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Workers at the Hanford Waste Treatment and Immobilization Plant test the Low-Activity Waste Facility's container handling system.

# DIRECT-FEED LOW-ACTIVITY WASTE CONSTRUCTION COMPLETE

Nearly two decades in the making, construction is now complete on the game-changing Waste Treatment Plant.

The Department of Energy (DOE) and its contractor, Bechtel, celebrated the completion of construction of Hanford's low activity waste vitrification facility.

This facility, also known as the Waste Treatment Plant, will turn millions of gallons of Hanford's tank waste into a solid glass form for permanent disposal.

The transition from construction to startup and commissioning marks an important milestone in the evolution of Hanford Cleanup. In taped remarks at the celebration, Senator Maria Cantwell noted that building the world's largest plant to treat radioactive waste is "truly a scientific and engineering feat." She also added, "This is an unprecedented step toward cleaning up the most toxic site in the United States... and restoring the Hanford Site to return it to the community."

Mark Menezes, then-DOE Deputy Secretary also participated in the celebration, saying it "marks a tremendous leap forward for the Hanford workforce and the Tri-Cities community."

From here, the Department of Energy and contractor Bechtel National will work toward starting up all systems needed to treat low activity waste, at which point they will initiate trials of plant operation with a non-radioactive waste simulant.

To read the full Tri-City Herald article, visit: https://www.tri-cityherald.com/news/local/hanford/article248312750.html

Watch a video of the event **HERE**.

SOURCE: Cary, Annette. (2021, January 6). 'Engineering feat.' World's largest plant for nuclear waste cleanup at Hanford ready for startup. Tri-City Herald. www.tri-cityherald.com.

## HANFORD WORKERS RETRIEVING WASTE FROM ANOTHER SINGLE-SHELL TANK

FROM THE OFFICE OF ENVIRONMENTAL MANAGEMENT



The Office of River Protection (ORP) continues to make substantial progress in its mission to safely and efficiently reduce risk at the Hanford Site by managing and retrieving millions of gallons of radioactive waste stored in massive underground tanks.

ORP tank operations contractor Washington River Protection Solutions (WRPS) recently began retrieving waste from single-shell Tank AX-104 and transferring the waste to a newer, more robust double-shell tank for safe storage. To date, EM has completed waste retrieval from 17 of Hanford's single-shell tanks.

"Moving waste into the double-shell tank system helps reduce risk to the environment and allows for safe storage of the waste until it can be treated."

- Brian Harkins, ORP deputy assistant manager for tank farms

Tank AX-104, one of four tanks that make up Hanford's AX Farm, contains more than 5,000 gallons of highly radioactive sludge-like material on the tank floor and 2,000 gallons of the material on the tank walls. The retrieval strategy for the 1-million-gallon-capacity tank involves mobilizing the waste by using pressurized water directed through robotic sluicing equipment, then pumping the slurry to a double-shell tank for safe storage.

WRPS set the stage for retrieval of Tank AX-104 by carefully removing highly contaminated legacy equipment from the

tank — such as pumps and thermocouples — and installing waste retrieval infrastructure in AX Farm. A thermocouple is a device that measures the temperature of waste.

The infrastructure included a new ventilation system to filter emissions and a state-of-the-art facility that houses the water supply systems used to support retrieval activities. The in-tank waste retrieval system consists of three cannon-like sluicers, a central pump, and six camera and lighting systems. Sluicers are used to mobilize the waste and move it to a central pump.

Established safety controls will be in place throughout the entire retrieval process. ORP and WRPS also used lessons learned from previous retrieval projects to help keep workers safe.

"We have a highly skilled, innovative team with a strong track record of meeting the unique challenges that come with tank waste retrieval. For all retrieval projects, we develop a thorough project plan, choose the right tools for the job, and complete work safely," said Doug Greenwell, WRPS retrievals manager.

Pictured above: EM Office of River Protection contractor Washington River Protection Solutions recently began retrieving waste from single-shell tank AX-104 at the Hanford Site. The waste is being transferred to a more robust double-shell tank for safe storage.



## WASHINGTON STATE DEPARTMENT OF ECOLOGY NAMES NEW NUCLEAR WASTE PROGRAM MANAGER

In November 2020, the Washington State Department of Ecology selected a new manager for its Nuclear Waste Program, which oversees the state's regulatory role at the Hanford nuclear reservation.

Replacing Alex Smith, David Bowen started December 16 after Smith took another state job at the end of October. He previously served as the Department of Ecology's Water Quality Section Manager based in Union Gap.

"I know Hanford is challenging and complex," Bowen said, "But I'm excited for the opportunities it presents."

Bowen looks forward to engaging with Tri-Cities area community members, tribal representatives and those involved with cleanup of the Hanford nuclear reservation to gain a broad perspective on issues, he said.

In an announcement released by the Department of Ecology, they said, "Bowen has experience building solid partnerships with elected officials and local government leaders, advocacy groups and members of the public. A key strength and interest is continuing strong partnerships at the community, state and federal level to ensure the cleanup of nuclear waste material at the Hanford site."

Ecology, along with the U.S. Environmental Protection Agency, regulates environmental cleanup at the Hanford site and is one of the three Tri-Party Agencies — with the Department of Energy and EPA — that sets enforceable cleanup goals and deadlines at Hanford.



David Bowen on the job as the Department of Ecology's new nuclear waste program manager.

Hanford is contaminated with radioactive and hazardous chemical waste from the past production of plutonium from World War II through the Cold War. ■

To read the original Tri-City Herald article, visit: https://www.tri-cityherald.com/news/local/hanford/article247157969.html

For more about the Department of Ecology, visit: https://ecology.wa.gov/

SOURCE: Tri-City Herald Staff. (2020, November 13). Washington state picks new Hanford cleanup watchdog. Tri-City Herald. www.tri-cityherald.com.



# SELF-GUIDED VIRTUAL TOURS GIVE PUBLIC A NEW VIEW OF HANFORD CLEANUP FROM THE OFFICE OF ENVIRONMENTAL MANAGEMENT

The U.S. Department of Energy, along with Hanford Site cleanup contractors, are unveiling a new public virtual tour platform of the 580-square mile site.

In the past, Hanford offered limited in-person public tours in the spring and summer months as a way to engage the public in the Hanford cleanup mission. Since public tours are currently on hold, Hanford Site leadership came up with the idea of a virtual tour with the intent of keeping the public involved in cleanup progress while upholding COVID-19 protocols.

Hanford's virtual tour website is designed to be self-guided and will be accessible to the public beginning January 14, 2021 from the top banner of the www.hanford.gov webpage. While on the tour, participants can "visit" up to 20 Hanford locations with 360-degree camera views, accompanied with descriptions to provide context of the various projects. The virtual tour requires the use of the Chrome web browser.

"Hanford cleanup is one of the great public works of our time. We are excited to have the tools to expand public awareness and appreciation of our important work with the virtual tour," said Brian Vance, manager of the DOE's Richland Operations Office and Office of River Protection. "Some of the locations featured on the virtual tour would not have otherwise been accessible to visitors due to the nature of our work," he said. "By utilizing technology, the virtual tour provides a superior experience and promotes public engagement."

A map of the 580-square mile Hanford Site shows virtual tourists the geography of past site operations and the current cleanup mission.



Some of the tour stops include Hanford's 324 Building, 200 West Groundwater Treatment Project, and various structures associated with Hanford's Direct Feed Low Activity Waste program including the Waste Treatment Plant and tank farms.

### HANFORD CONTRACTORS TRANSITION IN THE NEW YEAR

The new year brought a fresh start for two prime Hanford contractors. Here's a look at the organizations that have a new look and purpose headed into 2021.

#### HANFORD MISSION INTEGRATION SOLUTIONS



Hanford Mission Integration Solutions delivers mission integration, introducing new innovations and technologies that drive improvement of essential service delivery and enables the One Hanford cleanup mission. Comprised of globally-known and U.S. Department of Energy (DOE)-



trusted partners — Leidos,
Centerra Group, and Parsons
— HMIS was awarded the
new Hanford Mission Essential
Services Contract at the
Hanford Site. HMIS will provide
Hanford Site services, including
security and emergency
services, land management

services, and information technology services; management of the Hazardous Material Management and Emergency Response (HAMMER) Federal Training Center; maintaining vital infrastructure; and performing infrastructure upgrades (e.g., electric, water, roads), as well as building future infrastructure to support operation of the Waste Treatment and Immobilization Plant.

#### CENTRAL PLATEAU CLEANUP COMPANY



Central Plateau Cleanup Company (CPCCo) brings the depth and breadth of three leading nuclear industry companies — Amentum, Fluor, and Atkins — making it the single largest and most experienced nuclear End-

State delivery team assembled for the Central Plateau Cleanup Contract (CPCC). Within our 179 years of



combined nuclear experience, including 63 years at Hanford, we have decommissioned 1,179 facilities and dispositioned more waste than any other U.S. company. Successful program delivery is a shared team goal. We will execute the project in an integrated and transparent manner among CPCCo, our two teaming subcontractors — INTERA Incorporated and DBD Inc. — and our two small business protégés, Longenecker & Associates, Inc. and Lucas Engineering and Management Services, Inc.

### **LOOKING FOR MORE WAYS TO CONNECT?**



Hanford Events Calendar See upcoming events and public engagement GO!



Hanford Virtual Tours
Tour the Hanford Site virtually
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