK.

And the contractor systems at Y-12, Los Alamos, and WIPP all failed to prevent major security and safety incidents, correct?

Ms. BAWDEN. Yes.

Ms. DEGETTE. Now, you raised concerns about these contractor assurance systems across the entire NNSA complex, correct?

Ms. BAWDEN. Yes.

Ms. DEGETTE. So, at this point, what approach or system is NNSA using to conduct oversight at its sites, where literally billions of dollars are being spent?

Ms. BAWDEN. Thank you for the question.

NNSA is utilizing many different approaches at its sites across the spectrum of available transactional and systems-based options. What we found is that you really have to go to each individual site to figure out whatever site approaches they're taking, and information about oversight broadly was not available at the headquarters level.

Ms. DEGETTE. So it is really just sort of, now, catch as catch can, whatever people think at the different sites. Would that be a fair—

Ms. BAWDEN. The field offices are making their decisions at each site.

Ms. DEGETTE. The field offices are making their decisions at each site.

Ms. BAWDEN. Uh-huh.

Ms. DEGETTE. So does that approach give you confidence the Federal Government is applying effective oversight over its M&O contractors?

Ms. BAWDEN. I think the recommendations that we made that were aimed at improving policy, consistency, and fully fleshing out this framework would help give us that confidence.

Ms. DEGETTE. Now, you know, Ms. Creedon, I know that you are all trying to grapple with this, and it has been a complex and difficult problem that people have been trying to grapple with, really, ever since I have been on this committee, which is 1997.

But I have to say that, since 2002, DOE policies and orders have required that all these contractors have these systems. But you hear Ms. Bawden say that the compliance is sort of catch as catch can among the different agencies.

What is your response to that?

Ms. CREEDON. As Ms. Bawden said, when the Y-12 event occurred, the CAS system at Y-12 had been affirmed. And my understanding at the time was that NNSA then determined that, clearly, the approach that they had taken to affirming these contractor assurance systems was not working and they set it aside.

Since I started at the Department of Energy—I was confirmed in July and started in August—one of my responsibilities is as the fee-determining official, and part of that is to look at how all of these contractors are performing. So, among other things, we at the Department have changed some of the methodologies with respect to the contractor and the contract and have changed some of the performance criteria.

But what I have started to do, which in some respects is a compensatory measure for some of these differences, is I meet for an entire day with all of our field office managers every quarter, and we go through exactly what's going on—

Ms. DEGETTE. OK. I don't mean to stop you, but my time has expired, and I think it would be really helpful if you could supplement your answers to deal exactly with this problem that we have of now no cohesion.

[The information follows:]

Our oversight policies are implemented through Department of Energy (DOE) Directives that are issued at the department level, and followed by all offices of the DOE, as required. Where specific directive language includes contractor requirements, they are included in DOE contracts. These directives are consistent with statutes and regulations.

Ms. DEGETTE. Thank you for your comity.

Mr. MURPHY. We let you go because it was important questions you were asking.

Dr. Burgess, you are recognized for 5 minutes.

Mr. BURGESS. Thank you, Mr. Chairman.

Mr. Wyka, I have here, I think, three accident investigation reports from the Department of Energy Office of Environmental Management, and in each one there is a judgment-of-need list at the end of the report. And I haven't added them up myself, but I am told by staff that there are 122 judgments of need in these three reports that the Department and the contractors will need to address.

So let's just ask the obvious question. This is 122 judgments of need. Is that a lot?

Mr. WYKA. It's a big number, but I actually don't go for a quota for a number. I look at the issues and develop the conclusions and judgment of needs based on what we find until we sort or resolve the problems.

A lot of those judgment of needs are more extensive than others. Some of them are extent of conditions rather than just looking at the event at Los Alamos. It's going to require, you know, the Department to look at it from a programmatic perspective as well as enterprise-wide.

Mr. BURGESS. But, say, going back over the last 10 years, many of these things seem to be recurrent themes. Am I wrong to make that assumption?

Mr. WYKA. No, sir, you are correct. And that's what the board concluded in all three investigations, that a lot of these issues were brought up in other reviews and assessments, both internally and externally, and they weren't addressed as repeatable issues, which was another missed opportunity—

Mr. BURGESS. Well, why not?

Mr. WYKA [continuing]. In several functional areas.

Mr. BURGESS. Why not? I mean, again, I have been on this subcommittee for 10 years. We have been dealing with these problems every year that I have been on the subcommittee. The obvious question is why not, or what is it going to take to get these things brought up to standards where we won't be reading these types of headlines and, quite honestly, putting our workers and contractors at risk?

So do we have an answer for that?

Please.

Mr. WHITNEY. If you don't mind, sir, I will answer that for the Office of Environmental Management.

Yes, Ted was exactly right. Even with respect to the EM contractor at the WIPP site, there were assessments over the past years, corrective actions put in place, and they were not tracked accordingly.

We are going to resolve that issue. Among many other things that we are doing with respect to oversight at headquarters, we have developed a more robust corrective action tracking system, a corrective action software hub, and we will assure the follow-through on all corrective actions.

We are also increasing resources in the oversight area for headquarters for our Safety, Security, and Quality Programs office that really did not have the staffing to implement a robust headquarters oversight program.

We have done the same at the Carlsbad Field Office, increasing resources, but, just as importantly, we have reorganized the office there. The office previously had the production or the waste emplacement group, the folks that were responsible for the program, and the folks that were responsible for oversight in the same office. And, in fact, unfortunately, some folks wore two hats. They were responsible for emplacing the waste and for oversight of that activity, which is clearly not the right way to approach it.

So we have reorganized it into an Office of Program Management and an Office of Oversight, to ensure that all the position descriptions accurately reflect the oversight responsibilities. And those are being pulled into performance plans of the Federal employee.

We are doing this across the board at headquarters and revamping our oversight program in response to the AIB reports and part of our corrective action planning process to include really developing a more robust oversight arm. There will be a baseline program as well as a program that looks at trends across the complex and ensures that when a trend develops—

Mr. BURGESS. Yes. If I can just interrupt you, because I am going to run out of time. This all sounds wonderful, and I have the transcript from the hearing we had after the Y-12 incident 2½ years ago, and I think the same thing was said to us then. So, I mean, again, that is the question.

And, I mean, is Secretary Moniz satisfied with this? Does he think this is acceptable from your department, from the Department of Energy?

Mr. WHITNEY. Sir, I won't speak on behalf of the Secretary, but I believe, as Madelyn and I both endorse the recommendations from the AIB report and realize things need to be corrected, we are taking an approach that I know the Secretary is supportive of, which is ensuring that the recommendations, and the findings from the Accident Investigation Board reports, we are sharing across the complex with the EM folks.

We have worked directly—Ted has—with each site office to give individual briefings of the AIB findings, to talk about lessons learned, where there may be extent-of-condition issues at that site, as well. And then, later this month, we will have all of the field offices managers in to—

Mr. BURGESS. I don't mean to be rude, but I am going to interrupt, because they are going to cut me off here in a moment.

Acting Secretary Poneman, last time we had this discussion, over 2 years ago, he said: Our management principles say that we will only succeed by continuous improvement. That was part of the process, so it wouldn't just be mindlessly continuing to check the box, but it would be vigorous and aggressive. I am sorry. We missed the mark, and we need to do better.

Thank you, Mr. Chairman. I yield back.

Mr. MURPHY. I thank the gentleman.

I now recognize Mr. Pallone for 5 minutes.

Mr. PALLONE. Thank you.

Mr. Whitney and Administrator Creedon, since 2002, DOE policies and orders have required that each DOE M&O contractor have a contractor assurance system.

In 2011, DOE sought to increase its reliance on these systems for oversight purposes; is that correct?

Ms. CREEDON. That's correct.

Mr. PALLONE. OK.

Now, let me just read from the WIPP accident investigation report. It says, and I quote, "Nuclear Waste Partnership, the contractor that packed the drum, has not fully developed an integrated contractor assurance system that provided assurance that workers perform compliantly, risks are identified, and control systems are effective and efficient."

And then, I quote, "The Los Alamos National Security Contractor Assurance System was not effective in identifying weaknesses," end of quote.

So, again, to both of you, why were valid risk systems not in place, and aren't they required to have them?

Mr. WHITNEY. Yes, sir. Thank you for the question.

One, just a correction. Nuclear Waste Partnership did not pack the drum. They operate the WIPP facility.

Mr. PALLONE. OK.

Mr. WHITNEY. But you're exactly right, and we agree with the AIB findings, which stated they did not have an adequate contractor assurance system in place.

Unfortunately—

Mr. PALLONE. And they were required to have them?

Mr. WHITNEY. Yes, sir.

Mr. PALLONE. OK.

So let me ask Ms. Bawden, then, given these findings, the Accident Investigation Board made recommendations that M&O contractors, NNSA, and the Department put in place viable contractor assurance systems and improved field office and headquarters oversight of them. Your recent report, however, found that NNSA's efforts to do this across the nuclear complex has not been adequate or complete.

So if I could ask Ms. Bawden, weren't these contractors already supposed to have the contractor assurance systems in place?

Ms. BAWDEN. Yes. They were required.

Mr. PALLONE. And what gives the GAO confidence that NNSA or EM, for that matter, can adopt the accident report recommendations on approved oversight, given the findings of your recent report?

Ms. BAWDEN. Our findings, similar to what the Accident Investigation Board report found, were that revisions to policies, improvements in policies are needed. And the proof is really going to be in the implementation of those policies once they're completed. And we will look at that as part of the followup on the recommendations that we've made.

Mr. PALLONE. But what—you know, so, again, I will ask Administrator Creedon and Mr. Whitney.

I mean, I guess you've, you know, been kind of answering this question already, but, you know, why should we have any confidence that, you know, things are going to change?

Ms. CREEDON. You know, that is an extraordinarily difficult question. And it is certainly something that the Secretary is com-

mitted to, the Administrator is committed to, I am committed to, is trying to get this right.

It's pretty clear that the processes that were in place when this event happened weren't right. They didn't catch the events. The contractor assurance system didn't catch what was going on. We didn't catch what was going on.

And so now we've done a bit of a pause, and we are now in the process of once again trying to put in place these policies that will figure out how to ensure that this contractor assurance system is reliable.

One of the measures, I think, going forward is to see if we begin to agree with them. So, even in the last year, it's pretty clear that the contractor assurance systems at some sites are better than other sites. And it's putting these processes in place, which we've embarked on doing again. We hope we get it right this time.

Mr. PALLONE. All right.

Let me just ask Mr. Whitney, you know, about the cost. I mentioned in my opening—there's only a minute left here.

How much is it going to cost to make WIPP fully operational again? And when do we expect that to happen? And what are we losing by shutting down WIPP for several years? How much is that going to cost the Department?

Mr. WHITNEY. Yes, sir.

We anticipate the cost to resume operations—which, initially, our target for that is by the end of March of 2016—will be approximately \$242 million.

To resume operations at the pre-incident pace will require additional ventilation, and that will require a capital construction project. And the rough order of magnitude of where we are in the planning process for that project is between \$77 million and \$310 million.

So I can't say exactly how much it will cost to get to the point where we were pre-incident, but it will take several years to get to that point.

Mr. PALLONE. All right. Thank you.

Thank you, Mr. Chairman.

Mr. MURPHY. Thank you. The gentleman yields back.

Now I recognize Mr. Bucshon for 5 minutes.

Mr. BUCSHON. Thank you, Mr. Chairman.

Again, this is another instance, I think, that maybe a lot of good people are put in a bad spot. And I appreciate all your testimony and what you are trying to do to improve the situation.

From your testimony, Ms. Bawden, it appears that the oversight framework shifts from one administration to the other. This is not a criticism of any administration in general. My concern is that come a new administration, whomever that may be, that somebody may want to develop a whole new approach to oversight.

I fully understand that political appointees carry out policy issues of whatever administration is in place. However, it seems to me on critical issues like this that maybe there needs to be people in charge that span administrations, that don't have the ability to change policy every time something changes. That doesn't make any sense to me.

And the reason I say this, because across the Government what happens is agencies wait you out. If the agency itself, as a whole, doesn't like what you are trying to do, they just wait you out until the next people come, and they sustain a problem that just keeps happening.

You have heard from many of the members who have been on this subcommittee for years, maybe decades, that this is a recurring theme. It is going continue to recur. We are going to be here probably 2 or 3 years from now, and people in your positions, who are from the next administration, are going to be, unfortunately, put in front of us trying to explain what an agency has been doing, literally, for decades that you can't change, and that is unfortunate.

So, Ms. Bawden, do you think this is wise, this is a wise way to run something as critical as this? I mean, is this wise?

Ms. BAWDEN. What we looked at in the course of our review was the policy that was in place and how it has been implemented. With respect to part of the question that you asked on sort of leadership and political leadership, the Mies-Augustine panel that was commissioned by Congress to review governance did look at that issue, but GAO has not.

Mr. BUCSHON. Again, it is not a criticism of political appointees. This is a criticism of a system that may not be wise in certain critical areas of agencies. I get you are going to have a secretary of energy, I get you are going to have people appointed down the line, but certain areas, maybe, it is just not appropriate.

I mean, Ms. Creedon, what do you think? First of all, you are a graduate of University of Evansville, which is in my hometown, so welcome.

What do you think?

Ms. CREEDON. So I think one of the issues now is the NNSA has been the subject of a number of investigations over the last several years—I mean, for decades actually, but a lot of them over the last several years—and they are all very critical. And one of the things that we have been seeing is we do, the Federal Government does an annual Federal Employees Viewpoint Survey, and by and large the workforce at NNSA is very good. The workforce at our labs are—

Mr. BUCSHON. And, again, I want to make it clear, I am not criticizing the workforce. It is the system, right?

Ms. CREEDON. Exactly. They are very good. But part of the problem is, they are not very happy and they are not very happy with the state of affairs. So I am very hopeful this time that they want to get out of this hole. Everybody wants to get out of this hole.

Mr. BUCSHON. And I am sure they do.

Ms. CREEDON. So hopefully as we work towards it this time, we can get something in place that will be enduring and everybody gets out of this hole so that they are not continually the subject of very unflattering reports.

Mr. BUCSHON. Understood.

Mr. Whitney, do you have any comments on that?

Mr. WHITNEY. Only that I am a career employee.

Mr. BUCSHON. Then you have a very good view of this, which you probably can't say here publicly, but I understand.

Mr. WHITNEY. I started this assignment in May of last year. My predecessor was also a career employee. We haven't had a confirmed Assistant Secretary for several years. But we do have a very dedicated, strong workforce, as you pointed out, that is competent.

Mr. BUCSHON. Yes.

Mr. WHITNEY. And I completely agree, it is not the workforce. We have systemic issues that were brought out by the AIB report that we need to fix.

Mr. BUCSHON. I think that is accurate.

One of the other things that frustrates me is you can never put your finger on who actually is responsible at the end of the day, right? And we need to hold people more responsible, whether that is career or political appointees.

Any time we try to ferret that out here in oversight hearings, at the end of the day, there is no one person that we can put our finger on, and that is very frustrating.

Quickly, the cost, \$70 million in contractor fines, half a billion dollars for the taxpayer potentially. I mean, is that a fair way to divvy that up? I mean, if we determine who is responsible, it seems to me if it is the agency responsible, then fine. If it is the contractor responsibility, then they should pay the whole thing. You can submit that answer for the record.

[The information follows:]

Fines are levied against the contractor in different ways, but the most common approach is through a mutual agreement of the parties. A bilateral agreement addressing the terms and conditions associated with the fine/penalty is normally incorporated into the contract via modification. The bilateral agreement will outline the methodology for reaching the amount of the fine. Payment of the fine is normally a reduction to the available fee pool included in the existing contract. For example, because of the impact of the Waste Isolation Pilot Plant (WIPP) incident National Nuclear Security Administration (NNSA) withheld \$57.2M of fee in FY14, which included the entire award, at-risk fee, and fixed fee available to the contractor for work performed for the Department of Energy (DOE)/NNSA. Absent existing funds on the contract, the contractor will issue a check to the US Treasury to cover the fine.

DOE and NNSA Management and Operating contracts are cost reimbursement, level of effort contracts. This means that although the contractor may lose the fee for unsatisfactory performance, generally, unless determined unallowable under the standards identified in the FAR, the costs for clean-up and repair are covered as they would be under any other cost reimbursement contract.

Mr. BUCSHON. I yield back, Mr. Chairman.

Mr. MURPHY. The gentleman yields back now.

Now we recognize Mrs. Brooks for 5 minutes.

Mrs. BROOKS. Thank you.

Continuing a bit on that line of questioning, I am a former U.S. Attorney, and so I have led a Federal office where career prosecutors and career other staff, obviously, are there day in and day out through administrations, and different priorities come from different administrations and different leadership styles and so forth.

But I think that because those of you who are the career, Mr. Whitney and Mr. Wyka, both career people, this is a bit of an opportunity for you to—and because I think other people of this panel—I am new to this committee, so I have not been here time and time again asking these questions like our chair and our rank-

ing member have been. And I think this is a great opportunity for you to share with us what you would like to see happen in the best-case scenario, what are the improvements that you believe need to be made.

For instance, looking at GAO's report and seeing what their recommendations have been and seeing that we just cannot seem to get this right, site after site and different sites, and I appreciate, Ms. Creedon, that you are spending days at each site now each quarter, but, yet, when you leave someday, how will that be institutionalized? And so while you might be really moving it in the right direction, how will we get to it being so systematic and so institutionalized that the oversight of this most critical infrastructure in our country is not left to random changes in how the oversight is conducted?

And so I would really like to hear from the career folks what you would like to see improved and what policies you would like to see in place with respect to the contractor oversight or whether or not there should be more direct oversight. And so I would like to get your thoughts in my now 2 ½ minutes left from both of you what your—and not that I don't appreciate what the others have to say, but this is an opportunity for career folks to tell us what needs to be fixed and how do we make sure these things don't happen again. What is it?

Mr. Whitney, start with you, and then Mr. Wyka.

Mr. WHITNEY. Yes, ma'am. Thank you.

I think, most importantly, for the EM program, we cannot treat this as an opportunity only to fix WIPP and the incident there. We have to use this as an opportunity to fix our oversight across the EM complex.

Mrs. BROOKS. Agreed.

Mr. WHITNEY. We very much are focusing in that area and making sure that not only are we sharing lessons learned, engaging directly with all our site managers, all our Senior Executive Service folks in the field to go over the lessons learned, and thankfully Mr. Wyka has agreed to work with us on that and to really engage and look at lessons learned, but also the oversight function.

The contractor assurance system is one component of our overall oversight function. It is an important component. It is a contractor's component. But we have to make sure that as we move forward and we build a more robust oversight element at headquarters, that we are doing that in the field too and not just at WIPP, but at each of our field sites.

Mrs. BROOKS. Mr. Wyka.

Thank you.

Mr. WYKA. Thank you for the question.

I think probably a key is to make sure that we have acceptance at all levels, not only at the senior level, but the mid-levels, as well as the worker level, that we have problems to fix, and to use this as an opportunity, as Mark mentioned, to almost look at ourselves in the rearview mirror and look at the analysis conclusions, the judgment of needs, the program processes, oversight breakdowns at all levels, look at our respective programs, no matter what they are, to sort of see if we are seeing those same type of precursor-type activities.

Mrs. BROOKS. And how does that occur now when you need to do those evaluations at your sites? Is it just with the top level? Or how do those process improvements, self-examination exercises take place now?

Mr. WYKA. I think one way is to look at the way we look at our CAS systems. Rather than to look at them in terms of an affirmation or are they in place, the way we did it with the Accident Investigation Board—we didn't do a CAS assessment, we looked at the event—is to look at them in terms of the functional areas—Radcon, work controls, nuclear safety—and to look at the elements with respect to those functional areas, are they actually working effectively.

Mrs. BROOKS. But then how is that shared with every single person in the facility?

Mr. WYKA. There is a lessons-learned program, and through what we are doing now and through debriefings and bringing our field managers together and having them required to read the documents and then we will discuss what are our corporate next-step options as an enterprise.

Mrs. BROOKS. Thank you. My time is up.

I yield back.

Mr. MURPHY. Thank you.

Now I recognize Mr. Collins for 5 minutes.

Mr. COLLINS. Thank you, Mr. Chairman.

I am new to this committee and shocked, I guess would be a good word, from what I am hearing. I come from the private sector. I am an ISO guy. I am an ISO 13485, my biotech. I run a select agent operation. We deal with all the bioterrorism agents. I deal with anthrax. We inactivate it. We make sure it is inactivated. My folks wear spacesuits. We have double airlocks. We don't make mistakes.

Why don't we make mistakes? Because we have people in charge who know what they are doing. Clearly, that can't be said for your agency.

Now, let me just state a fact: You can't defend the indefensible. But would any of you like to try, or should we move on?

So the next question is, who was fired over this, and how many people?

Ms. CREEDON. The NNSA held responsible the contractors, the contractor operator.

Mr. COLLINS. Were they fired?

Ms. CREEDON. So we did two things—

Mr. COLLINS. Did you fire them?

Ms. CREEDON. We did not fire them, but what we did is we took all their fee and we did not—

Mr. COLLINS. Did you sue them?

Ms. CREEDON. Well, we took all of their fee, and we took back a year of contract award that had been previously given.

Mr. COLLINS. Oh, my goodness. And you think that was good enough?

Ms. CREEDON. It is all of their fee.

Mr. COLLINS. That is not enough. The taxpayer is on the hook for \$500 million. Did we sue them?

Ms. CREEDON. The laboratory director also relieved the seven senior managers who were responsible for the work that was done at Los Alamos.

Mr. COLLINS. So he, obviously, wasn't involved or responsible because we didn't fire him? I am just saying, this is an example. I am somewhat surprised you are trying to defend this. You can't defend the indefensible.

In the private sector, you would probably be fired. The contractor would be relieved. The contractor would be sued for the \$500 million. We would put him into bankruptcy, if that is what it took, because I think what you are hearing me saying is through his incompetence and the incompetence of the people who didn't have the—this is procedures.

Are you familiar with lockout-tagout? Well, when electricians, we would run the risk of them getting electrocuted if they are working on electrical equipment. It is fail-safe. You have keys. You have training. You can't be working on a live box with these procedures in place.

This is fundamental. I mean, I am new to this committee. I am just beyond any comprehension that this occurred, that anyone involved is still working there. And it rests with the person in charge, the Secretary, yourself and others, the contractor. In the private sector they would have been terminated, they would have been sued, two or three levels of people would have been fired, a fix would have been in place, an emergency SWAT team would have been put in.

Industry operates, my business operates in areas of critical—I mean, we are growing bioterrorism agents. We have people wearing spacesuits. We have to know nothing can go wrong. I mean, nothing can go wrong. And when people say, "Why don't you sleep well at night some nights?," that is some of the reasons.

But I hear this very nonchalant—we took away—I mean, do you realize how ludicrous it is that the organization in charge of this did what they did and cost the taxpayers \$500 million and they are still there? And you think that taking away a year of their extension works? I just don't know what world you guys live in other than the bureaucratic world the public gets so upset by. I just would not only expect more, but I am surprised you are still working there.

I mean, do you see where I am coming from? The taxpayers deserve more. And is there a reason we haven't sued the company to reclaim our \$500 million? Our Government sure went after Toyota. We are going after GM for other things like that. Why aren't we going after this contractor?

Ms. CREEDON. So on the Los Alamos operating contractor, we did everything that we can do under our contract with them. We took all of their fee, and we took back a previously awarded—

Mr. COLLINS. So we have a contract that doesn't state that they are responsible for something? When you breach a contract—and I would think this would be considered some breach of the contract—whatever the contract says is out the window. Taxpayers lost \$500 million. You are saying we have a contract that doesn't allow us to recover that, or we can't sue on another basis, of gross incompetence? I would think gross incompetence and negligence would

allow you to move forward on a suit. Maybe you lose the lawsuit, but I guess what I am hearing, we didn't even bring it. Did we?

Ms. CREEDON. No.

Mr. COLLINS. No.

I just find this whole thing unacceptable and would not only ask you to do better in the future, but somebody should be looking in mirrors and deciding, if they are not capable of doing the job, do us a favor and resign. If someone else is in charge and they are willing to put up with this level of incompetence within our own organization and the contractor, I think, again, they need to look in the mirror, and for the good of the Nation think about whether they should go to work tomorrow.

Anyway, my time is over. I yield back.

Mr. MURPHY. The gentleman yields back.

Ms. Creedon, just to clarify, who was in charge at the time this last problem occurred? Who had your position as a Principal Deputy Administrator of NNSA?

Ms. CREEDON. At the time that this event occurred, well, neither I nor the current Administrator were in place at that time. And I am trying to remember. I think at the time this was in place Tom D'Agostino was the Administrator and Neile Miller was the Principal Deputy Administrator. And they are, obviously, no longer in those positions.

Mr. MURPHY. And, Mr. Whitney, who had your position at that time?

Ms. CREEDON. Neile Miller.

Mr. MURPHY. Oh, Neile Miller.

Ms. CREEDON. Sorry.

Mr. MURPHY. OK.

Mr. Whitney, I just want to make sure I understand who was in charge. Because Mr. Collins is bringing up a question. I just want to know what was the chain of command at that time.

Ms. CREEDON. I stand corrected. The previous Principal Deputy Administrator had already left at that point in time. And there was an Acting Administrator. Tom D'Agostino had also left at the time of this event. So at that point we had an Acting Administrator for NNSA, and there was no one in my position at the time of this event.

Mr. MURPHY. And, Mr. Whitney, about your position?

Mr. WHITNEY. Yes, sir. We did not have a confirmed Assistant Secretary at the time. I believe the most senior person was a senior advisor for environmental management at the time.

Mr. MURPHY. It doesn't sound like anybody was in charge at the time.

Mr. Green, you are recognized for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman.

I would like to talk about the effectiveness of DOE's oversight across various sites of the nuclear security complex and the reliability of related contractor assurance programs. Is it safe to say that the WIPP accident investigations prove that the Federal oversight and the contractor assurance systems were ineffective at WIPP and at LANL? The Y-12 security breach also demonstrated the ineffectiveness of oversight and contractor assurance.

For both our DOE witnesses, what do you know about the contractor assurance systems at the other nuclear weapons research facilities and cleanup sites? Are there any that you can point to that we can rightly say are effective for DOE oversight purposes?

Ms. CREEDON. At the NNSA sites we have contractor assurance systems in place. We are looking at those again. We have been looking at those. They are a tool, as we look at how we evaluate our contractors. Right now we believe that some of them are actually pretty good and others clearly need work, like the one at Los Alamos.

Mr. WHITNEY. Yes, sir. For the environmental management program, we did conduct a review of the contractor assurance systems at our largest sites. This was prior to the WIPP incident. We looked at the elements, operational elements of the CAS system to see if they were there and to see if they were being implemented appropriately and if the field office is then providing that independent oversight. For those sites, we did find that they had effective systems in place, but now we are moving forward to reevaluate all of our sites' CAS.

Mr. GREEN. All of us would hope this would be an exception of the rule. So you are evaluating that now with your other sites to see if there has been any followup. I understand the GAO report, that NAP-21 established a process for NNSA headquarters to review the effectiveness of contractors' implementation of assurance systems and field offices' oversight approaches called affirmation. However, after the Y-12 security breach occurred at a facility whose contractor assurance system had been affirmed as effective, NNSA discontinued the process of affirmation reviews. Is that true?

Ms. CREEDON. That is correct.

Mr. GREEN. If you don't like the answer, you don't review it?

Ms. CREEDON. No. What happened was the contractor assurance system at Y-12 had been affirmed, and then it was shortly after that contractor assurance system had been affirmed we had the incident at Y-12. So it was clear that there was a fault in that affirmation process, and we discontinued that process.

Mr. GREEN. OK. GAO has also recommended that NNSA establish a process of reviewing the effectiveness of field offices' oversight approaches, including the use of contractor assurance information. NNSA's response letter to the GAO report states that the new corporate policy and guidance will outline an approach for validating the effectiveness of the oversight approaches by March of 2016.

Administrator, does this mean that just the process will be established by March of 2016, not that the actual reviews will be conducted?

Ms. CREEDON. So that is when the implementation guidance will be issued, and the process will actually be established sometime earlier. So we will have it implemented and up and running by then.

Mr. GREEN. OK. So how long after that will it take to conduct and complete the actual effectiveness reviews?

Ms. CREEDON. I don't know, because we haven't put those implementation processes in place yet. But even in this interim period,

we still continue to look at our contractor assurance systems. We work with our field office managers in other ways to ensure that we have got adequate oversight and that these are providing us with reliable information.

Mr. GREEN. So you are actually looking at a range of facilities to make sure these effectiveness reviews are conducted hopefully as soon as possible.

Ms. CREEDON. Yes.

Mr. GREEN. And will that be before March 16?

Ms. CREEDON. So a formal process has not yet been reestablished. But even in advance of the reestablishment of a formal process, we are looking at whether or not these contractor assurance systems are providing us accurate and timely information.

Mr. GREEN. And this is systematic, I guess, of all the sites?

Ms. CREEDON. On the NNSA sites, yes. And I will let Mr. Whitney speak to his sites.

Mr. GREEN. OK. On EM's effectiveness.

Mr. WHITNEY. Yes, sir. We believe that it is a systemic issue, and that is why we are revamping our oversight program at headquarters with a strong focus on all the oversight elements, including the contractor assurance system at all our sites and our field offices' oversight of those contractor assurance systems.

Mr. GREEN. So in your testimony, it is a systemic and not just an exception. But you are working to fix it, I hope.

Mr. WHITNEY. Yes, sir.

Mr. GREEN. OK.

Thank you, Mr. Chairman. I know I am out of time.

Mr. MURPHY. Thank you.

Now we welcome and recognize Mr. Luján for 5 minutes.

Mr. LUJÁN. Mr. Chairman, thank you so very much. And I really appreciate, Mr. Chairman, you and the ranking member bringing us together for this important hearing pertaining to the Waste Isolation Pilot Plant and Los Alamos National Laboratory EM, as well as the NNSA.

Mr. Whitney, as we work on these issues, I think it is important to remember that in executing the mission of these projects, as well as to Ms. Creedon, that we also work with these local communities. And, Mr. Whitney, are you committed to engaging and involving the surrounding local community in the prioritization and procurement of environmental cleanup efforts at Los Alamos National Laboratory?

Mr. WHITNEY. Yes, sir. I have had an opportunity actually to meet with the community on several occasions now. And now that we have formally stood up the EM field office, our senior manager there has also done that, and we are committed to continuing that relationship.

Mr. LUJÁN. And as you increase Federal oversight positions at LANL, what are you doing to ensure that the funding for cleanup efforts does not adversely impact it?

Mr. WHITNEY. As we move forward with EM, the transition from NNSA to EM, we are looking at the entire program. Of course you know the consent order with the State for the cleanup program was to be completed by the end of 2015, and that is not going to happen. So we are looking at the program, rebaselining the program,

and also we will be working very closely with the State over the next several months, and we will assure that we have resources requested to do the cleanup work at the site based on that.

Mr. LUJÁN. And, Mr. Whitney, as conversations are had with various States around the country based on what we saw with the incident here, are we going to also take into consideration that the time lines that we are working with are going to ensure that the safest protocol associated with completing these projects is included?

Mr. WHITNEY. Yes, sir. Safety is our overriding priority, and that is, as the Secretary has said, that is an integral part of accomplishing our mission. That comes first, and then the mission will follow.

Mr. LUJÁN. I appreciate that very much.

And, Ms. Creedon, what is your agency's intent for CAS? Do you believe that CAS is still the right tool for the objective that we are talking about today?

Ms. CREEDON. Yes, sir. Contractor assurance systems are an important element. They should provide the contractor, our M&O partners, with an opportunity to be able to have their own internal strong assessment program, which is an absolutely essential element of effective management. And it, hopefully, if it is effective, will provide the same information to us.

Mr. LUJÁN. So in order to work with the contractors and with the leadership at the various laboratories in NNSA's case, does NNSA have a responsibility to make sure that proper policies and guidance are given for the implementation of the CAS systems?

Ms. CREEDON. Yes, sir.

Mr. LUJÁN. And what is your response to GAO where one of the GAO reports includes that NNSA did not fully establish policies or guidance for using CAS information for oversight leading to inconsistency in oversight and GAO also stated that NNSA did not adequately monitor the effectiveness of the CAS process?

Ms. CREEDON. So we agree with GAO. As we have discussed, the NAP-21 affirmation process was halted after the events at Y-12. And now that the Administrator, the new Administrator, Frank Klotz and I are both in place, we are taking a look at this again and trying to get all of us back on the right track.

Mr. LUJÁN. Very good. I would just note as well that in a separate GAO report, April 15, 2015, "Observations on Management Challenges and Steps Taken to Address Them," the report also, quote: "As noted in GAO's 2015 high risk report, NNSA has a long history of identifying corrective actions and declaring them successfully resolved, only to follow with the identification of additional actions. As GAO has reported, this suggests that NNSA does not have a full understanding of the root causes of its contract and project management challenges."

So I think it is critically important, as we look over the series of these, that we have to get this right. Above all, we also not only have national security responsibilities to all the workers, to all the communities that are in this space, to ensure their safety, as Mr. Whitney has as well, and we have to get this right.

And with that being said, Mr. Chairman, I know that several of our members today have spoken about or asked questions about

governance structure as well, and I know my office is reaching out to the majority staff and minority staff so we can have those conversations based on the Mies-Augustine report, the Academy of Sciences, various amendments that have come through the House and Senate in this structure. And I think that there is an important responsibility that we have in the committee, but also for those that are interested, I would certainly appreciate getting a chance to work with them.

And then also, as we noted, Mr. Chairman, as my time elapses, or has elapsed, with making sure that we are able to work with our Senate counterparts that through the process of making sure that we have the right people in the right jobs at the right time. As we saw, there was a lapse here with a lot of acting administrators and acting directors, acting secretaries in this space as well.

I don't think that is an excuse, though, Mr. Chairman, but every layer of oversight that we can work on to make more effective, I would certainly appreciate being able to work with anyone, and especially yourself and the ranking member on that.

Thank you again for allowing me the time to speak today, sir.

Mr. MURPHY. Thank you. And I want to offer my gratitude not only for your offer, but your continued help for this subcommittee. We recognize your concern about your district there, as is the other members from the other districts which this covers.

And along those lines, Ms. DeGette, I would like to get on the record a request that we discussed as a sidebar, that this subcommittee continues to follow up. And we would ask the support of the Department of Energy not just in the hearing mode, but really we want to continue oversight and briefings with you and get some updates. We know your invoking a lot of changes, but we recognize these problems have gone on too long, too far.

We appreciate your candor. I will tell you, nothing goes better than having a committee hearing where people come in here and say, "We have got a problem." That is helpful. And we recognize your motivation in trying to fix this. We want to continue to work with you, so we would like to have further briefings in the future.

Ms. DEGETTE. If I may, I also want to add our thanks to GAO, which has really been bulldogging this for many, many years now.

Mr. MURPHY. Thank you.

We do appreciate it. Let everybody know at GAO that we find your reports very valuable and pretty straightforward. So thank you.

Ms. BAWDEN. Thank you.

Mr. MURPHY. Along those lines, too, I also ask unanimous consent that the contents of the document binder be introduced into the record and to authorize staff to make any appropriate redactions. And without objection, the documents will be entered into the record with any redaction the staff determines are appropriate.¹

Mr. MURPHY. In conclusion, I want to thank all the witnesses. Thank you so much for your participation in today's hearing. It has been very helpful.

¹The information has been retained in committee files and also is available at <http://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=103595>.

And I remind members, they have 10 business days to submit questions for the record. And I ask all that the witnesses all agree to respond promptly to the questions.

And with that, this hearing is adjourned.

[Whereupon, at 12:15 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

June 5, 2015

The Honorable Ernest Moniz
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Moniz,

Thank you for agreeing to have your designees testify on Friday, June 12, 2015, at 9:45 a.m. in 2322 Rayburn House Office Building at the Subcommittee on Oversight and Investigations hearing entitled "Oversight Failures Behind the Radiological Incident at DOE's Waste Isolation Pilot Plant."

The attached documents provide important details concerning the preparation and presentation of your testimony.

- The first attachment describes the form your testimony must take.
- The second attachment provides you with Electronic Format Guidelines that detail how to file testimony electronically.
- The third attachment provides you the Rules for the Committee on Energy and Commerce.
- The fourth attachment provides you with a Truth-in-Testimony Disclosure form and a Truth-in-Testimony instruction sheet.

Please be aware that, in accordance with the Committee's usual practice:

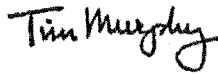
- (1) Witnesses will be required to provide sworn testimony;

The Honorable Ernest Moniz
Page 2

- (2) Witnesses have a right to be represented by counsel, who may advise the witnesses on their Constitutional rights, but cannot testify. If appearing as a witness, the counsel will be sworn in; and,
- (3) Hearings are open to audio, video, and photographic coverage by accredited press representatives only.

If you have any questions concerning any aspect of your testimony, please contact Peter Spencer of the Energy and Commerce Committee staff at (202) 225-2927.

Sincerely,

A handwritten signature in black ink that reads "Tim Murphy". The signature is written in a cursive, slightly slanted style.

Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

Enclosures: (1) Form of Testimony
(2) Electronic Format Guidelines
(3) Rules for the Committee on Energy and Commerce
(4) Truth-in-Testimony Disclosure form

FRED UPTON, MICHIGAN
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June 5, 2015

The Honorable Gene L. Dodaro
Comptroller General
U.S. Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Dodaro,

Thank you for agreeing to have your designee testify on Friday, June 12, 2015, at 9:45 a.m. in 2322 Rayburn House Office Building at the Subcommittee on Oversight and Investigations hearing entitled "Oversight Failures Behind the Radiological Incident at DOE's Waste Isolation Pilot Plant."

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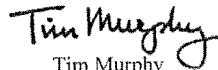
- (1) Witnesses will be required to provide sworn testimony;

The Honorable Gene L. Dodaro
Page 2

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Sincerely,

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Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

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FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
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WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

July 1, 2015

The Honorable Ernest Moniz
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Moniz:

Thank you for appearing before the Subcommittee on Oversight and Investigations on Friday, June 12, 2015, to testify at the hearing entitled "Oversight Failures Behind the Radiological Incident at DOE's Waste Isolation Pilot Plant."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Wednesday, July 15, 2015. Your responses should be mailed to Jessica Wilkerson, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to jessica.wilkerson@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

cc: Diana DeGette, Ranking Member, Subcommittee on Oversight and Investigations

Attachments



Department of Energy
Washington, DC 20585

October 13, 2015

The Honorable Tim Murphy
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U. S. House of Representatives
Washington, DC 20515

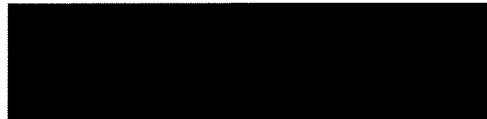
Dear Mr. Chairman:

Enclosed are the edited transcripts of the June 12, 2015, testimonies given by Madelyn Creedon, Principal Deputy Administrator, National Nuclear Security Administration; Mark Whitney, Principal Deputy Assistant Secretary for Environmental Management; and Theodore A. Wyka, Chief Nuclear Safety Advisor, Office of Environmental Management, regarding "Oversight Failures Behind the Radiological Incident at DOE's Waste Isolation Pilot Plant".

Also enclosed are answers to questions submitted by you, and two Inserts requested by Ranking Member Diana DeGette, and Representative Larry Bucshon to complete the hearing record.

If you need any additional information or further assistance, please contact me or Fahiyeh Yusuf, Office of Congressional and Intergovernmental Affairs at (202) 586-5450.

Sincerely,



Jamie Benner
Deputy Assistant Secretary for House Affairs
Congressional and Intergovernmental Affairs

Enclosures

cc: The Honorable Diana DeGette
Ranking Member



QUESTIONS FROM CHAIRMAN MURPHY

Q1. Please provide DOE's estimate of the total costs and impacts of the fire and radiological incident at WIPP, including any taxpayer-funded DOE liabilities and penalties, estimated costs relating to the diversion of waste streams to Waste Control Specialists, the treatment of nitrate bearing TRU waste, and the hold up of waste streams at other DOE sites?

A1. The total estimated costs for the Waste Isolation Pilot Plant (WIPP), Los Alamos National Laboratory (LANL) and other waste generator sites, including fines and penalties assessed, are as follows:

WIPP Recovery: The Department is currently reviewing costs for WIPP recovery and anticipates having a revised cost and schedule plan this fall.

The estimated cost range for the capital asset projects required for normal operations, a new safety-significant ventilation system and a new exhaust shaft, as documented in Critical Decision-0, Approve Mission Need, is \$77-\$309 million. This cost range will be updated after approval of Critical Decision-1, Approve Alternative Selection and Cost Range.

LANL: As of the end of June 2015, LANL has incurred approximately \$30 million for waste re-characterization, investigations, relocation, and storage. LANL is currently working on a plan to treat the nitrate salt waste, and as such, does not have a final cost estimate. A significant component of the cost and schedule is expected to be regulatory permitting and nuclear safety planning, documentation and upgrades. Implementation of corrective actions for the transuranic waste program in response to Phase II of the Department's Accident Investigation Board (AIB) Report for the radiological release at WIPP and other programmatic and operational readiness reviews will need to be completed before remediation of the nitrated salts can begin, and general TRU legacy waste processing and packaging operations can resume at LANL. With the impacts of not being able to ship, the LANL program extension may include additional years of storage costs that are not yet estimated. Continued storage of the LANL TRU inventory at Waste Control Specialists is expected to require approximately \$6 million annually.

Other Waste Generator Sites: As of July 2015, other DOE sites with transuranic waste have incurred incremental costs for extended storage of waste in existing onsite facilities and other response activities estimated to be approximately \$15 million.

Fines and Penalties: In December 2014, the State of New Mexico levied \$54.3 million in fines against DOE and its contractors for alleged violations of the New Mexico Hazardous Waste Regulations at LANL and WIPP. DOE and the State of New Mexico signed a “General Principles of Agreement” document in April 2015, which described a pathway to settlement of these alleged violations. DOE and the State of New Mexico are working to finalize a settlement, which would address all claims against the Department. The supplemental environmental projects described in that document include the improvement of roads and transportation routes around the WIPP site in southeastern New Mexico; the improvement of transuranic waste transportation routes in and around Los Alamos; upgrading critical water infrastructure in and around Los Alamos; the construction of engineering structures to increase monitoring capabilities around LANL to better manage storm water flows; the construction of an emergency operations center in Carlsbad; and providing enhanced training for emergency responders and mine rescue teams; and the funding of an independent triennial compliance and operational reviews. These projects are expected to be conducted over a period of years. Associated costs are currently being evaluated.

- Q1a. What are the risks that the WIPP shutdown will cause other states to violate their compliance agreements with states?
- A1a. TRU waste generator sites have sufficient storage capacity for certified waste ready for WIPP disposal through fiscal year 2016. The Department will continue to evaluate sites’ storage capacity and available off-site options, if necessary. Until these options are thoroughly analyzed, it is premature to assess impacts to compliance agreements.
- Q1b. When does DOE estimate the WIPP will begin full operations, including complete resumption of transportation of waste from sites around the nation?
- A1b. The Department is committed to reopening WIPP as quickly as possible in a safe and compliant manner. In light of the safety-related activities that must be completed before

waste emplacement operations begin, a new target date for initial waste emplacement operations must be established. The Department is currently reviewing the schedule for resumption of operations and anticipates having a revised plan this fall. DOE will only resume operations when it is safe to do so.

WIPP cannot commence normal operations until the new ventilation system capital asset projects are completed, which will allow an increase in airflow from the current high efficiency particulate air filtered 60,000 cubic feet per minute to 420,000 cubic feet per minute. The design, procurement and construction activities associated with these projects will span multiple years.

- Q2: Please detail the timing and nature of the commitments entered into by the Department of Energy with the State of New Mexico regarding TRU waste shipments and disposal, along with an explanation of any associated fines and penalties related to those missed milestones.
- A2. On April 30, 2015, the Department of Energy and the New Mexico Environment Department ("NMED") signed the "General Principles of Agreement HWB-14-24 and HWB-14-21" document, available at https://www.env.nm.gov/NMED/Issues/documents/FINALPrinciplesofAgreement4_30_15Signed.pdf. This document will govern the resolution the allegations contained in the two administrative compliance orders issued by NMED to the Department of Energy and its prime contractors at the Los Alamos National Laboratory and Waste Isolation Pilot Project related to the February 2014 salt truck fire and radiologic incident at WIPP. The General Principles document memorializes commitments to settle the allegations by performing supplemental environmental projects in lieu of paying fines and penalties. It is expected that final settlement will occur in the next several months. Once a final settlement has been reached, we will provide your office with the settlement.
- Q2a. Do those commitments include flexibility to accommodate changes in availability of federal appropriations?
- A2a. Yes. The General Principles document specifically states that it is not intended to obligate DOE to expend funds in excess of available appropriations.

- Q2b. Does the contractor make those commitments or is that the sole responsibility of the Department?
- A2b. The General Principles document was signed by NMED, DOE, Los Alamos National Security, LLC (DOE's prime contractor at LANL), and Nuclear Waste Partnership, LLC (DOE's prime contractor at WIPP).
- Q2. To what extent does the responsible contractor participate in those state commitments?
- A2c. DOE's contractors at LANL and WIPP are full participants, as appropriate, in fulfilling the commitments contained in the General Principles document.
- Q3. The oversight failures associated with this event were systemic. The concern raised is whether there are similar weaknesses at other site operations, at Los Alamos or other high hazard work at sites around the country. What are you doing to assess the state of oversight conditions around the National Nuclear Security Administration's (NNSA) and the Office of Environmental Management's (EM) sites?
- A3. The Office of Environmental Management (EM) is improving the strength and rigor of the DOE Carlsbad Field Office (CBFO) oversight program through:
- Creation of a new oversight organization at CBFO, the Operation Oversight Division, which provides dedicated Federal oversight of contractor operations at the Waste Isolation Pilot Plant.
 - Increasing the number of Federal oversight staff at CBFO.
 - Adding additional subject matter expertise and personnel with nuclear facility operational experience.

EM is improving Headquarters (HQ) oversight programs through:

- Increasing staff within the Safety, Security and Quality Programs organization.
- Revising the oversight program to include implementation of integrated oversight reviews.
- Formal tracking of issues in the EM Corrective Action Hub.
- Post review discussions with the Safety, Security and Quality Programs Deputy Assistant Secretary.
- Development of a robust oversight program that consists of both a Base program

and Recovery program.

- Reviews of EM functional areas to evaluate contractor responses to trends and events and that crosscutting programs, such as DOE oversight and contractor oversight.

Additional, specific oversight improvements:

- EM is revising its federal oversight assessment criteria focusing on federal oversight programs.
- Reviews of the maintenance programs were conducted at all EM sites. Actions include: (1) Performing a review to identify and correct fire protection impairments; (2) Providing direction to EM contractors to track and report trending information for the minimum set of maintenance related metrics, and (3) Defining applicable set of safety-related systems, and initiate adjustments to data collection/metrics systems to allow for periodic monitoring of these systems and tracking of operable status.
- The Accident Investigation Board reports were distributed to the EM field sites with the requirement that they be discussed with federal staff and contractor management. An EM Leadership forum was convened to discuss contributing causes, vulnerabilities and path forward from the Waste Isolation Pilot Plant (WIPP) and Los Alamos National Laboratory (LANL) event. One action from this forum is the need to focus attention on Federal and contractor oversight in an upcoming workshop.
- DOE completed an assessment of the chemical stability of the transuranic (TRU) waste inventory at those sites that were actively processing and shipping TRU waste to WIPP at the time of the incident (Idaho, Oak Ridge, and Argonne).
- An extent of condition review of the Federal oversight across the DOE complex is also an action being developed in the Corrective Action Plan for the Accident Investigation Board (AIB) report, Phase II.

EM is improving the structure and strengthening the execution of oversight at Los Alamos:

- Los Alamos is developing corrective actions to the AIB Phase II Report. These actions will be identified in the Corrective Action Plan (CAP) that will be reviewed with EM management. Implementation of the corrective actions will specifically address both contractor and federal oversight at LANL.
- EM has established the EM Los Alamos Field Office (EM-LA) as the first step in aligning the mission and the oversight responsibilities for TRU waste processing and storage activities. As the transition at LANL evolves and EM-LA establishes a nuclear safety staff separate from the existing NNSA safety organization, a formal alignment of nuclear safety oversight responsibilities will ensure a robust oversight model as we move forward.
- In the interim, EM-LA and the NNSA Los Alamos Field Office are collaborating on the review and approval of nuclear safety analyses pertaining to TRU waste management.
- In addition, EM-LA is increasing direct oversight and integration on all environmental cleanup matters, which will facilitate greater integration with other EM sites, including sharing lessons learned and information related to the WIPP incidents, e.g., improvements in safety, fire protection, emergency preparedness, maintenance, waste characterization and packaging, quality assurance, etc.
- EM-LA has brought in expertise in various disciplines to supplement existing staff and is pursuing recruitment of additional resources to ensure high risk areas are adequately covered.
- EM-LA is establishing training and qualifications for oversight staff occur during the transition period from NNSA to EM.

The National Nuclear Security Administration (NNSA), in addition to the corrective actions taken to address the systems and processes that contributed to this event, is working on several fronts to improve our approach to site governance. We have kicked off two specific initiatives. The first initiative is to better define the NNSA governance model with specific attention to more clearly identifying expectations regarding contract management and oversight; and clarifying the roles and responsibilities between the NNSA field and Headquarters (HQ) elements, and in the case of Los Alamos, the

Department's Office of Environmental Management (EM) as well. Issuance of the NNSA policy, guidance, and implementing procedures will improve upon the current federal oversight and contractor assurance systems. These documents will also further clarify roles, responsibilities, and accountability between federal personnel and contractors. HQ and field office personnel are participating in the development of the governance model and will be making needed changes to oversight where needed based on the new model and lessons learned from this event. The second is to examine our contract fee structures to ensure that we are incentivizing the right behaviors while also holding the Labs and Plants accountable. These actions will help ensure that we do not repeat the mistakes that gave rise to this event, and will help improve operations across the entire enterprise.

- Q4. The Los Alamos National Laboratory's independent report by Longenecker & Associates on the incident noted that management lacked "competencies commensurate with responsibilities" among other failures. What are NNSA and EM doing to ensure federal site offices maintain the appropriate oversight competencies?
- A4. DOE has instituted a Technical Qualification Program to ensure that critical skill shortages are identified and assessed annually. Federal employees are vetted by the federal site manager prior to filling a position, including oversight positions. Senior federal site officials directing and providing oversight of the contractor must be qualified as Senior Technical Safety Managers. If qualified individuals are not available, compensatory measures must be put in place. The Office of Environmental Management's (EM) Safety, Security and Quality Programs Office assessments of federal oversight specifically evaluate whether senior DOE managers have completed and are current in their Senior Technical Safety Manager qualifications.

The EM and National Nuclear Security Administration (NNSA) Field Offices at Los Alamos are addressing oversight and oversight competencies in a very structured way. First, they are clarifying the part each organization is expected to play in providing comprehensive oversight coverage through the development of a Memorandum of Understanding (MOU). The MOU outlines and documents a mutually agreed upon understanding of: accountabilities and authorities; roles & responsibilities; nuclear safety

requirements; and, regulatory compliance. This approach reflects the adoption of many responsibilities for legacy waste management by a newly formed EM Field Office, and the retention of some responsibilities for newly generated waste associated with current NNSA operations by the NNSA Field Office. Both the EM and NNSA field offices at Los Alamos are evaluating their respective organizational structures and identifying specific staffing needs related to line management and oversight functions based on the division of responsibilities.

The EM and NNSA field offices will prepare DOE Los Alamos National Laboratory (LANL) Contractor Operations Oversight Plans and will work collaboratively to form a consistent, comprehensive oversight model for LANL to ensure flow down of requirements.

Required expertise has already been hired at the EM Field Office, and additional required staff will continue to be recruited through an open and competitive process. The federal staff will be trained and qualified to execute requirements and policies for oversight, facility access, and regulatory compliance. Coordinated annual Integrated Assessment Plans that focus on risk areas will be developed, and targeted reviews will be performed to evaluate the contractor's systems/processes. Both EM Headquarters and NNSA Headquarters will monitor the execution of those plans.

It should be noted that the Longenecker Report was commissioned by DOE's prime contractor at the LANL, Los Alamos National Security, LLC (LANS), as an external assessment of the events that led up to the Waste Isolation Pilot Plant (WIPP) event. The Judgments of Need noted in the report, identifying the need that management competencies be commensurate with their responsibilities, was focused on the contractor (LANS) staff that managed and executed this work within the Associate Deputy for Environmental Projects (LANS directorate that executed the work), and not Federal oversight, which is addressed in the response above.

- Q5. Please explain the origins and purposes of the Management and Operating (M&O) model for conducting the work at DOE's high hazard nuclear sites.

- A5. Congress adopted the scientific, technical, and business model of the Manhattan Project when it created the Atomic Energy Commission (AEC) structure in the Atomic Energy Act of 1947. Subsequent organizations, the Energy Research and Development Administration (ERDA) from 1974 to 1977, and the Department of Energy (DOE), from 1977 to the present, have carried forward the business and scientific model inherent in management and operating contracts.

The legislative history of the Atomic Energy Act of 1946, in S.Rept. 1211, 79th Cong. 2d Sess. 15 (1946), indicates the basic principle that underlies M&O contracts was that the AEC, a predecessor of DOE, was to employ highly capable companies and educational institutions to carry out the actual performance of the agency's mission; that is, the contractors were to perform the agency's mission as opposed to the agency's using civil servants: "Wherever possible, the committee endeavors to reconcile Government monopoly of the production of fissionable material with our traditional free-enterprise system. Thus, the bill permits management contracts for the operation of Government-owned plants so as to gain the full advantage of the skill and experience of American industry."

The unique M&O contract relationship enables the Government to establish objectives for the laboratories' research programs and to exercise controls necessary to assure security, safety, and the prudent use of public funds, while allowing private sector organizations selected for the technical ability and managerial expertise to carry out the laboratories' day-to-day operations for stewardship of the site infrastructure.

Both the Federal Acquisition Regulation (FAR) and the Department of Energy Acquisition Regulation (DEAR) recognize the unique nature of M&O contracts. FAR Subpart 17.6 specifically allows the Secretary of DOE to authorize an M&O contract under specified limited circumstances as a special contracting method, this authorization cannot be delegated. To enable the M&O contract model, DOE has developed an extensive set of procedures and clauses within DEAR Subpart 970 to implement and supplement the FAR for the award and administration of the agency's M&O contracts.

- Q6. Please explain the liability structure under which DOE and its contractor community perform work throughout the laboratory and cleanup complex.
- A6. The liability structure depends on the contract language. In most cases, DOE contractors operate under cost type contracts where DOE bears all of the allowable costs of performance, and would paraphrase the cost principle regarding fines and penalties, 31.205-15, under which violations are unallowable costs “except when incurred as a result of compliance with specific terms and conditions of the contractor or written instructions from the contracting officer.” This establishes a distribution of financial risk commensurate with the contract type and the relative responsibility of the parties. The contract includes two clauses that relate to financial liability:
- H.30 Contractor Acceptance of Notices of Violation(s) and Fines and Penalties
 - I. 161 DEAR 970.5232-2 Payments and Advances (DEC 2000) Alternate II (DEC 2000) Alt. III (DEC 2000) (j)

The process for handling violations consists of several steps:

- The contractor shall accept, in its own name, notices of violation(s) (NOV) and fines and penalties issued directly to the contractor, without regard to liability.
- The contractor shall notify the Contracting Officer (CO) promptly when it receives notices from the regulators of NOVs and fines and penalties.
- If the contractor is not responsible for the cited NOV or a fine/penalty under this contract, the contractor shall immediately notify the Government and the regulator.
- Any NOVs, fines or penalties associated with any act or failure to act by a previous contractor for the site shall be processed under the clause Pre-existing Conditions.
- The contractor shall be free to conduct negotiations with regulators regarding NOVs, fines and penalties issued directly to the contractor. The contractor shall not make any commitments or offers to regulators which would bind the Government in any form or fashion, including monetary obligations, without receiving written concurrence from the CO or his authorized representative.

Failure to obtain such advance written approval may result in allowable costs being declared unallowable and/or the contractor being liable for any excess costs to the Government.

- The Contracting Officer shall determine allowable costs. If a cost is allowable, the contractor can bill the Department of Energy for reimbursement.

Q7. Please explain the role played by the Price Anderson Act as it relates to DOE and the contractor community's work at DOE sites.

A7. The Price Anderson Act, passed in 1957 as an amendment to the Atomic Energy Act of 1954, provides a system of financial protection for persons who may be injured by and persons who may be liable for a nuclear incident. Under the Price Anderson Act, DOE provides indemnification to DOE contractors who manage and operate nuclear facilities in the DOE complex; associated subcontractors and suppliers are included under this coverage. By indemnifying the contractor, the government acts as an insurer against any findings of public liability arising from the nuclear activities of the contractor within the scope of its contract.

In 1988, the Price Anderson Amendments Act of 1988, 42 U.S.C. 2282a (PAAA) was enacted to, among other things continue this indemnification and require DOE to include an indemnification in each contract that involves the risk of a nuclear incident. As part of its approval to continue the indemnification coverage, Congress required that DOE-indemnified contractors, subcontractors, and suppliers be made subject to civil penalties for violations of DOE's nuclear safety requirements. On August 17, 1993, DOE published its nuclear safety enforcement procedural rules and enforcement policy, 10 C.F.R. Part 820, which outlines the appropriate conduct of persons involved in DOE nuclear activities. The ultimate goal of 10 C.F.R. 820 is to ensure that all persons subject to the requirements enumerated in the DOE Nuclear Safety Requirements are in compliance with said requirements.

Both the Department of Energy Organization Act, 42 U.S.C. 7101, and the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011, require DOE to protect the public

health and safety, as well as the safety of workers at DOE facilities, in conducting its nuclear activities, and grant DOE broad authority to achieve this goal.

The DOE goal in the compliance arena is to enhance and protect the radiological health and safety of the public and worker at DOE facilities by fostering a culture among both the DOE line organizations and the contractors that actively seeks to attain and sustain compliance with DOE Nuclear Safety Requirements. The enforcement program and policy have been developed with the express purpose of achieving safety inquisitiveness and voluntary compliance. DOE will establish effective administrative processes and positive incentives to the contractors for the open and prompt identification and reporting of non-compliances, and the initiation of comprehensive corrective actions to resolve both the noncompliance conditions and the program or process deficiencies that led to noncompliance.

In the development of the DOE enforcement policy, DOE recognizes that the reasonable exercise of its enforcement authority can help to reduce the likelihood of serious incidents. This can be accomplished by providing greater emphasis on a culture of safety in existing DOE operations, and strong incentives for contractors to identify and correct noncompliance conditions and processes in order to protect human health and the environment. DOE endeavors to facilitate, encourage, and support contractor initiatives for the prompt identification and correction of problems. These initiatives and activities will be duly considered in exercising enforcement discretion.

The PAAA provides DOE with the authority to compromise, modify, or remit civil penalties with or without conditions. In implementing its authority, DOE will carefully consider the facts of each case of noncompliance and will exercise appropriate discretion in taking any enforcement action. Part of the function of a sound enforcement program is to assure a proper and continuing level of safety vigilance. The reasonable exercise of enforcement authority will be facilitated by the appropriate application of safety requirements to nuclear facilities and by promoting and coordinating the proper contractor and DOE safety compliance attitude toward those requirements.

DOE's Office of Enterprise Assessments (EA), has the responsibility to carry out the statutory enforcement authority provided to DOE in the PAAA.

- Q8. Please provide an explanation of the Department of Energy's specific oversight responsibilities at the Los Alamos National Laboratory and the Waste Isolation Pilot Plant.
- A8. Oversight responsibilities at Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot Plant (WIPP) are summarized as follows:

LANL Field Office (EM-LA): The Department is enhancing the Los Alamos Field Office oversight of LANL waste management activities with emphasis on a comprehensive evaluation of changes (configuration management) to systems, processes, procedures and plans, conduct of operations, and to ensure compliance with regulatory requirements. The enhanced DOE Field Office oversight will occur prior to resumption of transuranic waste repackaging.

Once fully established, the EM Los Alamos Field Office will provide oversight of the LANL EM scope execution. Day-to-day oversight of field activities at the site will be performed by EM staff and augmented by NNSA staff in its landlord function. Facility Representatives are assigned responsibility by the Field Manager for monitoring the safety performance of the facility and its operations. These individuals are the primary point of contact with the contractor for operational and safety oversight.

Additionally, EM-LA will be conducting surveillances and field inspections to ensure compliance with regulatory requirements on-site and at disposal sites such as WIPP. Prior to the resumption of TRU waste processing activities, several readiness reviews will be conducted. Additionally, the nuclear safety documentation for those LANL facilities utilized for TRU waste management are currently being revised and upgraded.

Carlsbad Field Office (CBFO): The CBFO provides primary oversight to the site Management and Operating contractor, Nuclear Waste Partnership (NWP) and its subcontractors. Day-to-day oversight of field activities at the site is the responsibility of the CBFO staff in the new Office of Operations Oversight. Facility Representatives are

assigned responsibility by the Field Manager for monitoring the safety performance of the facility and its operations. These individuals are the primary point of contact with the contractor for operational and safety oversight. The CBFO Facility Representatives report to the new Facility Oversight Division Director, but also report to the CBFO Manager through regularly scheduled meetings and periodic impromptu reports.

The CBFO's Office of Operations Oversight is developing and implementing a new contractor oversight program that fully addresses the requirements of DOE O 226.1B, Implementation of the Department of Energy Oversight Policy. The program will ensure that processes for planning, conducting and documenting oversight evaluations of NWP programs and activities are developed; issues are evaluated and corrected to prevent recurrence and communicated to management in a timely manner; and CBFO oversight personnel are adequately qualified and trained to perform their oversight function. The CBFO Manager, along with the Office Assistant Managers and Division Directors, will hold personnel accountable for implementation of the oversight program by revising position descriptions for their staff to identify expected oversight functions for the position.

Specific to CBFO's oversight of the transuranic waste program, a number of improvements are being contemplated at CBFO and within the management and operations contractor Central Characterization Project, as part of the Corrective Action Plan in response to the Accident Investigation Board (AIB) Phase II Report, including:

- CBFO:
 - Enhancing oversight at waste generator sites, including waste generator site reviews of transuranic waste processing systems;
 - Approving all new and revised Acceptable Knowledge Summary Reports prior to certification;
 - Increasing reviews of procedure changes (e.g., changes that could lead to waste incompatibilities);
 - Increasing interactions with generator site DOE offices to verify appropriate levels of oversight are provided; increasing oversight of the

Central Characterization Project and clarifications of roles and responsibilities.

- Central Characterization Project:
 - Updating interface agreements with waste generator sites to require process changes impacting transuranic waste be fully communicated and to ensure the handling of specific waste is directed through the proper channels such that the directed controls are fully understood, formalized and implemented;
 - Verifying information provided for Acceptable Knowledge by walking down processes that generate, package, remediate, or otherwise change the waste form.

Office of Environmental Management (EM) Headquarters (HQ): Field Managers report to the DOE Headquarters, which provides support to the field sites in the form of policies, DOE orders, resources (budget and human capital), mission support, emergency management, quality assurance, nuclear safety, security, independent oversight, etc.

Within EM HQ, the Office of Safety, Security and Quality Programs (EM-40) has oversight responsibilities for the areas of safety and health, security and Quality Assurance (QA). EM-40 plans and implements a schedule of oversight and awareness activities, based on meeting established requirements and also in response to perceived areas of declining performance or significant events.

Planning for enhanced DOE Order 435.1, Radioactive Waste Management enhanced oversight is ongoing. EM Headquarters oversight and involvement will be increased prior to the resumption of repackaging of transuranic waste in accordance with the AIB Phase II Report Judgments of Need. Details are in development.

Prior to resumption of shipments to WIPP, the packaged waste will be reviewed against new transuranic waste program requirements, programs and processes.

Q8. How are those responsibilities tracked and verified?

A8a. CBFO develops an annual Integrated Evaluation Plan (IEP) that is used to plan and track evaluations and assessments across many project-related areas. CBFO has several policies and procedures that address oversight activities such as quality assurance (QA) audits, surveillances, and other project verifications. CBFO is required to implement an oversight program in accordance with DOE Order 226.1B. CBFO also implements a Technical Qualification Program (TQP) in accordance with DOE O 426.1, Federal Technical Capability.

The HQ review process includes the following elements:

- A baseline assessment program that reviews a set of identified topics at all EM sites on a regular (approximately every 3 years) periodicity. The baseline program will review DOE field element oversight activities and will also sample the performance of selected contractor functional areas, including various Contractor Assurance System (CAS) elements.
- Increased depth in assessments of emergency management/emergency response.
- Formal tracking of identified assessment issues on the EM Corrective Action Hub.

At LANL, the Office of Environmental Management has established a new Field Office. This new office is working to enhance the posture of its oversight. Until this office is fully staffed, oversight activities will be coordinated with the NNSA Field Office (NA-LA), while the EM-LA oversight functions are being fully developed. A Memorandum of Understanding between the NA-LA and EM-LA for the Transition of Legacy Environmental Cleanup Work at Los Alamos from NNSA to EM has been developed. The reliance on NA-LA oversight support will continue until such time that EM-LA has the requisite staff to perform this function for their areas of responsibility. NA-LA and EM-LA offices will develop an Annual Integrated Assessment Plan that focuses on risk areas and will be coordinated to maximize resources and avoid duplication. The intent of this plan is to prioritize and schedule assessments and to identify areas that require a high level of oversight (e.g. high hazard operations, waste repackaging operations) to ensure that critical LANS programs and operations (e.g. conduct of operations program, high hazard operations) have been adequately evaluated and assessed, and have the proper

level of oversight. This plan will identify a set of core assessments that will be conducted on an annual basis. These assessments will be part of the implementation of DOE Order 226.1B and will be tracked and closed per the plan.

- Q8b. Describe the frequency and scope of oversight-related communications between DOE and sites, and site offices and DOE headquarters.
- A8b. Consistent with the enhanced rigor of oversight programs, CBFO and EM HQ are increasing the frequency and scope of communications between DOE sites and HQ, e.g., via increased number of reviews and audits, weekly technical and management telecons and reports on status of recovery efforts, monthly tracking of corrective action status, biweekly/monthly site assist visits by technical staff, quarterly visits by senior management, quarterly Field Managers meetings, weekly discussion with contractor's corporate management, establishment of Operational Support Teams in key functional areas, periodic DOE Order 435.1, Radioactive Waste Management interactions and reviews/audits and daily discussions on technical, safety, corrective action, management, and project management topics and issues.
- Q9. What methods and tools does DOE have to hold its contractors accountable for performance?
- A9. The Department has a number of ways to hold contractors accountable for performance of work performed under a DOE contract. While not an exhaustive list, here are general concepts. DOE's contracts generally contain a right of inspection that provides it with the right to inspect work performed and to direct the contractor to rectify errors. For contracts that contain award fee provisions, DOE fee determination officials can lower contractor award fee in response to contractor poor performance. For contracts that contain conditional payment of fee clauses, DOE can recoup fee already paid in response to certain serious events as set forth in the conditional payment of fee clause. DOE can also exercise termination rights and/or exercise rights under performance guarantees consistent with the terms of the contract. DOE can report poor performance in the government-wide past performance database (CPARs) that is used by federal agencies when awarding new federal government contracts. Poor CPAR ratings can affect a contractor's ability to get new work with the federal government.

- Q9a. Identify the largest penalty and/or fee reduction assessed against a DOE contractor, and for what reasons.
- A9a. The largest single penalty imposed on a contractor for a specific event arose from the February, 2014, radiological contamination event at the Waste Isolation Pilot Plant (WIPP) at Carlsbad, NM. The event resulted from the improper treatment of nitrate salts waste at Los Alamos National Laboratory, and the penalty was imposed on the Laboratory's contract operator, Los Alamos National Security, LLC (LANS). The event led to very large cost and operating burdens on WIPP and on the many DOE users who rely on WIPP as a waste repository. During the performance period, LANS also had challenges in operating nuclear facilities and there were instances of ethical lapses involving senior Laboratory staff. As a result, the contractor forfeited all Department of Energy (DOE) fees totaling \$52.7 million, failed to achieve an award term and a previously awarded contract was revoked; thereby reducing the period of performance by one year.
- Q9b. Please explain the consequences that switching contractors at a Major lab site would have on the workforce, mission accomplishment, project timing (cost and schedule), and overall monetary cost of transition and competition.
- A9b. The consequences on the workforce of switching contractors at a major lab site are considered minimal because typically only the key personnel change with the new contract and the incumbent employees are offered Right of First Refusal for jobs at the site. As the overall workforce generally remains in place, mission accomplishment and project timing (cost and schedule) are not impacted. However, competition at a Management and Operating (M&O) site creates an environment of uncertainty for the incumbent contractor and may cause distractions for key personnel who must focus on achieving mission while preparing for the competition. While switching contractors at an M&O site may be a distraction, consequences are considered minimal and are offset by the benefits associated with competition.
- Q10. In 2013, the National Academy of Public Administration released a report evaluating DOE's management and oversight of the national labs. Among the report's many conclusions, the Panel recommended that DOE revise its order on Contractor Assurance Systems to provide more explicit guidance designing and implementing mature Contractor Assurance Systems. What, if any steps, is the Department taking to develop

more explicit guidance to assist all components, including NNSA and Environmental Management, in improving oversight of contractor assurance systems?

- A10. We do not believe that additional detail in the Department of Energy (DOE) Order is required. However, National Nuclear Security Administration (NNSA) is in the process of reformulating its overall Site Governance approach which will highlight the need for better Management and Operating (M&O) to federal government cooperation and coordination featuring a shared understanding of “system” health. This revised policy and implementing guidance will better define roles and responsibilities, requirements and expectations for federal oversight and contractor assurance systems, key methodologies, and an independent peer review process. All management and operating contracts have requirements for implementation of an effective assurance system. These systems will to continue to mature and evolve based on federal oversight, review of best practices, and coupled with the peer review process will ensure continuous improvement.
- Q11. The November 2014 Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise identified a number of weaknesses in NNSA's current oversight model, including "wasteful and ineffective transactional oversight." Citing a number of examples, including the breakdowns at Y-12, the authors noted "What is needed is not more oversight but better oversight." They added, "Multiple layers of process cannot by themselves ensure zero risk or high confidence in mission performance."
- a. What is the Department's response to these observations by the Congressional Advisory Panel, specifically the idea that "What is needed is not more oversight but better oversight?"
 - b. What is necessary to establish the right balance and what is the Department doing to achieve this, both at NNSA and other DOE offices?
- A11. NNSA is in the process of reformulating its overall Site Governance approach which will highlight the need for better Management and Operating (M&O) and federal government coordination featuring a shared understanding of “system” health. This shift in focus from individual deficiencies to broader understanding of systemic issues should directly address the concern regarding inappropriate oversight pulling resources and energy away from a more complete understanding and management of the relative risk of

operations. What is necessary is that there is a more complete understanding of and where appropriate, mitigation for these risks.

INSERT FOR THE RECORD FROM RANKING MEMBER DIANA DEGETTE

- Q1. Please supplement your response during the hearing addressing the lack of cohesion among contractor oversight policies and compliance at the different DOE agencies. Would additional guidance or requirements from DOE help address this problem?
- A1. Our oversight policies are implemented through Department of Energy (DOE) Directives that are issued at the department level, and followed by all offices of the DOE, as required. Where specific directive language includes contractor requirements, they are included in DOE contracts. These directives are consistent with statutes and regulations.

INSERT FOR THE RECORD FROM REPRESENTATIVE LARRY BUCSCHON

- Q1. How is the fine against the contractor levied? If the contractor is deemed responsible for the accidents, why is the contractor not required to pay the entirety of the clean-up and repair costs? Does it have something to do with how M&O contracts operate?
- A1. Fines are levied against the contractor in different ways, but the most common approach is through a mutual agreement of the parties. A bilateral agreement addressing the terms and conditions associated with the fine/penalty is normally incorporated into the contract via modification. The bilateral agreement will outline the methodology for reaching the amount of the fine. Payment of the fine is normally a reduction to the available fee pool included in the existing contract. For example, because of the impact of the Waste Isolation Pilot Plant (WIPP) incident National Nuclear Security Administration (NNSA) withheld \$57.2M of fee in FY14, which included the entire award, at-risk fee, and fixed fee available to the contractor for work performed for the Department of Energy (DOE)/NNSA. Absent existing funds on the contract, the contractor will issue a check to the US Treasury to cover the fine.

DOE and NNSA Management and Operating contracts are cost reimbursement, level of effort contracts. This means that although the contractor may lose the fee for unsatisfactory performance, generally, unless determined unallowable under the standards identified in the FAR, the costs for cleanup and repair are covered as they would be under any other cost reimbursement contract.

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

July 1, 2015

The Honorable Gene L. Dodaro
Comptroller General
U.S. Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548

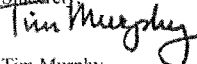
Dear Mr. Dodaro:

Thank you for appearing before the Subcommittee on Oversight and Investigations on Friday, June 12, 2015, to testify at the hearing entitled "Oversight Failures Behind the Radiological Incident at DOE's Waste Isolation Pilot Plant."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Wednesday, July 15, 2015. Your responses should be mailed to Jessica Wilkerson, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to jessica.wilkerson@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

cc: Diana DeGette, Ranking Member, Subcommittee on Oversight and Investigations

Attachment



U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W.
Washington, DC 20548

July 15, 2015

The Honorable Tim Murphy
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Environment
United States House of Representatives

Subject: *"Oversight Failures behind the Radiological Incident at DOE's Waste Isolation Pilot Plant."—Response to Questions for the Record*

Dear Mr. Chairman:

We appreciated the opportunity to testify before the subcommittee on June 12, 2015, about oversight failures behind the radiological incident at DOE's Waste Isolation Pilot Plant.¹ On July 1, 2015, we received the Subcommittee's questions for the record; the enclosure provides our response. If you or members of your staff have any questions about our response, please contact me at (201) 512-3841 or bawdena@gao.gov.

Sincerely yours,

Allison B. Bawden
Acting Director, Natural Resources and Environment

Enclosure

¹GAO, *Department of Energy: Actions Needed to Improve DOE and NNSA Oversight of Management and Operating Contractors*, GAO-15-662T (Washington, D.C.: June 12, 2015).

Enclosure

Chairman Tim Murphy
 Additional Questions for the Record to
 Ms. Allison Bawden
 "Oversight Failures behind the Radiological Incident at DOE's Waste Isolation Pilot Plant"
 June 12, 2015

Question 1: How does a robust and reliable contractor assurance system (a) enhance DOE oversight of high hazard or security sensitive operations and (b) enhance DOE management of M&O contractors?

A robust and reliable, or fully mature, contractor assurance system (CAS)—that is, management systems and processes designed and used by M&O contractors to oversee their own performance and self-identify and correct potential problems—may enhance DOE (a) oversight of high hazard or security sensitive operations, and (b) management of M&O contractors by providing federal overseers with a tool for determining how to prioritize its scarce oversight resources.

A fully mature CAS may enhance DOE's ability to prioritize scarce oversight resources on those contractor activities that are high hazard or security sensitive. Where information from CAS can be relied upon for low risk, low hazard operations DOE could shift oversight resources to high risk, high hazard or security sensitive operations. In our recently released May 2015 report,² we evaluated DOE's and NNSA's framework for overseeing M&O contractors—that has been in place since 2011—which outlines an approach to prioritizing federal oversight resources. Under the framework, federal overseers are to continue to give additional oversight emphasis to high hazard or security sensitive operations, regardless of the maturity of a contractor's CAS; where risk is lower, contractor-generated information in CAS is mature (i.e., reliable), and past contractor performance is strong, federal oversight can rely more on information from CAS. The framework describes a spectrum of approaches that can be employed by officials to oversee M&O contractors depending on the outcome of its assessments of risk, CAS maturity, and past contractor performance. On one side of the spectrum is "transaction-based oversight," or direct, hands-on oversight activities to test or observe contractors' performance through such mechanisms as on-site reviews, facility inspections, and other activities that involve direct evaluation of contractor operations. On the other side of the spectrum is "systems-based

²GAO, *National Nuclear Security Administration: Actions Needed to Clarify Use of Contractor Assurance Systems for Oversight and Performance Evaluation*, GAO-15-216 (Washington, D.C.: May 2015).

oversight,” where federal overseers rely on contractors’ processes and information from their CAS.

Similarly, a fully mature CAS may enhance DOE management of M&O contractors by providing DOE with a measure of confidence that a contractor is effectively monitoring its own performance; self-reporting issues that require DOE and/or the contractor’s management attention; and continually learning lessons and improving, among other things. Specifically, our May 2015 report identifies the five attributes that NNSA’s policy requires a fully mature CAS to include to provide this measure of confidence.³ These five attributes are:

- **Assessments:** The contractor is to use a robust and effective, risk-informed approach to develop, implement and perform comprehensive assessments of all facilities, systems, and organizational elements, including subcontractors, on a recurring basis.
- **Operating experience:** The contractor is to establish and effectively implement programs to collect, analyze, and use information from operational events, accidents, and injuries to prevent them in the future.
- **Issues and corrective action management:** The contractor is to ensure that a comprehensive, structured issues management system is in place to track and resolve issues identified for correction. This system is to use a risk-informed approach to provide for the timely and effective resolution of deficiencies.
- **Performance measures:** The contractor is to identify, monitor, and analyze data measuring the performance of facilities, programs, and organizations. The data are used to comprehensively demonstrate all aspects of performance and project future trends.
- **Integrated continuous process improvement:** The contractor is to ensure the long-term sustainability and stewardship of the site and use the results of performance measures and other CAS data to achieve improvements in performance.

³GAO-15-216.

Question 2: Please explain how GAO's recommendations for DOE and NNSA to improve contractor assurance systems comport with the recommendations of the November 2014 Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise?

The Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise (Panel) issued a report in November 2014.⁴ This Panel was established by Section 3166 of the Fiscal Year 2013 National Defense Authorization Act,⁵ which tasked the Panel to offer recommendations "with respect to the most appropriate governance structure, mission, and management of the nuclear security enterprise." Our report looked at DOE's approach to managing its M&O contractors under its current organizational structure.

a. What particular Panel recommendations will implementation of GAO's recommendations address?

DOE's successful implementation of GAO's recommendations in our May 2015 report would take steps to address at least two recommendations from the Panel. First, the Panel recommended that NNSA should "eliminate transactional oversight in areas where there are better mechanisms for certifying contractor performance." As discussed in our May 2015 report, under NNSA's framework for oversight, when appropriate, NNSA was to place greater reliance on information from CAS, thus reducing transactional oversight in areas where it was deemed appropriate to rely on information from CAS. However, we found that NNSA has not comprehensively established policy or guidance to enable decisionmaking about when reliance on information from CAS is appropriate. If NNSA successfully addressed our recommendation to establish comprehensive policies for such assessments, the agency would be in a better position to determine when it is appropriate to rely on information from CAS and thus address the Panel's recommendation about reducing transactional oversight. Second, the Panel recommended that NNSA should "reshape staffs as needed to implement governance reforms." We recommended that NNSA assess staffing needs to determine whether it has sufficient, qualified personnel to conduct oversight activities consistent with comprehensive policies and guidance including the use of information from CAS for oversight. Implementing GAO's

⁴Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise, *A New Foundation for the Nuclear Enterprise: Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise* (Washington, D.C.: November 2014).

⁵Pub. L. No. 112-239, § 3166 (2013).

recommendation to assess staffing needs would give the agency additional information needed to address the Panel's recommendation.

b. What other recent work by GAO addresses the advisory panel recommendations?

GAO has not analyzed whether recommendations in other recent GAO work addresses the Panel's recommendations, but a preliminary review of the Panel's recommendations shows that several of its recommendations are similar to those GAO has made in the past. At a high level, the Panel's recommendations are aimed at improving NNSA's effectiveness and efficiency in conducting its work with a focus on organizational structure and the structure of the relationships between NNSA and its management and operating contractors. At this high level, GAO has placed DOE's contract management for the NNSA and Office of Environmental Management on its high-risk list. We designated DOE's contract management—which includes both contract administration and project management—as a high-risk area in 1990 because DOE's record of inadequate management and oversight of contractors had left the department vulnerable to fraud, waste, abuse, and mismanagement. The Panel also made specific recommendations to DOE that are similar to those GAO has made in the past and that are aimed at addressing issues that contribute to DOE's continued inclusion on GAO's high-risk list. These Panel recommendations include:

- Establish trusted Cost Analysis and Resource Management staffs, tools, and data;⁶
- Establish program managers who are provided necessary authorities and resources, and who are held accountable for deliverables;⁷
- Ensure that a strategy and plan to reshape the weapons complex to meet future needs addresses the deferred maintenance backlog;⁸ and

⁶See, for example, GAO, *Modernizing the Nuclear Security Enterprise: NNSA's Budget Estimates Do Not Fully Align with Plans*. GAO-14-231, (Washington, D.C.: Dec. 11, 2013); and GAO, *Department of Energy: Actions Needed to Develop High-Quality Cost Estimates for Construction and Environmental Cleanup Projects*. GAO-10-199, (Washington, D.C.: Jan. 14, 2010).

⁷GAO-15-37 (Washington, D.C.: Dec. 11, 2014); GAO, *Project and Program Management: DOE Needs to Revise Requirements and Guidance for Cost Estimating and Related Reviews*. GAO-15-29 (Washington, D.C.: Nov. 25, 2014).

⁸See, for example, GAO, *Nuclear Weapons: NNSA Needs More Comprehensive Infrastructure and Workforce Data to Improve Enterprise Decision-making*. GAO-11-188, (Washington, D.C.: Feb. 14, 2011); and GAO, *DOE Facilities:*

- Continue ongoing efforts to improve construction project management capabilities (at all levels) by introducing disciplined management practices in order to recapitalize infrastructure on time and on budget.⁹

Question 3: In 2013, the National Academy of Public Administration released a report evaluating DOE's management and oversight of the national labs. Among the report's many conclusions, the Panel recommended that DOE revise its order on Contractor Assurance Systems to provide more explicit guidance designing and implementing mature Contractor Assurance Systems. How will implementation of GAO's recommendations address NAPA's recommendation?

GAO did not evaluate or make recommendations with respect to DOE guidance on how contractors design or implement their assurance systems, the subject of the National Academy of Public Administration's (NAPA) recommendation. GAO's May 2015 report evaluated the comprehensiveness of NNSA's policies and guidance with respect to how NNSA uses information from contractors' assurance systems for conducting federal oversight. Our report does make recommendations for DOE develop guidance on using information from CAS to oversee and evaluate M&O contractors, including how to conduct assessments of risk, CAS maturity, and level of contractor's past performance. If implemented, this would provide additional information relevant to the NAPA recommendation.

Better Prioritization and Life Cycle Cost Analysis Would Improve Disposition Planning. GAO-15-525, (Washington, D.C.: Mar. 19, 2015).

⁹See, for example, GAO, *DOE and NNSA Project Management: Analysis of Alternatives Could Be Improved by Incorporating Best Practices.* GAO-15-37 (Washington, D.C.: Dec. 11, 2014); GAO, *Project and Program Management: DOE Needs to Revise Requirements and Guidance for Cost Estimating and Related Reviews.* GAO-15-29 (Washington, D.C.: Nov. 25, 2014); GAO, *Nuclear Weapons: Some Actions Have Been Taken to Address Challenges with the Uranium Processing Facility Design.* GAO-15-126 (Washington, D.C.: Oct. 10, 2014); and GAO, *Plutonium Disposition Program: DOE Needs to Analyze the Root Causes of Cost Increases and Develop Better Cost Estimates.* GAO-14-231 (Washington, D.C.: Feb. 13, 2014).