

Media Contact: Fran Poda  
(803) 952-8671  
fran.poda@srs.gov

For immediate release

## **SRS Marks P and R Reactor Historic Contributions**

AIKEN, S.C. (March 17, 2008) – The Department of Energy’s Savannah River Site (SRS) has placed two South Carolina historic markers inside its protective fence, recognizing the prominent role the site’s first two nuclear production reactors played in winning the Cold War.

This is the first time historic markers have been erected inside SRS’s fence.

Previously two SC historic markers were placed outside the SRS protective fence, noting the Site’s historic significance. One marker is located on S.C. 19, near New Ellenton, S.C., recognizing the history and contributions of SRS as a whole. Another is located on S.C. 125 near the former town of Ellenton, which was moved to make way for SRS in 1951.

P and R were two of five production reactors at SRS. They were the first two reactors at SRS to begin operations – R in 1953, P in 1954. Both produced plutonium and tritium for the national defense, leading to increased national strength and the eventual end of the Cold War.

“It’s a pleasure to recognize the contributions of these two facilities and the people who built and operated them,” says Elizabeth Johnson, of the South Carolina Historic Preservation Office. “They were true pioneers, and what they built is still significant today. We take care to preserve our history for future generations, because what’s been done here is important.”

R Reactor began operations on Dec. 28, 1953, and ran until 1964. The first irradiated fuel left the reactor in June 1954. It was the first production reactor to use heavy water as a moderator and coolant. It was also first to have vertical fuel and control rod assemblies, with over 600 positions in the reactor tank. Originally rated at 378 megawatts, R Reactor achieved power levels many times that. It was the prototype for its four sisters.

P Reactor ran from 1954 until its final shutdown in 1988 without a lost-time injury, making it SRS’s safest reactor and one of the safest in the world. It was the site of cutting-edge neutrino research, allowing Drs. Clyde Cowan, Jr., and Frederick Reines to confirm for the first time the

### **The WSRC Team:**

Washington Savannah River Company LLC • Bechtel Savannah River, Inc. • BNG America Savannah River Corporation  
BWXT Savannah River Company • CH2 Savannah River Company

existence of the free neutrino, a sub-atomic particle of extremely small mass. This led to Dr. Reines receiving the 1995 Nobel Prize in Physics.

Deactivation and decommissioning work is ongoing in both of these reactor areas. Demolition work for ancillary buildings is complete in P Area, with all buildings except the reactor building already removed. In R Area, all but one ancillary building has been demolished, and activities are under way to render the area “cold and dark.”

The recommended end state for both P and R reactors is in-situ, or in-place, and this recommendation has been endorsed by SRS’s regulators and stakeholders.

P is targeted to be the first reactor area, and third area overall, to undergo Area Closure at SRS. In Area Closure, all waste units in the area are bundled into one large unit and closed as one. P Area is expected to be complete in 2014, with R Area following in about 2015.

SRS’s other three reactors – K, L and C – have been beneficially reused by DOE. The building that formerly housed K Reactor is now home to plutonium and other nuclear materials from SRS and other DOE sites across the United States. The L Reactor building is the central receipt and storage location for all DOE’s aluminum-clad spent nuclear fuel, as well as spent fuel from research reactors in the United States and around the world. The C Reactor building is being used for temporary storage of Cold War historical artifacts, prior to their shipment to the 315-M curation facility.

SRS is owned by DOE and operated by a team of companies led by WSRC, a subsidiary of URS Washington Division.

WSRC-08-14

**The WSRC Team:**

Washington Savannah River Company LLC • Bechtel Savannah River, Inc. • BNG America Savannah River Corporation  
BWXT Savannah River Company • CH2 Savannah River Company