IDAHO CLEANUP PROJECT

"I am so proud of the sustained high performance of the Idaho Cleanup Project crews this year, particularly in the areas of TRU shipments, Accelerated Retrieval Project demolition, and Naval Reactors demolition and dismantlement. Most notably, in 2023, we celebrated the spent nuclear fuel wet-to-dry campaign nine months ahead of the 1995 Idaho Settlement Agreement milestone and initiated sodium-bearing waste processing operations at the IWTU after 11 years of commissioning. I continue to be impressed with the effort and dedication of my combined federal and contractor team."

– Connie Flohr, Manager, Idaho Cleanup Project

HIGHLIGHTS

- Began treatment of sodium-bearing waste, treating 68,000 gallons of liquid waste from underground storage tanks.
- **Completed transfer of all spent nuclear fuel from wet-to-dry storage—an EM 2023 priority.**
- Began construction of a new disposal cell at the Idaho CERCLA Disposal Facility.
- Began Naval Reactors Facility demolition and dismantlement of two historic and defueled naval nuclear propulsion plants.
- Removed three additional Accelerated Retrieval Project structures from the Subsurface Disposal Area.
- Realized the 7,000th TRU waste shipment from Advanced Mixed Waste Treatment Project to the Waste Isolation Pilot Plant.

Crews pose in front of the last spent fuel cask in recognition of meeting the wet-to-dry milestone.

LIQUID WASTE TREATMENT & DISPOSAL

Since operations began at the Integrated Waste Treatment Unit (IWTU) in April, 68,000 gallons of radioactive sodium-bearing liquid waste has been converted to a more stable, granular solid for packaging in stainless steel canisters and storage in concrete vaults.

The facility will treat 900,000 gallons of radioactive liquid waste over a three-to-seven-year period, accounting for outages to conduct regular maintenance on the facility.

TRANSFERRING SPENT NUCLEAR FUEL

A key milestone was completed with the transfer of all spent nuclear fuel from wet-to-dry storage nine months ahead of schedule.

Over the last 20 years, thousands of spent nuclear fuel assemblies with over 263,000 pounds of heavy metals were transferred from wet storage to dry storage facilities at the Idaho Nuclear Technology and Engineering Center, the Naval Reactors Facility, and the Materials and Fuels Complex. The now-empty spent nuclear fuel storage basin—one of the largest in the world—will remain open until completion of the remaining mission work.

IDAHO CERCLA DISPOSAL FACILITY

With the Idaho CERCLA Disposal Facility (ICDF) more than 80% full, expansion began on a new disposal cell of the largest landfill at the Idaho National Laboratory (INL) site, increasing total disposal capacity to 1.06 million cubic meters. This cost-effective disposal solution will extend the life of the facility by 25 years and increase its capacity threefold. The ICDF new

Crews at IWTU survey control room monitors as the facility treats sodium-bearing waste.

disposal cell is projected to start accepting waste in 2026.

DISMANTLEMENT AND DEMOLITION

Dismantlement and demolition of two defueled reactor vessel prototypes and associated buildings at the Naval Reactors Facility got underway in 2023.

Crews began work at S1W, the Submarine 1st Generation Westinghouse prototype, by dismantling hull and engine components, and deactivating the reactor compartments and associated systems by removing shielding components.

Activities also began at the Aircraft Carrier 1st Generation Westinghouse prototype where demolition of several ancillary buildings provided needed space to support equipment staging for future work inside the prototype.

SUBSURFACE DISPOSAL AREA

Four Accelerated Retrieval Project enclosures in the Subsurface Disposal Area (SDA) underwent decontamination and dismantling, leaving only four waste storage buildings standing, which will be removed in 2024.

Once demolition is completed an earthen cover will be installed over the entire 97-acre SDA.

TRANSURANIC WASTE

The INL's Advanced Mixed Waste Treatment Project (AMWTP) achieved its 7,000th transuranic (TRU) waste shipment to the Waste Isolation Pilot Plant (WIPP) in New Mexico, traveling over 9 million road miles—enough distance to make several roundtrips to the moon.

Over 70% of all TRU waste shipments received at WIPP came from AMWTP. Continued cooperation will be essential as several thousand waste containers slated for disposal at WIPP remain at AMWTP.

Excavators make progress on Cell 3, a new disposal cell at the ICDF.