EM UPDATE

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

Celebrating Key Step in Hanford Tank Waste Treatment

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EM's Office of River Protection and Richland Operations Office manager and Washington River Protection Solutions president and CEO talk prior to a virtual press conference on Feb. 2 announcing Hanford's Tank-Side Cesium Removal System operations.

RICHLAND, Wash. – The **EM** Office of River Protection (**ORP**), tank waste contractor Washington River Protection Solutions (WRPS), and Washington state officials recently celebrated the startup of the Hanford Site's new Tank-Side Cesium Removal (TSCR) System.

TSCR startup marks completion of the first of an **ambitious slate of 2022 priorities** set by EM. The system is the cornerstone of the site's **Direct-Feed**

Low-Activity Waste Program, removing radioactive cesium and solids from tank waste. The system processes a little more than 7,000 gallons of waste a day.

"TSCR enables us to initiate safe and effective tank waste treatment at Hanford. It's a capability that will transform the Hanford Site and benefit the entirety of the Hanford program," EM Senior Advisor William "Ike" White said in a recorded message during a virtual press conference on Feb. 2 celebrating the startup.

View the TSCR-startup press conference here.

Washington state leaders praised TSCR's significance to environmental cleanup.

"The Tank-Side Cesium Removal System is a major leap toward making our community safer," Washington Gov. Jay Inslee said.

Sen. Maria Cantwell, D-Wash., said getting the system online is an engineering feat.

"It puts us one step closer to safely treating and disposing of approximately 90% of the 56 million gallons of tank waste stored at the Hanford site," she said.

An aerial view of the Hanford Site's AP Farm and Tank-Side Cesium Removal System, bottom center.

Brian Vance, manager of ORP and the **Richland Operations Office**, said Hanford is entering an exciting new era.

"We have begun delivering on a longstanding commitment to the surrounding communities and the Pacific Northwest," Vance said. "For the first time in the Hanford Site cleanup history, we are treating tank waste on an industrial scale in preparation for vitrification and permanent disposal."

Workers install a 24,000-pound ion exchange column in the Tank-Side Cesium Removal System. The columns remove cesium from waste destined for processing at the Waste Treatment and Immobilization Plant.

An initial 1 million gallons of treated waste from TSCR will be staged in a large underground tank in preparation to be fed directly to the Waste Treatment and Immobilization Plant for **vitrification**, or immobilization in glass, when the plant comes online next year.

WRPS managed the project's design and construction. The cesium removal technology is nearly identical to a system operating at the **Savannah River Site** in South Carolina.

"We are making Hanford history," said John Eschenberg, WRPS president and CEO. "I'm extremely proud of our team, the dedicated workforce who delivered this project on time and on budget during some challenging times over the last 18 months."