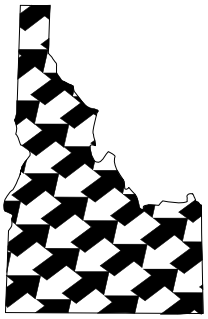

Citizens Advisory Board
Idaho National Engineering and Environmental Laboratory

PROPOSED PLAN FOR WASTE AREA GROUP 9 (ARGONNE NATIONAL LABORATORIES-WEST) AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

INTRODUCTION

The following is submitted to the U.S. Department of Energy, Idaho Operations Office; the U.S. Environmental Protection Agency, Region X; the State of Idaho; and the U.S. Department of Energy, Chicago Operations Office – Argonne Group-West as the Idaho National Engineering and Environmental Laboratory Citizens Advisory Board comments on the Proposed Plan for Waste Area Group 9 – Argonne National Laboratory – West (ANL-W) at the INEEL:

RECOMMENDATION

The INEEL CAB recommends selection of Alternative 5, phytoremediation, as the preferred alternative for achieving remedial objectives at ANL-W. As described in the Proposed Plan, phytoremediation is an innovative technology that utilizes plants to uptake toxic metals and radionuclides through roots *in situ*. Plants that have been used successfully in the past include grasses, shrubs, and/or trees. Following uptake the plant vegetation would be harvested, sampled, and incinerated for volume reduction. The resultant ash would be sampled and sent to a permitted disposal facility. Alternative 5 was ranked best in 6 out of the 7 evaluation criteria, and the cost is significantly lower than the other alternatives. We will be pleased if the technology proves successful. We will support continued endeavors to pursue innovative technologies that could enhance INEEL's role as an environmental laboratory and that could be marketed for use at other contaminated sites.

We are concerned about the potential for spread of any non-native INEEL species that may be used in the remediation. We recommend that the Record of Decision (ROD) provide more detailed explanations of the species to be used and how DOE proposes to control their potential spread. In addition, we are concerned that contaminants taken up into vegetation could be consumed by animals using the remediation area for habitat and feeding. We recommend the ROD address this concern and provide an explanation of steps that will be taken to limit ecological risks to wildlife populations. We are finally concerned about dioxins resulting from incineration. We recommend that the combustion of secondary wastes should be addressed in the ROD.

With regard to the contingency identified in the preferred alternative (i.e. Alternative 4A, which would include excavation and disposal on-site at the Soils Repository proposed for Waste Area Group 3 – Idaho Chemical Processing Plant), we have some concern regarding the identification of a facility that may or may not be constructed. We understand that the Radioactive Waste Management Complex (RWMC) may be licensed at some time to receive wastes generated through implementation of cleanup activities in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act. If so, the ROD should explicitly name the RWMC as a back-up to Alternative 4 and document that it would perform similarly to the Soils Repository according to the evaluation criteria.

We understand that the costs associated with use of RWMC would be comparable to the Soils Repository. The ROD should provide more complete disclosure of the costs associated with the contingency and its backup to support comparisons between them.

Finally, we urge the rapid determination of the feasibility of phytoremediation so that it or the contingency plan can be implemented expeditiously. We request that DOE report the results of the bench scale tests to the INEEL CAB once available.