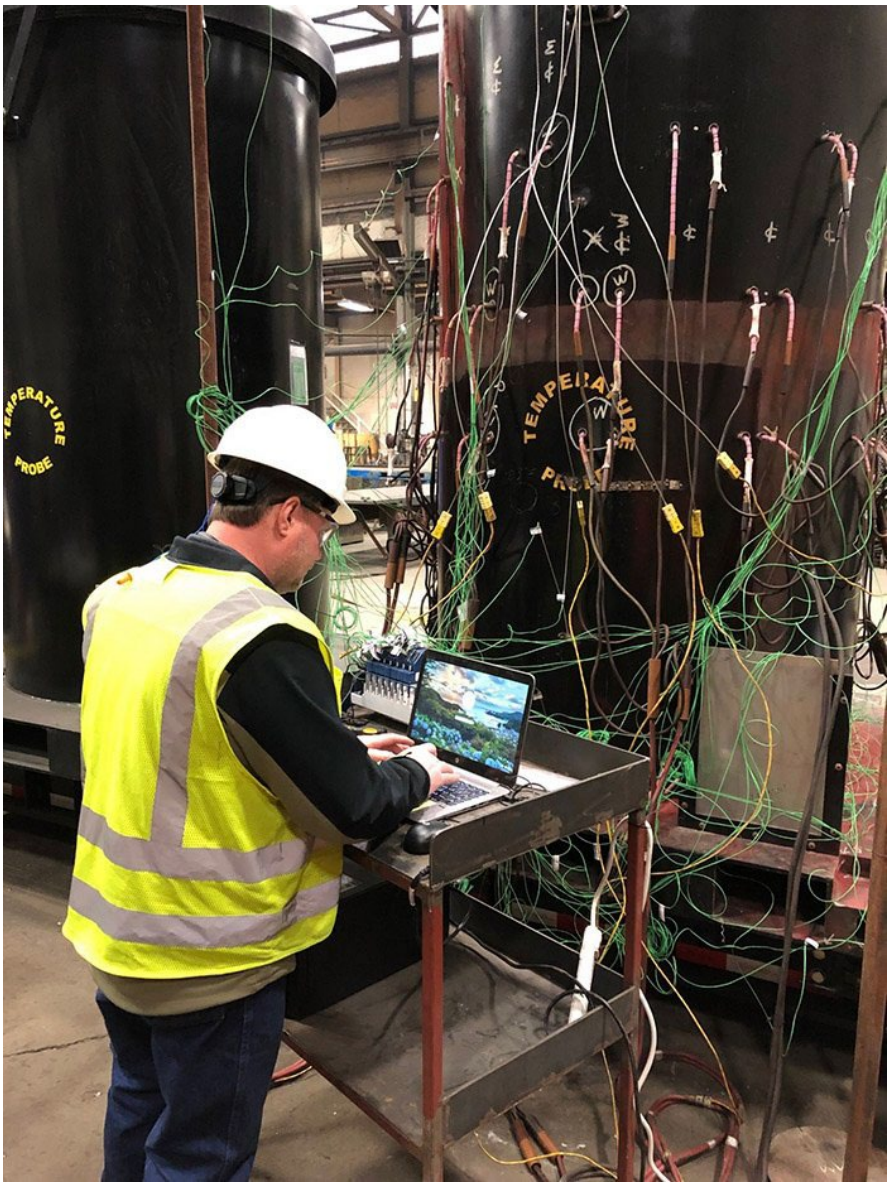
U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

# Transporter Tests Validate Design, Capabilities of Waste Transfer at Hanford Plant

April 16, 2019



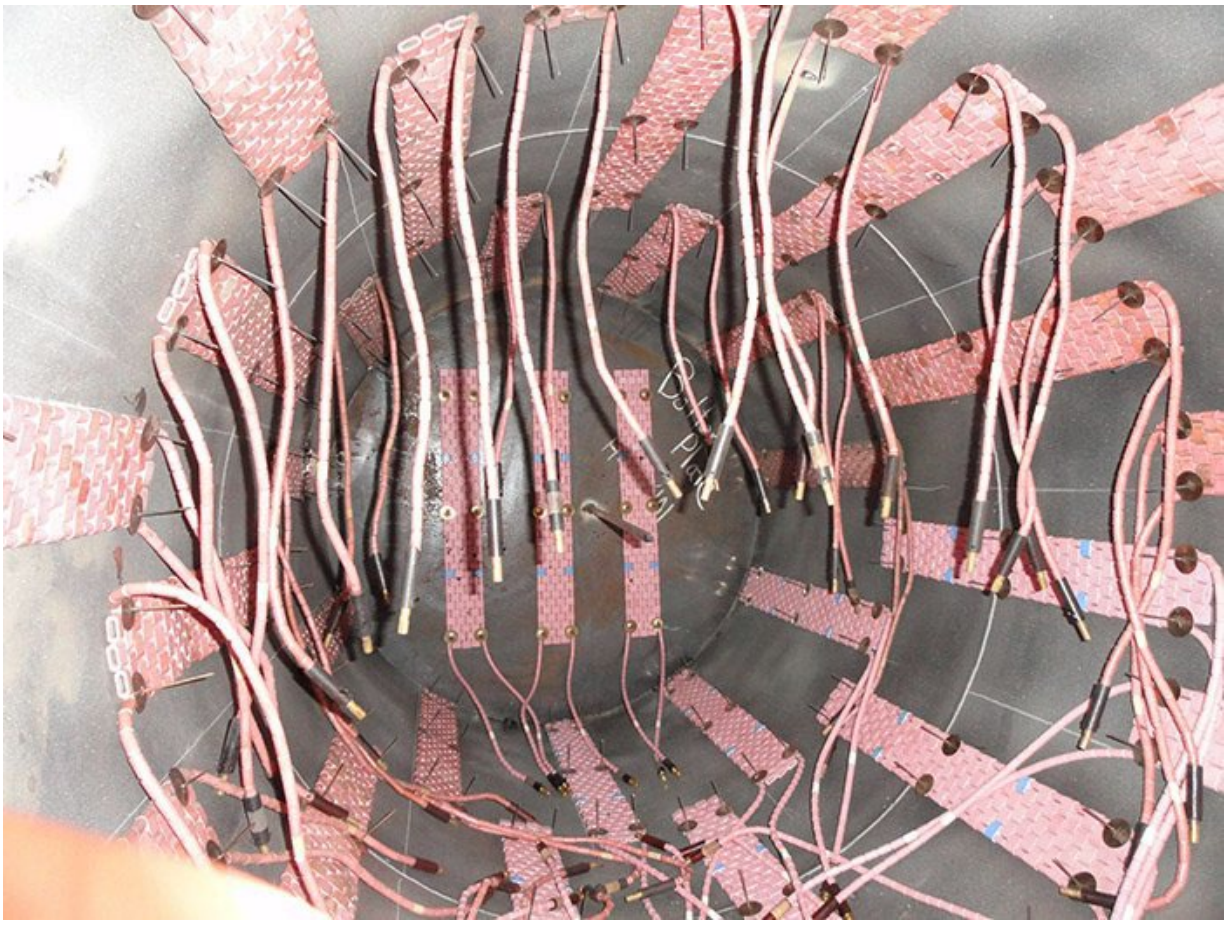

**Thermal testing for the immobilized low-activity waste transporter system included heating a mock glass container to simulate the temperature of a container when leaving the Hanford Waste Treatment and Immobilization Plant.**

**RICHLAND, Wash.** – The test results are in and the conclusion is clear: The immobilized low-activity waste (ILAW) transporter system — designed, fabricated, and tested by **EM**'s **Hanford** tank operations contractor Washington River Protection Solutions (WRPS) — is capable of safely moving containers filled with a mix of glass and waste from the **Waste Treatment and Immobilization Plant** (WTP) to permanent storage.

"The ILAW transporter project prototype testing program recently competently validated the design, operational flexibility, and improvements in safety and ergonomics," said Rick Tedeschi, ILAW transporter project manager for WRPS.

The transporter system consists of a standard 18-wheel truck, which pulls a specially designed trailer with three engineered pallets for carrying containers of vitrified waste. The system is designed to safely move waste containers from the WTP to Hanford's **Integrated Disposal Facility** (IDF).

Tedeschi said mechanical testing showed the trailer has good maneuverability and the pallets are secure. It also validated the pallets can be loaded and unloaded efficiently using an ILAW container grapple.



**The mock glass container was heated to more than 400 degrees Fahrenheit using industrial heating pads as part of testing for the immobilized low-activity waste transporter system.**

**The immobilized low-activity waste transporter system consists of a trailer with three pallets, which will be loaded with containers of tank waste mixed with hot glass for transport to Hanford's Integrated Disposal Facility.**

Thermal testing, which concluded in February, involved heating a mock container to more than 400 degrees Fahrenheit using industrial heating pads and then placing it inside a pallet. The test team also used dry ice to ensure the system continued working as designed down to negative 40 degrees Fahrenheit.

“In both cases, the transporter performed well and no safety margins were threatened,” WRPS Principal Project Engineer Roger Keller said.

The ILAW testing involved all of Hanford’s prime contractors. WTP contractor Bechtel National provided a grapple and simulated waste-filled container. Site services contractor Mission Support Alliance road-tested the trailers. WRPS coordinated the fabrication and thermal testing. Cleanup contractor CH2M HILL Plateau Remediation Company provided feedback on IDF operations. EM’s **River Protection** and **Richland Operations** offices and the Washington State Department of Ecology monitored test progress.

“Integration across the complex has been outstanding,” Tedeschi said. “That has been key to the entire testing program.”

The final ILAW transporter system design will be finished soon, with minor modifications based on testing. Procurement is planned for 2020 and will consist of three additional trailers and 40 pallets.