

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 3, 2008

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending October 3, 2008

**Highly Enriched Uranium Materials Facility (HEUMF).** Y-12 held a ceremony marking completion of HEUMF construction. Board members A.J. Eggenberger, John Mansfield, Joseph Bader and Larry Brown along with staff member Timothy Dwyer attended the ceremony.

Following testing and operational readiness efforts, B&W is planning to load material into HEUMF starting in Fiscal Year (FY) 2010. HEUMF load-out is being planned as two phases. The first phase is to de-inventory the Warehouse within about three months after startup. The second phase will consist of material transfers from other Y-12 nuclear facilities and is expected to take about 15 months. In preparation for the de-inventory campaign, Warehouse personnel continue to load cans of metal and oxide into Rackable Can Storage Boxes (RCSBs). About 150 RCSBs were loaded during FY 2007 and 300 RCSBs loaded in FY 2008. B&W plans to load several hundred more RCSBs during FY 2009. In addition, B&W has been inspecting and staging drums for transfer to HEUMF. Disposition of various legacy materials that are not authorized in HEUMF is on-going.

Early this year, B&W discovered that it had not received documentation regarding the Quality Assurance (QA) programs used by sub-tier vendors that were supplying fastener components for safety-class storage racks (see the 3/28/08 site rep. report). B&W has been developing a plan to conduct a commercial-grade-dedication test and evaluation program of the installed fastener assemblies. The plan calls for testing the following: 59 bolts each from the 10 lots of bolts provided by the vendors that lack sufficient QA program documentation (590 total bolts), 59 nuts, 236 flat washers, and 295 direct-tension indicating washers. B&W personnel discussed the planned testing and evaluations with the staff and site rep.

**Activity-Level Work Planning.** Staff members Burnfield and Verhaagen and outside expert Volgenau visited Y-12 to review activity-level work planning. Among staff observations discussed with Y-12 personnel was inaccurate and incomplete reference to the proper radiological work permits for an approved work package used for replacement of refractory materials in casting furnaces in the Enriched Uranium Operations Building (a job that is performed several times a year). As a result of the staff's observations, B&W has placed a hold on use of other work packages used repetitively for certain maintenance activities pending a review for similar problems.

**System Configuration Control.** In response to numerous Lockout/Tagout (LO/TO) execution deficiencies during the past several months (see the 9/19/08 and referenced site rep. reports), B&W completed an assessment of the LO/TO program in August and issued a report last week. The assessment team concluded that actions are necessary to improve the governing LO/TO procedure, training of key LO/TO personnel, and the definition of LO/TO roles/responsibilities.

**Work Control.** YSO issued their Monthly Assessment Report for August to B&W in mid-September. The report discussed a recent Technical Safety Requirement violation following inadequate post-maintenance testing of the criticality accident alarm system in the Assembly/Disassembly Building (see the 8/8/08 site rep report). YSO noted that a factor in the event was an improper declaration of the maintenance activity as "emergency work" that allowed for less rigorous work planning. YSO requested a corrective action plan on this issue.