



Savannah River Site Citizens Advisory Board

Recommendation 164

**Waste Isolation Pilot Plant
Non-Compliant Item WAC**

Background

The Waste Isolation Pilot Plant (WIPP) has been developed as the repository for the DOE Transuranic (TRU) waste. The WIPP site is located deep within underground salt deposits near Carlsbad, NM. In order for the Savannah River Site (SRS) to meet the current WIPP Waste Acceptance Criteria (WAC), drums containing TRU waste require extensive preparation. In some cases, when a non-compliant item (empty aerosol can) is identified through x-ray interrogation and non-destructive assay, the drum must go through a visual examination; even though the x-ray, non-destructive and process data evaluations have provided a 100% picture of drum contents. These means SRS workers must sort, segregate, and repackage these types of low activity drums of TRU waste before they can be shipped to WIPP. Re-opening these drums was never envisioned when they were originally packed. SRS estimates that greater than 40% of the TRU waste drums (approx. 10,000 drums) must be opened, sorted and segregated to remove non-compliant items. Efforts are underway to increase the inspection rates and removal of non-compliant items by the installation of a glovebox facility from LANL.

In addition to the drums, SRS has a major sorting problem with large containers containing high activity TRU waste. These large containers are metal boxes 7 feet by 12 feet by 18 feet holding contaminated items individually created and packaged to match the wasteform. Facilities do not exist to open these large containers and remove non-compliant items. The risks to the SRS workers are expected to be high since these containers hold the high activity TRU waste (Ref. 1).

Comment

The SRS Citizens Advisory Board (CAB) has been concerned about the treatment and disposition of TRU waste for some time (Ref. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15). The majority of TRU waste generated at SRS consists primarily of job control waste, which includes protective clothing, rags, and tools used during the processing of plutonium and other nuclear materials. The requirement to re-open highly radioactive containers to remove many non-compliant items, such as fire extinguishers, aerosol cans, small liquid containers, is unnecessary since these items are going into a repository designed to safely contain highly radioactive waste for 10,000 years. We do not agree with New Mexico Environmental Department that this is not a valid argument.

The real issue is the risk versus the benefit, especially for the large containers of high activity waste. The SRS CAB does not think the benefits of opening these large containers to remove the non-compliant items to meet the transportation and disposal requirements of WIPP outweigh the risks that will be imposed on SRS workers. The SRS CAB could accept these overly restrictive requirements if they added to worker safety and human health and environmental protection, but they do not. To the contrary, these requirements actually increase SRS worker exposure to unnecessary hazards, delay TRU waste shipments and significantly increase costs and do not reduce risks to human health and environmental protection.

Recommendation

The SRS Citizens Advisory Board recommends the following:

1. By November 19, 2003, DOE-HQ, working with DOE-SR and DOE-Carlsbad, develop

- a path forward (including an investigation into the need for a WIPP RCRA Part B permit modification or change in the WIPP WAC) that will reduce the number of drums that are opened, sorted and segregated because of non-compliant items.
2. DOE-SR ensures that the path forward also significantly reduces or eliminates the need to remove non-compliant items in the large containers of TRU waste at SRS and helps to expedite the removal schedule for this waste stream.

References

1. "Transuranic (TRU) Waste", presentation to the WM Committee by Sonny Goldston, April 17, 2003.
2. Citizens Advisory Board Recommendation No. 4 (adopted March 28, 1995), "Transuranic Waste Treatment Plan of WMEIS Comments and ISPR of TRU Waste Retrieval Project".
3. Citizens Advisory Board Recommendation No. 11 (adopted November 28, 1995), "Implementation of Transuranic Waste Retrieval Project".
4. Citizens Advisory Board Recommendation No. 18 (adopted March 26, 1996), "Transuranic Waste Treatment Options Recommendation following Blue Ribbon Panel Results".
5. Citizens Advisory Board Recommendation No. 27 (adopted November 19, 1996), "Treating Combustible Transuranic Waste and Shipment to WIPP".
6. Citizens Advisory Board Recommendation No. 32 (adopted January 28, 1997), "Waste Isolation Pilot Plant Disposal Phase Draft SEIS-II".
7. Citizens Advisory Board Recommendation No. 47 (adopted November 18, 1997), "Environmental Management Integration and some SRS Specific Recommendation".
8. Citizens Advisory Board Recommendation No. 77 (adopted January 26, 1999), "WIPP RCRA Part B Permit".
9. Citizens Advisory Board Recommendation No. 97 (adopted September 28, 1999), "The Shipment of Pu-238 Waste to the Waste Isolation Pilot Plant".
10. Citizens Advisory Board Recommendation No. 111 (adopted January 25, 2000), "WIPP RCRA Permit/Transuranic (TRU) Waste".
11. Citizens Advisory Board Recommendation No. 125 (adopted May 23, 2000), "WIPP RCRA Permit Modification (Miscertification Rate on a Waste Stream Basis)".
12. Citizens Advisory Board Recommendation No. 130 (adopted September 26, 2000), "Mound TRU Waste Shipments to SRS".
13. Citizens Advisory Board Recommendation No. 148 (adopted January 15, 2002), "Low Activity TRU Facility".
14. Citizens Advisory Board Recommendation No. 153 (adopted April 23, 2002), "TRU Waste Priority and Offsite Shipments".
15. Citizens Advisory Board Recommendation No. 155 (adopted July 23, 2002), "TRU Waste Shipment Acceleration".

Agency Responses

[Department of Energy-SR](#)