SRS Crews Build Second Water Line to Support Salt Waste Processing Facility

AIKEN, S.C., August 14, 2020 – Savannah River Nuclear Solutions (SRNS) workers have successfully assisted with a 2020 priority, the startup of EM’s Salt Waste Processing Facility (SWPF) by supplementing the facility’s only water source at the Savannah River Site (SRS).

Personnel with SRNS Site Services organization managed the design and installation of miles of water line, providing a critical second water source.

“Due to a history of leaks and other issues related to the original line, a second line was connected to the site domestic water loop,” said Randy Keenan, a Facility Manager with SRNS Site Services.

Crews installed several valves, pressure and flow sensors, and more than 4,400 feet of four-inch pipe within excavated trenches. SRNS coordinated these activities with SWPF and Savannah River Remediation (SRR), the site’s liquid waste contractor, to comply with the facility startup testing schedule.

“Thanks to Site Services personnel, SRNS, and the SRR engineering division, and an experienced subcontractor, the project was successfully completed despite several challenges,” Keenan said.

Those hurdles ranged from an unusually high number of delays in the project due to rain to underground obstacles such as cables, pipes and metal conduits from past construction projects.
“When an unknown buried object of some kind that’s not on site drawings is discovered, everything comes to a stop until it can be identified. Then, a careful and thorough investigation begins. Is it active, dead, or contaminated? And that happens frequently in certain areas. We had a lot of those kind of stops,” said Mark Eberl, SRNS Site Services Subcontracts Manager.

Despite such setbacks, all work was completed safely and within budget.

Cold War nuclear material production operations at SRS resulted in liquid radioactive waste, which is stored in underground tanks.

When operational, SWPF will use technologies piloted by the Actinide Removal Process/Modular Caustic Side Solvent Extraction Unit to separate highly radioactive cesium and low-level radioactive nuclides from the contaminated salt solution transferred from the waste storage tanks. Once separated, each source of radioactive waste, both high and low level, will be treated separately for safe, long-term storage.

“Our goal is to safely and efficiently perform this mission using a proven technology and integrated process specific to significantly minimizing risk at the Savannah River Site,” said Frank Sheppard, Senior Vice President and SWPF Project Manager at Parsons, EM’s SWPF contractor. “We are achieving a much higher level of processing, treating, and storage of radioactive waste.”

Savannah River Nuclear Solutions, a Fluor-led company with Newport News Nuclear and Honeywell, is responsible for the management and operations of the Department of Energy’s Savannah River Site, including the Savannah River National Laboratory, located near Aiken, South Carolina.

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SRNS-2020-936