



### **Savannah River Site Citizens Advisory Board**

#### **Recommendation 219 TRU Waste Shipments from Battelle Columbus, Ohio**

##### **Background**

Between 1943 and 1986, Battelle Memorial Institute (Battelle) performed atomic energy research and development for DOE and its predecessor agencies at its two Columbus, Ohio laboratory facilities (West Jefferson and King Avenue). As part of the government's fuel and target fabrication program, Battelle participated in nuclear research activities that included fabrication of uranium and fuel elements; reactor development; submarine propulsion; fuel reprocessing; and safety studies of reactor vessels and piping. In 1986, DOE established the Battelle Columbus Laboratories Decommissioning Project to decontaminate and decommission the Battelle facilities that were radioactively contaminated as a result of government-sponsored nuclear research (Ref. 1).

Transuranic, mixed fission products and activation products contaminated the West Jefferson site, the location of a large hot cell facility and a decommissioned research reactor. The closure activities at the Battelle West Jefferson Site near Columbus, Ohio (BC) will require approximately 37 cubic meters of transuranic (TRU) waste to be dispositioned. Some of this waste is expected to be "remote" handled TRU waste (RH-TRU). DOE is contractually responsible for disposal of this waste by the end of CY 05 (December 30, 2005). This waste needs final packaging and disposal certification at a site with necessary handling capabilities for this type of material before final disposal at the Waste Isolation Pilot Plant (WIPP). Originally, DOE had planned to utilize the Hanford site for this activity but due to the state of Washington's initiative 297 (i.e., no shipments into Hanford) the Savannah River Site (SRS) is now being considered as a potential receiving site (Ref. 2).

##### **Comment**

The SRS Citizens Advisory Board (CAB) recently adopted Recommendation #217 (Ref. 3). This recommendation focused on the recent agreement to send additional TRU waste shipments from DOE Mound Closure Project (MCP) to SRS. In addition, the recommendation noted the SRS CAB support for consolidating and treating TRU waste at SRS provided that similar equity considerations to those associated to the MCP shipments are in place prior to receipt of any such waste to SRS. As requested in the recommendation, DOE has unofficially notified the SRS CAB of the possibility that this new TRU waste stream, BC-TRU, could come to SRS. Although the SRS CAB would like to have more lead-time to think about any equity considerations, we appreciate DOE's effort to provide early identification of the potential shipments.

Before the SRS CAB could support the receipt of the TRU waste from BC, DOE-HQ needs to provide SRS with several commitments, which are listed in the Recommendation section below and were listed in the Waste Management Committee letter of September 8, 2005 (Ref. 5).

Currently, the New Mexico Environmental Department (NMED) prohibits RH-TRU waste from disposal at WIPP pending approval of a permit modification. This permit modification is being considered and the SRS CAB provided a letter in support of the authorization for RH-TRU waste in the WIPP permit on July 26, 2005 (Ref. 4). Since SRS only has a small quantity of RH-TRU, we also want commitments from DOE-HQ that any additional RH-TRU inventory be removed from SRS, either to WIPP or another site. Therefore, we expect a commitment from DOE-Carlsbad that once the permit modification is received, a program for RH-TRU waste will be in place at WIPP and at SRS to ensure that RH-TRU waste is removed from SRS by FY09 and no later than FY10. If this date can not be met, then all RH-TRU waste at SRS should be relocated to another DOE site where a large inventory of RH-TRU waste is awaiting disposition (like Oak Ridge) of TRU waste already in WIPP approved shipping containers to SRS.

##### **Recommendation**

The SRS CAB continues to support the consolidation of DOE waste streams where it makes sense, both from an economic and safety prospective; however, equity considerations must be included in any

decision. Therefore, the SRS recommends the following concerning the potential BC-TRU waste shipments to SRS:

1. DOE-HQ provide the following commitments to SRS stakeholders before the BC-TRU waste shipments are received at SRS:
  - a) Ensure the necessary resources to accelerate the deployment and certification of the characterization system for large containers/boxes by the end of FY06
  - b) To assure no further schedule slippage associated with the SRS TRU Pad #1 excavation, present a strategy to resolve outstanding issues by March 1, 2006
  - c) Ensure that a transportation packaging method to handle SRS high-activity TRU waste drums is available by FY07
  - d) Ensure the availability of this shipping container for non-drummed TRU waste by the end of FY07 and the removal from SRS of all of the non-drummed TRU wastes by the end of FY09 if at all possible, but in any case, no later than the end of FY10.
2. DOE-HQ and DOE-Carlsbad (WIPP) provide the following commitments to SRS stakeholders before the BC-TRU waste shipments are received at SRS:
  - a) Once the WIPP permit modification is received for RH-TRU waste authorization, a program for RH-TRU waste will be in place at WIPP and at SRS to ensure that RH-TRU waste is removed from SRS within three years of the WIPP permit modification for RH-TRU waste
  - b) If this date cannot be met, then all RH-TRU waste at SRS should be relocated to another DOE site by FY09 but in any case, no later than FY10.
3. DOE-HQ give an annual update, in October of each year, on the progress made toward meeting all of the above commitments.

## **References**

1. Battelle Columbus Laboratories Decommissioning Project,  
. <http://web.em.doe.gov/hemr96/bacl.html>
2. TRU Waste Disposition, presentation to the CAB WM Committee by Bert Crape, DOE-SR, August 16, 2005.
3. Citizens Advisory Board Recommendation No. 217 (adopted July 26, 2005), "Additional TRU Waste Shipments from Mound".
4. Letter from Jean Sulc, CAB Chairman, to Steve Zappe, New Mexico Environmental Department, Revised Modification Request to the Hazardous Waste Facility Permit for WIPP, July 26, 2005.
5. Letter from Robert Meisenheimer, Waste Management Committee Chair, to Dr. Ines Triay, Chief Operating Officer, EM, Battelle West Jefferson Site TRU Waste Shipments to SRS, September 8, 2005.

## **Agency Responses**

[Department of Energy-SR](#)