

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 6, 2007

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending April 6, 2007

Mr. Davis was at Los Alamos National Laboratory this week. Staff members Matt Duncan, Jeff Shackelford and Chris Roscetti visited Y-12 to review implementation of Specific Administrative Controls in Y-12 nuclear facilities.

A. Handling of Legacy Items. As reported last week, the site reps. inquired on whether adequate operational restriction/control on opening of legacy containers in air environments was in place for Y-12 nuclear facilities. In response, BWXT was to develop a Standing Order to clearly convey hazard analysis requirements prior to any opening of legacy containers in an air environment. This week, BWXT issued a Standing Order for all major nuclear facilities that provides definition as to what constitutes legacy containers and provides requirements for analysis of hazards, subject matter expert (SME) review, and incorporation of SME recommendations as controls prior to opening such legacy containers. While requiring consideration to use an inert environment, the Standing Order does not preclude opening of legacy containers in air depending on the SME recommendations and hazard analysis.

B. Specific Administrative Control Implementation. The staff and site rep. reviewed Y-12's implementation of Specific Administrative Controls (SACs) that have been incorporated into various Y-12 nuclear facility Documented Safety Analyses (DSAs). The SACs were developed and incorporated into the DSAs per a commitment in DOE's Implementation Plan for Recommendation 2002-3, *Requirements for the Design, Implementation and Maintenance of Administrative Controls*. The staff questioned the lack of safety classification for monitoring and alarm equipment associated with a SAC control on glovebox oxygen level in the Special Materials Processing Building. This equipment is relied on to prevent a dust explosion. The staff noted other observations including a lack of independent verification by a second individual in many of the SACs reviewed (e.g., in verifying compliance with material inventory limits). Implementation of SACs in Building 9212 will occur with implementation of the Building 9212 DSA, now expected in the summer of 2007 (see the 11/24/06 site rep. report).

C. Small Uranium Fire - Update. The BWXT investigation of the small fire during a chip handling task that occurred on March 15th is nearing completion and results are to be presented to Y-12 management early next week. As reported on March 23rd, BWXT determined that the chip handling task that included transfer of chips from a can into a chip transport dolly outside the inerted glovebox was not adequately covered by procedure or addressed by activity-level hazard analysis. In parallel with the (independent) investigation, line management evaluated similar chip handling activities in the Assembly/Disassembly Building involving chip exposure to air and the chips not being wetted. With input from the investigation team, line management proposed to the BWXT Management Review Board to resume the chip handling activities with new procedural and hazard analysis coverage. The new procedure requires moving the can of chips to a ventilated hood and wetting the chips upon opening the can prior to transfer to the dolly. The Management Review Board withheld approval to resume the chip handling activities pending certain actions and completion of the investigation report.