SRS Makes Progress on 32-Million-Gallon Waste Disposal Unit

AIKEN, S.C. (November 7, 2018) – Construction of a second large-scale saltstone disposal unit (SDU) at the Savannah River Site (SRS) is progressing safely and on schedule.

SDU 7 will be the second of seven mega-volume SDUs to be built at SRS and is designed to hold 32 million gallons of waste.

DOE-Savannah River SDU 7 Federal Project Director Shayne Farrell said the structures are key to the SRS cleanup.

“SDUs provide safe, permanent storage for low-activity waste and underscore the Department of Energy’s commitment to closing the high-level waste tanks at SRS,” said Farrell.

The units are designed to contain low-activity waste produced from solidification of decontaminated non-hazardous salt waste, known as decontaminated salt solution. The solution solidifies inside the unit for safe, permanent disposal. SDU 7 will accommodate the larger stream of solution from the Salt Waste Processing Facility, currently undergoing testing and commissioning.

In late October, crews finished installing the leakage detection system. It’s comprised of a clay liner and high-density plastic liner sandwiched between two concrete layers called mud mats. Those mats provide a solid surface for the SDU concrete floor. Both the lower and upper mud mats are complete.

An automated operation — called a screed machine — was used to place the cement mud mats, saving time and money. The machine screeds, or levels, the poured concrete with laser precision. From a safety perspective, using the machine means fewer people interfacing with heavy equipment in the area.
The screed machine requires a crew of eight, including the machine operator, rather than a 24-person crew to complete the labor-intensive task. Machine-screeding can complete up to 10,000 square feet per hour versus about 1,500 square feet per hour by traditional hand-screeding.

Excavation was completed this summer for SDU 7’s foundational footprint. More than 170,000 cubic yards of soil was relocated in about two months using eight off-road dump trucks in 6,700 round trips to a nearby stockpile. A locally owned, small-business subcontractor — BK All American Company — completed the excavation with more than 20,000 hours of safe work.

Savannah River Remediation (SRR) President and Project Manager Tom Foster said SDU 7, like its sister unit SDU 6, will be integral to the site’s liquid waste mission. SRR is the site's liquid waste contractor.

“The SDU 7 work completed so far has been significant in preparing the liquid waste program for the arrival of Salt Waste Processing Facility operations,” Foster said. “I am proud the team has put safety first during this process because when we put safety first, operational excellence follows.”

The same subcontractor that constructed the SDU 6 cell will build the SDU 7 cell, beginning later this year.

SDU 6, the first mega-volume SDU at SRS, was completed last year and received its first transfer of decontaminated salt solution in August 2018. SDU 6 earned EM Project of the Year and the 2018 DOE Project Management Excellence Award.

**Cutline**

*Saltstone Disposal Unit (SDU) 7 is being constructed next to SDU 6 at the Savannah River Site.*

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