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SRS Cleanup Mission Achieves New Milestone

AIKEN, S.C., March 10, 2022 – A multi-decade project to treat contaminated groundwater and stop its migration beneath a portion of the Savannah River Site (SRS) has successfully concluded with the removal of an estimated 18,000 pounds of chemicals.

The South Carolina Department of Health and Environmental Control recently approved terminating and dismantling the groundwater treatment system, which has removed the vast majority of chemicals from the treatment area.

Savannah River Nuclear Solutions (SRNS), the site's management and operations contractor, used the pump-and-treat system to safely process the contaminated groundwater from a network of wells located throughout 132 acres of property at SRS.

Known as volatile organic compounds, the chemicals are often used to create paints and paint thinners, refrigerants, hydraulic fluids and dry-cleaning agents. They are common groundwater contaminants found throughout the U.S. At SRS, the legacy chemicals were used as a degreasing agent at manufacturing facilities during the Cold War.

SRNS Project Manager Joao Cardoso-Neto said the system stripped the chemical vapors from the groundwater and exposed them to the sun's ultraviolet light, leading the vapors to degrade naturally and cease to be a threat to the environment.

"The system, one component of which towers 45 feet in height, will soon be rendered inoperable and eventually dismantled and removed. Any residual contamination remaining underground will have no impact on the public, our employees, wildlife or vegetation," said Cardoso-Neto. "The results of



A Savannah River Nuclear Solutions project team inspects a pump-and-treat groundwater treatment system at the Savannah River Site. The multi-decade project, which removed an estimated 18,000 pounds of chemicals, will eventually be dismantled. In the foreground, Jose Mendoza-Berrios, Project Design Engineer, left, and Larry Holmes, Project Planner, discuss the dismantling process

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this project have been impressive.”

Cardoso-Neto noted that while the groundwater treatment system was effective, it consumed a large amount of electricity and required multiple workers to operate it 24/7.

“It successfully fulfilled an important need at the time using the best available technology,” he said. “Its termination will result in an annual cost savings of \$150,000.”

For several years, the SRNS environmental cleanup program has been steadily shifting to innovative passive groundwater treatment processes largely powered by natural means. They include underground barrier walls that redirect and channel groundwater flow toward zones where an environmentally harmless solution is injected into the water to make it less acidic and reduce the migration of contaminants.

“Where it makes sense, this is the future for us,” said Shannan Lucero, SRNS Manager for Area Closure Projects. “There are several practical, low-cost and highly effective technologies already being put to use across the site while others are currently being studied. It’s an exciting and highly promising time for environmental cleanup at the Savannah River Site.”

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 located near Aiken, South Carolina.