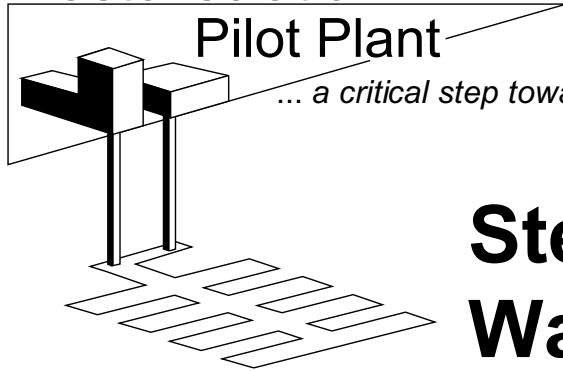


## Waste Isolation



*... a critical step toward solving the nation's nuclear waste disposal problem*

# Step-By-Step Guide for Waste Handling at WIPP

The handling and disposal of contact-handled transuranic waste at the Waste Isolation Pilot Plant (WIPP) involves a series of steps. The following is an overview of those steps.

- A waste shipment arrives at the WIPP by tractor-trailer. Each tractor-trailer is capable of carrying up to three Transuranic Packaging Transporter Model IIs (TRUPACT-IIs) or HalfPACT's.
- Upon arrival the tractor trailer and TRUPACT-IIs/HalfPACT's undergo a security inspection, a radiological survey, and a shipping documentation review.
- Once the shipment checks are completed, the tractor-trailer will be parked near the Waste Handling Building for additional inspection and radiological survey.
- A forklift is used to transfer each TRUPACT-II/HalfPACT from the trailer, through an air lock, and into the Waste Handling Building.
- Inside the Waste Handling Building, each TRUPACT-II/HalfPACT is placed in a TRUDOCK, which holds the shipping container in place while workers unload the waste.
- An overhead crane is used to remove the TRUPACT-II/HalfPACT lids.
- Radiological surveys are conducted throughout the waste handling process to confirm waste containers have not sustained damage during shipment or waste container removal.
- The overhead crane then removes the waste containers from the TRUPACT-II/HalfPACT and places them on a facility pallet. The three different waste container configurations are two seven-packs (55-gallon steel drums configured in seven packs), two standard waste boxes, or one ten-drum overpack.
- A forklift moves the loaded facility pallet to the conveyance loading car inside the air lock at the waste handling shaft.
- The conveyance loading car is used to load the facility pallet onto the waste hoist (mine elevator).
- The waste hoist descends 2,150 feet to the WIPP repository.

- An underground transporter pulls the loaded facility pallet off the hoist onto the transporter bed and moves the waste to the appropriate disposal room.
- A forklift removes the waste containers from the facility pallet and moves the waste to the disposal area.
- Bags of magnesium oxide are placed on top of and around the containers to serve as backfill. The magnesium oxide will control the solubility of radionuclides and is an added measure of assurance to long-term repository performance.



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