



Citizens Advisory Board  
Idaho National Engineering Laboratory

## INEL HIGH-LEVEL WASTE PROGRAM

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### INTRODUCTION

The Citizens Advisory Board to the Idaho National Engineering Laboratory met with Department of Energy and Lockheed Martin Idaho Technologies Company personnel during its November 19-20, 1996, and January 21-22, 1997, meetings and received presentations on the *DOE-ID Regulatory Analysis and Proposed Path Forward for the Idaho National Engineering Laboratory High-level Waste Program* and management and disposition alternatives for INEL high-level waste. After consideration of the presentations and analysis of the document, the Board offers the following recommendations.

### RECOMMENDATION

The Board appreciates the opportunity to comment on the plan for managing high-level waste (HLW) early in the process and recommends that such early public input continue to be elicited.

The *DOE-ID Regulatory Analysis and Proposed Path Forward for the Idaho National Engineering Laboratory High-level Waste Program* document states that the Environmental Impact Statement (EIS) is the proper vehicle to reach decisions on the management of HLW at the INEL and suggests completing the EIS early. The Board strongly agrees with this suggestion and recommends that work on the EIS be initiated immediately. The EIS must examine a broad range of alternatives and provide reasonable assurance that the preferred alternative will work as proposed. As part of the EIS, the Board recommends that a clear and concise description of all alternatives be provided. The Board also recommends including discussion of the criteria and relative weights that were used to arrive at the preferred alternative in order to help the stakeholders better understand the process and options.

During the presentations at the January meeting, a number of issues appear to be unresolved between DOE and the State of Idaho, including whether the separations approach will meet the commitments in the Settlement Agreement. The Board recommends that DOE initiate immediate interaction with LMITCO and the State of Idaho in order to resolve these issues and to identify alternatives for the EIS that are acceptable to all parties. In addition, the Board recommends that sufficient research and development funding be authorized for both separations and calcination to provide reasonable assurance that the recommended EIS technology will meet the milestones specified in the Settlement Agreement.

The assumptions that DOE-ID uses to reach the proposed alternative should be clear and explicit. Based on the presentations during the November Board meeting, the assumptions used to draft the *Regulatory Analysis* appear to include that a geologic repository will become available in the future for INEL's HLW, that there will be critical limits on volume in the repository, and that the HLW must be vitrified prior to disposal. Changes to any of these assumptions could force DOE to consider other alternatives. It is unclear to the Board why these assumptions are appropriate and the justification for them must be clarified in DOE-ID's EIS. Specifically, the EIS should include answers to the following key questions:

- Is Yucca Mountain the repository used for the planning basis?

- If not, what are the characteristics of the geologic repository assumed to be?
- What are the limiting factors: physical size, metric tons of heavy metal (MTHM), or both?
- How do volume and MTHM relate with and without separation, with and without vitrification, and with and without cementation?
- What are the legal and regulatory requirements of the waste form and is vitrification necessary/required?

The Board is also concerned about the proposal to dispose of the low-activity component in Idaho should that be recommended in the EIS. This material will contain radioactive isotopes and may contain hazardous components. Disposal of this material over the aquifer may be a concern to the citizens of Idaho. The Board recommends the EIS include careful examination of the associated risks of such disposal and that DOE keep the Board and the public informed as more information becomes available.

The Board is concerned that, as the liquid waste is treated and concentrated issues related to criticality be adequately addressed.

Finally, the Board also recommends that a public involvement program be initiated as part of the EIS scoping process and proposes that it assist DOE in the effort.