

The Plutonium Uranium Extraction Plant was the fifth and final plutonium processing facility built at Hanford.



The U.S. Department of Energy and contractor Central Plateau Cleanup Company are working to reduce 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 again from 1983 to 1988. It was used to recover plutonium, uranium and neptunium from irradiated fuel rods received from Hanford Site reactors. By 1958, PUREX processed 79% of the total plutonium output from the Site, which led to the eventual shutdown of Hanford’s other plutonium processing facilities. The facility’s efficiency was crucial during the Cold War.

The PUREX 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. PUREX is approximately 1,005 feet long, 104 feet high (with approximately 40 feet below ground), and 62 feet wide. The main portion of the facility — 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, PUREX supplied about two-thirds of the plutonium produced 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. Workers also perform surveillance and maintenance of the PUREX complex to keep the facility in a safe configuration through the demolition and stabilization processes.

Workers drain old chemical-feed lines.



Workers are removing hazards such as asbestos on old pipelines at the facility.



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

