

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 19, 2008

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending December 19, 2008

Board member Larry Brown and staff members Moury and Gutowski visited Y-12 this week.

**Board Member Visit.** YSO and B&W personnel briefed Mr. Brown on recent efforts to improve conduct of operations and cleanup nuclear facilities (see the 11/14 and 12/05 site rep. reports). Mr. Brown, the staff and the site reps. also walked-down Building 9212 and the Warehouse. B&W management discussed the year-long procedure review effort (on hundreds of procedures) that has recently started. B&W noted that initial feedback is leading to improvements in procedure content, clarity and training. B&W still anticipates that a recommendation on procedure use expectations will be developed by about February. B&W has planned an ongoing series of two-day cleanup stand-downs for the major nuclear facilities over the next three years. Designated waste areas and weekly waste pickups (verses ad-hoc pickups) have been established in several facilities. B&W is also implementing a protocol to more rigorously sort and control on-the floor tools, equipment and supplies in nuclear process areas.

**Technical Safety Requirement (TSR) Violation.** B&W reported a TSR violation in the Special Materials Processing Building after determining that dust-producing machining operations had occurred without electrical power to the safety-significant glovebox oxygen analyzer. The required pre-use check of the oxygen analyzer called for "power to be on." B&W determined this check to be deficient as the particular oxygen analyzer design in this event does not give a definitive indication of power when the power switch is engaged. The other oxygen analyzer design in use in other gloveboxes does have a definitive indication of instrument power (i.e., data screen illumination). While in an enclosed electrical support cabinet, the oxygen analyzer power cord is plugged into a power outlet strip with a rocker switch that was found in the off position. B&W evaluation continues.

**Conduct of Operations.** Leak tanks are used in the Assembly/Disassembly Building to verify quality-related characteristics of specific nuclear components. Last week, with the intention of cleaning the inside of a leak tank, an operator was removing the lid when he heard a loud noise and stopped the operation. Prior to lifting the lid with the crane, the procedure requires the operator to verify the equipment is in "standby" and that the vacuum pressure applied to the system is less than 2 in. Hg. During the critique, the operator acknowledged that he had checked the vacuum gauge, but confirmed that he missed the step to verify that the equipment was in standby. A different operator had been running ambient tank atmosphere (background) tests, which would have caused the unexpected vacuum change during the lifting operation. With the background test running, the tank would not have been in standby. The critique did not establish if or how the operator was using the procedure during the operation. The site reps. believe this event illustrates the importance of rigorous procedure use during nuclear operations.

**Quality Evaluation Relocation.** This week, B&W initiated its Readiness Assessment (RA) to confirm readiness for startup of the octagonal glovebox in the Assembly/Disassembly Building. The site rep. observed an operational demonstration. YSO personnel are observing the RA. B&W personnel are working this weekend to help ensure that the RA is completed prior to the end of the month to meet a contract Performance Based Incentive.