

## EM Sites to See Cost Savings From Sharing Equipment to Relocate Waste

*Equipment will be repurposed to advance proposed dry storage efforts*



*Workers at the West Valley Demonstration Project load the specially designed, robotically operated welder onto a flatbed for shipment to the Hanford Site.*

**WEST VALLEY, N.Y.** – Cost savings will result from two [EM](#) cleanup sites sharing highly specialized equipment for packaging and relocating nuclear waste to storage locations.

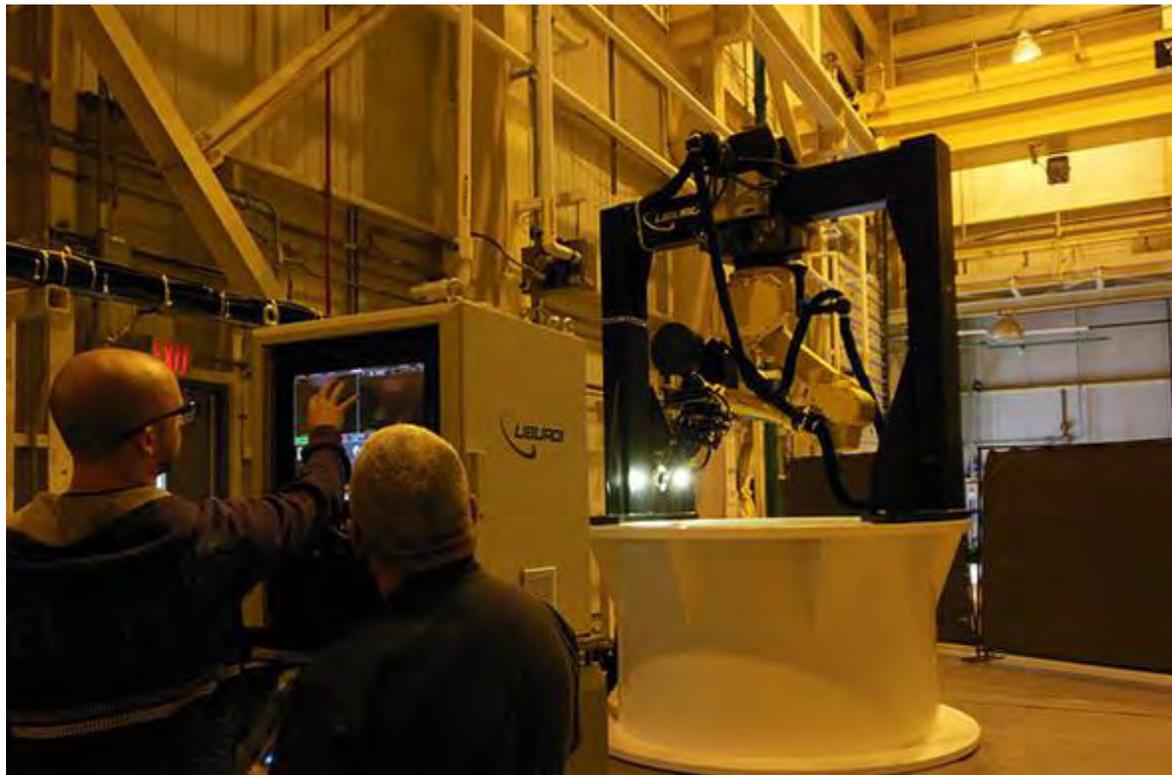
Workers at the [West Valley Demonstration Project](#) (WVDP) in New York shipped welding equipment to the [Richland Operations Office](#) (RL) at the [Hanford Site](#) in Washington state on Jan. 8 to assist in proposed packaging and moving of radioactive cesium and strontium capsules to dry storage. Sharing the equipment valued at approximately \$2.4 million helps the sites achieve savings.

The robotically operated welder was designed and fabricated to seal the WVDP overpacks. Workers inserted five high-level waste canisters into a stainless steel overpack that was preloaded into a steel-lined concrete vertical storage cask. They welded the overpack lid shut using the welder prior to moving the storage cask assembly to the interim storage pad.



The welder enables repetitive precision welding, producing a high-integrity seal to ensure a safe, secure shipment-ready package. The welder's remote operation capability prevents radioactive exposure to the operator.

The welder's computer interface is capable of monitoring and controlling welder amperage, voltage, travel speed, wire feed speed, and the hot wire current. All of this, combined with a fully integrated robotic arm, further enhances the safety and precision for welding operations.



*West Valley Demonstration Project operators train with the automated welding system.*

At Hanford, a team is scheduled to relocate 1,936 cesium and strontium capsules stored underwater at the [Waste Encapsulation and Storage Facility](#) to an outside storage area. The planned storage area at Hanford, similar to the one at WVDP, is modeled after dry spent fuel storage systems at commercial nuclear power plants in the U.S. It will feature above-ground, shielded cask storage, which requires little maintenance.



This summer, the Hanford team is scheduled to receive a large tow tractor and vertical transporter used to move casks to outdoor storage at WVDP. The equipment was designed and built to move each 87.5-ton, steel-reinforced vertical storage cask to the interim storage pad at the WVDP.

Teams from both sites previously shared best practices. Employees from RL's cleanup contractor CH2M Hill Plateau Remediation Co. visited counterparts at CH2M BWXT West Valley (CHBWV) to learn about the WVDP's successful relocation of 278 canisters of vitrified high-level waste to an onsite interim storage pad. The canisters were packaged in overpacks and welded shut with the specialized welder before being relocated. CHBWV accomplished this task in November 2016, a year ahead of schedule.

"It's important to share lessons learned and best practices," CHBWV President Jeff Bradford said. "This helps to prevent potential problems, increase safety, and maximize success."

*-Contributor: Joseph Pillittere*