

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 20, 2007

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending April 20, 2007

Staff members F. Bamdad, D. Grover and R. Kasdorf visited Y-12 to review progress with conceptual design efforts on the Uranium Processing Facility (UPF) project

A. Small Uranium Fire - Update. As reported last week, results of the BWXT investigation of the recent small fire during chip handling were presented to YSO management. The site reps. had noted that the investigation team's recommendations did not address a key factor involving lack of procedural/hazard analysis coverage for the chip transfer task and the potential need to (1) reinforce this aspect of the event with operations personnel and (2) evaluate other operations for such gaps. BWXT management had indicated that the team would revisit their recommendations. This week, the investigation team issued their report. The team identified a new recommendation calling for evaluation of hazardous material process streams for proper hazard identification and control. BWXT management informed the site rep. that reinforcing the lack of procedure/hazard analysis coverage with operations personnel is being addressed by the ongoing Conduct of Operations improvement initiative (see the 3/16/07 site rep. report).

B. Uranium Processing Facility. UPF project personnel discussed progress towards addressing staff and Board observations concerning safety analysis and conceptual design (see the 1/12/07 site rep. report). Responding to past Board and DOE review comments (see the 3/2/07 and 3/9/07 site rep. reports), a new facility schematic showing major interior structural walls was presented. While some process system rearrangement is likely required based on structural considerations, no overall facility footprint increase is anticipated by BWXT. The staff and site reps. also reviewed new one-line diagrams of electrical and fire protection systems and provided a few observations, most notably, the apparent lack of a check for consistency with current safety analysis for the electrical one-line diagram. This week, BWXT responded to the recent YSO direction to incorporate DOE Order 413.3A and draft DOE Standard 1189 (see the 3/30/07 site rep. report); no substantial impact is anticipated by BWXT.

C. Conduct of Operations/Criticality Safety. This week, Assembly/Disassembly Building personnel identified that a required annual surveillance of criticality safety control implementation for a dismantlement activity was not performed within the surveillance grace period. In addition, a Nuclear Criticality Safety annual operations review for the disassembly glovebox was also not completed. Criticality safety deficiencies were declared for both of these issues and associated facility operations were suspended. During the critique, BWXT determined that the surveillance was overdue in the surveillance tracking system but operations personnel had not taken action to complete the surveillance or suspend the dismantlement operation. The site rep. noted to YSO and BWXT management that a similar lack of action was identified last October at the Enriched Uranium Machining building. BWXT is developing corrective actions.

D. Oxide Conversion Facility. This week, BWXT completed the hydrogen fluoride purge in accordance with the Justification for Continue Operations (see the 3/23/07 site rep. report).