

For Immediate Release

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SRR Testing Waste Removal Technology

AIKEN, S.C. (November 1, 2010) – Savannah River Remediation LLC (SRR) will deploy technology to accelerate removing waste from waste tanks in South Carolina, a technology that could also be used in waste tanks in Washington state.

SRR, the liquid waste contractor at the Savannah River Site (SRS), is guiding demonstration of a technology, Small Column Ion Exchange (SCIX), which removes radioactive constituents (cesium and insoluble solids) from salt waste contained in radioactive liquid waste tanks, and thereby allows salt waste to be disposed at a higher overall process rate.

Currently, salt waste can be removed from SRS waste tanks at approximately 1 million gallons per year. An operation employing the SCIX process will allow approximately 2.5 million gallons per year to be processed. SCIX provides additional capability for salt waste treatment, which supports tank closures and will accelerate the lifecycle for closing waste tanks.

The SCIX unit is scheduled to be deployed by October 2013.

Both SRS and the Hanford Site in Washington have waste tanks with radioactive liquid waste. The Hanford Tank Operations Contract (TOC) is operated by Washington River Protection Solutions. Both SRR and TOC are subsidiaries of URS Corporation.

While SRR has been designing and testing this technology, the Office of River Protection is still weighing options on the technology they will deploy to remove salt waste from their tanks. However, they have visited SRR several times, and are watching the SCIX design and testing closely.

Earlier this month, Jim French, SRR President and Project Manager, observed testing of the SCIX mixing/blending being tested at SRS on a one-tenth scale model of a waste storage tank, including cooling coils, so data can be gathered through testing.

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"I was pleased that I saw significant progress in the application of this technology," French said. "I look forward to its deployment in the field where everyone can see how it will help SRR meet its tank closure work."

Terrel Spears, Assistant Manager for Waste Disposition Project, U.S. Department of Energy (DOE)-Savannah River Operations Office, said DOE recognizes this new technology can accelerate waste removal from the tank farms at both sites.

"Moving radioactive waste out safely, cost-effectively and faster are keys to DOE," Spears said. "We encourage the sharing of technologies, especially those technologies that benefit the DOE Complex and save taxpayer's money."

SCIX is a part of a Supplemental Salt Initiative developed jointly between DOE and URS. This proven technology, along with other technology improvements, is estimated to save more than \$3 billion dollars in lifecycle costs and shave 6 years off the tank closure schedule at SRS.

The SCIX process concept consists of Rotary Microfilters (RMF), submersible pumps, Ion Exchange Columns (IXC), and spent resin disposal modules installed in an SRS waste tank. The RMF will provide filtration to remove insoluble solids in the feed stream after actinide removal. The IXC units will remove cesium from the salt solution in the tank using a crystalline silicotitanate medium. The RMF and IXC are the primary components needed to decontaminate salt solution waste. The decontaminated salt waste would then be processed in the Saltstone facility and disposed, while the cesium, actinides and solid components would be immobilized in the Defense Waste Processing Facility (DWPF).

SRR is the Savannah River Site's Liquid Waste contractor. SRS is owned by the U.S. Department of Energy. SRR is composed of personnel from a team of companies led by URS with partners Bechtel National, CH2M Hill and Babcock & Wilcox. Critical subcontractors for the contract are AREVA, Energy Solutions and URS Safety Management Solutions.

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Photo cutline: Jim French, Savannah River Remediation President and Project Manager (third from left), examines the Small Column Ion Exchange work at the Savannah River Site.