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WVDP workers pull ‘Green Giant’ from Main Plant



An operator uses a hydraulic grapple to safely remove and package a sampler system into a specialty shielded container for offsite disposal at the [West Vally Demonstration Project](#).

WEST VALLEY — The U.S. Department of Energy Office of Environmental Management (EM) crews safely removed a massive piece of equipment known as the “Green Giant” from a facility being demolished at the [West Valley Demonstration Project \(WVDP\)](#).

Painted green decades ago, the sampler system held samples from various vessels used in former spent fuel reprocessing operations at the [WVDP](#). It weighed 1,100 pounds, with 75,000 pounds of steel and lead shield plates on the outside of it.

EM and workers with cleanup contractor [CH2M HILL BWXT West Valley \(CHBWV\)](#) removed the steel shield structure from a chemical processing cell as part of the ongoing demolition of the Main Plant Process Building. They packaged the sampler system for offsite disposal.

“This all comes down to planning,” said Stephen Bousquet, assistant director of [West Valley’s](#) Office of Project Management. “Working as a team and utilizing feedback and lessons learned helped to make this work evolution safe, smooth, and compliant. When performing challenging work, safety must remain the top priority, and that’s exactly what this team did.”

The sampler system was embedded inside a wall in the Chemical Process Cell, which was designed to dissolve sheared spent nuclear fuel and reduce liquids through evaporation. The sampler system had an interface for operators in the Chemical Operating Aisle, where they obtained the samples from the vessels in the cell. The sampler system moved the samples to the Analytical & Process Chemistry

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Sample Storage Cell using a small elevator and conveyor inside the wall. Workers in that cell analyzed the samples to monitor the chemical dissolution of the spent nuclear fuel.

Before removing the sampler, a multi-disciplinary team identified more than 120 items in the Main Plant requiring special handling and packaging, including the sampler. This work also helped to determine the safest removal method. In this case, crews built a special shielded box, and a heavy equipment operator used equipment to safely remove and package the sampler.

CHBWV Facility Disposition Manager Tom Dogal reiterated Bousquet's sentiment about the factors leading to the project's success.

"Extensive planning, engineered controls, and the right people allow us to perform our cleanup mission safely and compliantly," Dogal said. "Teamwork and communication kept them focused on the task to ensure a smooth, deliberate and successful outcome."

The Main Plant is one of the last major facilities at **West Valley**. Its successful demolition will further reduce environmental risks and position the site for the next phase of cleanup. The demolition is expected to be completed in the fiscal year that begins Oct. 1.

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An old photo of the "Green Giant" inside a chemical processing cell within the Main Plant Process Building at the **West Valley Demonstration Project**.