



Idaho Cleanup Project Update

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Leadership In Nuclear Energy Commission



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

COVID-19 Impacts to Cleanup Efforts

Impacts

- Diminished operational efficiency due to social distancing, barriers and quarantines

Progress

- Continuing spent nuclear fuel transfers as scheduled
- Meeting transuranic waste shipping per WIPP schedule
- Maximizing telework and implementing additional safety measures for ongoing operations
- Maintaining operations in accordance with current requirements and conditions



Progress in Cleanup: Transuranic Waste

- Completed 6,500 total shipments from Idaho to WIPP
- Continue to ship mixed low-level waste offsite for disposal
- Closure underway for Transuranic Storage Area Retrieval Enclosure (TSA-RE)
- Sludge waste processing at ARP VII and Box Line facilities
- Status of remaining 5,700 m³ from original 65,000 m³:
 - 500 m³ to treat
 - 3,900 m³ to certify
 - 1,300 m³ ready to ship



TSA-RE before start of RCRA Closure



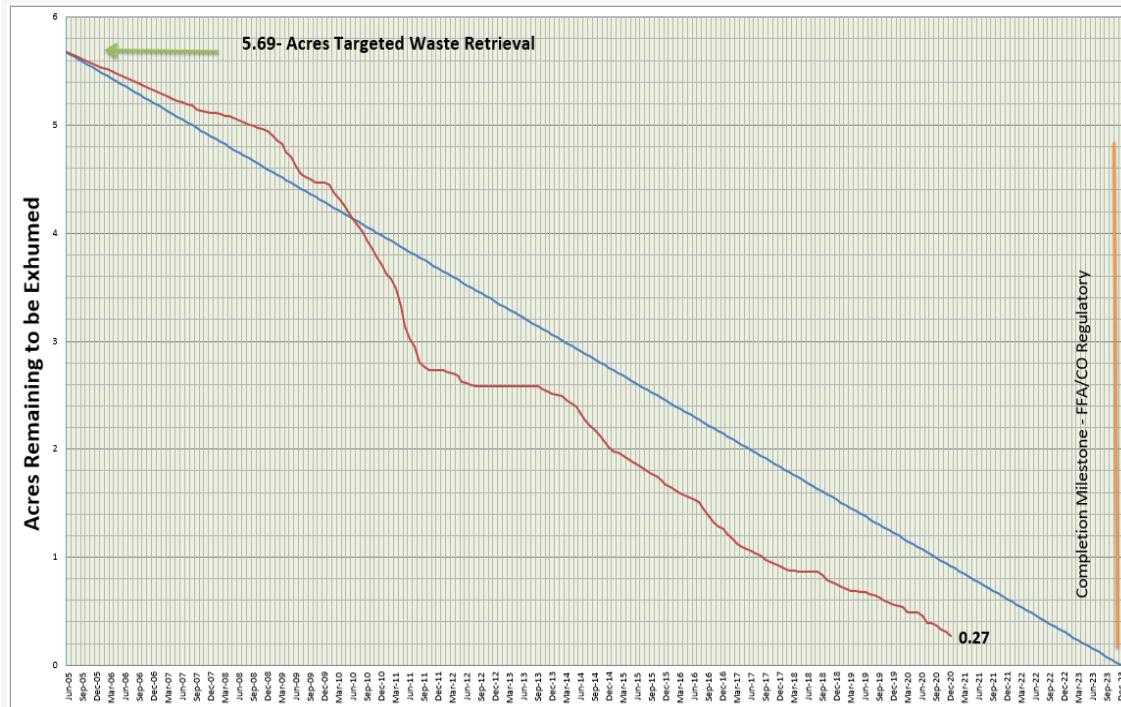
RCRA Closure Activities within TSA-RE



Progress in Cleanup: Buried Waste



ARP IX is the final area for exhumation of targeted buried waste



5.42 acres completed with 0.27 acres remaining (as of Dec. 31, 2020)



Removal of ARP I&VI foundations within ARP IX



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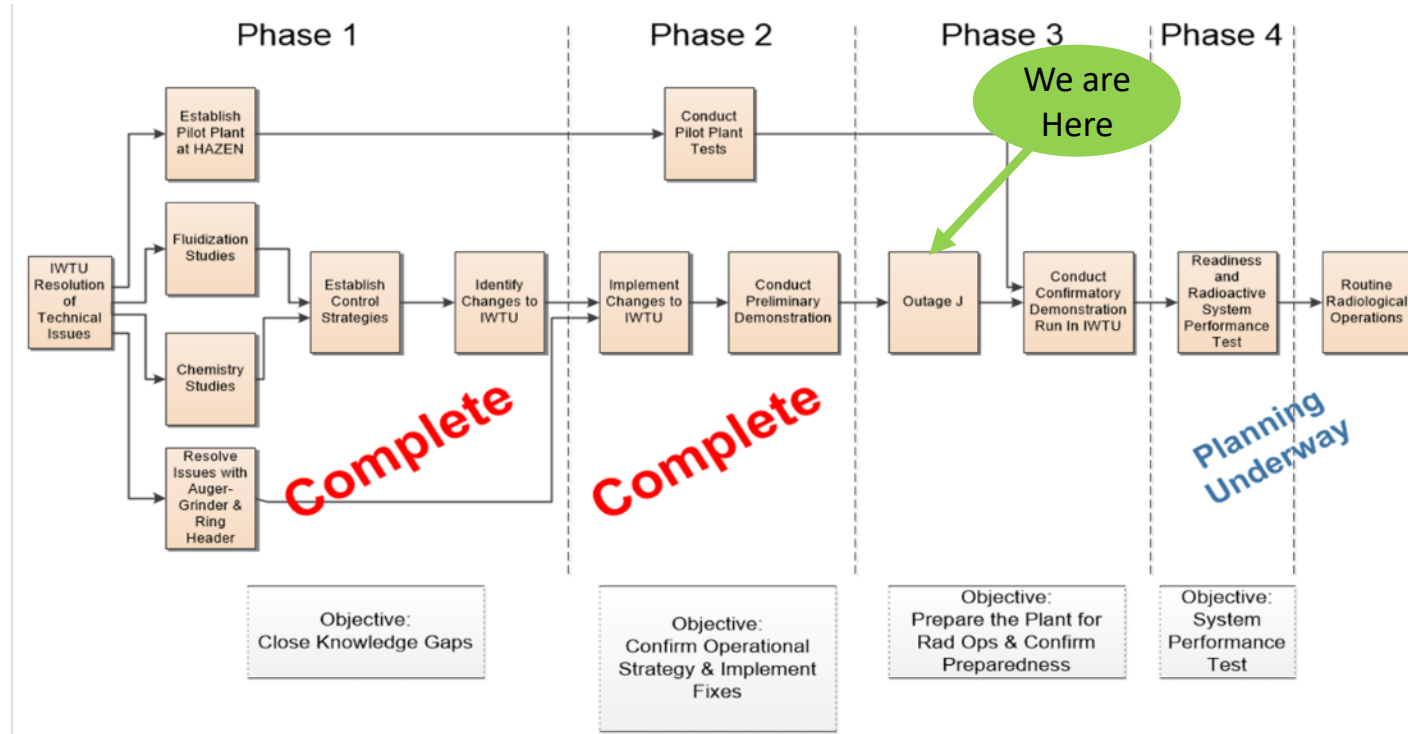
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Idaho Cleanup Project

Progress in Cleanup: Sodium Bearing Waste

Integrated Waste Treatment Unit (IWTU)

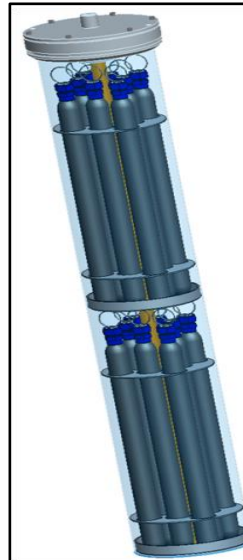
- A four phased approach to achieve radiological operations
- Each phase scope of work negotiated separately due to the discrete nature of the work and builds upon previous phase results



Progress in Cleanup: Spent Nuclear Fuel



Top of Peach Bottom basket during inspection



EBR-II Fuel

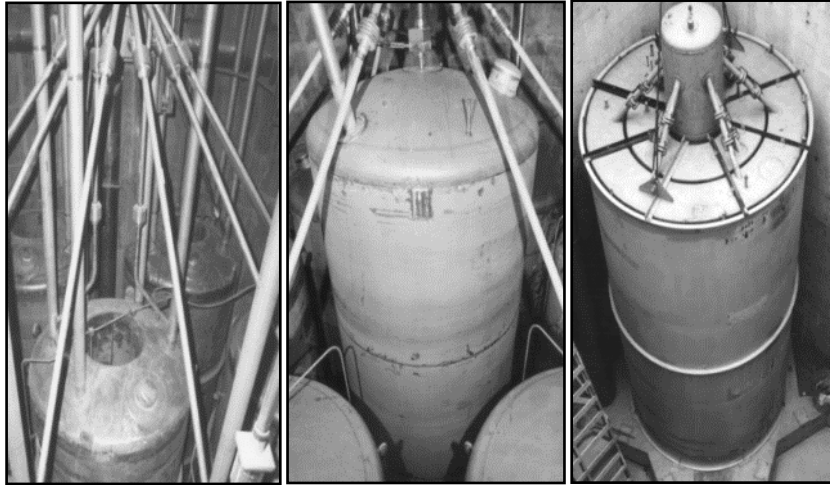


HFEF-14 Fuel Transfer Cask

- Advanced Test Reactor and Experimental Breeder Reactor-II transfers to dry storage on track for 2023 commitment
- Engineering and planning for Peach Bottom fuel transfers from Gen-1 to Gen-2 storage vaults
- Supporting DOE-ID Spent Nuclear Fuel Packaging Demonstration Project
- NR Core Cartridge Fuel Assembly – proceeding with engineering work



Progress in Cleanup: High Level Waste (Calcine)



Bin Set Configurations



Retrieval Demo Infrastructure

- Testing various canister fill mechanisms
- Testing of calcine retrieval systems
- Updating Analysis of Alternative for path forward



Bin Set 1 mockup



Summary

- Committed to safe and sustainable COVID operations
- IWTU preparing for readiness assessment and confirmatory run
- Transuranic waste continues steady progress
- Buried waste exhumation on track to complete well ahead of the 2023 regulatory milestone
- Strong engagement between DOE and the State of Idaho supports significant cleanup progress

