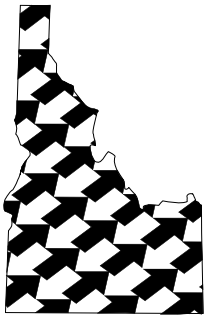

Citizens Advisory Board
Idaho National Engineering and Environmental Laboratory

HIGH-LEVEL WASTE AND FACILITIES DISPOSITION ENVIRONMENTAL IMPACT STATEMENT

INTRODUCTION

The Board commends the Department of Energy (DOE) for beginning the High-Level Waste and Facilities Disposition Environmental Impact Statement (HLW EIS) nearly ten years ahead of schedule and for continuing to involve the Idaho National Engineering and Environmental Laboratory Citizens Advisory Board (INEEL CAB).

The following are submitted as recommendations for consideration during the scoping process for the EIS.

RECOMMENDATIONS

1. In its January 1997 recommendation to DOE, the Board expressed concerns regarding the sufficiency of funds for research and development for both separations and calcination to provide reasonable assurances that the technology selected by the Record of Decision (that will follow the HLW EIS) will meet the milestones in the Settlement Agreement. Our concerns continue, and we urge DOE to continue funding both research and development programs to ensure compliance with the Settlement Agreement regardless of which alternative is preferred and then selected pending analysis in the EIS.

2. The EIS must state all key assumptions clearly and explicitly. For example, if volume restrictions at Yucca Mountain are the driving force behind the decision to separate, then this should be stated and explained in clear and understandable language. In addition, the method for determining the equivalent metric tons of heavy metal for INEEL's HLW should be explained.

3. The EIS should clearly identify all waste streams, including radioactive and hazardous constituents that will result from each of the alternatives considered, state quantities, and describe the risks associated with each and plans for final disposition. In particular, DOE should distinguish between wastes that will leave Idaho and those that will remain at the INEEL. If it is assumed that waste will be disposed of at the INEEL, the EIS should disclose what existing or new facilities will be used, associated costs, and what permits will be required.

4. The Board finds the "No-Action" alternative unacceptable and recommends it not be selected based on the following:

    - Risks associated with potential leakage of residual liquid waste from the tanks are unacceptable to the public due to the potential for aquifer contamination.

    - Leaving the calcine in the bin sets indefinitely is unacceptable to the public because that would result in de facto disposal of the waste.

- Leaving facilities in "standby operations" results in significant mortgage costs.
- The alternative is not in compliance with the Settlement Agreement.
- The alternative would result in the loss of valuable infrastructure.

5. The Board recommends that all reasonable, other than "no action" alternatives—such as vitrification, ceramic, and cementation—be given full, careful and fair consideration in the EIS.

6. The EIS should address all liquid and calcined wastes at the tank farm and in the bin sets at the Idaho Chemical Processing Plant (ICPP). Materials distributed during the scoping process reiterate that sodium bearing waste has "historically been managed as high-level waste because some of its physical and chemical properties are similar to those of high-level waste." In addition, the Settlement agreement speaks of "sodium-bearing liquid high-level waste." However, the scoping materials go on to state that "Additional waste testing and characterization may result in its (sodium bearing liquid waste) reclassification as mixed transuranic waste or mixed low-level waste." This uncertainty about the classification of the sodium-bearing liquid waste must end. DOE must determine, as part of this NEPA process (including review by stakeholders and regulators), the classification of the sodium-bearing liquid wastes. The EIS should provide a clear rationale and basis for the selected classification.

7. DOE should consider an integrated, complex-wide approach for HLW treatment. If different approaches are taken at different sites, the rationale should be explained. For example, DOE should clearly and specifically justify why the separations process should be implemented at the INEEL if it is not going to be used at Hanford (a facility with a great deal more HLW than INEEL).

8. The EIS should clearly specify all of the pros and cons associated with each of the alternatives evaluated. Strategies for disposition and potential roadblocks, such as RCRA permitting and repository availability, should be identified and analyzed.

9. The description of the "Non-separation" alternative in the informational materials made available during the scoping period discusses "permanent disposal in-place at the INEEL or outside of the State of Idaho in a geologic repository" for HLW. The Board recommends that HLW should be disposed of in a geologic repository outside of Idaho. If disposal in Idaho is being considered, it must be included as a separate alternative.

10. Separation will result in a low activity waste component with radioactive and hazardous constituents. One plan for the disposal of this waste is to grout it back into the liquid waste tanks. Even if the low activity waste stream is not grouted into the tanks, the heels may remain in place. This means that significant quantities of radioactive and possibly hazardous materials could be disposed of over the aquifer. An option of closing the tanks as cleanly as possible (for example, by filling with clean grout) should be considered.

    The Board insists that DOE clearly define the risks to the environment, aquifer, and down gradient residents associated with this disposal option including the stability of this waste form and the possibility of leakage from these tanks. These risks should be compared to the risks to workers and the general public of other options, such as pumping or otherwise removing the heels, treating and disposing of the heels, filling the tanks with clean grout, or removing the

tanks. In addition, the regulatory barriers associated with putting this RCRA regulated material at the INEEL under a CERCLA site should be addressed.

11. Offsite disposal of low activity waste should also be considered.

12. The Board believes that the hazardous constituents in the high level and sodium bearing waste may create serious problems in the disposal of the low activity and/or high activity waste streams. The EIS should clearly identify quantities and types of all hazardous constituents remaining in each waste stream and identify the disposal risks associated with each. DOE should consider alternative strategies for management of these hazardous constituents including separations and disposal at RCRA permitted facilities.

13. The EIS covers "high-level waste and facilities disposition." Preliminary scoping documents focus primarily on the HLW processing options, with very little information on facilities disposition alternatives. What facilities are being considered for disposition in this EIS and what is the tie-in with the WAG 3 ROD, scheduled to be completed a year before the final EIS is issued?

14. The Settlement Agreement states that the HLW will be calcined. Some of the alternatives, such as the "separations" alternative, would require negotiations with the State and rewording of the Settlement Agreement. The EIS should provide a full explanation of the potential need, strategy for, and ramifications of renegotiation of the Settlement Agreement under each alternative.