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WRPS AWARDS SUBCONTRACT FOR CONSTRUCTION OF WASTE PRETREATMENT CAPABILITY TO PREPARE FOR VITRIFICATION

RICHLAND, Wash. – U.S. Department of Energy (DOE) contractor Washington River Protection Solutions (WRPS) has awarded a subcontract to AVANTech, Inc. to design and build a new tank waste pretreatment capability at the Hanford Site in southeast Washington state.

The Tank-Side Cesium Removal (TSCR) demonstration project will separate both cesium and solid materials from the tank waste, providing a low-activity waste stream that will be sent to the Waste Treatment and Immobilization Plant's Low Activity Waste (LAW) Facility for vitrification.

This project relies on a technology that was deployed successfully at several locations worldwide, including at DOE's Oak Ridge Site and the Fukushima nuclear cleanup in Japan. It uses a design concept similar to that of a unit built for the Savannah River Site.

DOE expects TSCR to be ready to deliver pretreated low-activity waste to the LAW Facility by December 2023 or sooner. TSCR will filter waste from one of Hanford's underground tanks to remove solids and then process the waste through a series of ion-exchange columns that will remove cesium. The resulting low-activity waste solution will be pumped to a double-shell tank for storage until it can be sent to the LAW Vitrification facility.

TSCR is expected to be able to enable pretreatment of approximately 5 million gallons of waste to support the initial operation of the LAW Facility. The ion-exchange columns will be replaced periodically as they lose their ability to separate cesium and then will be subsequently stored in a shielded manner at a nearby interim storage facility.

"DOE recognizes the urgency of the Hanford cleanup mission," said Mark Lindholm, WRPS president and project manager. "TSCR is the next step forward in our critical mission to treat and vitrify tank waste."

About WRPS

WRPS is a prime contractor to the U.S. Department of Energy's Office of River Protection. It is responsible for the safe and efficient management of radioactive and hazardous wastes stored in Hanford's underground tanks and preparing to deliver the waste to the Waste Treatment and Immobilization Plant for vitrification.