



Environmental Bulletin

Volume 15, Number 10
April 7, 2004

from the Savannah River Site

Record of Decision Issued for TNX Operable Unit

The United States Department of Energy (DOE), the United States Environmental Protection Agency (EPA), and the South Carolina Department of Health and Environmental Control (SCDHEC) have selected the remedial approach for Savannah River Site's (SRS) TNX operable unit (OU). A 45-day public comment period for the Statement of Basis/Proposed Plan and the associated draft Resource Conservation and Recovery Act (RCRA) permit modification was held from January 22, 2003 to March 7, 2003.

DOE, the EPA, and SCDHEC have determined that the preferred remedial actions consist of the following:

New TNX Seepage Basin (NTSB)/

Inactive Process Sewer Line (IPSL)

- In situ grouting of the IPSL
- No action for the soils surrounding the IPSL
- Discharge of surface water in the seepage basin to an approved location (ground surface, permitted outfall, or wastewater treatment facility)
- Backfill of the main basin and inlet basin with clean soil
- Long term management under institutional controls

TNX Burying Ground and Vadose Zone

- Installation and operation of an active and passive soil vapor extraction system in the TNX Vadose Zone

Old TNX Seepage Basin (OTSB)/IPSL and Upper Discharge Gully

- Removal of existing OTSB backfill
- Excavation of IPSL (where accessible) and associated radiologically contaminated soils for disposal
- Capping of the ends of IPSL sections not excavated during this action
- Excavation of the Principle Threat Source Material (PTSM) layer in the OTSB (2- to 3-ft soil interval at the bottom of the inlet and main basins)
- Disposal of PTSM-contaminated soils and pipeline (estimated 2,180 yd³ total) at an approved disposal facility
- Backfill of pipeline and replacement of asphalt
- Backfill of the OTSB
- Placement of engineered soil cover (and associated institutional controls) over the OTSB and Upper Discharge Gully
- Monitoring of the subsurface for the presence of perched water in contact with waste exceeding remedial goals under the soil cover.

TNX Groundwater

- Extract volatile organic compounds (VOCs) in the high concentration areas
- Continued operation of the existing pump-and-treat system until a groundwater assessment determines that passive remediation (mixing zone) is appropriate
- Use of monitoring/mixing zone and institutional controls

The TNX OU is situated in the southwestern portion of SRS, approximately one quarter-mile east of the Savannah River and consist of the four units outlined above.

- 1) The New TNX Seepage Basin is an unlined earthen basin approximately 260 by 400 ft in size.
- 2) The TNX Vadose Zone is comprised of an area from ground surface to the water table under the TNX facility.
- 3) The Old TNX Seepage Basin, was an unlined earthen basin approximately 80 by 175 ft in size and 7 to 9 ft deep.
- 4) The first groundwater monitoring wells were installed in the TNX Area in 1980. These wells were determined to be inadequate and were abandoned and replaced in 1984. Subsequent wells were installed for monitoring and characterization purposes. Groundwater sampling data from existing wells indicate that operational activities resulted in groundwater contamination throughout the TNX Area.

The remedial decision is documented in the Record of Decision document. This document includes a responsiveness summary that addresses public comments. DOE has worked with SCDHEC and EPA to ensure the remedial approach is consistent with all applicable environmental requirements.

Copies of the Record of Decision are available in the administrative record. The administrative record is available in the information repositories at the DOE Public Reading Room at the Gregg Graniteville Library at the University of South Carolina-Aiken campus in Aiken, SC; and the Thomas Cooper Library Government Documents Department at the University of South Carolina in Columbia, SC.

Hard copies of the Record of Decision are available at the Reese Library at Augusta State University in Augusta, GA; and the Asa H. Gordon Library at Savannah State University in Savannah, GA.

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The SRS Environmental Bulletin

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