



Savannah River Site Citizens Advisory Board

Recommendation 200 SRNL Treatability Study Impacts

Background

For eight years the Savannah River Site has been conducting treatment studies on waste samples from Hanford's (DOE-RL) 177 underground tanks, which contain 53 million gallons of high level waste (HLW). The South Carolina Department of Health and Environmental Control (SCDHEC) had been notified that the Hanford waste treatability study was being conducted. Federal regulations allow certain exclusions from provisions of state and federal hazardous-waste regulations under the treatability study exclusion of the Resource Conservation and Recovery Act (RCRA). Shipments of residual samples and residue have been returned to Hanford since 1997. The shipments contain unused samples and sample residues including radioactively contaminated gloves, other protective clothing, plus the equipment and lab supplies used in testing and analyzing the waste samples.

Officials from the Washington Department of Ecology ("Ecology") claimed they did not know this residue was being included in the sample residuals being returned to Hanford until an Ecology inspector spotted a drum in late April 2004 at Hanford and learned it contained sample residue from SRS (Ref. 1). Ecology did agree that the treatability studies are an important part of work to empty and treat waste in underground tanks at Hanford. Ecology supports the treatability study but wants to ensure open communication is maintained.

Ecology believes the sample solid residues are not covered by RCRA treatability study exclusions and have issued DOE a notice of violation (NOV) and a proposed fine of \$270,000. DOE's initial response (Ref.2) maintains that Ecology's regulatory position is incorrect as a matter of law. The letter points out that Ecology's own regulations as well as relevant EPA guidance documents support the treatability study exclusions for return of the sample residue stream to Hanford. In addition, DOE affirms its belief that all of the treatability samples and residues returned to Hanford from the SRS lab are properly subject to Federal and state exclusions. These issues are discussed further in DOE's Notice of Appeal and have stated that the allegations of violations are unfounded and exceed Ecology's authority (Ref 3).

Comment

The Savannah River Site (SRS) Citizens Advisory Board (CAB) is concerned that Ecology is considering changing their regulatory interpretation of a long-standing set of practices dealing with the return of treatability samples and that the potential impacts could delay or ultimately halt treatability studies of Hanford HLW at SRNL. SCDHEC, working with EPA Region 4, is also evaluating the treatability study exclusions with a key evaluation point being the meaning of the term "residue." A formal decision has not been released (Ref 4). The CAB recognizes the extraordinary value of the Savannah River National Laboratory (SRNL – previously the Savannah River Technology Center) and would hope that the expertise and special skills of SRNL can continue to be used to assist other sites throughout the DOE complex. At the same time, SRS should not be burdened with the disposal of sample residues generated in support of work performed at the request of other DOE sites. At the August 31, 2004, Waste Management Committee meeting, information was provided to the stakeholders that the residues returned to Hanford were controlled by procedure to provide protection from being co-mingled with any SRS-based contamination during the treatment studies in the SRNL's high level cells or in other SRNL handling facilities. The SRS CAB is satisfied that this is not an issue but feels that it should be documented.

Recommendation

The SRS CAB recommends the following:

1. DOE, in concert with the regulators (both in-state and out-of-state), investigate and incorporate procedures that will allow SRNL, with its significant resources, 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.
2. SCDHEC provide a status update on its evaluation of the treatability study exclusion to the SRS CAB on or before January 25, 2005.
3. On or before January 25, 2005, DOE-SR provide written assurance to the SRS CAB that the treatability study procedures used were appropriate to insure that the sample residues returned to Hanford were not contaminated with any SRS-based contamination in the SRNL's high level cells or in other SRNL or SRS handling facilities.
4. In the future, DOE-SR estimate the volume and type of residue to be generated by any SRNL treatability or similar studies and provide written notification to the appropriate state regulatory agencies on how the return of treatability samples and residue will be handled before any work begins at SRS.

References

1. Treatability Study Waste Returns to Hanford from the Savannah River Technical Center letter from Bob Wilson & Michelle Anderson-Moore, State of Washington, Department of Ecology to Roy Schepens and Keith Klein, Office of River Protection, Richland Operations Office, Department of Energy, June 14, 2004.
2. Treatability Study Waste Returns to Hanford from the Savannah River Technical Center Response letter from Roy Schepens and Keith Klein, Office of River Protection, Richland Operations Office, Department of Energy to Bob Wilson & Michelle Anderson-Moore, State of Washington, Department of Ecology, July 23, 2004.
3. United States Department of Energy Notice of Appeal, October 20, 2004
4. SRS Treatability Study Returns, presentation to the Waste Management and Nuclear Material Committees by Shelly Sheritt (DHEC), November 1, 2004

Agency Responses

[South Carolina Department of Health and Environmental Control \(PDF\)](#)