Waste Retrieval Underway on Final Tank in Hanford's AX Farm

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Members of the Single-Shell Tank Retrievals team use five cameras lowered inside Tank AX-101 on the Hanford Site to monitor activity as they remotely start a sluicer, which sprays water on the waste to break it down so it can be pumped out of the tank.

RICHLAND, Wash. — The EM Office of River Protection (ORP) recently took another step in reducing environmental risk at the Hanford Site, as workers began retrieving radioactive and chemical waste from the fourth and final underground single-shell storage tank in the AX Farm.

Contractor Washington River Protection Solutions (WRPS) will remove about 426,000 gallons of waste from Tank AX-101 and transfer it to a newer, safer double-shell tank for continued safe storage until the waste is treated. Once completion is certified, AX-101 will be the site's 21st single-shell tank to be retrieved, and AX Farm will be the second tank farm at Hanford where waste retrieval operations have been completed. A tank farm is a large group of underground waste storage tanks.

“Operations to retrieve and finish the second tank farm at the Hanford Site reflect our ongoing commitment to the community, the environment and the Columbia River,” said Delmar Noyes, ORP assistant manager for the Tank Farms Project. “This is a significant step in our mission to reduce risk on the site.”

The water stream from one of three sluicers installed in AX-101 on the Hanford Site is used to remove waste from tank walls during retrieval operations.

Hanford’s C Farm, with 16 underground tanks, was the first to be completely retrieved, five years ago. Retrieval of one tank in the S Farm was completed in 2007.

The four tanks in AX Farm were built in the mid-1960s using carbon steel and reinforced concrete. They were used from 1969 to 1980 to store waste from plutonium production operations during the Cold War era. The farm has remained inactive since 1980.

Tank AX-101 holds solid, salt-based waste called saltcake, along with some liquid and sludge-like material. Sluicing — a procedure using high-pressure water spray — will break up the waste so it can be pumped out of the tank and transferred to a double-shell tank. During retrieval, workers will operate the equipment remotely from a nearby control trailer.

WRPS set the stage for retrieving waste from AX-101 with preparations that included removing contaminated and outdated equipment and installing a new retrieval system and associated infrastructure.

“Our retrievals team is well-trained, highly skilled and innovative, with a strong track record of meeting the unique challenges that come with tank waste retrieval,” said Wes Bryan, WRPS president and project manager. “It has been a long preparation and installation process for this tank, and I am confident the team will continue to work together on this important next step in our risk-reduction mission.”

Retrieval operations could take about 1 1/2 years.