Citizens Advisory Board
Idaho National Engineering and Environmental Laboratory

Disposition of V-Tank Contents

The Idaho National Engineering and Environmental Laboratory (INEEL) Citizens Advisory Board (CAB) understands that the U.S. Department of Energy Idaho Operations Office (DOE-ID), Region X of the U.S. Environmental Protection Agency (EPA), and the State of Idaho have selected a preferred alternative for the disposition of the contents of the V-Tanks, located in Waste Area Group (WAG) 1 at Test Area North (TAN) on the INEEL.

We understand that:

- Four tanks comprise the V-Tanks, each with a volume of waste, including both liquids and sludge, which contains transuranic waste.
- The Waste Acceptance Criteria for the INEEL Comprehensive Environmental Response, Compensation, and Liability Act Disposal Facility (ICDF) prohibit disposal of any waste containing greater than 10 nanocuries per gram (nCi/g) of transuranic radionuclides.
- Most of the curie content (radioactivity) is in the sludge
- Leaving some liquid with the sludge would facilitate the retrieval and the oxidation treatment processes

The following table portrays what we understand about the contents of the four V-Tanks:

Tank	Capacity	Volume			Transuranic Concentrations
		Liquid	Sludge	Total	
V-1	10,000 gallon	1,164 gallons	520 gallons	1,684 gallons	10.94 nanocuries per gram
V-2	10,000 gallon	1,188 gallons	458 gallons	1,596 gallons	4.02 nanocuries per gram
V-3	10,000 gallon	7,660 gallons	652 gallons	8,312 gallons	2.18 nanocuries per gram
V-9	400 gallon	70 gallons	250 gallons	320 gallons	26.39 nanocuries per gram

Our current understanding of the preferred approach would entail:

1. Removal of 5,000 to 6,000 gallons of the liquid in Tank V-3 to reduce the total volume that would require disposal in the ICDF.

2. The contents of Tanks V-9 and V-3 would be combined. This is significant because the contents of Tank V-9 exceed the waste acceptance criteria for transuranic concentrations at ICDF; when combined with Tank V-3, however, the pre-treatment transuranic concentration, thus diluted, would be well below acceptable limits.

3. Three batches would be treated: one would include the contents of Tank V-1, a second the contents of Tank V-2, and the third would include the contents of Tanks V-9 and V-3 (combined).

4. Disposal at the ICDF.

The INEEL CAB notes that the described approach would result in a combined volume from the four tanks that would have a curie content of 4.38 nCi/g prior to treatment and 8.77 nCi/g or 7.51 nCi/g if 6,000 or 5,000 gallons were removed (respectively) prior to treatment. Following treatment, the treated product would have a curie content of 1.5 nCi/g, well below the Waste Acceptance Criteria limit of 10 nCi/g.

The INEEL CAB finds the preferred alternative to be acceptable as long as the three agencies are certain that the final product will, in fact, meet the Waste Acceptance Criteria for ICDF. We would not favor this approach if it jeopardized DOE's ability to dispose the entire volume in ICDF.

The INEEL CAB recommends that DOE and the regulators carefully review the preferred approach from a technical and regulatory perspective to ensure that batching the contents of the V-Tanks in this manner would not cause the total volume of treated waste product to be excluded from ICDF disposal.