SRS Citizen's Advisory Board

Savannah River Site
Citizens Advisory Board

Recommendation 202
TNX Operable Units

Background
The TNX pilot-scale research facility, located near the Savannah River Site's western boundary, released process waste into an unlined seepage basin between 1958 and 1980. The basin, referred to as the Old TNX Seepage Basin, was designed to contain wastewater until it could seep into the underlying sediments. It was anticipated that the sediment would then impede contaminant migration. The waste discharged to the Old TNX Seepage Basin included considerable quantities of long-lived isotopes of uranium and thorium, naturally-occurring elements used in process development at TNX. The basin contents are believed to have entered the nearby inner and outer swamps by subsurface and overland flow; the overland flow is the result of purposely breaching the basin walls and routinely overfilling the basin. The Savannah River Site has plans to begin a removal action, in October 2004, in the area known as the TNX Operable Units (TNX OU) that include the Outfall Delta and the Inner Swamp. The removal action is scheduled for completion in January 2005. The removal action will consist of excavation of contaminant hot spots, their on-site storage in the TNX area and subsequent backfilling of excavations with soil and soil amendments. The removal action objective is to prevent exposure of a recreational trespasser to the highest levels of contamination present in this area and to reduce potential leachability threats. A final action for the TNX OU is scheduled for 2006 (Ref. 1).

Comments
During SRS's presentation of corrective action planning for the TNX OU, considerable discussion centered on the data used to form the basis for the removal action and the use of the most appropriate risk receptor (Ref. 1). Several stakeholders, with considerable technical experience and SRS working knowledge, challenged SRS on the lack of monitoring data for thallium-208, which should have been present in the reported data but was not. SRS later referred to an In Situ Object Counting System (ISOCS) data monitoring that was performed for the Inner Swamp that did detect the "missing" thallium-208. However, this data was not part of the RFI/RI/BRA available for stakeholder review. The SRS Citizens Advisory Board (CAB) is concerned about the "missing" data and the involvement of stakeholders so late in the remedial action process, especially after the remedy has been agreed upon by the three parties, without proper stakeholder review or input. Additionally, because of questions and concerns regarding the accuracy of the data used for the BRA and the related results calculated there from, the SRS CAB is not convinced that the appropriate choice for remediation of the TNX OU has been made.

Recommendation
The SRS CAB recommends that DOE:

1. 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.
2. Before the Record of Decision (ROD) becomes final and by March 29, 2005, revisit together with EPA, SCDHEC and stakeholders (SRS CAB included), all pertinent information regarding the TNX Operable Unit.

References
Removal Site Evaluation Report/Engineering and Cost Analysis for the TNX Outfall Delta, Lower Discharge Gully, and Swamp Operable Unit, presentation to the Facility Disposition & Site Remediation Committee by Ed McNamee, October 19, 2004.

Agency Responses

Department of Energy-SR