



Idaho Treatment Group

Update for the Advanced Mixed Waste Treatment Project

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Advanced Mixed Waste Treatment Project
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AMWTP Inventory

- From 1952 to 1970 transuranically-contaminated solid wastes and low-level wastes were buried in a series of pits and trenches located within the Radioactive Waste Management Complex (RWMC) in the Subsurface Disposal Area (SDA) of what is now the INL.
- In 1970, burial of the transuranic-contaminated waste was discontinued and above-ground storage initiated at what is today AMWTP.



The start of above-ground transuranic waste storage in 1970s. Today, this site is covered by the Transuranic Storage Area-Retrieval Enclosure at AMWTP.



Original Waste Placement



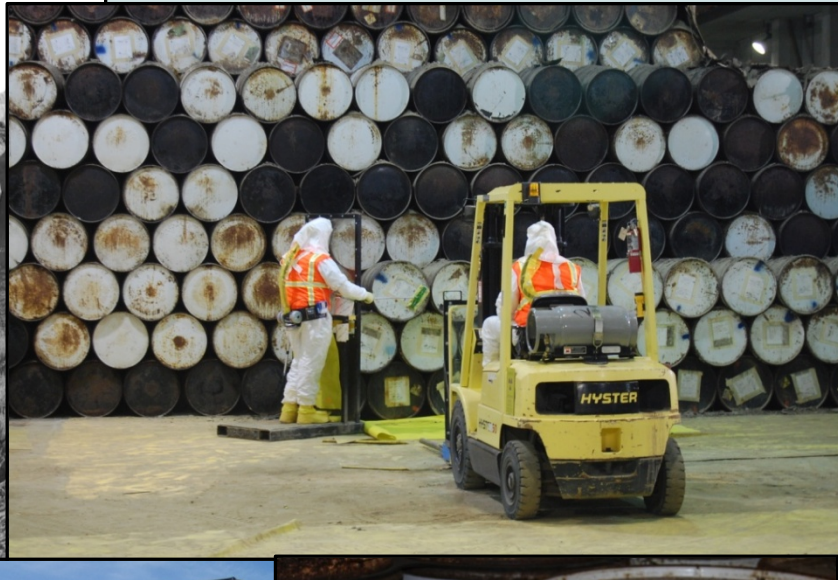
Early storage at Pad R

71-5066

Early placement of transuranic waste storage drums and boxes from Rocky Flats



AMWTP Experience



- Multiple types and sizes of containers; boxes, bins, drums
- Severely degraded containers
- Prohibited items; pressurized cylinders; liquids; sealed internal containers; excessive decay heat; excessive fissile content; excessive plutonium equivalent curie content
- Pyrophorics
- PCBs
- RH components



AMWTP Facts

- Employee Count: 620 (Plant, 557; Town, 63), operating 24 X 7 X 365
- ITG employees have safely worked over 3 million hours without lost time injury; more than 15.8 million hours since Dec. 2003...TEN YEARS!
- AMWTP has shipped more than 52,200 cubic meters of legacy TRU and MLLW since May 1, 2005



1 = Retrieval
3 = Storage
5 = Payload & Shipping

2 = Characterization
4 = Treatment



Solid Performance In FY13

- July 2013 ITG's Integrated Safety Management System validated
- Working with DOE Idaho Operations and Carlsbad Field Office, and New Mexico and Idaho regulators received approval to use supercompaction as treatment for prohibited items and eliminated WIPP requirement for sampling analysis of waste
- Seven consecutive successful WIPP recertification audits and eight successful Nevada National Security Site evaluation
- Increased production by 36 percent over FY12, exceeding baseline and shipping 4,482 cubic meters of transuranic and MLLW waste out of Idaho



Top, box retrieval work inside AMWTP Retrieval Containment Enclosure.

Below, another AMWTP shipment arrives at WIPP.



New Improvement Initiatives

- ITG introduced Operational Excellence Program where workforce driven improvements are implemented
- New soft-sided box design proves safe, economical alternative to traditional metal cakebox
- Eliminated unnecessary waste sampling
- Despite funding allocation loss and recent WIPP outage we are targeting an additional 38% increase in production for FY14.
- 112 certified shipments in storage



Employees retrieve a degraded wooden box using an employee-designed Box Retrieval Forklift Carriage (BRFC). Below, employees wrap degraded box with new soft-sided overpack used for deteriorating wooden boxes.

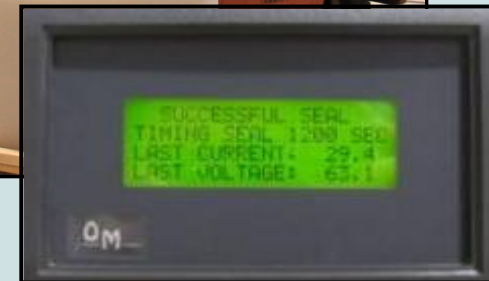


Macroencapsulation

- New on-site LDR treatment (macroencapsulation) program started operations August 1, 2012
- HDPE liner (macro-pack) loaded with certified product drum
- Capability of treating up to eight drums per hour
- Treated 2,282 product drums, 875 cubic meters, through January 2014 with no rejects

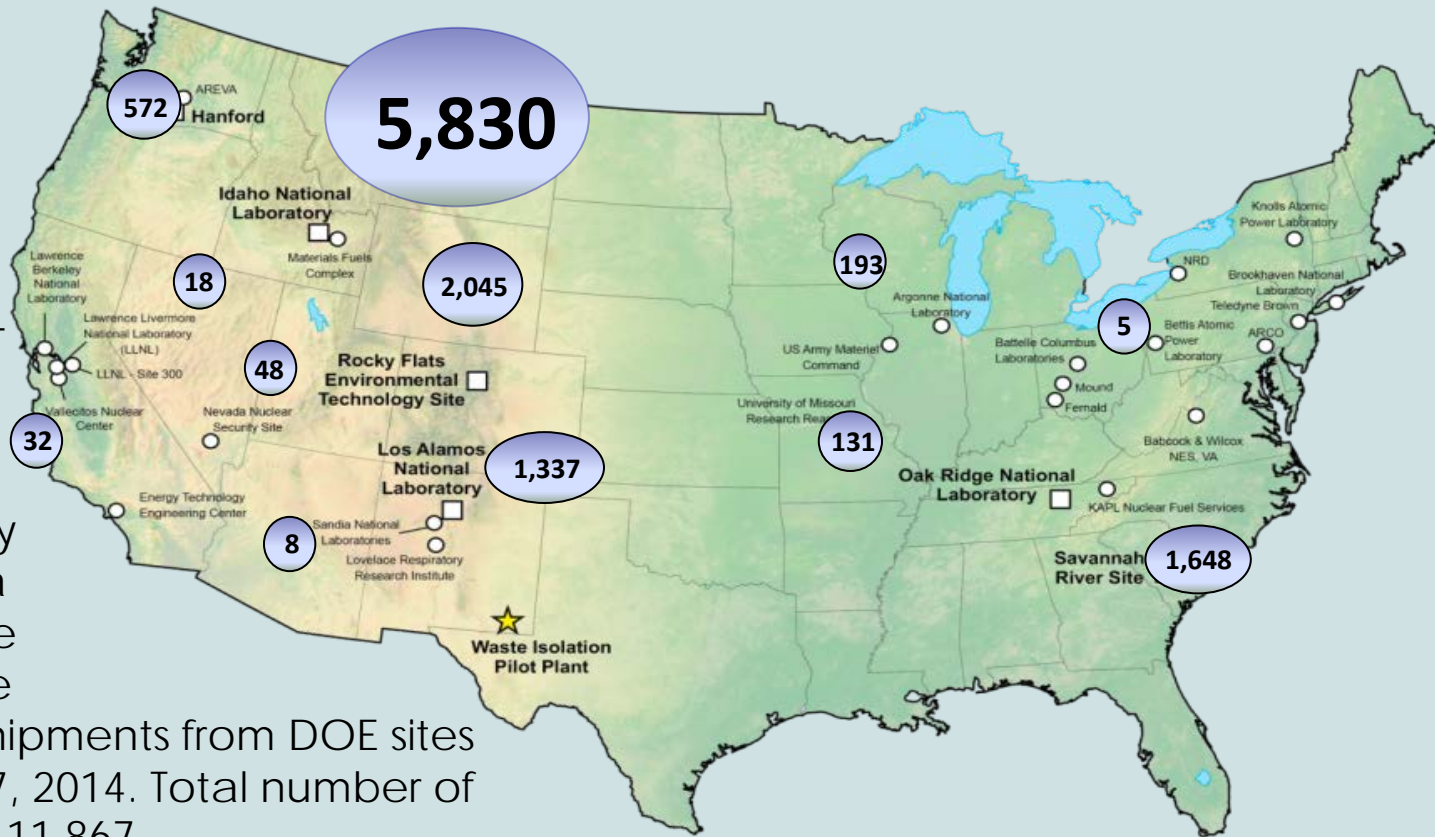


A product drum containing Mixed Low-Level Waste is lowered into a high density polyethylene "macro-pack." The lid of the macro-pack contains heating wires. An electric current is sent through the wires to permanently seal the container.



ITG Idaho Treatment Group

Fulfilling DOE's Mission



- DOE's primary shipper to WIPP; an essential asset for processing transuranic contact-handled waste; Mixed low-level waste from AMWTP permanently disposed at Nevada National Security Site and the Clive, UT site
- Transuranic waste shipments from DOE sites to WIPP as of Jan. 27, 2014. Total number of shipments to WIPP is 11,867.



AMWTP: A National Asset

“AMWTP...The distinguishing feature of the AMWTP is its unique capability to process hazardous material. As this facility is a national asset, it could potentially be used inside the DOE Complex as a strategic resource — for example, to sort, characterize, and repackage similar mixed waste at other DOE sites — once the INL site cleanup effort is completed.”



First shipment of transuranic waste from Los Alamos National Laboratory arrives at AMWTP on Nov. 18, 2013