

*K West Reactor and support structures, 2019.*



*K East Reactor ready for construction of the safe secure enclosure.*



The U.S. Department of Energy and contractor Central Plateau Cleanup Company manage the demolition of facilities, and remediation and interim safe storage of the last reactors in Hanford's 100 Area.

## Background

The K East and West reactors and associated spent fuel storage basins were built in the mid-1950s in support of Hanford's plutonium production mission. The fuel storage basins (K Basins) provided temporary storage of irradiated fuel discharged from the reactors prior to shipment to fuel processing facilities at the Hanford Site. The reactors were shut down in the early 1970s; however, spent fuel storage basins were later modified and reactivated to provide temporary storage of N Reactor fuel awaiting processing at the Plutonium Uranium Extraction Plant (PUREX). The PUREX was shut down in 1990, leaving 2,100 metric tons of fuel in the basins. The bulk of the N Reactor fuel was removed from both basins between 2000 and 2004. The K East reactor fuel storage basin was demolished in 2009. There were over 100 facilities in the K Area that were built to support basins operations, including burial grounds for disposal of waste generated during reactor operations. Additionally, over 150 waste sites requiring remediation were created as a result of reactor and facility operations.

## Mission

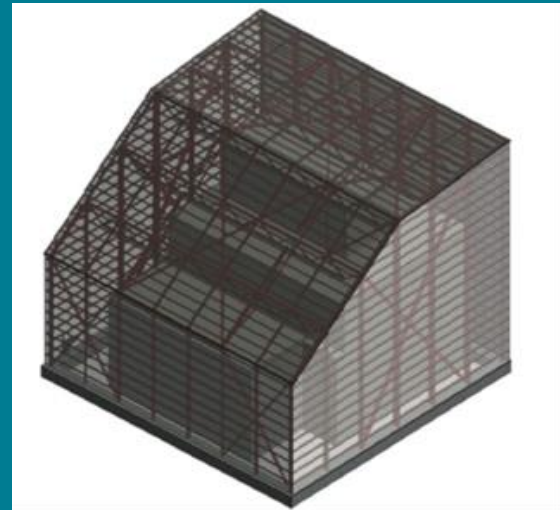
DOE's mission is to complete remediation of the 100 K Area waste sites, demolition of the K West Basin and other structures, and place the K East and K West reactors into Interim Safe Storage. The 100 K Area is the last reactor area in Hanford's Columbia River corridor, where cleanup has not been completed yet.

## Progress

- Completed demolition of the K East Fuel Storage Basin in 2009.
- Completed removal of spent fuel from the K West Basin in 2012.
- Completed removal of highly radioactive sludge from the K West basin in 2019.
- Completed remediation of 113 waste sites and demolition of 70 facilities.
- Installed equipment to allow removal of basin water treatment system filter media in 2021.
- Initiated K West Basin debris characterization and debris removal in preparation for dewatering, grouting and basin demolition.



*Demolition of 165 K West powerhouse*



*Rendering of K Reactor safe secure enclosure.*



*Underwater debris awaiting removal from K West fuel storage basin.*

