



# Environmental Bulletin

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*from the Savannah River Site*

## **REMOVAL SITE EVALUATION REPORT/ENGINEERING EVALUATION/COST ANALYSIS (rser/ee/ca) FOR THE R AREA PROCESS SEWER LINES COMBINED SUBUNIT (NO BUILDING NUMBER - nbn) FOR THE R AREA OPERABLE UNIT**

The U. S. Department of Energy (DOE) is proposing to perform a non-time critical removal for the R Area Process Sewer Lines Combined Subunit (NBN) (RPSLs) for the R Area Operable Unit (RAOU). Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis (RSER/EE/CA) describes how the proposed removal action meets the criteria established in the National Oil and Hazardous Substances Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) 300.415. The purpose of this RSER/EE/CA is to identify the objectives of the removal action for the RPSLs Subunit and to develop alternatives that address the potential threats from release of contaminants to the environment. This document will be available for public review and copying at the locations listed below. The public comment period is scheduled for February 24, 2010, to March 26, 2010.

The RSER/EE/CA was completed to meet the terms of CERCLA, a law governing the investigation and cleanup of waste units. The DOE has worked with the United States Environmental Protection Agency-Region 4 (USEPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) to ensure the remedial approach is consistent with all applicable environmental requirements.

The DOE, USEPA and SCDHEC have reviewed the risks associated with the RPSLs Subunit and have evaluated cleanup alternatives. Based on comparative analysis of the alternatives against effectiveness, implementability, and cost, Alternative P-2 (Isolation/plugging of Reactor Building (105-R) PSLs and drainage system, grouting of manholes, diversion boxes, and process tanks, select removal of process equipment external to the R-Reactor Building (105-R), sealing/plugging of outfalls, and institutional controls) has been identified as the preferred action. This alternative meets the Removal Action Objectives and is consistent with the final remediation of the RAOU.

The RAOU is located about 4.0 km (2.5 mi) northeast of the geographical center of the Savannah River Site (SRS) and about 7.2 km (4.5 mi) northwest of the nearest Site boundary. The RPSLs consist of carbon steel pipes and interconnected reinforced concrete storm water lines of various sizes, depths and configurations throughout R Area that received contaminated process water discharges from the Reactor Building (105-R).

The scope of the removal action includes the following:

R-Area Process Sewer Lines  
Cooling Water Effluent Sump (107-R)  
Purge Water Storage Basin (109-R)  
Process Water Storage Tank (106-R)  
Septic Tank  
Outfall at R (904-1G)  
Manholes, catch basins, weirs and other miscellaneous access points

Radiological contamination (such as cesium-137 and cobalt-60) may be fixed within the pores of the concrete or trapped in the rust and scale in the RPSLs at levels that exceed the principal threat source material thresholds. The purpose of the removal action is to prevent possible exposure of the industrial worker to the contents within the RPSLs subunit and to prevent the migration of contaminants from residual water in the Process Water Storage Tank (106-R) to groundwater at concentrations exceeding regulatory standards.

Upon completion of the public comment period, an Action Memorandum with a Responsiveness Summary that addresses public comments will be prepared and made part of the Administrative Record.

Copies of the RSER/EE/CA 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 Aiken campus in Aiken, SC; and
- Thomas Cooper Library Government Documents Department at the University of South Carolina in Columbia, SC.

Hard copies of the RSER/EE/CA are available at the following:

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

An electronic copy of the RSER/EE/CA is posted at the following address: <http://www.srs.gov/general/programs/soil/pub/pubinv.html>

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