DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 21, 2008

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/David Kupferer/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending March 21, 2008

Mr. Davis and Mr. Owen were at DNFSB Headquarters from Monday to Wednesday.

A. Furnace Reduction By-product Reaction. As reported last week, B&W operators had discovered that the lid of a can containing furnace reduction by-product (slag and liner material) had become dislodged and a small amount of material was released. B&W conducted a critique of the event on Monday. The lid of the can had risen approximately two inches and material had spread to the floor. B&W believes that oxidation of un-reacted material caused a volumetric increase of the material in the can. The slag and liner material in this can was produced about 15 years ago. The can was loaded about three years ago when the contents of two cans were combined as part of an effort to free-up storage space. The can was last inspected in October. B&W initiated an extent-of-condition assessment to inspect similar cans. B&W also intends to develop guidance for limiting volume in furnace reduction by-product cans to provide adequate head-space and intends to determine other cans that should be re-packaged.

B. Oxide Conversion Facility Restart. B&W preparations for restarting the Oxide Conversion Facility (OCF) have been in progress over the last several months. YSO and B&W Operational Readiness Reviews were completed in February (see the 2/22/08 site rep. report). In early-March, B&W received the YSO Manager's approval to restart OCF. On Thursday, however, YSO directed B&W not to proceed with OCF restart operations; specifically, YSO directed that B&W not proceed with loading hydrogen fluoride into the system as had been planned for next week. YSO noted that lack of resolution of recent funding issues prompted YSO's direction not to proceed with OCF restart operations at this time. Additional YSO direction on OCF restart is anticipated by late-April.

C. Conduct of Operations – Lockout/Tagout. This week, B&W identified four isolation valves for the high capacity evaporator feed tanks that were closed such that the tanks were isolated from the sight glass level indication. These valves were closed two weeks ago during conduct of a LockOut/TagOut (LO/TO) for maintenance on the sight glass. During the critique, operators noted that the maintenance activity was suspended after closing these valves as a part of the LO/TO; however, the valve manipulations were not communicated to the shift supervisor nor the shift manager and were not returned to the normal position. The site reps discussed this issue with YSO and B&W management and noted that there have been several recent LO/TO issues at Y-12 (see the 10/12/07, 11/9/07, 12/14/07 site rep. reports).

D. Criticality Safety. As a part of the Y-12 Throughput Improvement Plan, B&W provided a proposal to YSO to re-evaluate the functional classification of Criticality Accident Alarm Systems (CAAS) at Y-12 nuclear facilities. The evaluation specific to the Highly Enriched Uranium Materials Facility was provided to YSO earlier this year (see 2/22/08 site rep. report). This week, YSO concurred with the general approach but noted that evaluations should only be pursued for facilities that do not contain fissile solutions. In addition, YSO noted that final approval of any changes would be based on a Documented Safety Analysis that demonstrates the CAAS is not required to be safety-significant. Regardless of the functional classification, B&W will continue to maintain required CAAS equipment in accordance with industry standards.