



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

WASTE ISOLATION PILOT PLANT

Community Forum

October 24, 2024

Mark Bollinger

DOE Carlsbad Field Office Manager

Ken Harrawood

Salado Isolation Mining Contractors
President and Program Manager

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.



One Team – Focused on Safety and Quality



U.S. Department of Energy Carlsbad Field Office

- Leads the Transuranic Waste Program
- Science Program



Salado Isolation Mining Contractors LLC

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



Sandia National Laboratories

- Scientific advisor for repository recertification



Los Alamos National Laboratory

- Scientific advisor for waste characterization



CBFO Technical Assistance Contractor

- Technical and Quality Assurance support for the Carlsbad Field Office



Aleut Aerospace Engineering, LLC – TRANSCOM

- Satellite Tracking



Specialty Transportation, Inc.

CAST Specialty Transportation

- Transportation carrier

Follow Up From July 2024 Forum

What is the path forward to ensure the radiological air monitoring system for the Safety Significant Confinement Ventilation System (SSCVS) works as designed?

- Our goal remains safe operations to keep our workers, the public, and environment safe.
- Rigorous testing and review are underway to validate system performance and operator proficiency.
- As an added measure, it's anticipated the SSCVS will initially operate in 'continuous filter mode' so that performance can be monitored to ensure the system is fully working as designed.

Please provide a draft of the Legacy TRU Waste Disposal Plan to stakeholders.

- Extensive consultation was conducted in developing the plan, including presentations, public meetings, and input from TRU generator sites.
- The proposed definition for TRU legacy waste was posted in September, public input was solicited, and a public meeting held for discussion.
- The Plan will be submitted to NMED in early November as required, and a 60-day public comment period opened.
- Background information and the Plan, when available, can be found on the dedicated web site: <https://wipp.energy.gov/Legacy-TRU-Waste-Disposal-Plan.asp>.

Overall Mission Accomplishments

- Enabled **22** sites to complete TRU waste cleanup
- **14,181** shipments received
- **490** shipments received and emplaced in Fiscal Year 2024
- Recent shipments:
 - July 2024: **45**
 - August 2024: **50**
 - September 2024: **39**



As of October 14, 2024

Moving 'At the Speed of Safety' on Our Public Roadways

17 MILLION
SAFE MILES TRANSPORTED



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Shipment Requirements



- Must pass Commercial Vehicle Safety Alliance Level VI inspection (100% defect free)
- Two drivers per shipment
- Driver inspects within first 50 miles
- Additional inspections every 3 hours or 150 miles
- Shipments not allowed to travel during weather warnings
- States can perform additional inspections



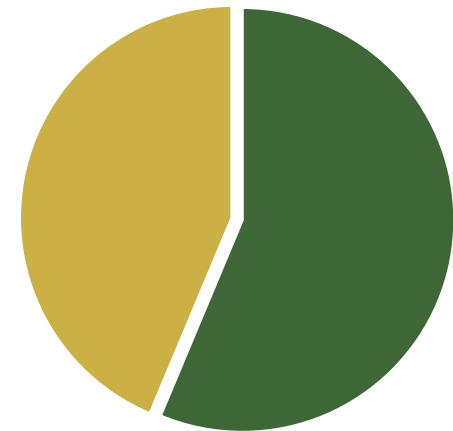
WIPP TRU Waste Disposal

- 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%)



Waste drums safely emplaced in a WIPP underground repository room

WIPP transuranic waste capacity
(cubic feet)



■ LWA remaining capacity

Legacy TRU Waste Disposal Plan



- New Mexico Environment Department (NMED) issued the final Hazardous Waste Facility Permit effective on November 3, 2023.
- 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.**

Legacy TRU Waste Disposal Plan Update

- Plan will be submitted to NMED by early November, available for 60-day public comment period beginning early November
- Plan developed through year-long extensive consultation and collaboration with state and tribal governments, stakeholders, and TRU waste generator sites
- We want your input and feedback
- Our commitment is to ensure WIPP remains capable and ready to support our nation's national security and cleanup missions



**LEARN
MORE,
CONTACT US**

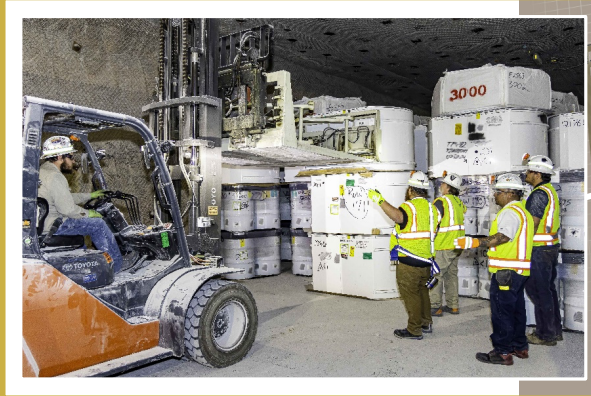
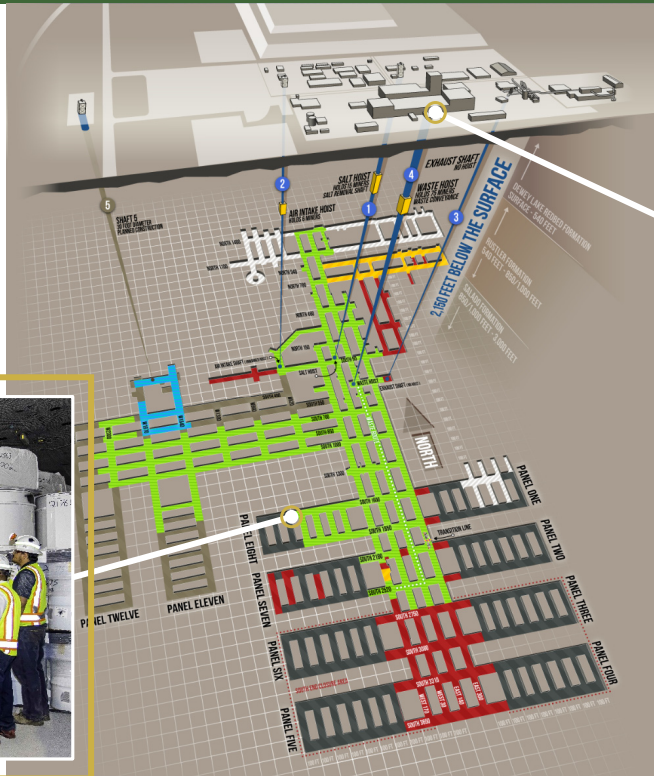
- [LTWDP website](#)
- [LTWDP Fact sheet](#)
- LTWDP@wipp.doe.gov

Overview: 60-Day Public Comment Period

60 Day Public Comment Period: early November 2024 to early January 2025

- Comment submittals can be provided to:
 - Email: LTWDP@wipp.doe.gov
 - Postal mail: WIPP Information Center, 4021 National Parks Highway, Carlsbad, NM 88220
- Comments received will be consolidated and posted at: <https://wipp.energy.gov/Legacy-TRU-Waste-Disposal-Plan.asp>
- Comments received will be submitted to NMED per Permit condition

WIPP Site Operations Overview



LEGEND

- APPROX. 100FT X 100 FT
- 1 SALT SHAFT
- 2 AIR INTAKE SHAFT
- 3 EXHAUST SHAFT
- 4 WASTE SHAFT
- 5 UTILITY SHAFT
- EMPLACED WASTE
- FUTURE MINING OPERATIONS
- CLOSED / INACCESSIBLE
- UNRESTRICTED ACCESS
- PROHIBITED ACCESS
- GROUND CONTROL CATCHUP
- RESTRICTED
- HWSS MINING

Above: On the surface, workers safely unload incoming TRUPACT shipments
 Below: In the underground, workers emplace waste drums in mined rooms

Safety Performance and Worker Involvement

- Focusing on goal to achieve and sustain zero accidents and injuries
- Providing workers' ownership in safety program
- Instilling culture of 'Operational Excellence'



Sustaining lowest worker-injury rate in more than a decade

Waste Emplacement Update

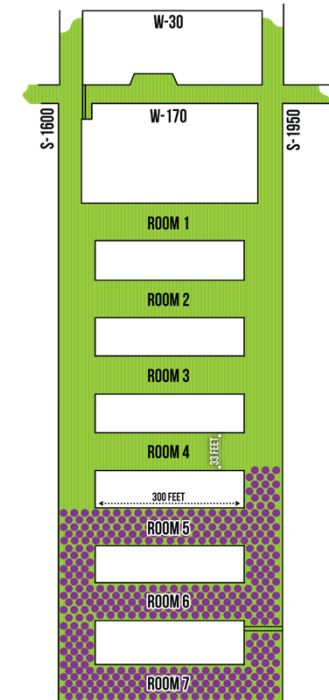
Panel 8, Room 5

- Nearing completion of Room 5 emplacement

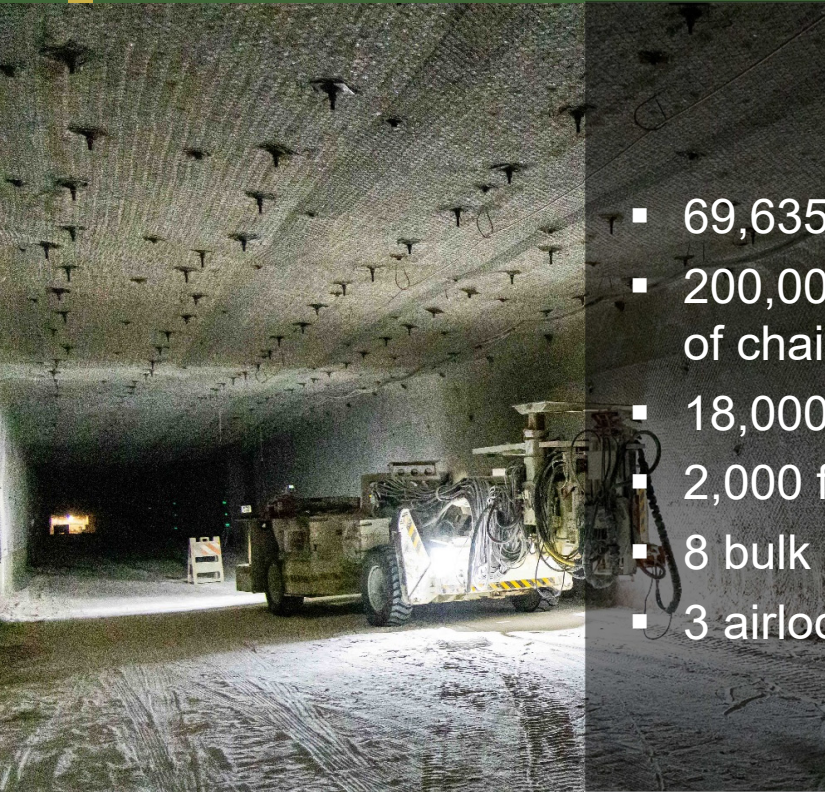


Workers offload waste drums into the underground repository's Panel 8

ENLARGEMENT OF PANEL EIGHT - EMPLACEMENT

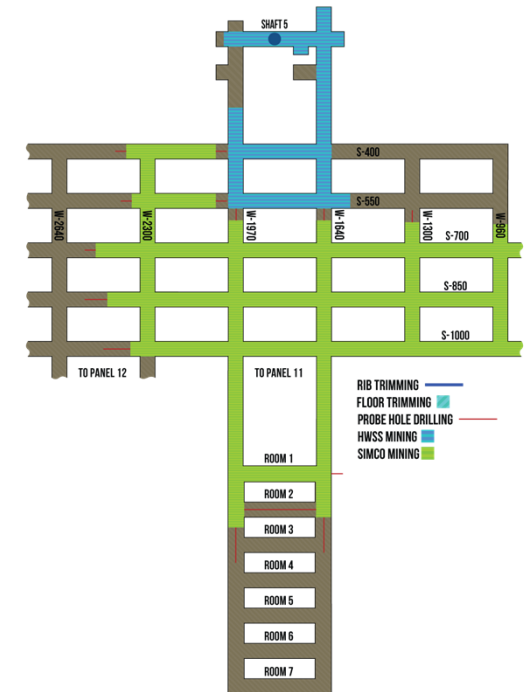


By the Numbers: Equipping the West Mains



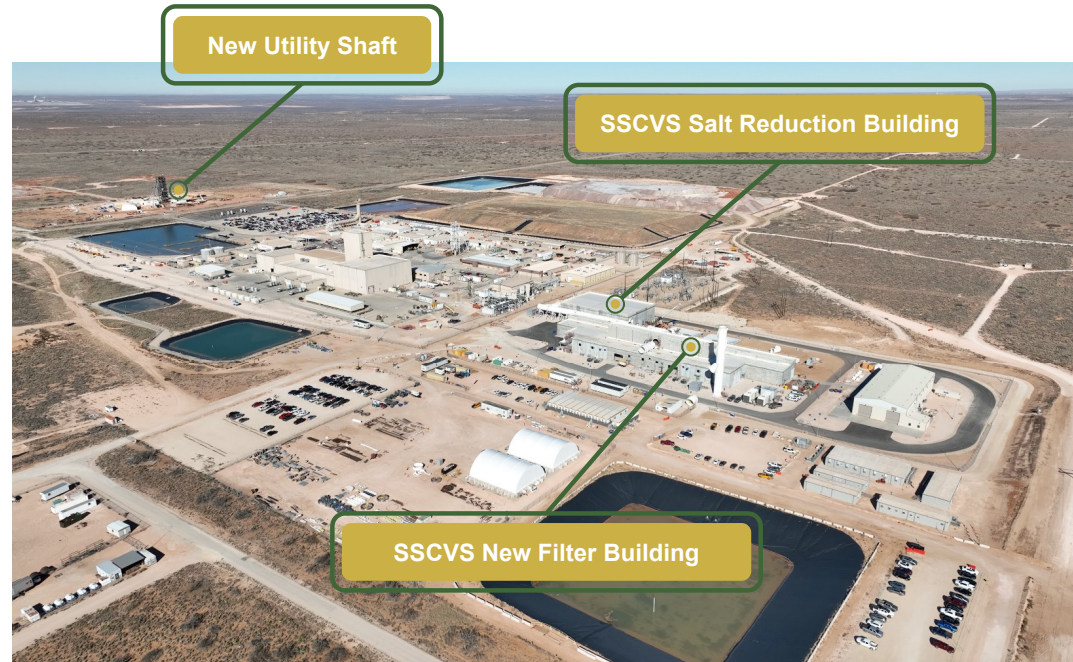
- 69,635 tons of salt
- 200,00 cubic feet of chain link mesh
- 18,000+ bolts
- 2,000 feet of power cable
- 8 bulk heads
- 3 airlocks

MINING TO THE WEST



Infrastructure Investments

- Projects will:
 - Improve reliability
 - Enhance worker safety
- Safety Significant Confinement Ventilation System (SSCVS)
- New Utility Shaft
- Minor construction projects



Safety Significant Confinement Ventilation System (SSCVS)

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

Progress

- Construction and integrated system testing complete
 - New Filter Building
 - Salt Reduction Building
- Operational readiness phase underway
 - Training & qualifying operators, integrating procedures, facility test runs
- On pace to be operational in 2026



Above: Filter banks inside the SSCVS New Filter Building
Inserts: Filter fan control panel (above), systems testing (below)

New Utility Shaft and Plant Upgrade Projects



An underground continuous mining machine prepares to mine salt at the new utility shaft



Work begins in the WIPP underground to refurbish the salt loading pocket infrastructure

■ New Utility Shaft Project

- Providing higher-capacity air intake for the underground in conjunction with SSCVS
- Shaft sinking and station development complete, horizontal connection to mine anticipated in January 2025

■ Other Plant Projects

- Salt pocket refurbishment project underway
- Planning for future hoisting upgrades and capabilities

Economic Impact on New Mexico

- **\$77 million** spent in subcontracts and procurements in 2023
- **\$6.3 billion** in project investment since WIPP operations began
- **1,700 jobs** provided in New Mexico



Stakeholder Outreach

We strive to build trusted relationships through honest and transparent communication and active engagement throughout New Mexico



2024 progress

- United Way Giving Campaign underway, STEM events for K-12 schools
- Employee directed grants to local non-profits
- Active in Carlsbad, Hobbs, Albuquerque chambers of commerce
- WIPP 25th Anniversary events
- Gearing up for second-annual DOE Regional Science Bowl
- Maintaining stakeholder tour program

Left: Underground tour hosted for Oregon Department of Energy team members
Inserts: SIMCO earns Carlsbad Police Chief's Award (left): WIPP holds 25th Anniversary Community Celebration (middle): SIMCO's Employee Community Investment Committee awards \$75,000 in grants to non-profits

Career Opportunities



Carlsbad Field Office

<https://wipp.energy.gov/cbfo-careers.asp>



SIMCO

wipnm.hrmdirect.com



NAVARRO

<https://careers.navarro-inc.com>





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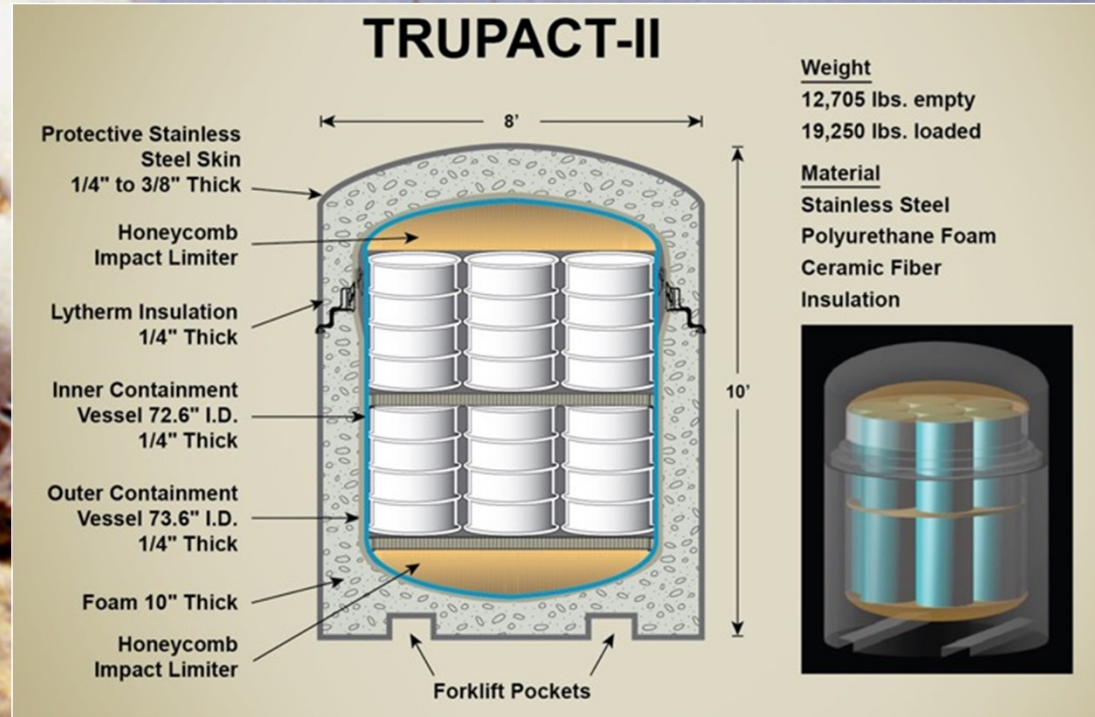
QUESTIONS?



Safe Transportation

TRUPACT Testing Requirements

- TRUPACT-II, TRUPACT-III, HalfPACT & RH-72B CASKS must be certified to:
- 30 foot drop onto a flat, unyielding surface
- 40 inch drop onto a 6 inch diameter steel rod at least 8 inches long
- 1,475 degrees F for 30 minutes
- Immersion test equivalent to external pressure under 50 feet of water



Driver Requirements

- Must be a U.S. citizen
- Must have 325,000 miles in last five years/100,000 per year in two of last five years
- Must not have repeated chargeable incidents, moving violations, or a single DWI/DUI in their private vehicles
- Must not have been charged with a moving violation in a commercial vehicle in last five years
- Must pass background check



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