



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

It Boils Down to This: Hanford Evaporator Readies for Restart After Improvements

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The 242-A Evaporator is fundamental to the Hanford Site's Direct-Feed Low-Activity Waste Program.

RICHLAND, Wash. — A facility with a critical role in the [Hanford Site](#) tank waste cleanup mission is gearing up to restart operations after a series of upgrades and repairs.

The [242-A Evaporator](#) removes water from radioactive and chemical waste stored in underground tanks to create more storage space in them. Since the facility last operated in 2019, [EM Office of River Protection](#) tank operations contractor Washington River Protection Solutions installed 1,300 feet of new waste-transfer lines between the evaporator and a nearby underground tank-waste storage area, known as a [tank farm](#).

Improvements also include a safety system upgrade to enhance the efficiency of equipment testing required prior to an evaporator campaign.

“These improvements will ensure Hanford’s evaporator is efficient and dependable for its long term mission,” said Delmar Noyes, Office of River Protection assistant manager for **Tank Waste Operations**.

“Creating more storage space in double-shell tanks allows us to continue to retrieve waste from older single-shell tanks and prepare them for the next phase in cleanup: treating tank waste via **vitrification**, or immobilization in glass.”



Crews conduct an initial inspection inside the Hanford Site's 242-A Evaporator to prepare for system startup.

The tank farm feeds waste to the evaporator, which boils it at low pressure to evaporate water from it. The resulting waste slurry is then transferred back to a nearby double-shell tank for safe storage. Meanwhile, the evaporated water is filtered and sent to Hanford's [Effluent Treatment Facility](#) for additional treatment and disposal.

"Our dedicated and talented team has been working hard to tackle the challenges of this restart effort, setting up the 242-A Evaporator to operate safely and efficiently as Hanford increases its pace of operations," said Monica Kembel, the contractor's Production Operations manager.

Hanford's evaporator has removed more than 81 million gallons of liquid from the site's waste tanks over the past four decades. The evaporator is scheduled to restart in summer 2024.