

Facts

from the **Savannah River Site**

ENVIRONMENTAL STEWARDSHIP • NATIONAL SECURITY • SCIENCE AND ENERGY

K Area Complex

The K Area Complex (KAC) provides for the handling and interim storage of our nation's excess plutonium and other special nuclear materials (SNM) as well as fulfills the U.S. commitment to international nonproliferation efforts in a safe and environmentally sound manner. The Savannah River Site (SRS) is also the recognized leader for managing the plutonium surveillance program throughout the Department of Energy (DOE) Complex.

The KAC is DOE's only Category 1 SNM storage facility designated for interim safe storage of plutonium and highly enriched uranium (HEU) at SRS. The principal operations building formerly housed K Reactor, which produced nuclear materials to support the United States during the Cold War for nearly four decades. It was the DOE's last operating production reactor, shutting down in 1992. The facility was chosen as the premier DOE Complex plutonium storage facility for several reasons:

- It is a robust building, constructed of concrete walls many feet thick and underwent stringent, well-documented seismic and structural upgrades during the early 1990s.
- Much of the security infrastructure was already in place.
- Necessary modifications were relatively minor, compared to the alternative of constructing a new building.

SRS has assisted the DOE Complex in saving millions of taxpayer dollars through the safe receipt and storage of the excess plutonium from SRS's FB Line, the Rocky Flats Environmental Technology Site in Colorado, the Hanford Site in Washington, Los Alamos National Laboratory (LANL) in New Mexico and the Lawrence Livermore National Laboratory (LLNL) in California. In addition, K Area has received HEU from LLNL, LANL and Y-12.

Plutonium materials shipped to KAC are sealed inside DOE standard 3013 containers that are nested in robust, state-of-the-art, certified shipping packages called 9975s. Prior to being packaged at the other sites, the plutonium is stabilized in accordance with established standards for safe transportation and storage.



K Area Complex



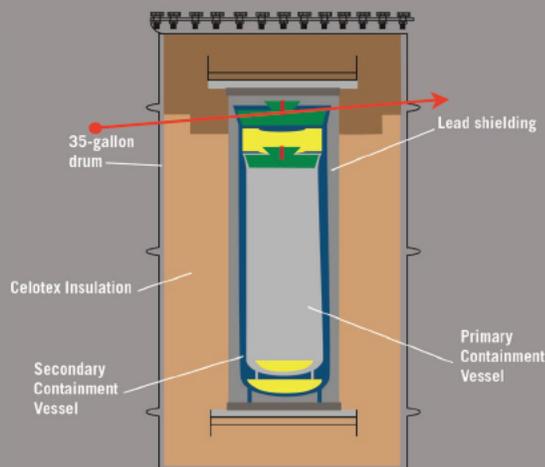
An operator uses a glovebox in K Area to handle a 3013 container that is used to store plutonium oxide

The Savannah River Site is owned by the U.S. Department of Energy. Savannah River Nuclear Solutions is the management and operations contractor at the Savannah River Site.

In recent years, significant security upgrades have been implemented in the KAC to ensure the continued safe storage of SNM until it can be dispositioned. In addition, a plutonium down-blending mission was authorized in September 2016. Plutonium oxide is blended with an inert material, producing a mixture that is more secure and not usable for weapons. This mission will increase DOE's ability to transfer excess plutonium out of the state of South Carolina.



3013 outer container
(not to scale)



Plutonium metals and oxides are stabilized and sealed in safety-class welded 3013 containers; the 3013 containers are then packaged in a 9975 Type B shipping container, consisting of a stainless steel outer drum assembly, Celotex™ insulation, lead shielding, a secondary containment vessel and a primary containment vessel housing the 3013 container. The 9975 drums are 18 inches wide and 35 inches tall, and when full weigh approximately 400 pounds. They are designed to withstand fires with temperatures of at least 1,475°F for 30 minutes.