

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 4, 2006

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for the Week Ending August 4, 2006

A. Building 9212 Documented Safety Analysis. Last week, YSO completed their review of the Building 9212 Documented Safety Analysis (DSA) and issued their Safety Evaluation Report (SER). Building 9212 will be the final Hazard Category 2 nuclear facility at Y-12 to implement a DSA compliant with 10 CFR Part 830, *Nuclear Safety Management*. The SER contains four conditions of approval including requirements to perform design adequacy reviews for the four safety-class sprinkler systems and supporting water supply. In addition, the SER requires that the results of the seismic risk-based assessment of potential facility upgrades (see the 3/10/06 site rep. report) be incorporated into the first annual update of the safety analysis. BWXT plans to implement the approved DSA in Building 9212 by December.

B. Enriched Uranium Machining. As a part of modernization efforts, BWXT had procured a new agile machine for development and testing to support eventual deployment in current facilities and the planned Uranium Processing Facility. This machine has several machining and automation capabilities (e.g., milling, drilling) that could replace a number of machining units (and eliminate associated material handling) in the Enriched Uranium Machining Building. Based on initial testing, BWXT management has decided to move this development machine to the Enriched Uranium Machining Building late this year. BWXT is determining necessary design modifications including changes for handling machining chips that ensure criticality safety as well as other changes for radiological control and facility interface. The current project schedule is to complete installation and readiness activities by Spring 2007.

C. Feedback and Improvement. On Tuesday, personnel in the Oxide Conversion Facility noted foreign material in a can of uranium trioxide feed material that had been opened in the oxide glovebox. The personnel removed some of the foreign material from the glovebox without bagging-out the material. A short period later, a radiological airborne monitor alarmed. No personnel or area contamination was found. While conduct of operations, radiological control and other potential deficiencies were evident, neither facility nor production crew management had called for a critique to formally evaluate the event as required by the Y-12 Integrated Safety Management System. On Wednesday, YSO personnel raised this issue with BWXT management. On Thursday, BWXT management then called for a critique, now scheduled for early next week due to availability of key personnel.

D. Highly Enriched Uranium Materials Facility. The site reps. met with the new BWXT Project Manager and performed a walkdown of the Highly Enriched Uranium Materials Facility (HEUMF) construction site. Corrective actions for quality assurance (QA) deficiencies with the HEUMF construction contractor and with BWXT oversight are nearly complete (see the 6/16/06 site rep. report). More than 45 concrete wall sections have been placed since resumption in mid-April (see the 4/14/06 site rep. report) and some ventilation ducting has been installed. BWXT management noted that QA compensatory measures for placements (including rebar verifications for all placements by BWXT and the construction contractor) have continued, but criteria to support reduction of the QA compensatory measures is in development with a proposal expected in the next few weeks.