

Testimony of Mark Whitney
Acting Assistant Secretary for Environmental Management

Before the
Defense Nuclear Facilities Safety Board
Waste Isolation Pilot Plant Public Hearing
Walter Gerrells Performing Arts & Exhibition Center
Carlsbad, NM

April 29, 2015

Session 1

Good afternoon and thank you Vice Chairman Roberson, and distinguished members, Mr. Santos and Mr. Sullivan, of the Defense Nuclear Facilities Safety Board. I appreciate the opportunity to be here with you today to share our commitment and vision on the critically important topic of DOE's ongoing Waste Isolation Pilot Plant, otherwise known as WIPP, recovery and safety improvement efforts.

On behalf of the Department, I am here representing Secretary of Energy Moniz, Deputy Secretary Sherwood-Randall, and the Office of Environmental Management (EM). I have great respect and appreciation for the role of the Board in carrying out its important responsibilities. We share a common goal of protecting the workers, the public, and the environment and I appreciate the opportunity to be here today to discuss the important progress we are making in recovering the Waste Isolation Pilot Plant.

First let me state that safe performance of work is our over-riding priority. It has been my commitment and has also been stated by the Secretary and it will not be compromised by schedule pressures. This is the clear expectation behind every decision and activity we undertake in our WIPP recovery efforts. We look forward to continuing to foster a constructive and collaborative relationship between EM and the Board with the goal of maintaining safe operations of our Defense nuclear facilities while meeting our critical cleanup mission.

Safety has been a core value and integral part of EM's vital mission from its inception. Our goal is to continuously improve on our performance and operations in the spirit of integrated safety management. Reflecting on the definition of safety culture, it is an organization's values and behaviors modeled by its leaders and internalized by its members that serve to make the safe performance of work the over-riding priority to protect the workers, public, and the environment. It is imperative to our recovery efforts and that this starts with the behaviors modeled 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.

The Board will hear more this afternoon from Session 2 Panelists, Mr. Hutton, Mr. Franco, Mr. Dunagan, Mr. McQuinn, and Mr. Blankenhorn who will present testimony to the specific actions necessary to safely recover the underground – actions taken and planned to address the key safety elements in WIPP recovery, including specific compensatory measures and controls to mitigate risk; fixes to the safety

basis and our safety basis strategy; contractor assurance and the federal strategy to provide adequate oversight. While I will not be participating separately in Session 3, my expectations will be represented by those members of my senior leadership team who will be providing testimony.

I recognize there continues to be a perception among some of the workforce that schedule pressures are taking precedent over safety. I take this concern very seriously and continue to make clear to my management team and our workforce that safety is the over-riding priority. We will not let schedule pressures over-ride the safe recovery of WIPP and the safety of our workers, public, and the environment.

We have made considerable progress towards safely recovering WIPP over the past 13 months, including immediate response to the incidents, evaluation and investigation into these events, defining and implementing required corrective actions for the first two Accident Investigation Reports, and issuing the high-level WIPP Recovery Plan and a detailed baseline. The Department has a target to resume waste emplacement operations in the first quarter of calendar year 2016, but we will only resume operations when it is safe to do so. This means properly establishing the safety management programs and upgrading the Documented Safety Analysis to the latest DOE Standard as well as developing a corrective action plan to address Accident Investigation Board Phase II Report. Should at any time during the course of developing and implementing these important program improvements we need to make schedule adjustments we will do so.

Strengthening safety management programs is among the highest priorities within the Department and of great importance to the Secretary and to me and that we do what we must to ensure that the events of February 2014 do not happen again. The AIB identified a number of weaknesses in the safety basis and safety management programs at WIPP that must be thoroughly addressed. Headquarters, the Carlsbad Field Office (CBFO) and Nuclear Waste Partnership (NWP) are implementing broad corrective actions to strengthen WIPP's nuclear safety, fire protection, emergency management, radiological and maintenance programs.

We are methodically working through re-establishing a bounding safety envelope, rigorously implementing training on new procedures and processes, and responding to all our oversight organizations' concerns. This includes New Mexico Environment Department, the Environmental Protection Agency, the Defense Nuclear Facilities Safety Board, the Mine Safety and Health Administration, and Office of Enterprise Assessment. We are currently working on corrective action plans in response to the Accident Investigation Phase II Report on the radiological release. We are in the process of upgrading the WIPP Documented Safety Analysis to the DOE Standard 3009-2014 that was issued last fall. When these programs, procedures and safety basis are in place and the workers have been properly trained, we will then conduct a comprehensive review of operational readiness, which will include formal Operational Readiness Reviews or ORRs, at both the contractor and Federal levels, to ensure that we are prepared to safely restart operations.

Underground entries, which were necessarily so painstaking in the weeks following the radiological event, now are safely performed on a daily basis, and we have been working multi-shift operations since

February. Restoration includes radiological surveys, radiological buffers in non-contaminated areas, ground control stability inspections, roof-bolting and equipment maintenance. To date, over 1,800 bolts have been installed. We are finishing the cleaning of electrical equipment from smoke damage; we are about 75 percent complete. Restoration and maintenance of required equipment is on-going. The waste hoist was returned to service in November allowing more personnel, larger equipment and materials to be transported into the underground.

As an element of the formal Accident Investigation, we undertook Project Reach to perform a comprehensive video inspection of all waste stacks in Panel 7, Room 7. Aerial videos over the waste stacks, as well as between the waste stacks were taken, and completed in late January. Photographic and video examination found no other breached drums. Successful completion of Project Reach allowed for issuance of the final AIB 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. We are in the process of preparing the floor areas in the underground leading to Panel 7 and in Panel 7, which entails installing brattis cloth covered with approximately four inches of mined salt. Gross decontamination of all equipment in Panel 7 is nearly complete.

As you know, adequate ventilation is required for life sustainability, removal of dust during mining, and removing 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 filtration mode, at a reduced airflow of 60,000 cubic feet per minute, which greatly limits activities underground. Our plan is to increase ventilation in three phases to support increased underground operations and subsequent testimony later today will provide additional details regarding this activity.

The initial closure of Panel 6 and Panel 7, Room 7, the underground areas containing the nitrate salt drums, is a priority for us and the New Mexico Environment Department, in order to permanently isolate this suspect waste stream. WIPP received an order from the State to perform expedited closure of these areas. Required activities include contaminated bolting, construction of bulkheads, and movement of salt for Panel 6. The initial closure for the entrance side of Panel 6 was completed on April 4. We are working toward completing initial closure of Panel 6 and Panel 7, Room 7 by early summer.

To complement the AIB investigation, the Department tasked 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 (SRNL) and was composed of scientists from SRNL 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 experts in many disciplines – sampling and analysis, forensic science, modeling, and reaction chemistry. This team approach ensured that the appropriate expertise

was available to assess the event and to support DOE's implementation of WIPP recovery. 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 Technical Assessment Team visited Carlsbad and met with federal and contractor staff at WIPP; the Carlsbad Mayor's Nuclear Task Force and attended a special Carlsbad Town Hall Meeting to answer questions on their final report that was released on March 26th.

They were able to make some key determinations including: 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 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 forward toward resuming operations at the facility. These findings coupled with the results of the recently completed Phase II of the Accident Investigation lend support to the need and appropriateness of moving forward with panel closure and that is the approach we are taking.

The Accident Investigation Boards three reports evaluated in detail both the salt-truck fire and radiological events. The AIB identified weaknesses with the site office 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 Nuclear Waste Partnership Contractor Assurance System, which did not identify precursors to these events.

On April 16th the AIB Phase II Report was released with 40 Judgments of Need. The AIB completed an exhaustive investigation at WIPP and Los Alamos National Laboratory (LANL) to examine the cause of the radiological release at WIPP and identify Judgments of Need regarding managerial controls and safety measures necessary to prevent or minimize the probability or severity of a recurrence of this type of accident. Based on post-event chemical, radiological, and fire forensic analyses, the AIB concluded that the release was caused by an exothermic reaction involving the mixture of organic materials and nitrate salts in one drum that was processed at LANL in December 2013. The Board also concluded that an underground salt haul truck fire that occurred at WIPP on February 5, 2014, did not cause or contribute to the radiological release event. The AIB's findings identify shortcomings within both contractor and federal processes at LANL, WIPP, EM, and the National Nuclear Security Administration. I understand that Mr. Ted Wyka, the AIB Chair, briefed you recently on the results of the accident investigation and will further be discussing individual aspects of these investigations in more detail during Session 3.

I said previously that our goal is to continuously improve our safety performance and operations in the spirit of Integrated Safety Management. The Integrated Safety Management System is the Department's enduring framework for the approach to the safe performance of work. The Integrated Safety Management Guide Attachment 10, Safety Focus Areas and Associated Attributes, outlines our vision for what a positive safety culture and a Safety Conscious Work Environment looks like and feels

like; providing specific attributes of Leadership, Employee Engagement, and Organizational Learning. These are not just words – they are values and expectations that the Secretary and I expect to be demonstrated on a daily basis.

In summary, WIPP is an important national resource that will recover from this unfortunate incident.

WIPP will resume disposal operations when it is safe to do so. The safety of our employees, the public, and the environment, is first and foremost. We have kept the community and a wide range of stakeholders informed along the way of WIPP Recovery, and will continue to do so. We will continue working with our regulators and stakeholders around the country as we move toward resumption of the safe operations at WIPP.

As always, I invite you to contact me directly if you have any concerns about our activities involving WIPP recovery. Thank you again for the opportunity to discuss the Department's efforts and I'll now be happy to answer any questions you may have.