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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, such as the Reduction-Oxidation Plant, or REDOX.

Background

The Reduction-Oxidation Plant, better known as REDOX, was the fourth of five processing “canyons” constructed in the central part of the Hanford Site. REDOX was used for the chemical separation of plutonium from irradiated fuel rods from 1952 through 1967. The facility processed approximately 24,000 tons of uranium fuel rods.

At 470 feet long and 160 feet wide, REDOX was smaller, but more efficient than its predecessors, with the capacity to process up to 12 tons of uranium each day, compared to about 1.5 tons for T Plant and B Plant. Operations at REDOX also consolidated plutonium processing programs into one building and process, which previously required multiple facilities and processes.

Mission

Today, workers at REDOX are preparing to install a new ventilation system to improve airflow and filtration, which will allow workers to safely continue decontamination activities – such as the characterization and removal of radiological and chemical hazards – to prepare the facility for eventual demolition.

Workers also perform regular surveillance and maintenance of the REDOX canyon to keep the facility in a safe condition and ensure environmental compliance.

Future

Decontamination and eventual demolition of the REDOX plant is among the Department of Energy’s priorities to further reduce site risk and liability, and shrink overall lifecycle costs and schedule.



Workers are removing radiological and chemical hazards from inside the REDOX canyon to prepare the facility for eventual demolition.



Components of a new ventilation system were recently delivered to the REDOX plant. The new system will improve worker safety and support future high-hazard work planned inside the facility.



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