



# Environmental Bulletin

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*from the Savannah River Site*

## REMOVAL SITE EVALUATION REPORT/ENGINEERING EVALUATION/COST ANALYSIS (rser/ee/ca) FOR THE C AREA PROCESS SEWER LINES AS ABANDONED (NBN) SUBUNIT FOR THE C AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE

The U. S. Department of Energy (DOE) is proposing to perform a non-time critical removal for the C Area Process Sewer Lines As Abandoned (NBN) Subunit (CPSLAs) for the C Area Operable Unit (CAOU). 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 CPSLAs, 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 June 23 2011 to July 22, 2011.

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 CAOU is one of the area OUs identified at SRS. The C Area is located in the central portion of SRS. The C Area Reactor began operating in 1955 and was shut down in 1985 for maintenance. The reactor was placed on cold standby in 1987, followed by shutdown with no possibility of restart. The CPSLA subunit includes C Area Process Sewer Lines as Abandoned (NBN), Cooling Water Effluent Sump (107-C), the Purge Water Storage Basin (109-C), the Process Water Storage Tank (106-C), manholes, boxes (access, diversion and junction), outfalls and other miscellaneous access points that no longer service the C Area Reactor Building Complex.

Radiological contamination present in the CPSLA (such as cesium-137 and cobalt-60) may be fixed within the pores of the concrete or trapped in the rust and scale in this system 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 contamination within the CPSLAs and associated structures and to prevent the flow of water through the inactive portions of the system.

The DOE, USEPA and SCDHEC have reviewed the risks associated with the CPSLAs and have evaluated cleanup alternatives. Based on comparative analysis of the alternatives against effectiveness, implementability, and cost, the preferred removal action for the CPSLA subunit is Alternative C-2: Isolation/Plugging of CPSLA and Grouting of Manholes, Boxes (access, diversion and junction), Outfalls, and Process Tanks, associated with the CPSLA subunit. All access points to the CPSLA will be closed by grouting, and any contaminated water in the structures will be properly disposed. The alternative is effective in the long term due to the isolation of potential PTSM from human exposure. This alternative meets the Removal Action Objectives and is consistent with the final remediation of the CAOU.

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

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 Government Information Section 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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