CPCCo Central Plateau Cleanup Company

100 K Area

September 2026

100 K Area, May 2026

CPCCo is demolishing associated facilities and placing the last reactors in Hanford's 100 Area in Interim Safe Storage.

Background

The K East and K West Reactors and associated spent-fuel storage basins were built in the mid-1950s to support Hanford's plutonium-production mission during the Cold War. The reactors — located about 400 yards from the Columbia River — were shut down in the early 1970s. However, the spent-fuel storage basins were later modified and reactivated to store N Reactor fuel awaiting processing at Hanford's Plutonium Uranium Extraction Plant. The plant was shut down in 1988, leaving 2,300 tons of fuel in the basins. The fuel was removed from both basins between 2000 and 2004 and transferred to the Canister Storage Building at the center of the Hanford Site for safe interim storage.

After removing spent fuel from the basins, workers began final cleanup of the K East Basin. This basin was a priority because millions of gallons of contaminated water had leaked to the underlying soil. Radioactive sludge was first moved from the K East Basin and consolidated in the K West Basin. Following sludge removal, K East was drained, filled with cement-like grout and demolished in 2009.

In 2018, after testing equipment and training at an on-site mock-up facility, crews began removing the sludge from the K West Basin. By September 2019, crews had packaged all the sludge into 20 large containers. These containers were sent to T Plant at the center of the Hanford Site for Interim Safe Storage, reducing a key risk to the nearby Columbia River.

K East Reactor Interim Safe Storage enclosure, completed in October 2022.

Workers demolished a K West Reactor facility called the sludge annex in August 2023, as risk-reduction work continues in the 100 K Area.

Workers finished removing nearly 1 million gallons of contaminated water from the K West Reactor spent-fuel storage basin in July 2024.

100 K Area

In 2019, workers finished transferring radioactive sludge from the K West Basin near the Columbia River to Interim Safe Storage at T Plant in the center of the Hanford Site.

Background (cont.)

Besides the spent-fuel basins, more than 100 facilities in the K Area supported operations. Additionally, more than 150 waste sites requiring remediation were created during reactor and facility operations. To date, 70 facilities have been demolished and more than 100 waste sites remediated.

Mission

CPCCo's current mission is to clean up the remaining K Area waste sites and place the K West Reactor into a safe, long-term storage configuration. Seven of Hanford's nine former reactors have already been placed in Interim Safe Storage called cocooning. K West will be the eighth and final reactor to be cocooned, which is expected to be completed in 2032. The ninth reactor, B Reactor, is preserved as a National Historic Landmark and is part of the Manhattan Project National Historical Park.

K Area Progress

- **2000–2004:** Removed fuel from K East and K West Basins
- **2008–2009:** Drained, grouted and demolished K East Basin.
- **2019:** Completed removal of radioactive sludge from K West Basin
- **2023:** Placed K East Reactor building in Interim Safe Storage.
- **2024:** Drained K West Basin and stabilized it with grout for future demolition.
- **2026:** Completed above- and below-grade demolition of east and west side of reactor building.

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Plutonium Uranium Extraction Plant

September 2026

CPCCo is reducing the risks of aging facilities across the Hanford Site in southeastern Washington state.

Background

The Plutonium Uranium Extraction Plant (PUREX) was the fifth and final chemical processing facility built at Hanford. The plant operated from 1956 to 1972 and from 1983 to 1988. It was designed to recover plutonium, uranium and neptunium from irradiated fuel rods received from Hanford Site reactors. By 1958 the plant was processing nearly 80% of the total plutonium output from the Site, which led to the eventual shutdown of Hanford's other processing facilities. The facility's efficiency was crucial during the Cold War.

The plant complex is located near the center of the Hanford Site in an area known as the Central Plateau and includes several buildings and support structures. The plant is approximately 1,005 feet long, 104 feet high (with approximately 40 feet below ground), and 62 feet wide.

The main portion of the plant — called the "canyon" because of the large open area inside — is approximately 860 feet long and contains 11 separate areas that housed the fuel-processing equipment. During its operating life, the plant supplied about two-thirds of the plutonium processed by the United States.

Future

Today workers are focused on risk-reduction activities to prepare the contaminated PUREX canyon and support facilities for demolition. This work includes deactivation and decontamination activities, such as removal of hazardous and radiological waste, and demolition and stabilization. Crews also perform surveillance and maintenance of the plant complex to keep the facility in a safe configuration.

Draining old chemical lines.

Removing hazards such as asbestos on old pipelines.

Aging former support facilities are being demolished and removed prior to demolition of the main facility.

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Reduction Oxidation Plant

September 2026

CPCCo is reducing the risks of aging facilities, such as the Reduction Oxidation Plant, across the Hanford Site in southeastern Washington state.

Background

The Reduction Oxidation Plant (REDOX) was the fourth of five processing "canyons" — so called because of the large open area inside — constructed on the Hanford Site. The plant was used from 1952 through 1967 for the chemical separation of plutonium and uranium from irradiated fuel rods. The facility is 470 feet long and 160 feet wide.

The plant processed approximately 24,000 tons of uranium fuel rods during operations and had the capacity to process up to 12 tons of uranium each day. The plant used a solvent extraction process, which was more efficient at extracting plutonium than previous processes. The plant's operations also consolidated plutonium processing, which previously required multiple Hanford facilities and processes.

Future

Workers continue surveillance and maintenance activities to keep REDOX in a safe condition and ensure compliance with environmental regulations. Workers are also removing radiological and chemical hazards from the plant to prepare it for demolition, including asbestos, process equipment and piping, and ancillary structures.

Workers remove contaminated liquid from an old pipeline at the Reduction Oxidation Plant.

A new ventilation system supports future cleanup activities inside the facility.

Workers demolished and removed several tanks that supplied chemicals during fuel processing.