



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Status of Idaho Settlement Agreement

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U.S. DEPARTMENT OF
ENERGY



The Bottom Line

- DOE has completed 45 ISA milestones
- DOE is currently out of compliance with two ISA milestones
 - 1) completing treatment of 900,000 gallons of liquid radioactive waste
 - 2) shipping an annual rolling average of 2,000 cubic meters of transuranic waste out of the State of Idaho for disposal
- As a result of being out of compliance, DOE cannot receive spent nuclear fuel for research or storage purposes

DOE's Commitment to the ISA

- Protecting our workers, the public and the Snake River Plain Aquifer have always been our highest priorities
 - The ISA, along with other compliance agreements, reflects those priorities
- Since the ISA was signed in 1995, DOE has invested ~\$9 billion in cleanup and waste management activities in Idaho
- DOE has constructed several major facilities during that time to facilitate cleanup and waste management activities
 - Advanced Mixed Waste Treatment Facility
 - Integrated Waste Treatment Unit
 - Nine Accelerated Retrieval Project retrieval facilities

TRU Waste

- AMWTP was completed and began operations by the ISA milestone of 3/27/03
- Over 54,000 cubic meters of waste (including MLLW) has been safely disposed out of state



**Idaho is the largest shipper of
waste to WIPP by far**

Success Stories (continued)

Buried Waste Retrieval

Excavation of targeted buried waste is about two years ahead of regulatory schedule, with 4.71 acres excavated to date



Success Stories (continued)

Liquid Waste Tank Closure

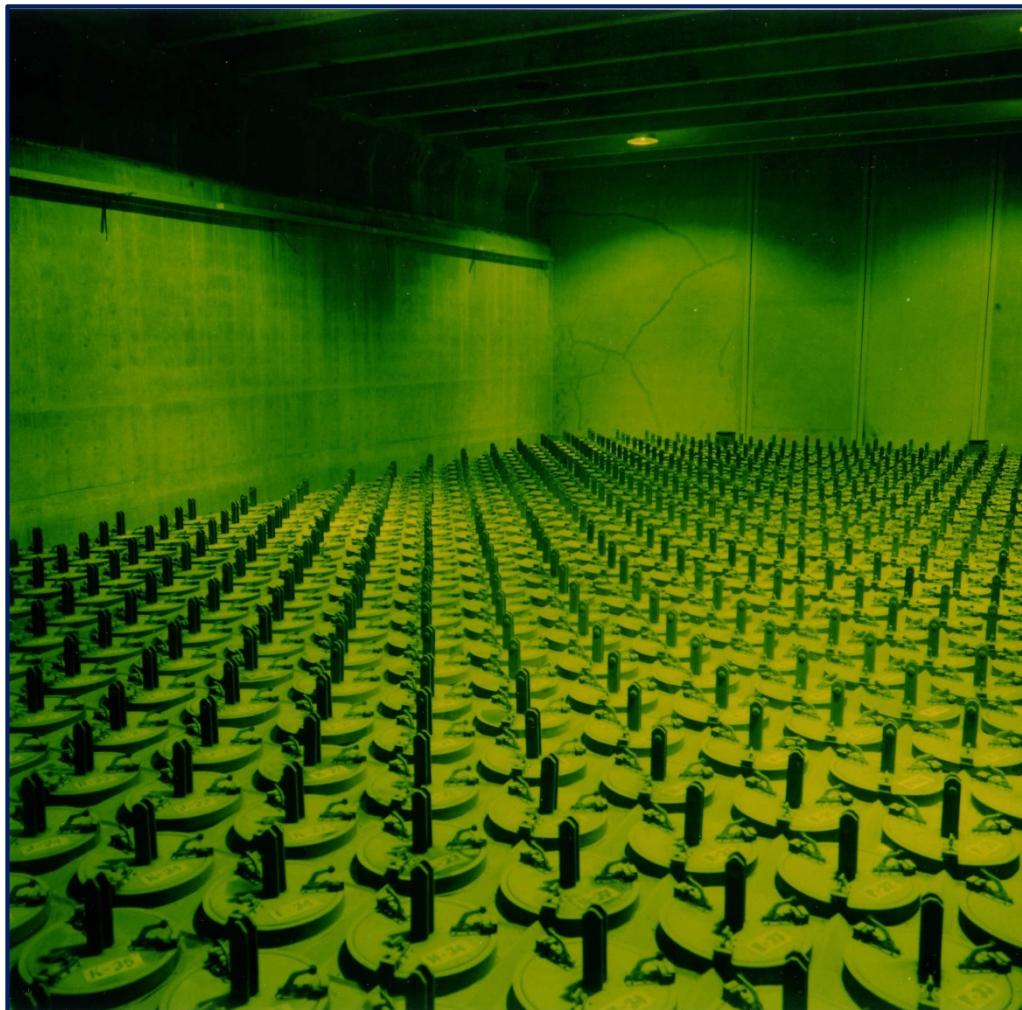
- 11 of 15 high-level liquid waste tanks have been emptied, cleaned, and closed
- The liquid waste inventory has been reduced from 2 million gallons to 900,000



Success Stories (continued)

Spent Fuel Storage

- We have closed 5 storage pools on site, and about 98 percent of spent fuel on site (by MTHM) is now dry stored
- Only one storage pool is still in service
- All EM-managed SNF has been moved to dry storage
- We are on target to move the remaining fuel to dry storage by the 2023 ISA milestone



A Comparison

Prior to 1995

- 65,000 cubic meters of transuranic or mixed low-level waste in non-compliant storage conditions
- None of the buried waste had been exhumed; and there was no plan to do so
- 15 tanks contained high-level liquid waste on site
- 5 spent nuclear fuel storage basins that did not meet current seismic or leak protection standard

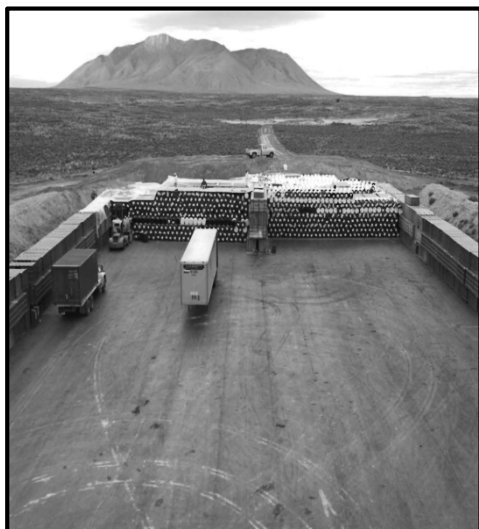
Today

- Over 80% of the stored transuranic or mixed low-level waste has been safely disposed out of state; all the buried transuranic waste has been retrieved and is stored in compliant facilities
- Over 7,500 cubic meters of targeted buried waste has been exhumed; over 240,000 pounds of hazardous chemical vapors have been extracted from the burial ground
- 11 of 15 high-level liquid waste tanks have been emptied, cleaned and closed
- 5 spent fuel basins have been closed; the 1 remaining pool meets modern standards

Before and After: Stored TRU Waste



TRU waste was piled on plywood and covered with dirt (left), or stored in a non-compliant air support building (below)



Top right photo shows last box of stored waste being retrieved for repackaging and ultimately off-site disposal. Immediately above, Gov. Otter stands in front of newly-repackaged waste, now stored in fully compliant manner.

Before and After: Buried Waste



Between 1954 and 1970, transuranic waste was disposed in unlined pits and trenches at the Subsurface Disposal Area (left).

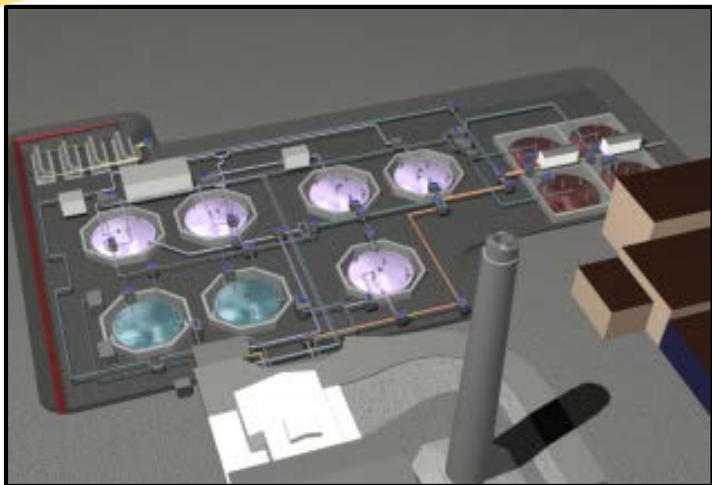


At left, a video camera tracks the excavation of targeted buried waste from the SDA.

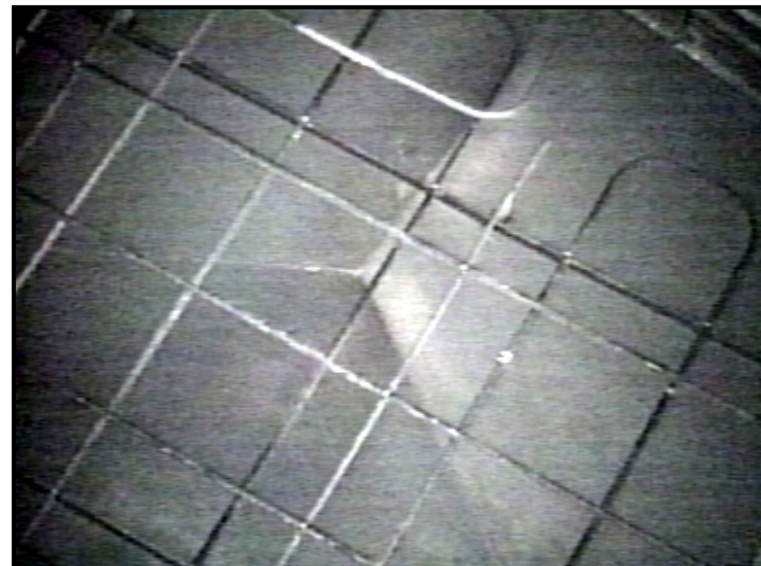
At right, workers sort the waste, with the targeted waste ultimately repackaged and shipped to WIPP for disposal



Before and After: Liquid Waste



Fifteen high-level liquid waste tanks contained about 2 million gallons of waste. (above).



11 of 15 tanks have been emptied, cleaned (above and right) and grouted (left).

The volume of liquid waste remaining is 900,000 gallons.



Before and After: Spent Fuel



Above and left, SNF is removed from pools around the site and consolidated in dry storage (right).



Spent fuel used to be stored in 6 pools around the site, many of which were aging and did not meet current seismic and leak detection requirements (left – TAN storage pool). Five of the pools have been emptied and closed, and 98 percent of SNF on site (by MTHM) is dry stored.



Challenges Remain

Transuranic Waste

- The temporary closure of WIPP and reduced rate of shipments presents challenges
 - DOE missed the requirement to ship an annual rolling average of 2,000 cubic meters of transuranic waste to WIPP since 2014
 - Milestone to remove all of the remaining transuranic waste from the state by the December 31, 2018 ISA milestone date is at risk

Liquid Waste

- Delays with start-up of the Integrated Waste Treatment Unit caused DOE to miss the deadline to complete treatment of the 900,000 gallons of liquid radioactive waste by December 31, 2012

Spent Nuclear Fuel

- The unavailability of a repository makes it difficult to plan for the treatment and removal of all spent nuclear fuel from the state by 2035

High-Level Waste

- The unavailability of a repository also makes it difficult to determine what treatment is necessary in order to make the high-level waste ready for shipment and disposal outside the state by 2035

Summary

- Since 1995, the DOE has met 95.7 percent of the ISA milestones and 98.5 percent of all cleanup milestones (i.e., Federal Facility Agreement and Consent Order, Site Treatment Plan, etc.)
- With a combined \$9 billion, long-term investment in cleanup and waste management, the Snake River Plain Aquifer is considerably safer today
- While challenges remain with meeting existing and future ISA milestones, DOE will explore all options possible to keep its commitments to the citizens of Idaho