



Recommendation No. 155

July 23, 2002

TRU Waste Shipment Acceleration

Background

Transuranic (TRU) waste is defined in DOE Order 435.1 as waste contaminated with alpha-emitting transuranic radionuclides (radionuclides with atomic numbers greater than 92) with half lives greater than twenty years and in concentrations greater than 100 nanocuries per gram of waste matrix. 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 Waste Isolation Pilot Plant (WIPP) has been developed as the repository for all of the DOE TRU waste including the SRS waste. The treatment and disposition of TRU waste has been a concern of the SRS Citizens Advisory Board (CAB) for some time (Ref. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10).

The most recent recommendation was adopted April 23, 2002 (Ref. 11) and focused its requests to DOE-HQ. This recommendation concentrated on risk reduction through the accelerated shipment of TRU wastes to WIPP. The SRS CAB received a response from DOE-HQ (Ref. 12) on the five related issues it raised. The DOE response centered on DOE's intent to meet this fiscal year's planned shipments and DOE's priority planning process. While the response was appreciated, the SRS CAB had hoped for stronger assurances.

Comment

The SRS CAB is pleased to see the issue of accelerating TRU waste shipments and reducing the risk through elimination of long term storage included in the SRS Performance Management Plan (PMP) (Ref. 13). The SRS CAB wants part of the Cleanup Reform Appropriations to go toward the accelerated shipments of TRU waste to WIPP and toward the expedient management of high activity TRU wastes at SRS including technology deployment and facility design/construction. If these appropriations are approved, they could accelerate the shipment of legacy TRU wastes nearly two decades ahead of schedule and save over \$1.5 billion dollars. A key component of the shipment acceleration is the commitment for sufficient TRUPACT II shipping units and assurances from WIPP to increase its capacity to receive waste shipments.

In addition, the SRS CAB would like to see consideration given to a review of DOE Order 435.1. As discussed in the Top-to Bottom Review, DOE should be making these technical risk evaluations of DOE orders and requirements to help accelerate risk reduction and cleanup (Ref. 14). One aspect of the review could be a consideration of increasing the threshold definition of TRU waste. A modification in the definition of TRU waste could drastically reduce the amount of TRU waste needing to be shipped to WIPP. Another aspect could be a review of acceptable disposal paths for currently defined TRU wastes and potentially modified TRU waste definition. These alternative disposal paths would need to be environmentally acceptable and demonstrate no increase in risks to SRS workers or the general public.

Recommendation

The SRS CAB makes the following recommendations:

1. DOE- provides the resources to implement the PMP proposals (WM-3 and WM-4) to accelerate TRU wastes shipments to WIPP.
2. DOE review DOE Order 435.1 and related documents and report to the SRS CAB by January 21, 2003 on (1) the possibility and expected ramifications of raising the TRU waste threshold level and (2) the available disposal paths for this newly defined waste stream and any potential disposal paths for current TRU wastes besides WIPP that are environmentally acceptable with no increase in risks to SRS workers or the public.

References

1. Citizens Advisory Board Recommendation No. 4 (adopted March 28, 1995), "Transuranic Waste".
2. Citizens Advisory Board Recommendation No. 11 (adopted November 28, 1995), "Transuranic Waste".
3. Citizens Advisory Board Recommendation No. 18 (adopted March 26, 1996), "Transuranic Waste".
4. Citizens Advisory Board Recommendation No. 27 (adopted November 19, 1996), "Treating Combustible Transuranic Waste and Shipment to WIPP".
5. Citizens Advisory Board Recommendation No. 47 (adopted November 18, 1997), "Environmental Management Integration and some SRS Specific Recommendation".
6. Citizens Advisory Board Recommendation No. 77 (adopted January 26, 1999), "WIPP RCRA Part B Permit".
7. Citizens Advisory Board Recommendation No. 97 (adopted September 28, 1999), "The Shipment of Pu-238 Waste to the Waste Isolation Pilot Plant".
8. Citizens Advisory Board Recommendation No. 111 (adopted January 25, 2000), "WIPP RCRA Permit/Transuranic (TRU) Waste".
9. Citizens Advisory Board Recommendation No. 125 (adopted May 23, 2000), "WIPP RCRA Permit Modification (Miscertification Rate on a Waste Stream Basis)".
10. Citizens Advisory Board Recommendation No. 130 (adopted September 26, 2000), "Mound TRU Waste Shipments to SRS".
11. Citizens Advisory Board Recommendation No. 153 (adopted April 23, 2002), "TRU Waste Priority and Off-site Shipments".
12. Response letter to Recommendation No. 153 from Jessie Hill Roberson, assistant Secretary for Environmental Management to Wade Waters, Chair SRS CAB, dated June 5, 2002.
13. Environmental Management Program Performance Management Plan, Revision 1, WSRC-RP-2002-00245, May 1, 2002.
14. Top-to Bottom Review of EM Program, February 4, 2002, www.energy.gov/environ/index.html.

Agency Responses

[*Department of Energy-SR*](#)