

# Facts



## ● 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 about 222 feet long, 109 feet wide, and 28 feet high. It is located in SRS's F Area, near F Canyon and the Mixed Oxide Fuel Fabrication Facility, which is under construction.

This production facility's most recent mission was receipt, storage and disbursement of plutonium-bearing materials in support of SRS and the DOE complex. However, in 2006, the storage vaults for nuclear materials were emptied, and the facility is currently being maintained in a surveillance and maintenance mode awaiting deactivation.

Steps taken to date to reduce the remaining hazards within Building 235-F include stack reduction and removal of transient combustibles. The stack was reduced in height to prevent potential damage to the roof of the facility in the unlikely event it should fall. Most recently a project team has been formed to plan and execute the final disposition for the facility. Activities planned include restoration of services to the Plutonium Fuel Form Facility (PuFF) gloveboxes, decontamination of the gloveboxes, and characterization of the remaining radioactive material in preparation for the final facility disposition.



*An aerial photograph of Building 235-F at the Savannah River Site*



*An early construction photograph of Building 235-F*

PuFF, one of the processes that once was operated within 235-F, was originally designed and operated to manufacture plutonium 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 satellites.

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



*The interior of a glovebox in Building 235-F*