U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Hanford Evaporator Prepares for Tank Waste Treatment

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A worker installing new waste transfer lines between large, underground tanks and Hanford's evaporator facility welds a secondary encasement on one of the lines.

RICHLAND, Wash. – As the **Hanford Site** prepares for the start of operations to treat tank waste for disposal, workers are upgrading a number of facilities to ensure they are ready to support around-the-clock operations.

At the **242-A Evaporator**, workers are upgrading equipment used to remove water from tank waste and systems that transfer waste to and from large,

underground tanks near the facility. The upgrades will also extend the evaporator facility's service life.

"Using the evaporator to create waste storage space in the double-shell tanks allows us to continue to retrieve waste from single-shell tanks and strategically stage waste for the next era of cleanup at Hanford, treating tank waste via the **Direct-Feed Low-Activity Waste** Program," said Delmar Noyes, **EM Office of River Protection** (ORP) assistant manager for **Tank Farms**.

Located in Hanford's **200 East Area** near underground storage tanks and the **Waste Treatment and Immobilization Plant**, the evaporator boils waste at low pressure in steam heat to evaporate water from the waste. The resulting waste slurry is transferred back to a nearby double-shell tank farm, known as AW, for continued safe storage. The evaporated water is filtered and transferred to Hanford's nearby Effluent Treatment Facility for additional treatment and disposal.

ORP tank operations contractor Washington River Protection Solutions (WRPS) has installed new waste transfer piping connections, called nozzles, in the AW Farm and the evaporator facility. To minimize worker exposure to radiation while installing nozzles at the evaporator, workers drilled through 22-inch-thick reinforced concrete walls that provide shielding from outside the building. Now, workers are making progress on the next phase of the project, installing new, double-walled waste transfer lines.

"Work is now focused on excavating trenches that are up to seven feet deep in some areas between the AW Farm and the evaporator, and welding together sections of transfer lines. In all, workers will install more than 1,200 feet of transfer lines," said Dustin May, project manager for WRPS.

The project is scheduled for completion by the end of 2022, well ahead of the projected start date of tank waste treatment operations.