

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 July 1, 2011

Conduct of Operations. In response to recent events, B&W senior management conducted briefings to reinforce expectations related to conduct of operations for all production and maintenance personnel (see the 5/20/11 and 6/4/10 reports). These briefings highlighted the following expectations: (a) maintain a questioning attitude, (b) stop work in response to questions regarding work authorization or procedural adequacy, and (c) never compromise conduct of operations principles based on perceived schedule pressure. Senior management also discussed its initiatives to improve conduct of operations training and to reduce the number of unnecessary precautions and limitations in procedures.

Safety Analysis/ Implementation Validation Reviews (IVRs)/Building 9212. Last week, B&W completed its IVR to independently confirm implementation of safety basis controls associated with the second annual update of the Safety Analysis Report (SAR) and Technical Safety Requirements (TSRs) for Building 9212 (see the 2/18/11 and 12/31/10 reports). The IVR team identified 8 findings, most significantly: (a) inadequate implementation and performance of a surveillance requirement (checklists were used rather than a procedure or work instruction and some required actions were not completed), (b) incomplete training associated with the technical safety requirements, (c) numerous errors and inconsistencies in the technical safety requirements, and (d) use of an unapproved operator aid. The IVR team's report identified a lesson learned to not extend or pause an IVR to allow facility personnel to correct identified issues. The site representatives note that similar issues related to the quality of TSRs were identified two months ago during the IVR associated with the first annual update of the safety basis and TSRs for the Highly Enriched Uranium Materials Facility (see the 4/1/11 report). To improve the overall quality of safety basis documents prior to submitting them to YSO, B&W is implementing a more rigorous process for cross checking changes in safety basis documents.

Maintenance/Conduct of Operations. This month, B&W externally reported two events related to improper execution of lockout/tagout practices (see the 12/24/10, 6/4/10, and 10/31/08 reports). The first event involved work to remove, inspect, and re-install a pressure relief valve in a nitric acid line. During this event, approximately 50 gallons of 50% nitric acid spilled because maintenance personnel did not confirm that a drain valve was closed prior to removing the lockout/tagout and putting the nitric acid line back in service. The second event involved work to troubleshoot and repair a control valve in a chilled brine system. During this event, approximately 500 gallons of brine spilled because isolation points were not properly identified by the issuing authority and subject matter experts from system engineering. B&W management have initiated an independent investigation of this event.

Two weeks ago, B&W completed a Value Stream analysis of its lockout/tagout processes. The analysis team identified several recommendations including (a) reduce and simplify the alternatives associated with the lockout/tagout process, (b) improve designation and increase involvement of subject matter experts, (c) improve the rigor associated with walkdowns, and (d) improve the training and qualification process. After revising its lockout/tagout process, B&W is planning to pilot the new process prior to sitewide implementation.