



# Environmental Bulletin

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*from the Savannah River Site*

## Fact Sheet Available for the P Area Operable Unit P-Reactor Building (105-P) Complex

The U.S. Department of Energy, U.S. Environmental Protection Agency, and South Carolina Department of Health and Environmental Control announce the availability of a Pre-construction Fact Sheet for the P Area Operable Unit (PAOU) at the Savannah River Site (SRS). The three-Party signed PAOU Early Action Record of Decision (EAROD), which selected *in-situ* decommissioning (ISD) as the alternative for the P Reactor building (105-P) Complex was issued to the public on January 29, 2009. The Explanation of Significant Difference for the PAOU EAROD, which selected the specific ISD alternative for the P-Reactor Building (105-P) Complex, was issued to the public on October 27, 2009. This fact sheet provides a description of the remedial action selected for the P Reactor building (105-P) Complex located at the PAOU.

The PAOU is located approximately 2.5 miles east-southeast of the geographical center of the SRS and about 4 miles west of the nearest site boundary. In February 1954, P Reactor began operations. It was taken off-line in 1987, placed in warm standby in 1988, and placed in cold standby in 1991. All fuel and target assemblies have been removed from the reactor vessel. All fluids have been drained from the process systems. The P Reactor building (105-P) Complex is contaminated with radionuclides. The Complex is approximately three acres in area.

The P Reactor building (105-P) Complex will undergo ISD to solidify and stabilize residual contaminants while preventing exposure and mitigating release to the environment. ISD eliminates or controls all routes of human exposure to the radiological or chemical contamination within the building complex. ISD includes the following:

- The Process, Purification, and Assembly Areas of the P Reactor building (105-P) and the Actuator Tower will be left in place;
- The above-grade structure of the Disassembly Area will be demolished to grade level;
- The remaining contents of the Disassembly Basin (DB) will be grouted to stabilize the residual contaminants;
- The stack will be removed above the plus 55 foot elevation;

- A new partial roof will be constructed over the shield door slots to prevent rainwater ingress;
- The Reactor Vessel will be grouted in place with a constructed concrete cover sloped to allow water runoff in the event of future rainwater ingress;
- The Process Room will remain in its current state;
- A sloped concrete cover will be placed over the grouted DB;
- All vacant spaces from 0 feet level (grade) down to the minus 49.5 feet level will be grouted in place; and
- The Purification Area cells and the below-grade area of Purification will be grouted in place.

Copies of the PAOU P Reactor building (105-P) Complex Pre-Construction Fact Sheet are available in the Administrative Record. The Administrative Record is available in the information repositories listed below:

- DOE Public Reading Room at the Gregg-Graniteville Library at the University of South Carolina (USC) Aiken campus in Aiken, SC; and
- Thomas Cooper Library Government Documents Department at USC in Columbia, SC.

Hard copies of the PAOU P Reactor building (105-P) Complex Pre-Construction Fact Sheet are available at the following locations:

- Reese Library at Augusta State University in Augusta, GA; and
- Asa H. Gordon Library at Savannah State University in Savannah, Ga.

For additional information, contact Paul Sauerborn at the address listed below:

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## **The SRS Environmental Bulletin**

**For more information on this or  
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