

For Immediate Release

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Idaho Waste Treatment Facility Begins Operations to Address Tank Waste

IDAHO FALLS, Idaho – The Integrated Waste Treatment Unit (IWTU) at the U.S. Department of Energy Office of Environmental Management (EM) Idaho National Laboratory (INL) Site initiated operations Tuesday to convert radioactive sodium-bearing liquid waste from nearby underground tanks to a more stable, granular solid.

Crews initiated the flow of waste from the tanks at the Idaho Nuclear Technology and Engineering Center to the IWTU to begin radiological operations. The waste was generated during decontamination activities following historic spent nuclear fuel reprocessing that ended in 1992.

Workers constructed the IWTU from 2007 to 2011 to convert 900,000 gallons of radioactive liquid waste to a granular solid resembling coarse sand using steam-reforming technology. From 2012 to 2023, IWTU underwent testing with non-radioactive simulated waste, or simulant. EM also completed subsequent modifications to the facility's primary reaction vessel, off-gas treatment vessel, process filters and canister fill cells to address technical challenges.

"Congratulations to the federal and contractor staff who worked so diligently to reach this crucially important milestone," said EM Senior Advisor William "Ike" White. "When I toured the IWTU recently, I was impressed with the professionalism and enthusiasm of the workforce. This day was only made possible by their dedication to the mission."

EM Idaho Cleanup Manager Connie Flohr also thanked the workforce for following through on a commitment made to the state of Idaho and its citizens.

"Because of your hard work, we have begun the process of safeguarding the Snake River Plain Aquifer as well as planning for the eventual closure of the tank farm," she said.

Idaho Environmental Coalition President Ty Blackford said many of the employees supporting IWTU have made countless sacrifices over the years through their service to the project.

"Our employees have worked holidays and weekends, sacrificed vacations and literally spent all of their waking time supporting the IWTU," he said. "I'm so pleased that those who dedicated so much of their careers to the IWTU get to enjoy this monumental moment."

Initially, the IWTU will treat a blend that is 10% sodium-bearing waste and 90% simulant. The blend will later contain 50% waste and 50% simulant before it eventually becomes 100% sodium-bearing waste based on the plant's operating conditions.

Following treatment, the granulated waste will be stored in stainless-steel canisters within concrete vaults at the IWTU. Ultimately, the waste will be disposed of at a national geologic repository.

EM will share all operating data with the Idaho Department of Environmental Quality as part of the IWTU's operating permit requirements. Later, IWTU crews will initiate a system performance test to demonstrate compliance with established performance standards and determine adequate operating conditions under the permit.

The Idaho Environmental Coalition (IEC), led by Jacobs and North Wind Portage, manages the Idaho Cleanup Project at the U.S. Department of Energy's (DOE's) Idaho National Laboratory (INL) Site, located 45 miles west of Idaho Falls. The 10-year, \$6.4 billion project, funded through DOE's Office of Environmental Management, focuses on safely dispositioning transuranic waste, managing spent nuclear fuel, treating radioactive liquid waste, removing legacy structures, and closing facilities that have completed their missions. IEC is committed to protecting its employees, the public, and environment while meeting all existing and future milestones necessary to further the INL's mission.

For more information visit the Idaho Cleanup Project on the Web at <https://idahoenvironmental.com/>

Caption

A view of the exterior of the Integrated Waste Treatment Unit at the Idaho National Laboratory Site.