

HANFORD SITE

“Our team delivered a tremendous year of historic achievements in 2023. Each of our contractor partners accomplished important cleanup objectives, many requiring years of dedicated effort. This was another year of ‘firsts’ in our mission to immobilize and dispose of waste from our large underground tanks. We heated up the first melter at our Waste Treatment and Immobilization Plant and filled the first container with clean test glass. Our team also continued to deliver taxpayer value by progressing projects that reduce risks to our workforce, our community, and the environment of the Pacific Northwest. We are poised for another exciting year of ‘firsts’ in 2024, and I’m grateful for the opportunity to work with such a talented team of professionals and for the broad support we receive from beyond the borders of our immense site on a mission of national prominence.”

– Brian Vance, Manager, Office of River Protection and Richland Operations Office

HIGHLIGHTS

- Heated up the first melter and poured the first test glass at the Waste Treatment and Immobilization Plant (WTP).
- Progressed preparations to start heating up the second melter in January 2024.
- **Pretreated more than 800,000 gallons of tank waste cumulatively that is staged to feed to the WTP when hot commissioning of melters begins—an EM 2023 priority.**
- **Treated more than 2 billion gallons of contaminated groundwater for the ninth consecutive year—an EM 2023 priority**
- Demolished a nuclear facility used to transfer radioactive sludge out of a reactor basin into safer storage away from the nearby Columbia River.

PREPARING FOR NEXT PHASE IN TANK WASTE TREATMENT ERA

The Hanford Site made history by pouring the first test glass from the first of two 300-ton melters at the Waste Treatment and Immobilization Plant (WTP), marking another important step in commissioning the plant as Hanford prepares to immobilize millions of gallons of radioactive and chemical waste from large underground tanks for safe disposal.

Hanford made great strides in continuing to treat tank waste to be fed to the WTP when immobilization in glass begins with a cumulative total of 800,000 gallons treated at the Tank-Side Cesium Removal (TSCR) System.

The site continued important progress by readying multiple facilities to work as one system under the Direct-Feed Low-Activity Waste Program to support 24/7 operations to treat tank waste beginning in calendar year 2025.

Another highlight was reaching a conceptual agreement with the state of Washington and U.S. Environmental Protection Agency in Holistic Negotiations on revising plans for managing the tank waste that upholds the agencies’ shared commitment to a safe, effective and achievable path forward.



In a historic moment in the Hanford Site cleanup mission, workers monitored from a control room as the first molten test glass was poured into a stainless-steel container at the WTP.



Workers move ion exchange columns filled with radioactive cesium and solids from the TSCR System on a storage pad.

PROTECTING THE ENVIRONMENT, PRIORITIZING RISK REDUCTION, SAFETY AND SECURITY

Hanford demolished a nuclear facility used to transfer radioactive sludge out of a basin in the K West Reactor and into safer storage away from the nearby Columbia River. The site also sorted and moved radioactive debris in the 1.2-million-gallon basin into underwater bins to prepare the basin to be drained and filled with grout.

More than two billion gallons of groundwater was treated at Hanford in 2023, bringing the total to more than 32 billion gallons treated since DOE began removing contamination from groundwater in the mid-1990s, and significantly shrinking areas of groundwater contamination to enhance protection of the Columbia River.

ENSURING FUTURE SUCCESS

The One Hanford team remains focused on rightsizing and modernizing the site's infrastructure to ensure

Hanford's electrical distribution system, information technology systems, water and sewer systems, and roads continue to support safe and cost-efficient cleanup progress.



Hanford crews demolish the facility used to transfer radioactive sludge out of a nuclear fuel basin in the K West Reactor.