Idaho Cleanup Project Update

Leadership in Nuclear Energy Commission

Oct. 2, 2019

Jack Zimmerman, Manager, Idaho Cleanup Project

Integrated Waste Treatment Unit

Outage J

- Primary focus is to optimize facility for sustained radiological operations
- Completed can fill decontamination system integrated system testing
- Wet/dry vessel and cell decontamination modifications underway
- Phase 3 Part B (can fill decontamination and wet/dry decontamination modifications) cost estimates under DOE review

Canister decontamination robot arm

PGF Filter

- PGF design modifications
- PGF Refractron ceramic filter long term testing at Hazen preparations underway

Buried Waste Exhumation

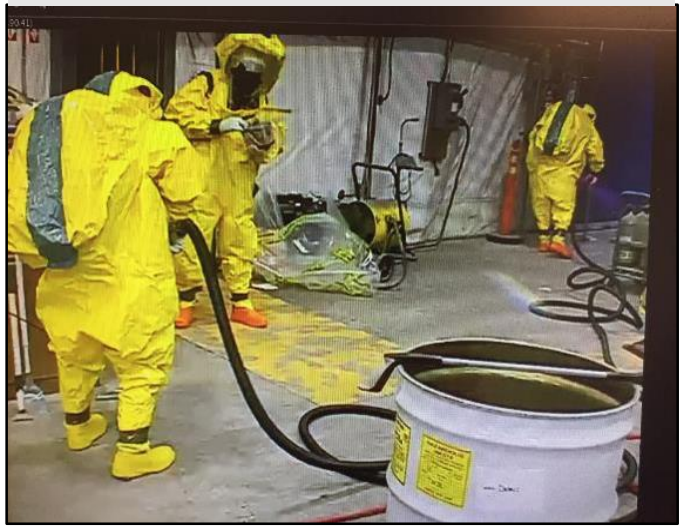
Waste exhumation (acres) as of Sep. 15, 2019 - Buried waste exhumation in ARP IX is ongoing. Exhumation remains about two years ahead of the regulatory schedule and is 90% complete overall.

Solid Waste Disposition

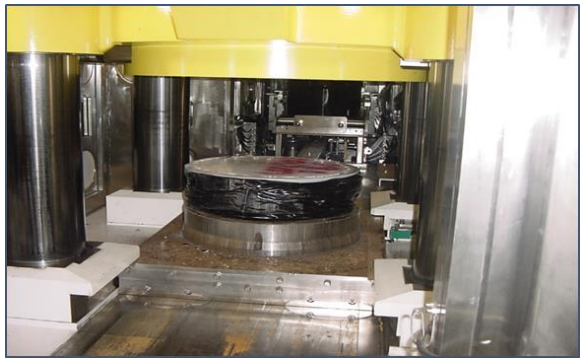
Transuranic Waste Program:

- Accelerated Retrieval Project (ARP) V facility clean-up from April 11, 2018 event is complete.
  - DOE-ID is working with Fluor and the Idaho DEQ on a RCRA Closure Plan for ARP V and transfer of the Sludge Repackaging process to ARP VII.
- AMWTP treatment of Idaho Settlement Agreement debris waste is nearing completion.
- Certification of CH-TRU waste continues.
- CH-TRU shipments to WIPP continue at 6-8 shipments per week.

Below: Crews used specialized vacuums early in the cleanup process to remove contaminants from the floor within ARP V.



Right: CH-TRU Waste after compaction

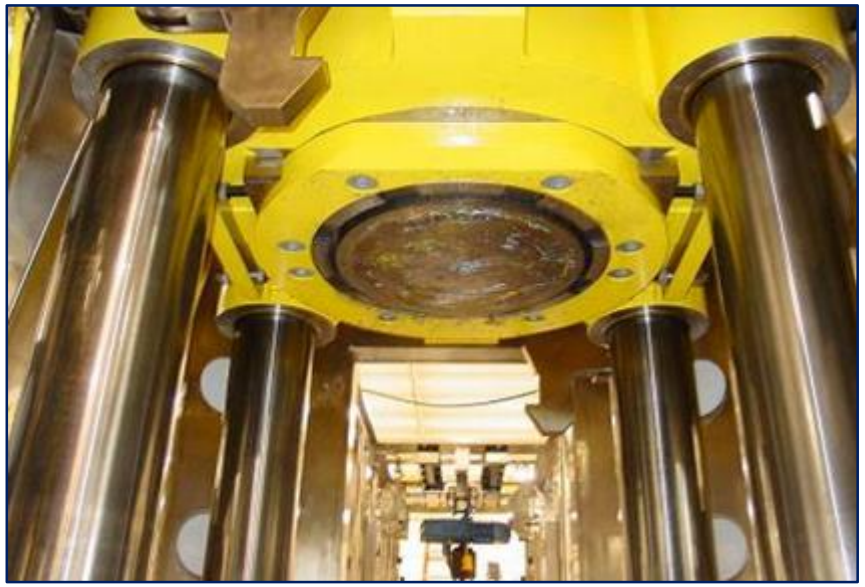


Right: CH-TRU Waste waiting for shipment to WIPP for disposal Estimated 4 shipments of TDOPs, and 15 shipments of loose drums (~51 m^3)

Solid Waste Treatment and Disposal--AMWTP

Advanced Mixed Waste Treatment Plant (AMWTP) was constructed to allow retrieval and treatment of stored waste. Facility is nearing the completion of its treatment mission.

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.

Spent Nuclear Fuel Management

- On target to meet 2023 deadline to move all spent fuel into dry storage.
- Preparing to begin transfers of EBR-II fuel from CPP-666 to storage facility at Materials and Fuels Complex.
- Will begin mitigation actions to address water seepage/condensation issues at CPP-749.
- Recently received license renewal for Three Mile Island dry storage facility from NRC.

EBR-II fuel elements arrayed in a diver fuel assembly

Waste package loading at RSWF, MFC-771

Summary

- AMWTP's debris waste treatment mission is nearing completion but shipping waste to WIPP will continue for several more years
- Buried waste exhumation should be complete late next year
- Closure of AMWTP and demolition of the ARP structures will be carefully coordinated with the landfill cover construction
- IWTU progressing toward start-up
- Strong partnership with DOE and State of Idaho enabling significant progress in completing cleanup in Idaho.