



**Savannah River Site  
Citizens Advisory Board**

**Recommendation 198  
SRS TRU Waste Program Challenges**

**Background**

On March 18, 2004, at the Savannah River Site (SRS) Citizens Advisory Board (CAB) Waste Management Sub-Committee meeting, DOE reported that 10,144 drums, or 2,100 cubic meters, of Transuranic (TRU) waste had been shipped to WIPP (Ref. 1). At the most recent meeting on August 31, 2004, DOE reported that 13,600 drums, or 2,800 cubic meters, of the TRU waste had been shipped through August 2004 (Ref. 2).

The current shipping rate is 20 shipments per month and by the end of FY04, approximately 3,800 cubic meters, or 1/3 of the total inventory of legacy TRU waste, will have been shipped to WIPP. One recent key accomplishment was the successful repackaging of one large steel box into 14 WIPP acceptable containers. The current accelerated baseline calls for all legacy TRU waste to be removed by 2008 (all low activity drummed TRU waste by 2006 and all non-drummed or large container TRU waste by 2008). To meet this ambitious accelerated schedule several challenges need to be resolved. Previously it was believed that a transportation packaging method such as Arrowpak was needed to handle high-activity drums. However, recent technical information rules out the Arrowpak, and DOE is working toward NRC approval of a revision to the TRUPACT-II (SARP – Revision 21) to allow shipment of drum waste with high TRU waste loading. The Modular Repackaging Facility (aka LANL Glove Box) needs to be operational by January 2005 and must meet the expected drum throughput. For large TRU waste containers, nondestructive assay equipment needs to be deployed, and NRC must certify the TRUPACT-III shipping container.

**Comment**

The SRS CAB commends DOE for the excellent progress being made with the TRU waste program and would like DOE to not only maintain this momentum but work aggressively to continue to accelerate the removal of all legacy TRU waste at SRS by 2008. If the challenges noted above can not be met, then the SRS CAB expects DOE to thoroughly evaluate the Risk-Based End State (RBES) variance for alternate disposal for Pu-238 contaminated waste as part of the backup plan. A RBES variance is defined as a significantly different cleanup approach or different end state relative to the original August 2002 SRS EM Program Performance Management Plan (Ref. 3).

The SRS CAB welcomed the news about the successful opening and repackaging of a large low activity TRU waste box. This is a key step toward the challenge associated with opening the high activity boxes. However, the SRS CAB is concerned about SRS worker safety and the potential environmental impacts associated with opening the high activity boxes. The SRS CAB remains concerned about the DOE's priority of SRS shipments to WIPP. Our past recommendation (Ref. 4) requested that TRUPACT IIs be provided to SRS to continue our shipping rate (currently 20 per month). We believe that DOE needs to study the specifics of this previous recommendation and that DOE continue to provide the necessary TRUPACT IIs to continue this highly successful program.

However, during the drafting of this recommendation, DOE has informed SRS that TRU waste shipments have been curtailed. TRUPACT II containers destined for SRS will be re-routed to another DOE site (Idaho). SRS is only expected to make 3-4 shipments per week, which is below the current shipping rate of 20 per month. This apparent lessening in priority is alarming to the SRS CAB. Just when the stakeholders are hearing about an extremely successful program with a potential end date only 4 years away, DOE decides to delay the SRS program in the middle of a campaign full of momentum to "kick-start" a fledgling program somewhere

else. The SRS CAB finds this logic disturbing and expects DOE to re-institute the required TRUPACT II containers for SRS necessary to continue the current shipping rate of 20 per month.

The SRS CAB would support DOE if it decided to build additional TRUPACT II containers. At a cost estimated to be \$1 million each, the SRS CAB believes the investment is justifiable to taxpayers if it means that all legacy TRU waste can be removed from SRS in just four years.

The RBES variance and the PMP discussed the possibility that some Pu-238 contaminated waste may pose significant risk to SRS workers if containers need to be opened to prepare this waste for shipment to WIPP. Some of the Pu-238 waste may be safely disposed in a non-WIPP location according to the RBES variance. DOE's reply to Recommendations #189 and #190 said that the RBES variance and PMP Pu-238 waste disposal alternatives would be discussed with the CAB in September 2004. We understand that DOE will be prepared to discuss this information, but at a later date. These Recommendations remain open and the CAB remains interested in receiving briefings on the disposition of Pu-238 contaminated TRU waste.

### **Recommendation**

The SRS CAB makes the following recommendations:

1. DOE maintain the flow of TRUPACT II shipping containers to SRS to ensure an average of 20 shipments per month.
2. DOE build new TRUPACT II shipping containers and designate at least one new container to SRS in order to meet the 2008 target date for removal of all legacy TRU waste at SRS.
3. DOE work with NRC so that an early approval date for TRUPACT-II (SARP – Revision 21) is effected to ensure all SRS high activity drummed TRU waste is removed by 2008. In addition, the SRS CAB requests a presentation on the status of the TRUPACT-II (SARP – Revision 21) by January 25, 2005.
4. DOE provide an update by January 25, 2005, on the licensing effort including the schedule and the procurement status for the TRUPACT-III shipping containers. Also, DOE provide an update on the nondestructive assay equipment deployment to the SRS CAB by January 25, 2005.
5. To prevent any slowdown on shipments from the impact of drum repackaging, DOE-SR expedite the installation of the Modular Repackaging Facility and maintain the accelerated TRU waste shipments at 20 per month. Provide a status update by January 25, 2005.
6. As a follow-up to previous recommendations concerning the RBES variance and disposition of Pu-238 contaminated TRU waste, DOE-SR needs a backup plan and should provide a date for a presentation on the subject to the SRS CAB by November 16, 2004.

### **References**

1. SRS TRU Waste Program, presentation to the WM Committee by Bert Crapse, March 18, 2004.
2. SRS TRU Waste Program, presentation to the WM Committee by Bert Crapse, August 31, 2004.
3. Citizens Advisory Board Recommendation No. 190 (adopted May 25, 2004), "Risky Based End State Vision Document".
4. Citizens Advisory Board Recommendation No. 153 (adopted April 23, 2002), "TRU Waste Priority and Off-site Shipments".

### **Agency Responses**

Department of Energy-SR