



# Environmental Bulletin

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*from the Savannah River Site*

## Amended ROD available for Old F-Area Seepage Basin

This Amended Record of Decision (ROD) is being issued by the United States Department of Energy (DOE), the lead agency for the Savannah River Site (SRS) with concurrence by the United States Environmental Protection Agency – Region 4 (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) announcing the remedial alternative selections for the Old F-Area Seepage Basin (OFASB) Operable Unit (OU) at SRS. The waste unit is located northwest of the center of the SRS, in Aiken, South Carolina. A 45-day public comment period for the ROD Amendment and the associated draft Resource Conservation and Recovery Act (RCRA) permit modification was held from June 14, 2004, to July 28, 2004. The remedial decision is documented in the Amended ROD document. This document includes a responsiveness summary that addresses public comments received by SRS. DOE has worked with EPA and SCDHEC to ensure the remedial approach is consistent with all applicable environmental requirements.

The DOE, the EPA and the SCDHEC have reviewed the risks associated with this unit and have evaluated cleanup alternatives. The following remedies have been selected for the OFASB OU:

- In situ stabilization/solidification (S/S) of the contaminated soil and vegetation
- Construction of an engineered low-permeability soil cover over the stabilized/solidified materials
- Implementation of a regulatory approved groundwater mixing zone application
- Implementation of institutional controls to limit access to the site and associated pipelines and to restrict future use of this site to industrial use

The OFASB OU was remediated and closed in 2000. The closure was in accordance with the applicable and relevant federal, state and local laws and statutes.

The DOE, EPA and SCDHEC have agreed to separate the groundwater associated with the OFASB OU from

its surface unit and manage it as part of a larger General Separations Area (GSA) Western Groundwater (GW) Operable Unit. The amendment to the ROD for the OFASB OU removed the groundwater monitoring part of the selected remedy from the ROD and incorporate it into the GSA Western GW OU. As a result, the groundwater mixing zone for the OFASB OU is no longer valid and the groundwater will be monitored in accordance with the GSA Western GW OU Work Plan. Any future ROD for the GSA Western GW OU will include the groundwater institutional control requirements for the OFASB OU.

These selected remedies will be protective of human health and the environment. They are also intended to be the final actions for the OFASB OU.

The ROD is part of the Administrative Record File and is available for public review during normal business hours at the following information repositories.

- USDOE Public Reading Room at the Gregg-Graniteville Library at the University of South Carolina-Aiken campus in Aiken, SC;
- Thomas Cooper Library Government Documents Department at the University of South Carolina in Columbia, SC;

Hard copies of the ROD 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.

Any comments or questions may be directed to

Jim Moore  
Westinghouse Savannah River Company, LLC  
Savannah River Site  
Building 742-A  
Aiken, SC 29808  
1-800-249-8155  
[jim02.moore@srs.gov](mailto:jim02.moore@srs.gov)

## Record of Decision available for D-Area Expanded Operable Unit

This Record of Decision (ROD) is being issued by the United States Department of Energy (DOE), the lead agency for the Savannah River Site (SRS) with concurrence by the United States Environmental Protection Agency – Region 4 (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) announcing the remedial alternative selections for the D-Area Expanded Operable Unit (DEXOU) at SRS.

The DEXOU is located in D-Area in the southwest quadrant of the SRS. The DEXOU consists of two major sub-units; the D-Area Rubble Pile (DRP) and the 488-D Ash Basin (DAB). A coal fired power plant has been operating at D-Area since 1952. Groundwater contamination is associated with both active and historical sources and will be addressed as a separate operable unit. The DOE, the EPA and the SCDHEC have reviewed the risks associated with this unit and have evaluated cleanup alternatives. The following remedies have been selected for the DEXOU:

- 1. D-Area Rubble Pile** – The selected remedy for the DRP is excavation and consolidation of the wastes to the 488-DAB, and implementation of institutional controls and groundwater monitoring. This action includes the excavation of the Aroclor-1254 arsenic hot spot, sampling to confirm removal of the Aroclor-1254 and consolidation of this waste into the 488-DAB. Coal reject materials containing unacceptable levels of arsenic will be excavated to visual extent of coal within the DRP and adjacent areas. Excavated materials will be transported to the 488-D Ash Basin for consolidation under a geosynthetic cover. Excavated areas will be backfilled, graded and vegetated to minimize erosion.
- 2. D-Area Ash Basin:** The selected remedy for the DAB is consolidation of peripheral exposure areas at the 488-DAB, installation of a low permeability geosynthetic cover system, and implementation of institutional controls and groundwater monitoring. This action includes the excavation and consolidation of coal rejects and impacted soils outside of the berm (from the dead and stressed vegetation area, basin exterior, and ash basin drainage) into the basin. Remove or plug the standpipe to prevent pooled basin water from leak-

ing into drainage. Dewatering of the pooled area, treatment and release. Installation of a low permeability geosynthetic cap (geomembrane, geotextile drainage layer, two feet of soil) over the basin to reduce infiltration and runoff and prevent exposure to the waste. Institutional controls will prohibit future residential land use and provide additional protection of future industrial workers.

These selected remedies will be protective of human health and the environment. They are also intended to be the final actions for the DEXOU.

The DRP is located northwest of the 488-DAB. It is an 8-acre heavily vegetated area used to dispose of non-hazardous materials such as metal, treated lumber, roofing materials, asphalt paving materials, and fibrous material presumed to be asbestos. There are no records indicating disposal of hazardous or radioactive wastes however, coal rejects are evident in some areas. The DRP began receiving waste materials in the early 1950's until 1989.

The 488-DAB was constructed in the early 1950's and used to retain and stabilize ash from the 484-D powerhouse operations. It is an unlined earthen containment basin approximately 1800-feet long by 600-feet wide by 18-feet deep. Ash was initially sluiced into the basin and in 1978 the ash-sluice was diverted into other basins in the area and the 488-DAB received only dry ash until the mid 1990's. The top four feet of ash in the basin also contains coal rejects. Coal rejects were also dumped on the north slope outside the basin. Drainage in the area has caused some of the coal rejects on the berm to become mobile and settle into an area that is now devoid of vegetation (dead and stressed vegetation area). Areas investigated during the characterization of the unit include the basin interior, a pooled water area within the basin, the basin exterior including the basin berms, the basin drainage, and an area of dead and stressed vegetation outside the basin.

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[jim02.moore@srs.gov](mailto:jim02.moore@srs.gov)

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## Citizen Advisory Board Recommendations

### Recommendation 200- SRNL Treatability Study Impacts

Concerned over recent issues dealing with the return of treatability samples to Hanford, which have historically been returned following studies at the Savannah River National Laboratory, the SRS CAB recommended that DOE, in concert with the regulators (both in-state and out-of-state), investigate and incorporate procedures that will allow SRNL, to continue to provide treatability studies and other investigative work for other DOE sites, while at the same time ensuring that any residues generated during sample testing be returned to the originated site with the sample residuals. The Board also requested updates regarding treatability study exclusions from SCDHEC and asked for written assurance from DOE that the sample residues returned to Hanford were not contaminated with any SRS-based contamination. The Board also offered recommendations to avoid this issue in the future.

### Recommendation 201- Repackaging of Transuranic (TRU) Waste Black Boxes

A facility in F Canyon was recently used successfully in a pilot project to prove that repackaging of high activity TRU waste black boxes can be accomplished in a safe and cost effective manner. However, this facility was only available to support disposition of two boxes. The SRS CAB is concerned about what facilities will be available to repackage the contents of the remaining large black boxes and recommended that DOE evaluate the use of H-Canyon or other appropriate existing facilities to repackage the high activity TRU black boxes. It also asked DOE to continue to use E-Area as much as possible for low activity waste black boxes as well. The Board requested a planning update and proposed timeline by February 28, 2005, to assure that the entire inventory of legacy TRU wastes, including those in black boxes are

removed by 2008.

### Recommendation 202- TNX Operable Unit

SRS has begun a removal action at the TNX Operable Units that include the Outfall Delta and the Inner Swamp, which is scheduled for completion in January 2005. The SRS CAB is not convinced that the appropriate choice for remediation was made and may be more extensive than necessary. The Board was also concerned about the lack of monitoring data for thallium-208, which should have been present in reported data but was not. Therefore, the SRS CAB recommends that DOE reexamine analytical protocols for characterization of SRS waste sites to ensure all contaminants of concern important in the risk analysis for each site are quantified. The Board also requested that by March 2005 or before the ROD becomes final, DOE revisit together with EPA, SCDHEC and stakeholders all pertinent information regarding the TNX Operable Unit.

### Recommendation 203- The Federal Facility Agreement (FFA) Process-Early Stakeholder Involvement

The SRS CAB is disturbed that their participation in the review and comment process for environmental cleanup has neither been timely nor sufficient. The FFA Implementation Plan's Public Participation section states, "The SRS intent is to begin public participation in the remedial process as early as possible." The Board believes and supports this statement and therefore requested that on or before January 25, 2005, and annually thereafter, DOE provide a list of planned Corrective Measures Study/Feasibility Study or Engineering Evaluation/Cost Analysis for remedial and removal actions and work with the SRS CAB and stakeholders to identify all sites that warrant early and continued public involvement for the upcoming year. The CAB also recommended that DOE revise the FFA Implementation Plan to incorporate the revisions to the public participation process.

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**Mail to:**

**SRS Environmental Bulletin  
Savannah River Site  
Building 742-A  
Aiken, S.C. 29808**



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Savannah River Site  
Building 742-A  
Aiken, S.C. 29808



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## The SRS Environmental Bulletin

For more information on this or other  
environmental and compliance activities  
at SRS, please contact:

**Jim Moore**

**Paul Sauerborn**

**Westinghouse**

**Westinghouse**

**Savannah River Co.**

**Savannah River Co.**

**Aiken, S.C. 29808**

**Aiken, S.C. 29808**

**(800) 249-8155**

**(803) 725-0665**

**e-mail: jim02.moore@srs.gov**

**paul.sauerborn@srs.gov**

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