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FOR IMMEDIATE RELEASE

Savannah River Site Adds Innovation to Key Liquid Waste Facility System

AIKEN, S.C. (January 3, 2022) – [The Department of Energy's Office of Environmental Management](#) has developed a new, innovative system that reduces both operational downtime and personnel exposure at a key facility in the [Savannah River Site](#) (SRS) liquid waste system.

The Saltstone Production Facility (SPF), operated by EM's liquid waste contractor Savannah River Remediation (SRR), receives decontaminated salt solution sent from the [Salt Waste Processing Facility](#). SPF processes that solution into saltstone grout by mixing the liquid feed with dry materials. The grout is then pumped from SPF to saltstone disposal units, where the saltstone grout solidifies into a monolithic, non-hazardous, and solid low-level form, safe for permanent disposal.

At SPF, an overflow system called the Saltstone Hopper Overflow Container (SHOC) works as a safety feature that collects grout or flush water during instances such as grout pump hose ruptures, hopper overflow, or grout line overpressurization. Previously, any material that exceeded the SHOC capacity flowed into a process room trench that transferred the material to a nearby collection tank. Grout accumulated in the trench would harden and had to be chipped out by hand.

SRR developed and implemented a solution that solved this problem. The team installed a new system to reroute overflow from the SHOC and return the material to



Savannah River Remediation (SRR) made significant improvements to the Saltstone Hopper Overflow Container at the Savannah River Site's Saltstone Production Facility. Pictured is the container's recovery pump, foreground, with piping and additional new equipment as part of the facility improvements.

the grout line to prevent the material from entering the trench. Changes to the SHOC system included new equipment, such as piping and a recovery pump.

These modifications decrease facility downtime by months, reduce personnel exposure during recovery efforts and increase automation in plant response.

Jim Folk, DOE-Savannah River assistant manager for waste disposition, said strengthening SPF with the SHOC modifications will allow EM to continue its critical liquid waste mission.

“The Saltstone Production Facility is an important piece in the overall liquid waste system,” Folk said. “It is vital that the plant is running at its optimum capacity, especially now that it is receiving waste output from the Salt Waste Processing Facility.”

The innovations to the SHOC design, coupled with intensive maintenance over the last four years, are prime examples of SRR’s core values of continuous improvement and teamwork in action, according to Mark Schmitz, SRR chief operating officer and deputy project manager.

“The improvements made to the Saltstone Hopper Overflow Container demonstrate an impressive blend of expert design and skillful labor,” Schmitz said. “The improved system not only mitigates risk to the facility, but it also removes a significant burden on our maintenance and operations crews.”