

# Idaho Cleanup Project Success Stories

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<u>Click here to view the 30 Years of Cleanup Success at the Idaho National Laboratory Site video</u>

Idaho Cleanup Project

# **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

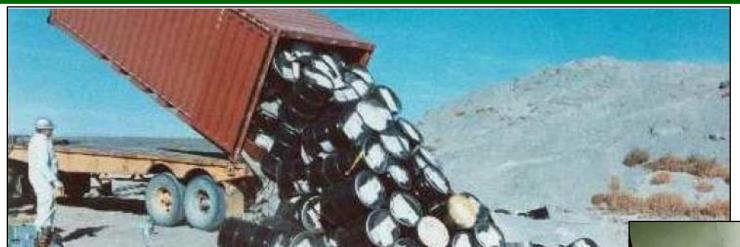


## **Preparing for Rad Operations**

- 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

Refractron filter test at Hazen Facility

## **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



Emvironmental Management

## **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

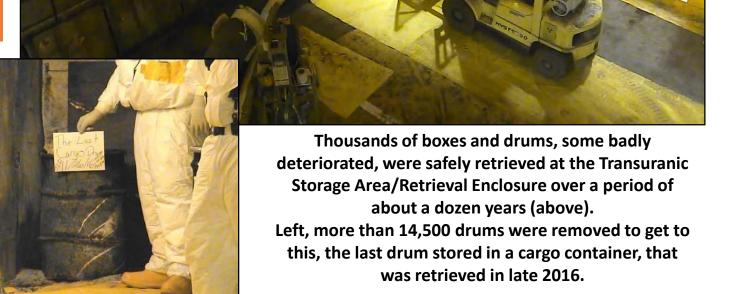


M Environmental Management

# **Solid Waste Treatment and Disposal (continued)**

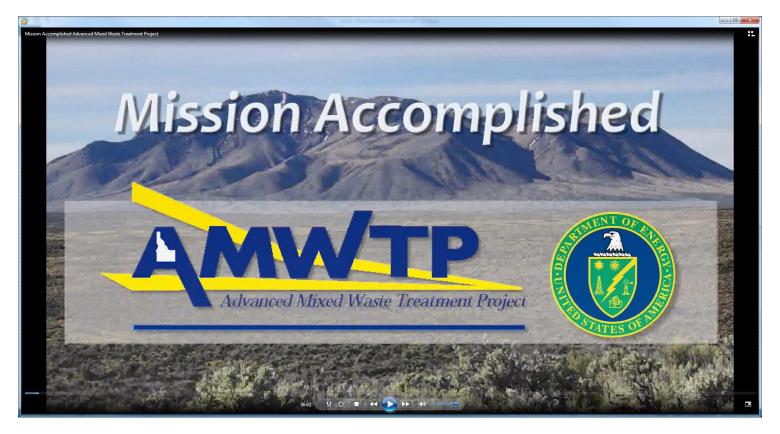
# **AMWTP Safety**

- 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









Click here to view the Mission Accomplished: Advanced Mixed Waste Treatment Project video

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