SRS Demolition of Cold War Buildings Exceeds 1 Million Square Feet

AIKEN, S.C., July 21, 2021 – Savannah River Nuclear Solutions (SRNS) has surpassed a major environmental restoration milestone by deactivating and decommissioning (D&D) 50 buildings — more than 1 million square feet of space — since 2008 at the Savannah River Site (SRS).

That was the year SRNS became the site’s management and operations contractor. The SRNS Area Closure Projects management team is working from a federally approved list of buildings to deactivate, decommission, grout or demolish at the site.

Within the next year, an additional 13 buildings are scheduled for demolition within the site’s D Area, where electricity, steam and heavy water were produced for Cold War operations.

“As a result of this extensive number of deactivation and decommission projects across

(top) Thick steel doors within P and R Reactor buildings at the Savannah River Site were removed prior to filling the structures with concrete-like grout. The doors formerly shielded workers from a room containing a nuclear process vessel. Savannah River Nuclear Solutions finished decommissioning the buildings in 2011.

(bottom) All that remains of the Ford Building at the Savannah River Site is a new six-inch concrete cap over its original foundation, marking the official closure of the deactivation and decommissioning project. This graphic image merges two photos: one of the Ford Building and one of the empty space where the building once stood.
the site, we no longer need to incur the ongoing costs associated with these inactive and obsolete structures,” said Steve Conner, an environmental Project Manager with SRNS. “We can continue to safely and efficiently demolish and remove unneeded buildings to eliminate the need for surveillance and maintenance activities, while preventing any potential release of hazardous substances to the environment.”

Warehouses, reactors, reactor fuel manufacturing facilities, and an enormous cooling tower have been taken down at SRS.

Built in the 1950s, the P and R Reactor buildings were mammoth structures both above and below ground. In 2011, crews decommissioned them using a unique process that filled the structure to ground level with a specially designed, concrete-like grout. This cleanup work locked contamination inside the buildings and avoided the cost of continuing interior maintenance.

More recently, SRS demolished the radiologically contaminated Ford Building.

Decades ago, employees at the Ford Building worked daily on hundreds of control rod assemblies used to ensure a stable nuclear criticality within reactor vessels, which are now dormant.

Made by Ford Motor Company, the control systems played an important role in the production of plutonium and tritium.

Later, the Ford Building was reconfigured to function as a repair facility for nuclear reactor heat exchangers used to cool reactor vessels. During the Cold War, SRS operated five reactors, each using 12 heat exchangers.

“What most people don’t realize is that each building we D&D presents its own set of challenges from beginning to end,” said Chris Bergren, SRNS Director of Environmental Compliance and Area Closure Projects. “Often, hundreds of hours and a lot of hard work goes into planning and preparing a building for grouting or destruction, long before the heavy equipment arrives. Electrical wiring, radioactive contamination, and friable asbestos are just a few of the hazards we may face. Safety is preeminent. The structure has to be cold, empty and dark before the roof and walls can be touched by the demolition equipment.”

SRNS continues to reduce the footprint of the Cold War at SRS. About 15% of remaining site property requires environmental cleanup.

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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