



Citizens Advisory Board  
Idaho National Engineering and Environmental Laboratory

**DOE's Notice of Intent to Prepare an Environmental Impact Statement for Electrometallurgical Treatment of Sodium-Bonded Spent Nuclear Fuel in the Fuel Conditioning Facility at Argonne National Laboratory – West, Idaho National Engineering and Environmental Laboratory**

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**LATEST DRAFT RECOMMENDATION**

The Idaho National Engineering and Environmental Laboratory (INEEL) Citizens Advisory Board (CAB) reviewed the Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) for Electrometallurgical Treatment of Sodium-Bonded Spent Nuclear Fuel in the Fuel Conditioning Facility at Argonne National Laboratory – West (ANL-W), Idaho National Engineering and Environmental Laboratory. We submit the following comments and recommendations for consideration during public scoping for the EIS.

The INEEL CAB suggests DOE consider whether adequate information exists to allow estimation of bounding impacts for at least one treatment alternative in addition to the Plutonium-Uranium Extraction (PUREX) process at the Savannah River Site, the proposed electrometallurgical treatment at ANL-W, and the No Action Alternative. **Instead of dismissing various treatment alternatives from further analysis (as occurred during preparation of the Environmental Assessment for the Electrometallurgical Treatment Research and Demonstration Project in the Fuel Conditioning Facility at Argonne National Laboratory – West), the INEEL CAB recommends that DOE use existing information about those alternatives to support evaluation of as many treatment alternatives as possible.** For example, the processing experience at INTEC (formerly ICPP) of the driver fuel using the PUREX-type process, might be used in the analysis of the PUREX process at Savannah River.

**In addition, the INEEL CAB recommends consideration of the possibility of using different treatment processes for treatment of the driver fuel and the blanket fuel.** We wonder if the driver fuel couldn't be handled as part of the ongoing demonstration. Treatment alternatives for the blanket fuel could conceivably include direct disposal, as it is not yet clear that it will require treatment before disposal. In order to support public review of the alternatives under consideration, the EIS should offer complete descriptions of how each alternative would be implemented.

**The INEEL CAB recommends that the descriptions of each alternative include a listing of all assumptions that have been made about how they would be implemented.** It will obviously be necessary for DOE to make some assumptions to estimate the impacts that will occur as a result of implementation of each alternative. Making those assumptions known to the public would greatly enhance their ability to review the evaluation of the impacts presented in the EIS. Information Assumptions regarding implementation of the alternatives that might be helpful include:

- all materials (including all radioactive and hazardous wastes) that would result from implementation, including the mass, volume, chemical composition, and radioactive component of each,
- how all materials will be handled, stored, transported, and disposed in a safe manner,
- measures that will be instituted to provide environmental protection,
- how worker and public health and safety will be maintained,

- facilities that will be involved, how those facilities will be operated in full compliance with all relevant environmental regulations (including the Idaho Settlement Agreement), and any impacts on other customers of those facilities, and
- how funding for the project would affect the local economy, workforce, and community infrastructure.

**The INEEL CAB recommends that the EIS provide bounding estimates of: 1) the size, frequency, and number of expected shipments of all materials coming into Idaho; 2) the size, frequency, and number of expected shipments of products leaving Idaho on an annual basis; and 3) the duration of time that INEEL would store any products before shipment elsewhere after treatment.** Sound estimates of the size, frequency, and number of shipments into and out of the site will be necessary to develop a full understanding of the transportation impacts as well. **In addition, the INEEL CAB recommends that DOE develop an agreement with the Shoshone-Bannock Tribes to allow and appropriately manage the transport of any radioactive materials across the reservation.**

**The INEEL CAB recommends that the preparation of the EIS (and the related decision-making process) be coordinated with related environmental documentation being prepared to ensure they are based on common data and common planning assumptions.** Three EISs, including the Idaho High-level Waste and Facilities Disposition EIS, the Management of Savannah River Site Spent Nuclear Fuel EIS, and the Geological Disposal Repository for Spent Nuclear Fuel and High-level Waste at Yucca Mountain, Nevada EIS appear to be related to this EIS. Analyses being conducted for the related documents could be relevant to, and the decisions they will support could have an impact on decisions about the sodium-bonded fuel at the INEEL. **The INEEL CAB recommends that DOE coordinate the related projects to support consistent and coordinated decision making.**

**In order to support informed public review of the Draft EIS, the INEEL CAB recommends that the schedule for this EIS allow for adequate public review of related documents before the close of the public comment period.** We note for example, that there will likely be public interest in the cost assessment and in the Nonproliferation Impacts Assessment (being prepared by the DOE Office of Nonproliferation and National Security).

As in the past, the INEEL CAB continues to support activities that enhance DOE's ability to comply with the conditions under the Idaho Settlement Agreement. The INEEL CAB would prefer to see the SNF treated only once if possible, however. We have had concerns in the past when DOE has had to redo work because of an inadequate initial assessment of a problem. We hope DOE will avoid such costly problems by proceeding only if it is clear that treatment is necessary. The INEEL CAB will be pleased to see DOE proceed with treating SNF at the INEEL once adequate environmental documentation has been completed and once it has been established that the treatment will be necessary before disposal. **To help the public understand DOE's rationale for moving forward with this decision, the INEEL CAB recommends that the EIS describe how each treatment alternative would address the waste acceptance criteria for resulting waste products destined for disposal at current and planned disposal facilities.**