

News from the Savannah River Site

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Massive Cleanup Project at SRS Completed, Saves Millions of Dollars

AIKEN, S.C. (Nov. 9, 2018) – Savannah River Nuclear Solutions (SRNS) personnel have saved \$9 million dollars while completing the task of consolidating more than 400,000 cubic yards of coal ash and ash contaminated soil excavated from across 90 acres at the Department of Energy’s (DOE) Savannah River Site (SRS).

Crews cleaned up pond-like basins used to manage ashes from the D-Area Powerhouse, which provided steam and electricity for SRS missions for more than 59 years. SRS shut down the powerhouse in 2012 and launched an innovative technology that burns forest debris, agricultural waste and scrap lumber to generate steam and power.

The mammoth cleanup task at SRS was completed more than a year ahead of schedule with the result being two mounds of coal ash and soil, each having a water-shielding, highly protective cover in place.

“Our goal was to safely and cost-effectively protect the environment locally as well as the nearby Savannah River,” said Susan Bell, SRNS Project Manager for D Area. “We were pursuing performance excellence and timely completion with this multi-year project, and those goals were not just met, but exceeded.”



Before-and-after photos of the Savannah River Site ash basin cleanup project. Over 400,000 cubic yards of ash and impacted soil has been successfully excavated and consolidated at SRS, while saving \$9 million dollars.

“Without visiting the remediated site, it’s hard to grasp just how big a project this was,” said Karen Adams, DOE-Savannah River Federal Project Director. “Working closely with DOE and their primary sub-contractor, SRNS has taken what originally appeared to be several large ponds connected by marsh-like areas, converting it all into grass-covered fields, eliminating environmental hazards from the ash. The contrast between the before and after photos is impressive.”

Phase one of the cleanup project successfully consolidated over 130,000 cubic yards of ash and impacted soil onto an existing 21-acre ash landfill at SRS directly adjacent to the initial excavation site. Completion of this phase formed the first of two highly protected areas in D Area. SRNS received an award from the Project Management Institute for its work during phase one.

Phase two, the single largest portion of this cleanup effort, consolidated almost 300,000 cubic yards of ash, coal fines and contaminated soil from two basins and adjacent wetlands into a second huge and carefully protected area. Like the landfill, it was fully capped with geosynthetic material and a thick earthen cover consisting of fill dirt and grass-covered topsoil.

“The geosynthetic, polyethylene-based system used ensures rainwater runs off the mounds, eliminating erosion and the possible migration of contaminants to the groundwater,” said Bell.

Approximately 1.8 million square feet of geosynthetic material, covering approximately 20 acres, was installed over the second mound.

“The key is layers of protection,” added Bell. “Each layer has its own purpose, all working together.”

“The cleanup project was challenging from the start with the task of removing approximately 80 million gallons of water from the original basins before excavation could begin,” she explained. “Then weeks of rain impacted the project, creating difficult conditions for the heavy equipment operators to initially work in.”

The SRS D Area Ash Project is a result of a closure strategy developed and approved by a core team consisting of members of DOE-Savannah River, SRNS and state and federal environmental regulatory agencies.

According to Adams, the challenges involving the safe conversion of these large holding basins containing wet coal ash into highly protected storage areas for dry coal ash are one of the biggest environmental problems facing power generating facilities across the U.S., whether commercial or federally-owned.

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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