The Department of Energy and contractor CH2M HILL Plateau Remediation Company are safely removing contaminated equipment from the Plutonium Finishing Plant once used to produce plutonium during the Cold War at the Hanford Site in southeast Washington State.

One of the buildings at the plant, called the Plutonium Reclamation Facility, includes a canyon area that houses skinny, pencil-shaped tanks mounted to racks on the walls along with other support equipment. The pencil tanks range in size from 3 feet to 22 feet long, are contaminated with plutonium and must be removed to prepare the facility for demolition. CH2M HILL will remove a total of 196 pencil tank units (racks and process equipment included).

Removing the tanks is a complex process due to the hazard of the contaminants and the location of the tanks. The work is done using a remote crane to move the tanks to a nearby maintenance cell. Workers then reach into the maintenance cell through gloves attached to ports and cut up and package the equipment for transportation and disposal at an approved treatment and disposal facility.

If workers must enter the canyon where the pencil tanks are located, they wear multiple layers of protective clothing and use supplied air because the contamination is so high. For each entry, a team of three to four workers enters the canyon and a support team of 35 workers help remove the contaminated protective clothing, perform radiological monitoring and monitor their supplied air flow.

Prior to entry, workers must go through a rigorous training program to ensure the work is done safely. CH2M HILL is also bringing in remote demolition tools to support workers and reduce the time spent in the canyon itself.

Facility Details

The Plutonium Reclamation Facility began operations in 1964 to recycle scrap plutonium during the Cold War to increase the production of plutonium for the nation's nuclear weapons program. It is one of more than 60 buildings that originally made up the Plutonium Finishing Plant complex. Ultimately, all of these structures are to be decontaminated and demolished as Hanford cleanup continues. The task also includes removal of 232 large pieces of contaminated equipment called gloveboxes, more than 6,600 feet of contaminated process piping, and 24,000 feet of asbestos.

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