

## 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 February 24, 2012

**Conduct of Operations.** This week, B&W issued a prioritized schedule for improving its procedures as committed to in its Conduct of Operations Performance Improvement Plan (see the 9/23/11 and 2/10/12 reports). Examples of improvements B&W plans to make include the following: (a) reducing precautions and limitations, (b) reevaluating the procedure use designations (i.e., information only, reference use, or continuous use), (c) incorporating implementation of controls into specific procedure steps, and (d) reducing use of vague terms (e.g., “as needed” and “as necessary,”). B&W’s prioritized schedule includes the following milestones: (a) updating six dismantlement procedures by April, (b) updating five assembly procedures by May, (c) updating eight quality evaluation procedures by June, (d) updating nine reduction procedures by August, and (e) updating nine oxide conversion facility procedures by October. B&W issued its first ‘upgraded’ production procedure this week when it issued a revision to a dismantlement procedure. The site representatives note that this revision represents a significant improvement as compared to the version of the dismantlement procedure that was reviewed by the staff last April (see the 4/29/11 and 10/28/11 reports).

**Conduct of Operations/Criticality Safety/Building 9212 Operations.** On Monday, production personnel conducting operator rounds discovered that the calibration sticker on three differential pressure gauges to measure the pressure drops across two pre-filters and one High Efficiency Particulate Air filter had expired on February 13<sup>th</sup>. The subject filters are part of the ventilation system for the Headhouse area in Building 9212, which includes equipment associated with uranium recovery operations such as the Holden Gas Furnace. The only active operation effected by the discovery was the Sorting Hood, which was subsequently shut down. The daily round sheet requires operators to verify the differential pressure of the subject filters. Contrary to sitewide expectations, operators who completed the round sheet on February 16<sup>th</sup> failed to identify that the calibration stickers had expired. Because applicable criticality safety requirements state that the differential pressure on these filters must be verified periodically, B&W identified this event as a minor non-compliance with criticality safety requirements.

**Recommendation 2005-1/Uranium Processing Facility (UPF).** B&W has submitted a revision to its Implementation Plan (IP) for DOE Manual 441.1-1, *Nuclear Materials Packaging Manual*, to YSO for approval (see the 5/21/10 and 12/5/08 reports). B&W is still planning to design, test, and implement four new nuclear material containers—two for dry materials, one for wet materials, and one for overpacking—that are compliant with the requirements of the Manual. Implementation of these containers had been planned to be concurrent with startup of UPF. However, this revision to the IP states that the new tall, dry container—the highest priority container due to the hazards associated with uranyl nitrate crystals, uranium dioxide, and several other ‘dry’ uranium compounds—*may* be implemented in existing facilities prior to startup of UPF. The IP states that ‘pilot implementation’ of the tall, dry container in current operations is scheduled for 2018.

**Critical Nuclear Utilities Upgrade Project.** Last week, YSO directed B&W to discontinue development of the Critical Decision-1 package for the Critical Nuclear Utilities Upgrade Project (see the 6/3/11 report). The scope of the project includes upgrades to sitewide electrical systems, systems, cooling towers, and the potable water system. In lieu of pursuing the line item project, YSO directed B&W to break up the project into discrete, prioritized projects that can be funded by DOE’s new Capability Based Facilities and Infrastructure subprogram.