



# Environmental Bulletin

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*from the Savannah River Site*

## **Explanation of Significant Differences Released for TNX Area Operable Unit Groundwater**

The United States Department of Energy, the lead agency for the Savannah River Site, will release an Explanation of Significant Differences (ESD) on March 6, 2002, with concurrence by the United States Environmental Protection Agency-Region IV (US-EPA) and South Carolina Department of Health and Environmental Control (SCDHEC) to announce changes in the remedial decision selected for the TNX Operable Unit Groundwater waste unit. The ESD will be available for public review and copying at the locations listed below. The public comment period is scheduled for March 6, 2002, to March 26, 2002.

The TNX Area was a pilot scale test facility used to provide technical support to various SRS production areas. Past operations within the TNX area led to contamination of the area's vadose zone and groundwater with volatile organic compounds (VOCs), metals, and radionuclides. Remediation of VOC contamination in groundwater was initiated as an interim action (IA) through the issuance of an Interim Record of Decision (IROD, October, 1994). The interim remedy currently consists of a pump and treat system (four extraction wells and an air stripper). The effectiveness of the pump-and-treat system is reported semi-annually. Since start-up in 1996, the pump and treat system has continued to perform effectively at containing and remediating the groundwater VOC contamination. However, vadose zone VOC source material continues to impact the groundwater at concentrations above Safe Drinking Water Act (SDWA) Maximum Contaminant Levels (MCLs). Following USEPA guidance, this source may be considered Principle Threat Source Material (PTSM) requiring treatment

Results from a treatability study indicate that addition of Soil Vapor Extraction (SVE) to the current pump-and-treat system would be an effective and cost efficient approach for reducing the mass of this VOC PTSM in the vadose zone and minimizing future VOC groundwater concentrations. SVE is cost effective, simple to implement, and can be performed in situ with little site disturbance in areas that are difficult to access with other technologies.

Based on the current extent and transport of groundwater VOC contamination at TNX, as well as the removal efficiency of the IA, the effectiveness of the IA is not expected to change significantly during a six month period (i.e., semi-annually). Modification of the IA effectiveness monitoring reporting requirements from two semi-annual reports to one annual report (i.e., discontinuation of the semi-annual Data Only Report) is appropriate at this time. These changes

will minimize redundancy in performance data reporting and facilitate cost savings. The first and second quarter data of the effectiveness monitoring program will continue to be included in the Annual Monitoring Report for the duration of the interim action.

The purpose of this ESD is to document Post-IROD changes to the current interim action pump-and-treat system selected for the TNX Groundwater. The significant differences of the modified remedy from the current remedy are (1) Addition of SVE to the current IA system; and (2) Modification of IA effectiveness monitoring reporting requirements from two semi-annual reports to one annual report.

The SRS is required by CERCLA to publish an ESD whenever there is a significant change to a component of the remedy identified in the Record of Decision (ROD). The National Oil and Hazardous Substances Pollution Contingency Plan requires the lead agency to provide an explanation of the differences and to make the information available to the public in the Administrative Record and information repository. This ESD is available for public review during normal business hours at the following information repositories:

- 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 Statement of Basis/Proposed Plan 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:

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