

## **DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

TO: Timothy Dwyer, Technical Director  
FROM: Wayne Andrews and David Kupferer, Site Representatives  
SUBJECT: Oak Ridge Activity Report for Week Ending October 1, 2010

Staff members David Campbell and Michael Dunlevy were at Y-12 to observe B&W's Readiness Assessment for startup of the Special Material Capability Glovebox.

**Special Material Capability Project.** In late 2007 YSO approved Critical Decision-3B, Start of Construction, for the Special Material Capability Project (see the 11/02/07 report). This project includes a new negative-pressure glovebox system in a Y-12 facility that provides additional worker protection. During testing earlier this year, B&W discovered that a complex seal assembly was leaking and allowing excessive air into the negative-pressure glovebox. B&W determined that the cause of the leaking seal was the glovebox flange that connects to the seal assembly. After repairing the flange, B&W tested and verified that the seal assembly meets leakage acceptance criteria.

The staff observed the B&W Readiness Assessment (RA) for startup of the Special Material Capability glovebox this week. There were operational demonstrations, interviews with operators and supervisors, and document reviews. By the end of the week there were 27 issues identified but not yet fully characterized in terms of findings (pre- and post- start), observations, or resolved items. The team out-brief has been postponed until Monday when results of the RA will have been determined.

**U-233 Project Alternatives Analysis.** DOE-ORO is leading an inter-site, inter-departmental team to determine whether there is a viable, cost-effective alternative to the current downblending approach for disposition of the excess U-233 currently stored in Building 3019 at ORNL. This core team is led by the federal project director and consists of representatives from potentially effected DOE facilities.

The alternatives analysis will include an examination of all previously studied alternatives to determine whether they were properly dismissed from further development. However, the team has been tasked to develop creative new alternatives taking into account changed conditions and lessons learned from across the complex over the past 10 years with particular attention to combined approaches tailored to the heterogeneity of the inventory.

The objective of this effort is to recommend a single solution set (i.e., combination of alternatives responsive to the entire inventory) for detailed development as an alternative to the current approach. The solution set is intended to have strong potential for cost savings relative to the "to go" cost of downblending without further delaying the ultimate decontamination and decommissioning of Building 3019.

DOE plans to have a kick-off meeting in Oak Ridge on October 6<sup>th</sup>, weekly conference calls through December, and a one full week meeting in Oak Ridge in early November. A presentation on the final results to DOE Headquarters is planned in January. The Core Team will specify which, if any, of these actions are necessary to facilitate a final recommendation for U-233 disposition in June 2011.