INL Site Environmental Management
CITIZENS ADVISORY BOARD

Engineering Evaluation/Cost Analysis for Decommissioning of the CPP-601/640 Fuel Reprocessing Facilities

The Idaho National Laboratory (INL) Site Environmental Management Citizens Advisory Board (CAB) would like to thank the Department of Energy (DOE) for allowing the CAB to comment on the Engineering Evaluation/Cost Analysis for Decommissioning of the CPP-601/640 Fuel Reprocessing Facilities. The CAB agrees with the preferred Alternative 2; however, the review of this document precipitated some questions, comments, and recommendations to Alternative 2.

The CAB shares some concerns with Alternative 2. There will be exposure to workers as they remove the vessels in P, Q, and R cells. Once the vessels have been cut, additional or higher exposure may be encountered from within the vessels. The area is cramped, which increases concerns for the safety of the workers as they perform their duties.

The CAB questions why the asbestos should be removed if those areas will also be grouted. The CAB recommends that the asbestos be left in place and grouted as well.

The CAB feels that the removal of lead from the various areas in CPP-601/640 may have an additional radiological impact on the workers that are removing the lead. If the sheets of lead or the bricks are removed, a radiation control technician should be present as this work is being performed. There is additional concern for the workers as they handle the lead. Some of the lead may have fixed contamination embedded that would create additional exposure to the hands. The CAB recommends that the lead placed in areas to reduce high radiation exposure be left in place and grouted as is.

Alternative 2 discusses grouting of the interior of the vessels. If this alternative is selected, then further research should be performed to ensure that the vessels can be grouted. For example, the columns in the G and H cell have sieves plates and the columns in P and Q cells have raschig rings within which could hinder the addition of grout to these vessels. The CAB recommends filling these from the bottom, which may allow for the flow of the grout to fill all of the cavities within these vessels.

The CAB additionally recommends a thorough visual inspection and radiological survey be made of the cells that workers will be entering to ensure they will not be exposed to high radiation fields and as well as working conditions, such as their limited mobility, as they try to remove sections of the vessels. It is also recommended that the workers performing the work have knowledge of the area and the limits they may have to go through to complete the jobs assigned. In this regard, training mockups would serve to enhance work procedures, which should reduce the time that personnel are exposed to any potential radiation fields or other potential work hazards.

After grouting, the CAB recommends the cap include a compact clay liner (or best technology available) to help prevent water infiltration.