



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Hanford Achieves First Test Transfer Between Tank Waste Treatment Support Facilities

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Members of the Hanford Waste Treatment and Immobilization Plant commissioning organization are pictured in front of the Effluent Management Facility. From left are Jeffrey Peterson, John Reyff, Scott Hennick, Jeffrey Blosil, Tyson Warner, Lance Pappas and Pat Mohondro.

RICHLAND, Wash. – **Hanford Site** crews recently completed the first transfer of test water from the Waste Treatment and Immobilization Plant's (WTP) **Effluent Management Facility** (EMF) to the nearby Liquid Effluent Retention Facility (LERF).

The transfer of 6,000 gallons was the first simulation of the process that will be used to treat secondary liquid waste from the **plant's** Low-Activity Waste (**LAW**)

Facility during Direct-Feed Low-Activity Waste (DFLAW) Program operations to treat tank waste.

“This is a tremendous accomplishment that culminates years of work by our team and alumni toward being ready for hot commissioning,” said Valerie McCain, project director and senior vice president for **EM Office of River Protection** contractor Bechtel National, Inc. “It’s an important step for the entire Hanford team and our collective mission of protecting the Columbia River and its shoreline communities.”



During Hanford’s Direct-Feed Low-Activity Waste Program treatment operations, the Waste Treatment and Immobilization Plant, background, will feed liquid waste to the Liquid Effluent Retention Facility, foreground, through a primary transfer line pictured.

To demonstrate the transfer, WTP crews inside the LAW Facility control room started a delivery sequence, and crews with tank operations contractor Washington River Protection Solutions (WRPS) began their acceptance protocols at the LERF. These steps released the test water from the EMF, allowing it to travel through underground transfer lines to the LERF.

“Testing like this gives us a chance to ensure our people and procedures are ready to operate safely and efficiently, and are integrated,” said Wes Bryan, WRPS president and project manager. “It demonstrates not only that the equipment works, but also how the teams work together to get one step closer to treating tank waste through DFLAW.”

During **vitrification** — the process of immobilizing tank waste in glass — secondary liquid, called effluent, will be generated by the LAW Facility, the **Analytical Laboratory**, and when transfer pipes are flushed. The effluent is fed to the EMF, where excess water is boiled away. The water is then piped into holding vessels, where testing ensures it meets waste-acceptance criteria before transfer to the LERF. The remaining waste concentrate is returned to the LAW Facility for treatment.

During full operations, the LAW Facility is designed to vitrify up to 5,000 gallons of low-activity waste per day, equal to 1.75 million gallons per year.