SRS Crews Successfully Demolish Facility Once Critical to Cold War Reactors

AIKEN, S.C., November 18, 2020 – Savannah River Nuclear Solutions (SRNS) has completed demolition of a large metal storage building at the Savannah River Site (SRS) that formerly contained mechanical systems used to remotely raise and lower control rods within nuclear reactor vessels during the Cold War.

Made by the Ford Motor Company, these control systems played an important role within the site’s now dormant reactors.

The teardown of the facility, known as the Ford Building, brings the number of structures that have been deactivated and decommissioned at SRS to 292.

“We no longer need to incur the ongoing costs associated with maintaining obsolete structures like the Ford Building. We can safely and efficiently demolish unneeded buildings to eliminate the need for surveillance and maintenance, while preventing any potential release of hazardous substances to the environment,” said Steve Conner, a project manager with...
Savannah River Nuclear Solutions (SRNS), the site’s management and operations contractor. “These are all good reasons to move forward and prepare for the next building to be safely demolished.”

Workers have also sealed the Ford Building’s original concrete flooring with six inches of new concrete.

Decades ago, employees at the Ford Building worked daily on hundreds of control rod assemblies, which were used to ensure a stable nuclear criticality within reactor vessels, said Grady Friday, SRNS Decontamination and Decommissioning Project Lead.

“Ford was making more than cars in those days,” Friday said.

A system at the facility could insert or withdraw a control rod at a slow, steady rate to fine tune reactor operations. In the event of an emergency, the system allowed neutron-absorbing rods to drop, using gravity in the reactor core to slow or stop the reactor.

Later, the Ford Building was reconfigured to function as a repair facility for nuclear reactor heat exchangers. These devices removed heat from heavy water used to control the temperature within a reactor vessel by transferring the heat to water circulating inside the exchanger.

“Along with the heat exchangers came the potential for radioactive contamination,” said Friday. “A large metal-walled containment room was built within the Ford Building with a negative air flow system that exhausted air through HEPA (high-efficiency particulate air) filters to remove any potential radioactive particles. The room was about 100 feet long and 40 feet wide.”