



Idaho Cleanup Project Success Stories

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[Click here to view the 30 Years of Cleanup Success at the Idaho National Laboratory Site video](#)



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Integrated Waste Treatment Unit

Recent Simulant Run Confirmed Re-designed Unit Will Treat Waste

- Sustained operations on simulated waste for over 50 days; longest plant operations to date
- Processed over 63,000 gallons of simulant
- Completed 14 of 14 test conditions
- Process controls proved effective
- No major equipment malfunctions or failures
- Verified satisfactory performance at baseline and boundary conditions



Canister decontamination robot arm



Refractron filter test at Hazen Facility

Preparing for Rad Operations

- PGF replacement media evaluation and selection completed
- PGF filter design modifications and long term testing at Hazen
- Integrated system testing of canister decontamination system.
- Initiated installation of the cell wet/dry decon system



Buried Waste Exhumation



From 1954 to 1970, mixed waste was buried in unlined pits and trenches (left). Over the last 15 years, targeted buried waste has been exhumed in enclosures like the ARP-IX facility shown below.

Buried Waste Mission Near Completion

- Under agreement with State of Idaho, DOE exhuming “targeted” buried waste – that with largest concentrations of plutonium and hazardous chemicals
- As of 08/01/19, 9,077 cubic meters of buried waste have been exhumed and repackaged for offsite disposal – 121 percent of 7,485 required under the agreement with the State
- As of 08/01/19, waste exhumed from just over 5 acres – the agreement requires exhumation from 5.69 acres; Anticipate completing ~1 year – almost 2 years ahead of our baseline schedule
- Using a vapor vacuum extraction process, removed and destroyed 256,371 pounds of organic vapors from the subsurface.



Ultimate Remedy

- Regulators approved final design of a trans-evaporation “cap” consisting of native soils and vegetation that will cover the entire Subsurface Disposal Area once exhumation is complete 4 months ahead of the milestone



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Solid Waste Treatment and Disposal--AMWTP

Advanced Mixed Waste Treatment Plant (AMWTP) was constructed to allow retrieval and treatment of stored waste.



From 1970 to 1984, transuranic and mixed low-level waste that arrived from Rocky Flats and other sites was stacked on an asphalt pad and eventually covered with an earthen berm.



A supercompactor was used to apply over 4 million pounds of pressure on waste drums, greatly reducing the volume of waste to be shipped and disposed at WIPP.

- 264,964 compactions resulting in 54,325 100-gallon product drums
- 59,795 cubic meters of Idaho Settlement Agreement waste dispositioned offsite.
- 6,023 cubic meters of exhumed targeted waste shipped to WIPP.
- 97% plant availability since commissioning



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Solid Waste Treatment and Disposal (continued)

AMWTP Safety

- Average 46,000 safe RadWorker entry hours/yr into high risk and highly contaminated areas
- Safely completed 644,322 container movements in the past 4 years
- Safely shipped 5,993 shipments of CH waste to WIPP



Thousands of boxes and drums, some badly deteriorated, were safely retrieved at the Transuranic Storage Area/Retrieval Enclosure over a period of about a dozen years (above).
Left, more than 14,500 drums were removed to get to this, the last drum stored in a cargo container, that was retrieved in late 2016.



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[Click here to view the Mission Accomplished: Advanced Mixed Waste Treatment Project video](#)



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