



## Department of Energy

Idaho Operations Office  
1955 Fremont Avenue  
Idaho Falls, ID 83401

March 10, 2005

Mr. David Kipping, Chair  
INEEL Citizens Advisory Board  
c/o Peggy Hinman  
North Wind, Incorporated  
1425 Higham Street  
Idaho Falls, Idaho 83402

SUBJECT: Responses to Citizens Advisory Board Recommendation #119 on Cleanup and Closure of the Radioactive Waste Management Complex (EM-WM-05-015)

Dear Mr. Kipping:

Thank you for the Citizens Advisory Board Recommendation # 119 on the Cleanup and Closure of the Radioactive Waste Management Complex (RWMC). We appreciate the perspective that you bring with regards to cleanup at the RWMC. We are committed to effectively remediating these wastes and to do so in a manner that continues to protect human health and the environment.

We would like to address your recommendation in two ways. The first is the written response to the recommendation which is enclosed with this letter. The second is by addressing one of the prevailing themes of your recommendation concerning the RWMC waste inventory. As discussed during the RWMC subcommittee call, we will address these concerns during the March CAB meeting.

If you have any questions, we would like to address those at the March meeting as a part of the inventory presentation.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard B. Provencher".

Richard B. Provencher, Assistant Manager  
Idaho Cleanup Project

Enclosure

**Responses to Citizens Advisory Board Recommendation #119  
on Cleanup and Closure of the  
Radioactive Waste Management Complex**

1. The INEEL CAB recommends a measured balance between a bias for action and the sufficiency of information supporting selection of the final remedy for the buried waste.
  - The INEEL CAB supports DOE's stated "bias for action," particularly as it relates to the reduction of risks to humans and the environment. It appears that there may be adequate information to support some actions, and DOE should not delay taking those actions until after the Record of Decision for the overall cleanup.

*DOE has demonstrated its commitment to a bias for action since the development of the FFA/CO, and has in fact increased the pace of clean up in last year and a half. DOE has executed several non-time critical removal actions and best management practices at the Radioactive Waste Management Complex (RWMC) prior to completing the final ROD. This approach will continue in the future where there is adequate information to support early actions that are not inconsistent with the likely remedy for the RWMC.*

- The INEEL CAB believes it may be appropriate for DOE and the regulators (Region 10 of the U.S. Environmental Protection Agency and the Idaho Department of Environmental Quality) to agree to a less aggressive schedule for the comprehensive Record of Decision (ROD) for the cleanup at the RWMC. There should be no rush to complete the comprehensive ROD until DOE and its regulators are more confident in their understanding of the contents and characteristics of the buried waste at the RWMC and the risks that are posed by that waste.
- This combined approach would allow for selected interim remedial actions taken to provide immediate protection for human health and safety and the environment, with a more measured approach to determining the ultimate remedy for the site.

*DOE has delayed the comprehensive ROD for the RWMC several times from its original 1998 deadline in order to obtain more complete waste inventory information. The ROD deadline has been extended 9 years to date, with a new deadline for the draft ROD set at 2007. In addition, DOE has accelerated activities to reduce risk and improve efficiency of remediation. Each of these activities have added to the existing wealth of information already available on which to base a remediation decision.*

*During this same timeframe DOE, DEQ, and EPA are implementing a carefully designed work plan for completing the ROD. Conducting the evaluation outlined in the work plan will result in an adequate understanding of the nature and extent of waste contamination to make a fully informed decision for RWMC remediation, explainable and supportable to the citizens of Idaho, and that meets the requirements of the FFA/CO and CERCLA. Though perfect knowledge is unattainable, confidence in the existing data for its intended purpose is high.*

*While at this time DOE believes that sufficient information is available to support risk management decisions, new information may come to light as we implement the work plan or interim remediations. Should that occur, any decisions concerning further delays to the ROD, and therefore delays to ultimate remediation, must balance the anticipated benefit of the additional information on remedy selection against the risk associated with potential migration of contaminants that may occur during the timeframe of the delay and the cost of obtaining new data or conducting new evaluations. DOE commits to undertake that benefit analysis as this situation may arise in the future.*

2. The INEEL CAB recommends that DOE complete a rigorous risk assessment addressing risks associated with possible remedies before selecting the final remedy.
  - The INEEL CAB understands that the risk assessments conducted to date are not complete. Further, it appears that the risks associated with leaving much of the waste in place may not be higher than the risks associated with removing the waste. Therefore, DOE and the public need more thorough analysis of the risks to the workers versus the long-term risks to the public and the environment to support sustainable decisions.

*DOE agrees with the recommendation that selection of a final remedy should be based on a rigorous risk assessment. In fact, both the FFA/CO and CERCLA identify specific requirements and guidelines for assuring the necessary rigor of risk assessments. Two complete baseline-type risk assessments have been conducted, the Interim Risk Assessment (Becker et al. 1998) and the Ancillary Basis for Risk Analysis (Holdren et al. 2002), both of which began as baseline risk assessments prepared in accordance with CERCLA guidance. A complete analysis of worker risks was presented in the Preliminary Evaluation of Remedial Alternatives (Zitnik et al. 2002), which began as a feasibility study based on CERCLA guidance. Although the Preliminary Evaluation of Remedial Alternatives shows that substantial worker risk must be weighed against hypothetical long-term risks to the public and environment, the formal Remedial Investigation in preparation to support the ROD will further refine previous results, utilizing applicable data from the remediation projects currently in progress. As part of the process of determining a final remediation approach for the ROD, DOE, DEQ, and EPA, with input from Idaho citizens, must carefully weigh short-term and long-term risks to arrive at a responsible cleanup decision.*

- The INEEL CAB does not want to see anything left behind that could cause unacceptable risks to humans and the environment.

*DOE agrees with the CAB's assessment of public confidence, and anticipates that the Accelerated Retrieval Project (ARP) will add to the substantial body of evidence already available.*

*The extent to which the excavated materials confirm the accuracy of the shipping and disposal records regarding what was buried in the RWMC correlates with the degree of public confidence in those records. If excavation efforts repeatedly confirm what is documented in the records, greater public confidence can be expected in decision-making based on the records. If further excavation efforts fail to confirm what is known from the records, then confidence in the records will decrease.*

3. The INEEL CAB recommends that DOE continue to rigorously confirm its records before expecting the public to accept decisions based on those records.

*DOE agrees with this recommendation, and has worked to rigorously confirm its records over the past 20 years. DOE plans to continue this effort by comparing the contents of the Pit 4 retrieved waste to corresponding disposal records. For example, to calibrate our knowledge of disposal locations, the actual locations of visibly unique waste items, referred to as "marker shipments," will be verified and compared to their locations documented in historical records. In addition, average radionuclide inventories contained in targeted and non-targeted waste will be determined by assay and compared to data from historical disposal records. While laboratory analyses will be performed to assess compliance with shipping and disposal regulations (e.g., RCRA and TSCA), these analyses will not contribute substantial information to assessing records as such information was neither required nor recorded at the time the records were created.*

*Remarkably good records are available to reconstruct disposal history for the Subsurface Disposal Area. Not only are there shipping records, there is also substantial information about waste-generating processes and waste characteristics. While confidence in precise waste location by drum or shipment is somewhat less, the historical information provides a good foundation for collecting additional scientific data through probing, geophysics, and soil gas surveys. As demonstrated by the comparability of the waste retrieved in the GEM Project to corresponding records and scientific data, DOE is able to effectively identify disposal locations with high densities of waste containing contaminants of concern quite adequately for purposes of remediation.*

4. The Accelerated Retrieval Project (Pit 4) samples targeted waste, untargeted waste, and the underburden. The INEEL CAB recommends that the sampling program be applied to future excavations, which could raise public confidence in DOE's decision-making. Additional sampling may also support subsequent decisions related to cleanup if/when new technologies emerge.

*Details of requirements for future retrievals will be determined by DOE, DEQ, and EPA. This CAB recommendation, as well as the proven utility and value of the ARP sampling program, will be considered in that decision.*