



WIPP Recovery Plan

In February 2014, the Department of Energy suspended operations at the Waste Isolation Pilot Plant (WIPP) following a salt truck fire and a subsequent radiological event underground. As the nation's only deep geologic repository for the permanent disposal of defense-related, transuranic waste, WIPP's recovery is central to the DOE's mission and to its commitments to the public, area communities, and waste generator sites and their host states.



The WIPP Recovery Plan outlines a path to resume operations, while prioritizing safety, health, and environmental protection. When disposal operations resume, the first waste to be disposed of will be from recovery activities and waste that has been stored above ground at WIPP since operations were halted. WIPP can then begin receiving waste from generator sites.

Priorities

- Safety, health, and protection of the workers, the public, and the environment are DOE's highest priorities.
- Every stage of recovery is supported by rigorous regulatory compliance and robust upgrades to nuclear safety, fire protection, radiological controls, and emergency management, as well as associated documentation, procedures, and training.
- DOE is committed to communicate openly, early, and frequently with the public and stakeholders.

Key Elements

SAFETY

Safety is paramount to the overall strategy. The Accident Investigation Board reports for the underground fire and the radiological release identified a number of required improvements for WIPP safety programs. Safety documentation is being revised and upgraded to required standards and will be implemented prior to recommencing waste emplacement operations, in order to ensure the safety of the workers, the public, and the environment. Recovery will continue to proceed at a safe pace, commensurate with workforce capabilities, mine conditions, and status of WIPP infrastructure and systems.

REGULATORY COMPLIANCE

DOE is fully complying with all regulatory requirements and commitments. In May 2015, closures of underground Panel 6 and Panel 7, Room 7, were completed in compliance with New Mexico Environment Department Administrative Order. This isolated all waste containers at WIPP from the Los Alamos National Laboratory waste stream responsible for the radiological event.



Panel 7, Room 7,
exhaust side closure

RADIOLOGICAL RISK REDUCTION

Radiological risk reduction activities are underway in portions of the WIPP underground. Methods being used include applying a fine water mist to the walls and floor, which allows the salt to recrystallize and encapsulate the contamination. In addition, brattice cloth and a layer of previously-mined salt is being laid along portions of the floor. These activities are important for worker safety, as they eliminate the need for personal protective equipment in portions of the mine.



Brattice cloth and a layer of salt on the mine floor

VENTILATION

Increasing ventilation capacity will support worker safety, mining, and waste emplacement. Since the radiological event, the existing system has been operating in HEPA filtration mode at a reduced ventilation capacity. First, the Interim Ventilation System will add two fan/filter units to augment the existing HEPA capacity. Then, the Supplemental Ventilation System will increase overall ventilation capacity by reconfiguring the mine to create an exhaust pathway for clean areas. After resumption of operations, a new permanent ventilation system and exhaust shaft will be completed, which will allow for an increase to pre-incident airflow rates.



Supplemental Ventilation System fan installed in the S90 drift

MINE STABILITY & UNDERGROUND HABITABILITY

Critical mine safety and maintenance operations are being addressed systematically (by zones). These include radiological surveys and posting of radiological zones, ground control (e.g., ceiling bolting) required due to constant salt creep, operational checks of mine safety equipment, replacement of damaged equipment, fire loading reduction, cleaning, trash removal, and electrical system safe restart.



New hybrid bolter (electric/diesel)

WORKFORCE RETRAINING

The strategy to staff the recovery project is to maximize use of the existing workforce, cross-training staff for activities specific to recovery and preparing for the resumption of operations. The existing workforce is being trained to enhance safety programs, as well as to work in contaminated and reduced-ventilation environments.

MANAGING WASTE STREAMS

DOE waste generator sites are continuing characterization and certification activities for eventual shipment to WIPP. DOE has determined that there are no generator sites beyond Los Alamos National Laboratory that have containers with the specific characteristics of the waste stream that was determined to be the cause of the radiological release at WIPP.