Hot cell coolers, weighing 7,188 pounds each, were successfully removed from the Vitrification Facility through extensive planning, engineering controls, modeling and historical best practices.

“This work was a significant accomplishment for our team,” CHBWV President Jeff Bradford said. “They completed this work safely and compliantly using a deliberate and methodical approach, along with lessons learned.”

Workers at the West Valley Demonstration Project removed in-cell coolers as part of their Vitrification Facility demolition project. This particular work evolution was the highest remaining hazard associated with this project, and was a critical path for continuing on with the demolition of this facility.

“The CHBWV Team did an excellent job in their planning and execution of this high hazard work evolution,” WVDLP Director Bryan Bower said. “This paves the way for the workforce to continue with the demolition of the Vitrification Facility.”

On Saturday, March 3, crews began the lowering and removal evolution for the first cooler from the Vitrification Facility ceiling. Using a 300-ton crane positioned above the 50-foot tall facility, the cooler was attached to the crane using roof penetrations designed for mechanical and electrical connections. Once connected, the cooler was lowered to the Vitrification Facility floor where crews then performed general size reductions and additional contamination controls. On Monday, March 5, a large excavator was then used to pick up the cooler and place it into an approved waste container.

The removal of the first cooler was used to conduct a lessons learned team meeting prior to the continuation of this work evolution. This provided an opportunity to review and make improvements to the critical lift process.

Crews lowered the remaining three coolers to the Vitrification Facility floor on March 9. The work evolution was successfully completed after the three remaining coolers were placed into waste boxes on March 12, 13 and 15.

The facility’s in-cell cooling system consists of four fan coolers, which were seismically designed and supported. These coolers removed heat during normal operations and transferred that heat through a chilled water system.

Discharge nozzles on each cooler were directed towards the facility pit to maximize cooling to vitrification components such as the melter and the canister turntable.

A cooler from the vitrification facility being lowered using a crane and excavator.