Fact Sheets

SRS

Chemical Processing of Legacy Materials at the Savannah River Site

Savannah River Site Phased Canyon Strategy

Since 1995, the Department of Energy has implemented a phased canyon strategy – the initial operation of two canyons followed by the operation of a single canyon — to optimize the stabilization of "at-risk" materials at the Savannah River Site.

Using existing processes and facilities specifically designed for these materials optimizes the completion of materials stabilization and minimizes the need for process development and facility modification. SRS has two chemical separation facilities, called "canyons," in H Area and F Area. Their mission is to:

- Stabilize at-risk spent nuclear fuel and prepare uranium-235 for commercial use
- Prepare neptunium-237 for future use
- Stabilize plutonium-bearing residues
- Prepare and stabilize plutonium for safe interim storage pending disposition
- Stabilize other special isotope materials pending future disposition.

Currently assigned missions will require various facilities in F and H areas to operate through 2008. F Canyon completed scheduled processing activities in March 2002.

The phased canyon strategy allows for the expeditious stabilization of SRS nuclear materials identified in the Interim Management of Nuclear Materials Environmental Impact Statement and by the Defense Nuclear Facilities Safety Board (DNFSB) Recommendations 94-1 and 2000-1, and provides for the early stabilization of certain limited quantities of plutonium materials from the Rocky Flats Environmental Technology Site, in Colorado.

It also provides an option to deal with difficult-to-dispose-of spent nuclear fuel currently stored at SRS. This strategy also provides a backup capability to prepare aluminum-based spent nuclear fuel for ultimate disposition. Under this strategy, the capability is preserved to use certain limited parts of the canyon facilities to implement potential plutonium and highly enriched uranium disposition missions should those options be selected.