

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 October 28, 2011

Conduct of Operations. B&W has made noteworthy progress in executing its Conduct of Operations Performance Improvement Plan (see the 9/23/11 report).

- B&W revised its Conduct of Operations Manual to require that operators use a place keeping method during execution of ‘continuous-use’ procedures (see the 10/14/11 report).
- The site reps observed significant improvements B&W made to its conduct of operations training. This recurring training includes both classroom discussions and hands-on exercises.
- B&W is executing its Senior Supervisor Watch (SSW) program, which has resulted in meaningful feedback for production management on areas for improvement.
- B&W has improved its generic dismantlement procedure including reducing the number of precautions and limitations from 94 to 46. B&W is planning further improvements to this procedure including dividing it into weapon-specific dismantlement procedures.

Building 9212 Safety Analysis/Feedback and Improvement. On May 16th, a YSO Facility Representative discovered that operators had stored a safe bottle containing organic solutions on the second floor of the decontamination area in C-1 Wing. This error violated a Limiting Condition of Operation (LCO) that limits storage of organic solutions to the first floor (see the 5/27/11 report). The second floor of C-1 Wing consists of two areas separated by an open doorway; the mezzanine and the decontamination area. The Documented Safety Analysis (DSA) includes a Specific Administrative Control (SAC) that requires operators to independently verify that safe bottles do not contain organic solutions prior to storing safe bottles on the mezzanine. B&W conducted a formal critique of this event on May 18th. During the critique, B&W noted that the primary accident of concern associated with these controls is a large fire in the decontamination area. At that time, B&W personnel were unsure why the SAC only applied to the mezzanine rather than applying to both the mezzanine and decontamination area. However, because the SAC only applied to the mezzanine, B&W determined that this event did not constitute a Technical Safety Requirement violation. B&W identified a follow-up action during the critique to review the basis for limiting the scope of the SAC to the mezzanine.

Last month, after determining that the engineering basis for the SAC included the decontamination area, B&W declared a Potential Inadequacy in the Safety Analysis. Concurrently, B&W issued a standing order that requires operators to independently verify that safe bottles do not contain organic solutions prior to storing safe bottles in the decontamination area. This week, B&W determined that a positive Unreviewed Safety Question exists. B&W intends to revise the DSA to expand the scope of the SAC to include the decontamination area.

Nuclear Facilities Risk Reduction (NFRR) Project. Last week, DOE Headquarters approved Critical Decision-3B (CD-3B), *Start of Construction*, for the NFRR project (see the 12/12/10 and 11/12/10 reports). This approval authorizes the project team to start construction activities the remaining entire scope of the NFRR project, which includes the following activities: removing Kathabar equipment, modifying an exhaust stack, procuring switchgear equipment, installing vacuum pumps for casting furnaces, and replacing components of the ventilation, electrical, and steam systems. B&W is planning to complete this project in 2015. DOE’s approval letter requested that the project team continually monitor Building 9212 operations to take advantage of potential unscheduled outages that could allow for acceleration of the construction schedule.