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Before the  
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Waste Isolation Pilot Plant (WIPP) Public Hearing  
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Good afternoon, Mr. Chairman. I am Jose Franco, DOE Carlsbad Field Office (CBFO) Manager. I would like to thank you for the opportunity to address you today. I will be providing you with an overview of actions DOE CBFO has planned and taken to address the seven key elements in the WIPP Recovery Plan.

The WIPP Recovery Plan was issued on September 30, 2014, and focuses on seven key elements as the strategy to safely resume emplacing waste at WIPP. Those elements are safety, regulatory compliance, decontamination, ventilation, mine stability and underground habitability, workforce retraining, and managing waste streams.

The first key element is safety, which is paramount to the overall recovery strategy. This includes deployment of new management and corporate subject matter experts to perform independent assessments of the safety management programs and implementation of compensatory measures to address deficiencies.

Two Potential Inadequacies to the Safety Analysis (or PISAs) were declared that were associated with the underground salt haul truck fire and the radiological event. The safety management programs compensatory actions and those required as a result of the two PISAs remain in place and are implemented through the development of Evaluations of the Safety of the Situation (or ESS's) to ensure the safety, health and protection of the workers, the public and the environment. The ESS documents augment the existing Documented Safety Analysis (DSA) until a revision is issued. That revised DSA will incorporate the controls currently implemented under each ESS.

There are currently eight ESS documents. ESS-2014-01, addressing WIPP habitability, was issued to

implement the operational restrictions and interim controls required to assure the underground ventilation filtration system remains in service by ensuring early detection of abnormal conditions. In addition, this ESS documents the installation of a real time continuous air monitoring as a discretionary measure to reduce the radiological risk to the general site population.

Other WIPP recovery activities continue to be governed by the issuance of ESS documents. Those include underground (U/G) entry, U/G bolting, initial panel closure for Panel 6 and the closure of Panel 7, Room 7, liquid fuel vehicle operation, U/G ventilation system filter replacement, and interim ventilation system construction and installation.

The second key element of the Recovery Plan is regulatory compliance. Since the February events, the contractor and DOE have ensured transparency with governing regulatory agencies, including the New Mexico Environment Department (NMED), and the Environmental Protection Agency (EPA). A briefing of the WIPP Recovery Plan and schedule was provided to the NMED Secretary and staff. Initial daily and now weekly conference calls occur, in addition to technical and management discussions, to ensure regulatory agencies are provided with the most recent recovery status updates.

The NMED has issued four administrative orders. The first one was issued on February 28, 2014, and addressed the continued storage of existing above ground waste. It established a schedule of compliance for all above ground facility permit inspections, monitoring, recordkeeping and reporting requirements. The second order was issued on May 12, 2014, and addressed permit-required actions in the underground that could not be performed due to the February events. A third order was issued on May 20, 2014, to address the initial closure of Panel 6 and Panel 7, Room 7, containing nitrate salt bearing waste containers in the WIPP underground. In response to this order, the NMED has subsequently approved an interim closure approach for Panel 6 and Panel 7, Room 7. Weekly updates are provided to the regulatory agencies on the progress towards completion of these closure activities.

Additionally, the NMED issued a fourth Administrative Compliance Order identifying 13 alleged violations and assessing fines and penalties of \$17.75 million. DOE and NMED have signed a General Principle of Agreement document to settle this and a similar order issued to the Los Alamos National Laboratory.

DOE and the EPA have a Memorandum of Understanding regarding compliance with 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants. Also, any recovery activities affecting long-term performance of the WIPP repository will be coordinated with the EPA and factored into the ongoing review of the WIPP Compliance Recertification Application.

The Mine Safety and Health Administration conducts periodic inspections of the WIPP facility. This includes the surface and the underground. Senior safety management personnel accompany the inspector on each inspection. The closure actions for many of the citations resulting from these inspections are addressed immediately, in coordination with the Mine Safety and Health Administration regulatory authority. Some citations require longer term solutions, such as equipment modifications or the addition of specially designed and fabricated safety shields. Each citation is tracked in the Plan of the Day schedule until closed.

The third key element of the Recovery Plan is decontamination. Initial entry activities were focused on radiological characterization. This characterization has now been completed, and a large portion of the uncontaminated underground has been rolled back to a Radiological Buffer Area. (This includes the north end of the underground south to S-1950.) The areas beyond S-1950 and the exhaust drift remain classified as contamination areas.

Decontamination and mitigation activities are being performed with the goal of removing contamination or encapsulating the contamination in the salt to reduce/eliminate the potential for airborne activity. Radiological decontamination will not be performed in technically challenging areas like the exhaust shaft (which is 2,100 vertical feet). When waste placement operations resume in the WIPP underground, there will be both clean and contaminated portions of the mine.

The decontamination plan for the underground includes the use of a fresh water spray on the ribs (or sides) in the contaminated areas. The fresh water spray dissolves the top layer of salt on the ribs. This method has proven to be the most practical and effective approach. The water spray allows the surface contamination to either be carried with the water spray as runoff into the floor or wicked into the rock, where it is trapped. A colored fixative will be used in some areas with a high potential for contact with heavy equipment. This will aid in monitoring for potential damage to the coating. To date, water spray of the ribs from S-1950 to the entrance of Panel 7 has been completed.

After the ribs have been sprayed, the floor area from the Radiological Buffer Area at S-1950 to Panel 7 and inside Panel 7 will be covered with brattice cloth, and salt will be spread over the brattice cloth. The brattice cloth will serve as an indicator, over time, of the need to remediate the floor area with additional salt.

The fourth element of the Recovery Plan is ventilation. The underground ventilation system is designed to meet or exceed 30 CFR Part 57, Safety and Health Standards for Underground Metal and Nonmetal Mines, and the New Mexico Mine Safety Code for mines and to meet the requirements of the WIPP Hazardous Waste Facility Permit.

The underground ventilation system is required for life sustainability, to remove dust during mining, to provide fresh air and to remove exhaust fumes during diesel engine operations. Since the radiological event, the underground ventilation system has been operating in filtration mode and will continue to be operated in this configuration. In filtration mode, underground airflow is reduced to 60,000 cubic feet per minute (cfm) based on the design of the existing filtration units. This presents challenges to underground operation of diesel fuel vehicles based on emission airflow requirements. Standard WIPP underground operations ran at approximately 425,000 cfm of airflow with a permit required minimum running annual average mine ventilation exhaust rate of 260,000 standard cubic feet per minute. Therefore, all operations have to be closely coordinated, and underground ventilation system configuration changes have to be periodically made and controlled in the underground through the manipulation of louvers and doors to redirect the airflow where needed.

Two temporary ventilation activities are being implemented to provide additional airflow in the underground to support increased simultaneous operations. These systems are being designed and installed to operate until a permanent ventilation system is in place.

The Interim Ventilation System will provide an additional capacity of ~54,000 cfm by the installation of two additional filter/fan units on the surface to draw air from the U/G similar to the current configuration. The fans/filters have arrived at the WIPP site, and the concrete pads are being poured. This system is scheduled to be in place later this year.

The addition of the Supplemental Ventilation System will enable the WIPP underground to be reconfigured in a manner that will allow the underground to function as separate clean and contaminated areas. The reconfiguration will be achieved through the use of bulkheads, overcasts and airlocks. Additional airflow will be obtained by the installation of a fan in the underground near the air intake shaft to draw additional air down the air intake shaft and exhaust this clean air out the salt shaft. Some of this additional air will be available on the contaminated side of the underground to support waste emplacement operations. With the installation of this system, the total airflow in the underground will be increased to ~180,000 cfm. This system is scheduled to be in place later this year.

The Permanent Ventilation System is being designed to provide ~420,000 cfm airflow, restoring the underground back to full, unrestricted operation. This will provide the ventilation required to simultaneously conduct mine stability activities, mining, maintenance, waste emplacement and research and development activities. This project is currently being performed under the DOE Order 413.3B as a capital asset project.

The fifth element of the Recovery Plan is mine stability and underground habitability. Mine stability is also essential to safety as we put workers into the underground to recover and restore electrical systems, evaluate radiological conditions and begin mitigation of radiological hazards. Since the opening of the WIPP site in 1998, the underground had never gone an extended period without regular ground control and routine bolting operations. Regular geotechnical evaluation and surveillance along with expedited bolting in both clean and contaminated areas has been necessary to ensure the safety of the workforce. Continuous air monitoring has been established at locations throughout the underground and once radiological characterization of areas has been completed, personnel have been allowed in these areas in accordance with the applicable Radiological Worker Permit. All areas from S-1950 northward have now been posted as a Radiological Buffer Area, requiring no radiological personal protective equipment. Areas south of S-1950 and the exhaust drifts currently remain as contamination areas, requiring personal protective clothing, including respirators.

Following the necessary geotechnical and radiological surveys to ensure the safety of the workforce, bolting, electrical restoration, life safety equipment restoration and general housekeeping were initiated. Bolting operations began in November 2014. A second shift of workers began in February to accelerate catch-up bolting activities. Catch-up bolting in the underground is currently 70% complete,

with over 2,000 bolts replaced. Catch-up bolting in all areas north of S-1950 has been completed; routine bolting operations are now being performed. Catch-up bolting south of S-1950 in the contaminated area has focused on access to Panel 6 and Panel 7 in support of closure activities. Access to areas south of Panel 6 has been restricted unless accompanied by geo-technicians, until catch-up bolting operations have been performed. The ground control program is a continuous process of visual inspection, sounding the back, and measurements. All personnel who enter the mine unescorted are required to have the U/G Miner training which includes training on observing the ground.

Electrical restoration to remove soot deposited on various electrical distribution systems as a result of the fire is 70% complete. This includes all areas north of S-1950, including the science area. Research personnel can now enter the area and begin cleaning of analytical equipment. Electrical systems in the contamination areas south of S-1950 will be restored once catch-up bolting activities are completed.

The sixth element of the Recovery Plan is workforce retraining. Utilization of existing WIPP personnel is essential to prepare the workforce for long term mission accomplishment. This includes training the workforce for contaminated operations, such as bolting and decontamination activities in personal protective equipment and under nuclear safety controls. The workforce is being trained through the use of mentors and subject matter experts. Also, following the February incidents, CBFO brought in subject matter experts from around the DOE complex to assist in the immediate response activities. Shortly after the events CBFO evaluated the organizational structure and further identified the need for additional staff necessary to perform technical oversight and overall performance and effectiveness. As a result of that evaluation, the CBFO Manager established the Office of Operations Oversight in order to segregate operations, safety, engineering and environmental oversight for WIPP facility operations from programmatic production activities to enhance oversight independence.

In the radiological control area, trained radiological control personnel from other sites were initially utilized to augment existing staff, mentor personnel and provide support for new radiological activities. Personnel, such as miners and waste handlers who are not currently able to perform their normal duties, have been re-assigned to support recovery activities, such as decontamination, soot cleaning and equipment cleaning and restoration.

Training of the workforce for work in contaminated environments has included classroom, practice and on-the-job training. Employees have been retrained as radiation workers and fit-tested with appropriate radiological respirators. Prior to commencement of waste emplacement operations, all personnel will complete re-qualification training, including requisite proficiency verification. This will include working under the new DSA controls. Formal Operational Readiness Reviews in accordance with DOE requirements will validate that the workforce is adequately trained and proficient to resume waste handling operations.

The seventh element of the Recovery Plan is managing waste streams. Recovery activities were prioritized to perform initial closure of Panel 6 and Panel 7, Room 7. The initial closure of Panel 6 was completed on May 8.

For the 144 containers currently located in the WIPP Contact-Handled (CH) Bay, extensions have been granted to the 60-day above ground storage requirement in the Hazardous Waste Facility Permit. None of the containers stored in the CH Bay are from the nitrate salt bearing waste stream associated with the radiological release.

At Waste Control Specialists in Texas, there are 73 Standard Waste Boxes that do contain the same nitrate salt bearing waste stream from Los Alamos National Laboratory as the container in Panel 7 believed to be responsible for the release. They have been placed in modular concrete canisters and located in a trench covered with soil. Temperature monitoring is being performed.

Transuranic (TRU) waste continues to be characterized and stored at the generator sites until WIPP re-opens and in addition to the normal assessment of generator site certification programs, the National TRU Program is undertaking a complex wide technical review of TRU waste management and processing systems. The purpose of the technical review is to ensure adequate controls are in place to prevent future events of a similar nature or from similar waste streams. The review is not intended to duplicate or replace TRU waste certification audits, or other audits and assessments that are performed at generator sites, but rather is focused on processes performed prior to the certification program.

DOE is also evaluating and analyzing the impacts of storage requirements and commitments with state regulators.