SRS Building 235-F

Building 235-F at the Savannah River Site (SRS) was part of the original construction in the early 1950s. It has had several production missions throughout its operational life, each of which has left a stamp on the robust facility. Its operations have benefited our nation’s defense, the National Aeronautics and Space Administration (NASA) and Department of Energy (DOE).

The facility is a blast-resistant, windowless, two-story, reinforced concrete structure that is 222 feet long, 109 feet wide, and 28 feet high. It is located in F Area, near F Canyon.

This production facility’s most recent mission was receipt and storage of plutonium-bearing materials in support of SRS and the DOE complex. However, in 2006, plutonium storage was consolidated in K Area. The facility is in the process of being deactivated, after the removal of material at risk in 2019. After deactivation, the facility will be decommissioned.

Past actions to reduce hazards for Building 235-F included a ventilation stack height reduction, removal of transient combustibles in the building and decontamination of the facility hot cells and gloveboxes.

The Plutonium Fuel Form Facility (PuFF) was originally designed and operated to manufacture plutonium-238 (Pu-238) spheres and pellets for the NASA space program from the late 1970s to the early 1980s. In December 1983, DOE completed Pu-238 sphere and pellet production for NASA’s Galileo and Ulysses space missions at PuFF. Other process lines within Building 235-F include the Actinide Billet Line, Plutonium Experimental Facility and the old metallography lab.

Early in the U.S. space program, scientists recognized that converting thermal energy into electricity using the heat associated with radioactive materials was the best source of energy. Coupling radioactive heat with a thermoelectric converter became the power source of choice for deep-space satellites and probes.

Long-term, deep-space missions, such as Galileo, Ulysses, and Cassini used SRS Pu-238 to generate electrical power needed to operate the instruments on board the spacecraft, such as operating cameras, collecting data and relaying information to the earth.