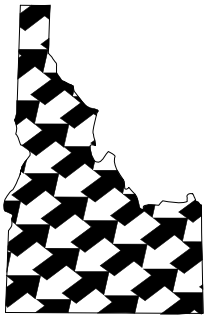

Citizens Advisory Board
Idaho National Engineering and Environmental Laboratory

Draft Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel

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The Idaho National Engineering and Environmental Laboratory Citizens Advisory Board (INEEL CAB) has reviewed the *Draft Environmental Impact Statement (EIS) for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel* and two companion documents, the *Cost Study of Alternatives Presented in the Draft Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel* and the *Nonproliferation Impacts Assessment for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel*. This recommendation, reached through consensus, presents our comments on the three documents.

During the scoping period for this EIS, the INEEL CAB recommended that DOE consider the possibility of using different treatment processes for the driver fuel and the blanket fuel. **We commend DOE for taking that recommendation to heart.** We also feel that DOE was responsive to other recommendations we made during the scoping period, including requests for (1) a listing of all assumptions and (2) bounding estimates of shipments in and out of Idaho and estimates of storage duration(s). The following recommendations address our prior recommendations that were less well addressed and other concerns that arose during review of the draft EIS.

During the scoping period for this EIS, the INEEL CAB recommended that DOE evaluate the impacts of additional alternatives. We appreciate that DOE accepted that recommendation. **The INEEL CAB recommends that DOE give more consideration to the Glass Material Oxidation and Dissolution System and the Direct Plasma Arc-Vitreous Ceramic Treatment process in the Final EIS.**

The INEEL CAB recommends that DOE construct one more alternative and evaluate the impacts of that alternative in the Final EIS. The additional alternative should entail taking no action for the driver fuel. The components of this additional alternative are presented in other alternatives considered. Presentation of the impacts of these components separately (in different configurations) does not allow the public to evaluate this particular combination. This alternative would allow DOE more time to develop other non-separation technologies for possible treatment of the driver fuel and to allow further development work to determine the feasibility of removing sodium from the driver fuel (which would thereby allow disposal in High Integrity Cans). The INEEL CAB is not recommending selection of this additional alternative at this time, but would like to evaluate the impacts of such an alternative in comparison with those presented in the EIS.

During the scoping period for this EIS, the INEEL CAB recommended that relevant documents be made available during this comment period to support an informed public review of the Draft EIS. We were pleased to receive the *Cost Study of Alternatives Presented in the Draft Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel* and the *Nonproliferation Impacts Assessment for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel*. Two other important and relevant studies still underway should have bearing on the decisions that this EIS will support. Inasmuch as the Draft EIS places primary emphasis on electrometallurgical treatment technology, the not-yet-reported electrometallurgical treatment demonstration project and the pending National Research Council's review of the electrometallurgical treatment process appear relevant. We regret that our review of the Draft EIS is less well informed than desired because the results of those two studies are not yet available. **The INEEL CAB recommends that DOE enhance public participation in this environmental review by allowing subsequent public comment period(s) once the other studies are available for public review.**

The *Cost Study of Alternatives Presented in the Draft Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel* presented relevant data on the alternatives considered in the Draft EIS. We noted, however, numerous apparent discrepancies and possible inaccuracies in the cost data presented. Such discrepancies and inaccuracies confuse the reader.

For example, Section 2.2 2 (pages 2-3 through 2-5) and Table 2-3 (on page 2-5) summarize costs associated with Alternative 1 by various cost elements. The text in Section 2.2.3 (on page 2-4) and the table both state that the net present value (in millions of Year-2000 dollars) for one cost element—waste form qualification at Argonne National Laboratory - West—would be $52 million. The cost estimate presented on Table 2-3 for another cost element—disposal fees for high-level radioactive waste—differs from the dollar value presented in the text, however. According to the table, disposal of high-level radioactive waste would cost $47 million; the text in Section 2.2.4 reports that the "repository fee" for 135 high-level radioactive waste disposal canisters would be "about $64 million" in 2015. There is no explanation for the difference between the two numbers. **The INEEL CAB recommends that DOE revise the cost study and that all cost estimates be presented in a readable and understandable form to support informed public review of environmental documentation.**

The INEEL CAB supports U.S. goals regarding nonproliferation. We recommend that DOE base decisions related to the management of sodium bonded spent nuclear fuel on a sound analysis of the potential nonproliferation impacts.

The members of the INEEL CAB differ significantly with regard to their opinions and perspectives on the current U.S. policy regarding reprocessing. As a result, we were unable to reach consensus on a recommendation regarding any particular alternative at this time. Those who support the current U.S. policy against reprocessing may not be able to support any alternative involving separations. Those who do not support the current policy may support alternatives involving separation technologies. Because we believe we represent the range of public opinions on this topic, the INEEL CAB appreciates DOE's current dilemma.

The INEEL CAB recommends that DOE support vigorous debate regarding the environmental impacts of reprocessing, as well as the potential for terrorist or rogue military use of nuclear materials.

During the scoping period for this EIS, the INEEL CAB recommended that DOE include a list of all assumptions that provide the basis for the assessment of impacts associated with the various alternatives. While the Draft EIS provided a list of all assumptions, the INEEL CAB recommends that more information be provided on common data and planning assumptions used in related EISs and other environmental documentation. Our recommendation was not adequately addressed by simply providing the title and contents of other ongoing analyses. The public deserves an assessment of the data and assumptions to assure consistency and compatibility with other proposed actions.

During the scoping period for this EIS, the INEEL CAB recommended that the EIS describe how each alternative would address the waste acceptance criteria for resulting waste products destined for disposal at current and planned disposal facilities. In response to that recommendation, the Draft EIS states that existing preliminary criteria for spent fuel and high-level waste have been developed by DOE's Office of Civilian Waste Management and that the final criteria will be established by the Nuclear Regulatory Commission (NRC). The reference document cited in the draft EIS was the "Civilian Radioactive Waste Management System - Waste Acceptance System Requirements Document (WASRD), DOE/RW-0351, 1998." We note that the WASRD was revised in April 1999 to add criteria for high-level waste glass and for plutonium ceramic glass composite in addition to criteria for spent nuclear fuel and high-level waste. **The INEEL CAB recommends that the Final EIS be revised to incorporate the revised WASRD.**

The INEEL CAB further recommends that DOE begin to address the requirements that will be imposed by the waste acceptance criteria before the NRC licensing process begins. We understand that the criteria for the high-level waste glass and the plutonium ceramic glass composite (as incorporated in the current revised WASRD under Section 4.2.3.1 "Specific Acceptance Criteria for HLW") were developed in response to input regarding the likely characteristics of those waste forms. **The INEEL CAB recommends that DOE work to develop preliminary waste acceptance requirements for the wastes that will result from the treatment selected in the Record of Decision (ROD) for this EIS as soon as the ROD is issued.** In that manner, the characteristics of the likely wastes will be incorporated into future revisions of the WASRD before NRC develops the final waste acceptance criteria.

The INEEL CAB concluded that the Summary to the Draft EIS was overly brief and did not provide adequate explanations for the various alternatives evaluated nor for the impacts of those alternatives. We noted that the handout materials (provided at the public comment meetings on the Draft EIS) summarizing the alternatives and the impacts of those alternatives were reader-friendly and easily understood. **The INEEL CAB recommends greater reliance on reader-friendly formats in the Final EIS to help the public understand the information being presented.**

Finally, we note some frustration in that Appendix A "The Public Scoping Process" referred to section numbers not found in the Draft EIS. Other cross-references (to other sections of the document) proved equally frustrating. **The INEEL CAB recommends that the Final EIS include only cross-references that are correct so as not to confuse or frustrate the reader.**