

HANFORD COMMUNITIES

HANFORD NEWS RECAP

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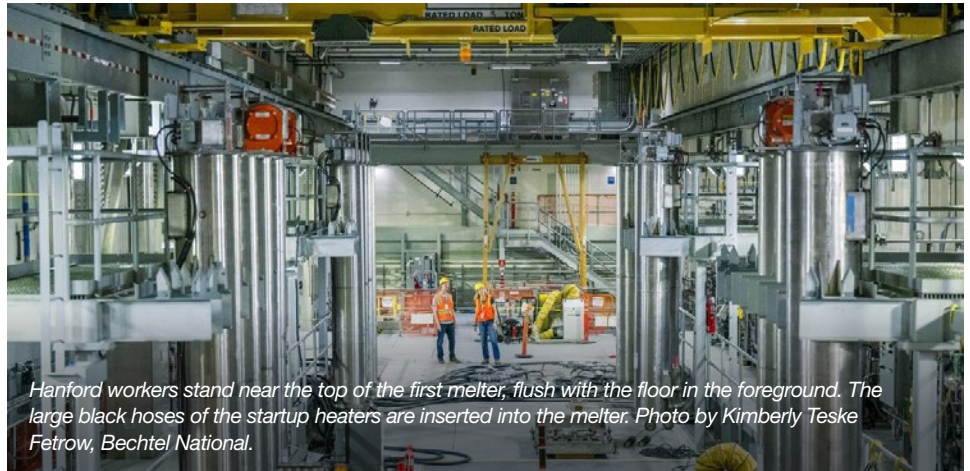
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'MAJOR STEP.' WORLD'S LARGEST RADIOACTIVE WASTE MELTER HEATS TO 2,100° IN E. WA

Tri-City Herald Published July 24, 2023 by Annette Cary



Hanford workers stand near the top of the first melter, flush with the floor in the foreground. The large black hoses of the startup heaters are inserted into the melter. Photo by Kimberly Teske Fetrow, Bechtel National.

The world's largest radioactive waste melter has heated up to 2,100 degrees Fahrenheit, its planned operating temperature, on a second try.

The first melter to be used to glassify waste at the vitrification plant at the Hanford nuclear reservation site in Eastern Washington is expected to be kept at that temperature for several days.

Then ground glass will be added as the next step of testing the melter. "Completing the heat up of the first melter is a major step forward for Hanford's tank waste mission," said Ed Dawson, DOE spokesman. The melter is expected to remain on continuously now for its planned lifespan of five years.

Construction on the vitrification plant started 21 years ago and the plant is expected to start treating some of the least radioactive waste held in underground tanks at Hanford by late 2024 or 2025, turning it into a stable glass form for disposal.

Hanford's underground tanks hold 56 million gallons of radioactive and hazardous chemical waste from the production of nearly two-thirds of the plutonium for the nation's nuclear weapons program during World War II and the Cold War.

> [Read the full story on Tri-City Herald's website](#) **HERE**

'ONE HANFORD.' FEDS DOUBLE DOWN ON CONSOLIDATED LEADERSHIP OF NUCLEAR WASTE CLEANUP

Tri-City Herald

Published August 4, 2023 by Annette Cary

The Department of Energy has named Brian Stickney to serve as deputy manager of both its Hanford nuclear reservation offices, further integrating work and leadership of the two offices.

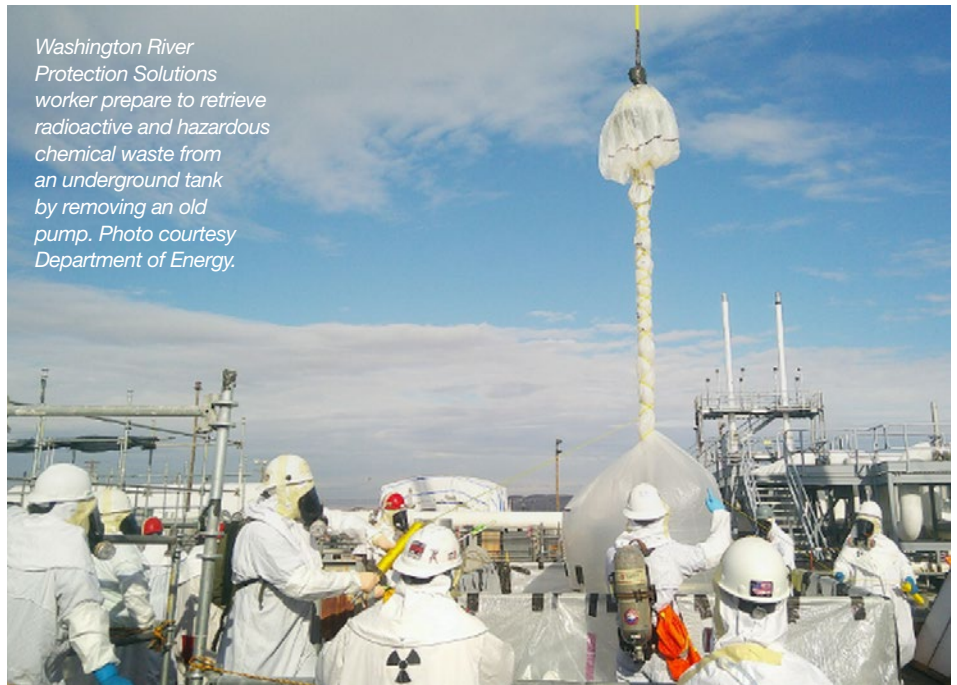
It is the number two position at the site, overseeing environmental cleanup at the Hanford site done by about 11,000 workers.

Stickney was selected as the deputy manager and chief operating officer for the DOE Richland Operations Office about two years ago.

For the past 17 months he also has been acting deputy manager for the DOE Office of River Protection as Ben Harp took on other work for DOE and then retired.

Stickney's increased job responsibilities, announced Monday, follow a decision in early 2019 to name one DOE manager for the Hanford site rather than separate managers for the Office of River Protection and the Richland Operations Office.

Brian Vance has served in that role since then.



Washington River Protection Solutions worker prepare to retrieve radioactive and hazardous chemical waste from an underground tank by removing an old pump. Photo courtesy Department of Energy.

Congress has ordered the two offices to remain separate through at least 2024, after former Rep. Doc Hastings, R-Wash., separated Hanford cleanup responsibilities between the two offices in 1998 to allow more focus on the issue of radioactive waste stored in underground tanks prone to leaking for decades.

The two offices have separate budgets, helping to justify the combined funding for Hanford that could top \$3 billion next

year, more than any other DOE defense environmental cleanup site.

But DOE officials say a greater degree of coordination is needed between the two DOE Hanford offices and their six contractors as they get ready to start treating some of the least radioactive of the 56 million gallons of waste stored in underground tanks by late 2024 or 2025.

> [Read the full story on Tri-City Herald's website HERE](#) 

OFFICE OF ENVIRONMENTAL MANAGEMENT | Published September 26, 2023

CREWS DRILLING DEEP TO EXPAND GROUNDWATER TREATMENT AT HANFORD

RICHLAND, Wash. – Workers with EM Richland Operations Office (RL) contractor Central Plateau Cleanup Company (CPCCo) are expanding the capacity of the Hanford Site's already robust groundwater treatment system, a move that could shorten the time needed to reach cleanup goals and reduce long-term operating costs.

Located in the center of the 580-square-mile site, the 200 West Pump and Treat Facility is a key component of Hanford's award-winning groundwater remediation program. Workers are installing more than a dozen additional extraction wells this

CONTINUED ON PAGE 3

“CREWS DRILLING DEEP...” – CONTINUED (PAGE 2)

The Hanford Site’s 200 West Pump and Treat Facility is undergoing an expansion to boost treatment capacity from 2,500 to 3,750 gallons per minute.



year that will be connected to the facility to capture even more chemical and radiological contaminants.

“Groundwater treatment has been one of Hanford’s most successful cleanup programs over the past two decades,” said Naomi Jaschke, director of EM Hanford’s Soil and Groundwater Division. “We continue to shrink areas of contamination throughout the site to meet cleanup goals and protect the Columbia River.”

The strategically placed extraction wells pump contaminated water from the aquifer, which can be more than 200 feet below the surface in the center of the Hanford Site. Treatment facilities use multiple technologies to remove contaminants from the groundwater.

Treated water is injected back into the aquifer outside the areas of contamination. This helps push more contaminated groundwater toward the extraction wells.

The 200 West facility, and five other smaller facilities located along the Columbia River, make up the six pump-and-treat systems CPCCo operates. Collectively, the systems have treated more than 2 billion gallons of contaminated groundwater annually for nine consecutive years, including more than 2.3 billion gallons in fiscal year 2023, which ends Sept. 30.

The 200 West facility alone treats more than 1 billion gallons each year. That figure will increase by up to 650 million gallons after the additional wells are installed and connected to the plant over the next year.



EM contractor Central Plateau Cleanup Company is installing more than a dozen additional extraction wells this year to support expansion of the Hanford Site’s largest groundwater treatment facility.

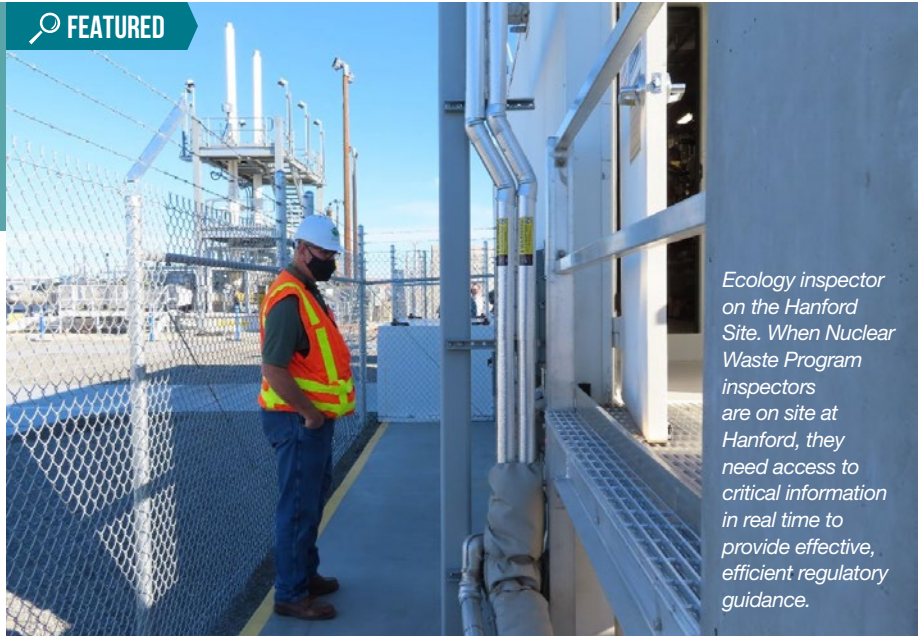
“This is the largest expansion of the 200 West Pump and Treat extraction well network that we’ve undertaken to date,” said Jim Geiger, CPCCo well drilling manager. “The pump-and-treat systems have already removed nearly 700 tons of contaminants from the aquifer over the life of Hanford’s groundwater treatment program, and this project will allow us to more efficiently build on that number as we continue to reduce risk to the Columbia River.” ■



DEPARTMENT OF
ECOLOGY
State of Washington

Published September 14, 2023

FEATURED



Ecology inspector on the Hanford Site. When Nuclear Waste Program inspectors are on site at Hanford, they need access to critical information in real time to provide effective, efficient regulatory guidance.

SETTLEMENT REACHED TO ENSURE ACCESS TO CRITICAL HANFORD SITE DATA

RICHLAND – The Washington state Department of Ecology will regain direct access to critical federal data about the Hanford Site following a settlement agreement announced today with the U.S. Department of Energy.

This brings to conclusion the \$1.065 million penalty Ecology issued to Energy in 2020 for restricting the state’s legally mandated direct access to important facility data, impairing Ecology’s ability to maintain regulatory oversight.

“Our job is to protect the people and environment in Washington. In order to do our job, we need access to basic documents the U.S. Department of Energy is required to provide,” said Ecology Director Laura Watson. “We’re pleased to reach agreement with Energy on a solution that gets us what we need.”

The settlement comes more than four years after Energy first missed its Tri-Party Agreement deadline to meet Ecology’s information requirements, following numerous milestone extensions by Ecology.

Ecology had been able to successfully work with Energy on data access for more than 20 years prior to this missed milestone.

As part of the settlement, Energy is required to create a repository for Ecology to access Tri-Party Agreement-relevant documents, which are needed for compliance inspections. In addition, Energy will invest a reduced penalty of \$540,000 in two environmental restoration projects at the Hanford Site.

The original 2020 penalty was preceded by a Director’s Determination issued by Ecology in December 2019, concluding Energy was in violation of data access requirements, after years of negotiations between the agencies.

Both the determination and penalty were appealed to the Washington State Pollution Control Hearings Board in 2020. The Board issued an order affirming the determination in February 2022, and the penalty was reduced to \$540,000 in a May 2022 final decision.

Energy appealed the Board’s decisions. A stay on the case was put in place, and negotiations have been taking place since.

The agencies will continue to work together, as specified in the settlement, to determine which records and data will be added to the repository to fulfill ongoing data requirements. ■

> [Read the original story on Ecology’s website](#)

LOOKING FOR MORE WAYS TO CONNECT?



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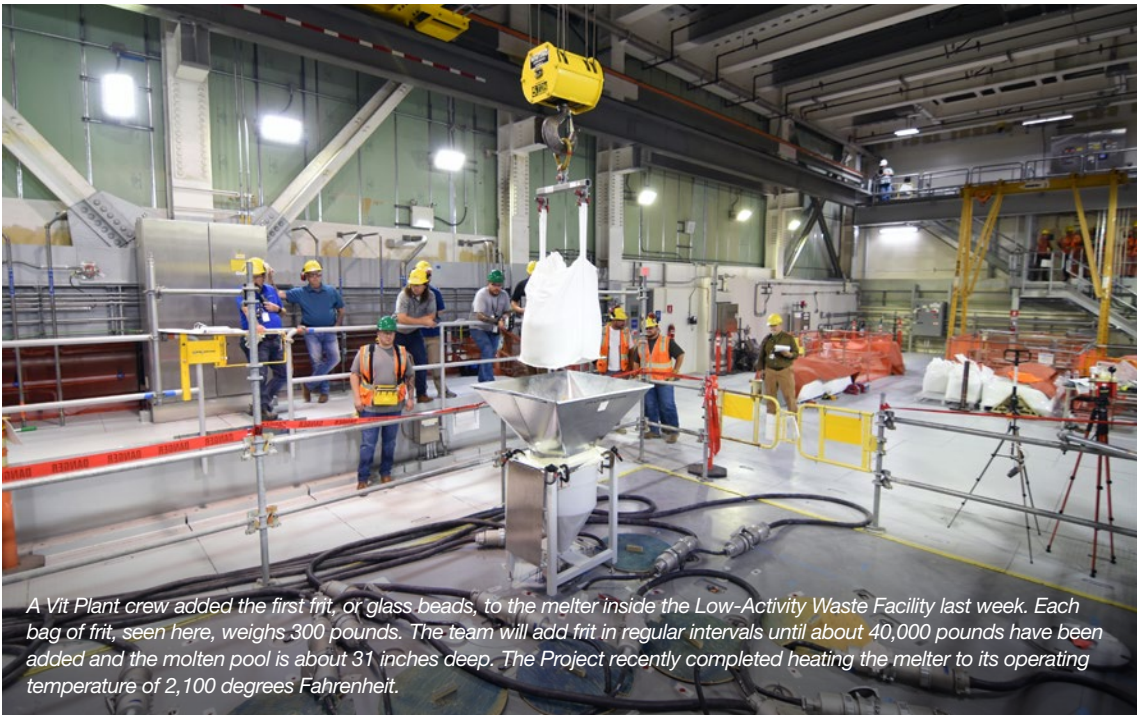
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MOLTEN GLASS FILLS VIT PLANT MELTER

VIT PLANT
Published August 8, 2023



A Vit Plant crew added the first frit, or glass beads, to the melter inside the Low-Activity Waste Facility last week. Each bag of frit, seen here, weighs 300 pounds. The team will add frit in regular intervals until about 40,000 pounds have been added and the molten pool is about 31 inches deep. The Project recently completed heating the melter to its operating temperature of 2,100 degrees Fahrenheit.

The Vit Plant team last week poured the first batches of glass-forming beads, called frit, into a melter heated to 2,100 degrees Fahrenheit. At that temperature, the beads melted and created the first molten pool inside the melter, which during future hot operations will immobilize radioactive and chemical tank waste in a form safe for permanent disposal.

The accomplishment represents another positive step toward waste treatment operations at the Vit Plant's Low-Activity Waste (LAW) Facility as part of DOE's Direct-Feed Low-Activity Waste program at Hanford.

"This is a proud time for our Hanford team as we have established a molten glass pool in our first melter," said Hanford Site Manager Brian Vance. "It's a tremendous success made possible through the entire team's dedication to safely progressing our important cleanup mission."

Two 300-ton melters inside the LAW Facility are the heart of the vitrification process, which will immobilize the tank waste in glass. During vitrification, treated waste will be fed to the melter and then mixed with glass-forming materials heated to 2,100 degrees Fahrenheit and poured into specially designed stainless-steel containers. The containers will then be moved a short distance to the Integrated Disposal Facility at the Hanford Site for disposal.

"Our team is excited about furthering our progress in achieving continuous melter operations," said Brian Hartman, Vit Plant project director and senior vice president for Bechtel,

which is designing, building, and commissioning the plant for the EM Office of River Protection.

On June 24, the team initiated heat up of the first melter and over a multiweek process slowly ramped to the 2,100-degree operating temperature.

Vance said many DOE and One Hanford team members, past and present, contributed to the important achievement.

"This accomplishment, and the many others delivered daily across the Hanford Site, reflect the expertise and commitment to excellence shown by our talented One Hanford team of dedicated professionals," Vance said.



Glass beads, called frit, are added to the melter in the Low-Activity Waste Facility, where it melts at 2,100 degrees Fahrenheit. Local business Fluid Controls and Components Inc. supplied the frit.

A total of about 40,000 pounds of frit will be added to create a molten pool about 31 inches deep.

Information on the Vit Plant commissioning process is available on the Journey to Melter Heatup website. The plant facilities can be viewed using the self-guided Hanford Virtual Tour. ■

> [Read the original story on the Vit Plant website](#) [HERE](#) 



B Cell, the hot cell where the leak happened, is seen from within the 324 Building. Photo courtesy DOE.

FEDS RELEASE PLAN TO CLEAN UP HIGHLY RADIOACTIVE BUILDING BY RICHLAND

Tri-City Herald

Published July 5, 2023 by Annette Cary

The Department of Energy is proposing a seven-year plan to clean up a highly radioactive waste spill under a building at Hanford near Richland.

A public comment period on the plan, focused on the removal of the 324 Building, started this week and will continue through Sept. 9. A public meeting is planned at 5:30 p.m. Aug. 24 at the Richland Library.

“This is an important project,” said Stephanie Schleif, the transition project manager for the Washington State Department of Ecology. “Ecology is pleased to see DOE moving forward on the 324 Building.”

Washington Closure Hanford was working toward a legally binding deadline for DOE to have the building down in the fall of 2013.

But as DOE’s contractor worked toward that goal in 2010, it discovered a highly radioactive spill under the building from a hot cell leak that had gone undiscovered.

Hot cells were used to work with radioactive material, allowing workers to look through thick lead glass windows and manipulate equipment inside the cells.

The building, just north of Richland, is 1,000 feet from the Columbia River. There is no evidence now that the spill has migrated toward the river.

After the leak was discovered, a new plan was developed to install remotely operated equipment into the hot cell above the leak to clean up the spill, using the the cell as radioactive shielding to protect workers.

> [Read the full story on Tri-City Herald’s website](#) HERE 

HISTORIC B REACTOR IN EASTERN WA SHUTTING DOWN TOURS FOR 2 YEARS. WHY IT'S CLOSING.

Tri-City Herald

Published August 11, 2023 by Annette Cary



Energy Secretary Jennifer Granholm, second from right, is shown the historic B Reactor by Colleen French of the Department of Energy and Patrick Jaynes, B Reactor operations manager, in 2022.

> Read the full story on Tri-City Herald's website [HERE](#)



If you've been planning to tour Hanford's historic B Reactor, part of the Manhattan Project National Historical Park, don't procrastinate. After the current tour season ends Nov. 18, no more tours will be scheduled until at least spring 2026.

Eighty years after construction of the world's first full-scale reactor began, it's showing its age. The Department of Energy will be closing the reactor to the public to replace its roof and make some other repairs and improvements.

DOE is sorry that the reactor will need to close during the work, but "parks are forever," said Colleen French, National Park program manager. "It is so important that we are making the investment now so that we can make sure this place is around for future generations," she said.

B Reactor was built in less than a year as the Allies raced to develop an atomic bomb before Nazi Germany. The reactor produced the plutonium used to fuel the first detonation of a nuclear weapon, the Trinity Test in New Mexico, as moviegoers are seeing re-enacted in "Oppenheimer."



OFFICE OF ENVIRONMENTAL MANAGEMENT | Published August 29, 2023

HANFORD PLANT EARNS IMPORTANT CYBERSECURITY AUTHORIZATION

RICHLAND, Wash. – EM Office of River Protection (ORP) contractor Bechtel National Inc. (BNI) recently took a major step forward when the Hanford Site Waste Treatment and Immobilization Plant (WTP) received a federal authorization certifying that the WTP's information systems comply with DOE cybersecurity requirements, a necessary step to keep the plant safe during commissioning and operations.

"This authorization helps keep us on a sound path to start treating tank waste under the Direct-Feed Low-Activity Waste Program in early calendar year 2025," said Brian Vance, EM Office of River Protection and Richland Operations Office manager. "It demonstrates the plant, personnel and procedures meet or exceed the Department's cybersecurity requirements for operating nuclear facilities."

Earning the authorization follows a multiyear effort by BNI and site integration and services contractor Hanford Mission

Integration Solutions to transfer vital plant systems and more than 1,000 BNI computer users to the Hanford network.

"Receiving the authorization is the culmination of a five-year effort by more than 100 plant personnel across multiple departments," said Jason Stidham, WTP chief information officer for BNI, the prime contractor designing, building and commissioning the plant. "The authorization would not have been possible without the significant teamwork and diligence demonstrated by all involved."

During direct-feed low-activity waste operations, Hanford tank waste will be heated in large melters and mixed with glass-forming materials in the WTP's Low-Activity Waste Facility. The mixture will then be poured into stainless steel containers and allowed to cool before being disposed of in a special landfill on the Hanford Site called the Integrated Disposal Facility. ■