



Environmental Management Site Specific Advisory Board  
Idaho National Engineering Laboratory

## INEL LOW-LEVEL WASTE PROGRAM

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### INTRODUCTION

The Environmental Management Site Specific Advisory Board to the Idaho National Engineering Laboratory (EM SSAB-INEL) met with Department of Energy personnel at its May 21-22, 1996, meeting and received a presentation on the disposal options for INEL low-level waste (LLW). During the July 16-17, 1996, meeting, Board members had the opportunity to participate in various table-talks supported by Lockheed Martin Idaho Technologies Company personnel. These table-talks provided detailed information regarding LLW treatment, storage and disposal. The Board received additional information at its September 17-18, 1996, meeting and developed the following recommendation.

### RECOMMENDATION

The Board was asked to provide comments to the Department of Energy on the current INEL low-level waste program and its components. Based on information received in several presentations to the Board, it strongly recommends DOE-ID:

- Recategorize low-level waste. Consider stability, solubility, reactivity and the level and/or type of radioactivity to recategorize LLW. This will allow DOE-ID to manage the various types of low-level waste more appropriately. For example, consider the small amount of LLW that is “high risk” separately for treatment, storage and disposal options. The Board recommends DOE-ID dispose of all LLW as cost-effectively as possible, evaluating both on- and off-site options for treatment, storage and disposal. DOE-ID should utilize an integrated management system to efficiently balance volumes, risks and costs.
- Integrate Environmental Restoration (ER) and Waste Management (WM) activities in order to dispose of the radioactively contaminated INEL soils efficiently and more cost-effectively. The Board therefore requests information and presentations from DOE-ID regarding future plans for a soil repository at the INEL, including any consideration of disposal of WM waste at an ER repository.
- Prioritize and capitalize on pollution prevention and waste minimization in all operational activities, including D&D activities. Aggressively implement a “chargeback” system to motivate generators to decrease the volume of waste produced. This incentive program would result in cost savings and assist DOE-ID in extending the capacity of the Radioactive Waste Management Complex (RWMC). Consider the waste minimization solutions employed in the nuclear utility industry and examine the applicability of commercial solutions to government-owned waste, including (re)instituting worker incentive programs. Emphasize pollution prevention and recycling programs as a means of dealing with waste more effectively. Continue to employ volume reduction techniques, where waste generation cannot be reduced.

- Maximize the use and life-span of existing facilities which are already permitted, such as the disposal capacity at the RWMC. If shown to be cost-effective, maximize the use of the Waste Experimental Reduction Facility (WERF), extending the timeline for its operations, and consider a potential lease arrangement where WERF could continue to operate beyond 2003 as a private facility. At a minimum, coordinate activities at WERF with activities scheduled for the Advanced Mixed Waste Treatment Complex to maximize the use of both facilities and achieve the most cost-effective solution.
- Clarify the technical capabilities of the private sector and the potential costs associated with privatizing treatment of LLW and report these to the Board. Subsequently, allow the Board to review these issues and offer a recommendation.

The Board recommends DOE-ID continue to streamline activities for maximum efficiency and cost savings in the treatment, storage and disposal of LLW.