

WASTE ISOLATION PILOT PLANT Northern New Mexico Citizens Advisory Board September 18, 2024

Ryan Flynn

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Waste Isolation Pilot Plant Mission



Our mission is to provide safe and compliant characterization, transportation, and disposal of the United States' defense transuranic (TRU) waste while protecting workers, the public and the environment.





Overall Mission Accomplishments

- 22 sites completed TRU waste cleanup
- 14,118 shipments received
- 16.9 million safe loaded miles traveled





One Team – Focused on Safety and Quality



U.S. Department of Energy Carlsbad Field Office

- Leads the Transuranic Waste Program
- Science Program



SIMCO Salado Isolation Mining Contractors, LLC

Salado Isolation Mining **Contractors LLC**

- Manages and operates the WIPP facility
- Manages transportation logistics and packages
- Manages waste retrieval, characterization and certification
- Mobile loading

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WIPP TRU Waste Disposal

- WIPP Land Withdrawal Act (LWA)
- Defense generated transuranic
- Must meet WIPP Waste Acceptance Criteria
- WIPP transuranic waste capacity 6.2M ft³
 - Current volume capacity filled = 2.7M ft³ (~44%)





WIPP transuranic waste capacity

LWA remaining capacity



Update: Legacy TRU Waste Disposal Plan



- The following Permit condition was added:
 - 4.2.1.5 Legacy TRU Waste Disposal Plan
 - The Permittees shall define legacy TRU and TRU mixed waste and develop the Legacy TRU Waste Disposal Plan (Plan). The Plan will be developed in consultation with the generator/storage sites and stakeholders. Consultation with stakeholders shall begin within 90 days of the effective date of this Permit. The Plan shall be submitted to the Secretary within one year of the effective date of this Permit. The Permittees shall seek public input for 60 days following the submittal of the Plan and submit received comments to the Secretary. To the extent practicable as articulated in the final Plan, Panel 12 will be reserved for the disposal of legacy TRU mixed waste.



Consultations

Consultations

November 2023 Public Consultation, Santa Fe, NM

December 2023 Public Consultation, Carlsbad, NM

March 2024 Waste Management Symposium, Phoenix, AZ

May 2024 State & Tribal Government, Santa Fe, NM

June 2024 National Transportation Forum, Denver, CO

July 2024 Energy Communities Alliance, Wash., D.C.

July 2024 Nat'l TRU Program Users Group, Albq., NM

Generator/Storage Site	Definition*/Date
Argonne National Laboratory	Not defined/present.
Hanford Site	All waste (retrieved, buried and/or generated) prior to June 2000 is legacy waste.
Lawrence Livermore National Laboratory	Not defined/present.
Oak Ridge National Laboratory	Waste generated prior to EM transition is referred to as "legacy" waste.
Savannah River Site National Laboratory	Waste characterized by the Central Characterization Program (CCP) prior to the 2014 WIPP event.
Los Alamos National Laboratory	Waste generated prior to October 1, 1999.
Idaho National Laboratory	Stored waste generated on/prior to October 1995.
	*As defined by the generator sites this may or may not include future decommissioning and decontamination waste streams.



Challenges with the Legacy TRU Waste Disposal Plan

- Compliance/regulatory drivers (e.g., state/stakeholder agreements)
- Storage limitations at generator sites (e.g., storage capacity limits, time limits, radiological limits)
- Depletion of readily available containers in storage
- Container retrieval and processing
- Difficult waste streams

LEARN MORE, CONTACT US



- LTWDP website
- LTWDP Fact sheet
- LTWDP@wipp.doe.gov



2024 Waste Emplacement Goals

- Receive and emplace 520 waste shipments
- Minimum of 40 Los Alamos TRU shipments
- Carrier services increased to support up to 17 shipments per week



Congratulations to our workforce for making New Mexico and America cleaner and safer.



Waste Emplacement and Mining Update

Panel 8, Room 5

- Room 6 filled, completed in April
- Began Room 5 emplacement

New Panel 11

- Panel 11 mining began December 2023
- Reached Panel 11, Room 1 in April
- Mining activities continue

Above: Underground bolting in the West Mains Below: Panel 8 waste emplacement





Underground West Mains Mining Progress



Above: Mining progress in the WIPP underground West Mains

OFFICE OF ENVIRONMENTAL MANAGEMENT

U.S. DEPARTMENT OF

UPDATED: JULY 22, 2024

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Infrastructure Investments

- Projects will:
 - Reduce maintenance down time
 - Improve operational efficiencies
 - Enhance worker safety
- Safety Significant Confinement Ventilation System (SSCVS)
- New Utility Shaft
- Minor Construction Projects





Capital Project Safety Significant Confinement Ventilation System (SSCVS)

Increasing airflow to the underground up to 540,000 cubic feet per minute

Progress

- Construction completed in late May
- Overall project includes:
 - New Filter Building (NFB)
 - Salt Reduction Building (SRB)
 - Rigorous systems testing underway
 - Overall commissioning is on pace to be operational in 2026



Above: Equipment testing during SSCVS commissioning Below: SSCVS final large duct work installation



New Utility Shaft and Plant Upgrade Projects



Lowering mining equipment down the new Utility Shaft

- New Utility Shaft Project
 - Providing higher-capacity air intake for the underground in conjunction with SSCVS
 - Shaft sinking and station development complete, horizontal drifts excavation underway
- Other Plant Projects
 - Salt pocket refurbishment project
 - Hoisting maintenance and upgrades



Stakeholder Outreach

We strive to build trusted relationships through honest and transparent communication and active engagement with our communities.



2024 progress

- Hosted first-ever DOE Regional Science Bowl
- WIPP 25th Anniversary
- Active in Carlsbad, Hobbs, Albuquerque chambers of commerce
- Volunteering for United Way giving, and STEM events for K-12 schools
- Maintaining stakeholder tour program

Left: Underground tour hosted for Carlsbad Chamber of Commerce Leadership program Middle: The Carlsbad Department of Development recognized WIPP's 25th Anniversary Right: WIPP employees volunteer at an Inspired by Science STEM night



QUESTIONS?