

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 1, 2008

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending February 1, 2008

Board members Joseph Bader, Larry Brown and Peter Winokur along with staff members Fortenberry, Tontodonato, Gutowski and Kupferer visited Oak Ridge this week to review Y-12 and ORNL operations and safety issues.

A. Board Visit to Oak Ridge. YSO, DOE-ORO and contractor personnel briefed the Board members and staff on defense nuclear facility operations and safety initiatives at the Y-12 National Security Complex and the Oak Ridge National Laboratory (ORNL). The Board members and staff also walked-down the Assembly/Disassembly Building, the Enriched Uranium Operations Building, the Highly Enriched Uranium Materials Facility and the Melton Valley Transuranic Waste Processing Center. Some noteworthy items from the visit include:

- Building 9212 Facility Risk Review — YSO and B&W management discussed the lack of funding dedicated to efforts defined in the Building 9212 Facility Risk Review (FRR). The FRR was a major NNSA action responding to the Board's letter of November 28, 2005. The FRR outlined facility upgrades and other actions considered necessary by NNSA for safe operation of Building 9212 until the planned Uranium Processing Facility is operational. Specifically, fiscal year 2009 and out-year budgets still do not include or specifically address overall FRR funding needs (see the 12/7/07 site rep. report). Lacking such funding, future progress in accomplishing FRR actions was characterized as at best incremental.
- Uranium Metal Airborne Release Fraction (ARF) — In response to the Board's letter of January 17, 2008, YSO and B&W are developing the criteria and bases for applying ARFs for specific accident scenarios. Once this criteria is established, B&W will evaluate existing and planned facility accident analyses to ensure proper application of ARFs.
- Wet Chemistry — B&W management discussed progress towards processing the backlog of enriched uranium solutions in the Enriched Uranium Operations Building. This week, B&W completed a feed treatment task supporting the primary extraction process. This action will allow B&W to move forward with processing a large majority of the solutions from the backlogged safe bottle inventory.
- Recommendation 2005-1 — B&W described their plans to integrate several activities that impact enriched uranium storage at Y-12. These activities include implementation of Recommendation 2005-1, the container simplification effort and the Storage, Tracking and Material Movement Project. B&W plans to establish an integrated project for this effort and prioritize activities based on risk.

B. Uranium Processing Facility. B&W continues preliminary design activities for the Uranium Processing Facility and has increased engineering staffing to about 100 personnel. The award of the first Basic Ordering Agreement for specialty mechanical design is expected to occur in mid-February. In addition, B&W recently completed the project Design Criteria and the Engineering Execution Plan (EEP). YSO has completed their review of the Design Criteria and the YSO review of the EEP is on-going.