



Los Alamos National Laboratory TA-54 Area G Fact Sheet



CAMPAIGN
TRU Waste Management at Area G

LOCATION
Area G, which covers 63 acres, lies inside Technical Area 54 at Los Alamos National Laboratory

PROJECT ACTIVITIES
Store, remediate and ship LANL's legacy transuranic waste to the Waste Isolation Pilot Plant

PROJECT GOAL
Ensure contaminated waste from past LANL operations do not threaten human health and the environment

HISTORY

Technical Area 54 (TA-54) is the legacy waste management area at Los Alamos National Laboratory (LANL). Opened in 1957, Area G is a site within TA-54 that contains legacy radioactive waste disposal areas. This site includes 32 pits, 194 shafts and four trenches with depths ranging from 10 to 65 feet below the original ground surface. Area G is now dedicated to storing, characterizing and remediating LANL's legacy transuranic (TRU) and low-level waste before it's shipped off-site for permanent disposal.

JULY 2023 STATUS

Since May 2018, N3B has

- ✓ Completed 165 shipments of transuranic (TRU) waste totaling 526.35 cubic meters to WIPP.
- ✓ Shipped off-site more than 11,900 cubic meters of low-level and mixed low-level radioactive waste for disposal.

SAFETY SYSTEMS

The TRU waste containers are stored in domes equipped with fire detection and air monitoring systems. The containers are routinely monitored and inspected. TRU waste from LANL's legacy defense-related activities is disposed deep underground at the Department of Energy's Waste Isolation Pilot Plant (WIPP) in southeastern New Mexico. Prior to shipment, the containers and their contents are independently, non-destructively analyzed and certified under a state- and Environmental Protection Agency-approved program to confirm that containers meet the WIPP Waste Acceptance Criteria.



Waste Storage Domes at Area G

TRU WASTE

TRU waste is radioactive waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years. Transuranic elements are those with a higher atomic number than uranium (92).

CORRUGATED METAL PIPES

In 2022, N3B initiated retrieval and size-reduction operations for 158 corrugated metal pipes (CMPs). In 1986, the CMPs, containing cemented radioactive waste, were buried in Area G. The waste comes from a former LANL radioactive liquid waste treatment facility at TA-21 that operated during the Cold War era. Each CMP is 20 feet long and weighs between 10,000 and 14,000 pounds. The CMPs must be retrieved and cut into five pieces. Each piece is loaded into a standard waste box and will be characterized and certified prior to shipment off-site.

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SHIPPING WASTE OFF-SITE

TRU waste containers destined for WIPP, such as drums, standard waste boxes and 10-drum overpacks, are secured inside shipping containers that meet strict Nuclear Regulatory Commission requirements and testing under extreme conditions. Work at Area G also includes shipping mixed low-level waste and low-level waste to off-site disposal facilities.

BY THE NUMBERS

2,025

Number of TRU waste containers in above-ground inventory.

40

Projected number of shipments per year.

158

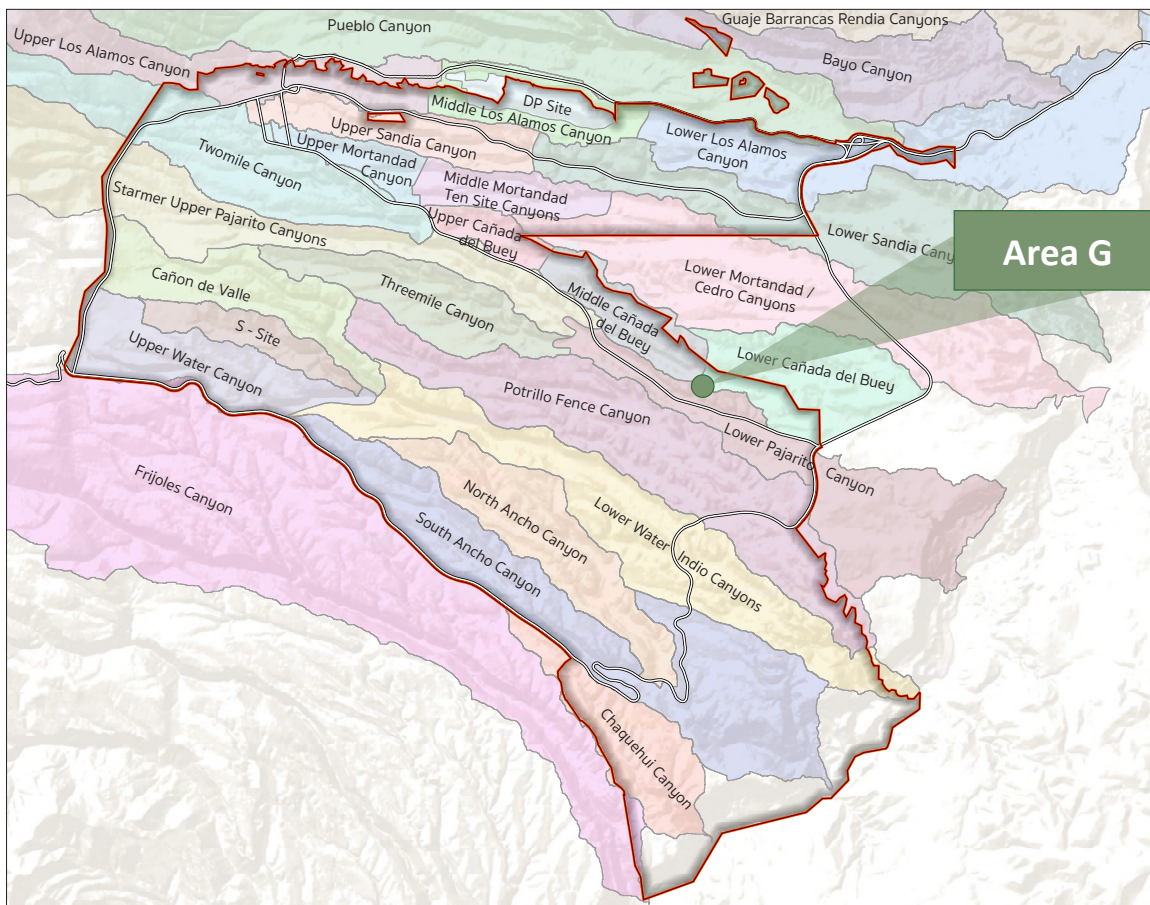
Number of corrugated metal pipes to be retrieved, reduced in size, characterized and certified, and packaged for off-site disposal.

WIPP WASTE ACCEPTANCE CRITERIA

LANL and other generator sites must comply with criteria regarding the storage, transportation and disposal of contact-handled TRU waste at WIPP. The criteria are implemented and verified to ensure that waste management and disposal adequately protect human health and the environment.

BELOW-GROUND TRU WASTE AT AREA G

Preparations are underway to begin retrieval of TRU waste buried at Pit 9, a former waste disposal site. Pit 9 contains an estimated 3,882 metal drums, 191 fiberglass-reinforced plywood boxes, and six other containers. Retrieval is scheduled to begin in late 2026.



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