

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** Timothy J. Dwyer, Technical Director  
**FROM:** Timothy Hunt and Rory Rauch, Pantex Site Representatives  
**DATE:** 31 October 2008  
**SUBJECT:** Pantex Plant Weekly Report

**DNFSB Staff Activity:** J. Deplitch and outside expert L. McGrew were onsite to observe the second week of the nuclear explosive safety study for W88 SS-21 cell operations.

**Natural Phenomena Hazard (NPH) Updates:** B&W Pantex recently completed a project that will satisfy (pending PXS0 approval) the DOE requirement for a ten year update to the Pantex site-specific natural phenomena wind hazard analysis. The analysis recommends an increase in the performance category (PC)-3 and PC-4 tornado-related atmospheric pressure change criteria, and that PC-4 missile criteria be used for PC-3 as well as PC-4 designs. B&W Pantex will submit a project plan for completion of flood and seismic NPH assessments by 24 November.

**High Pressure Fire Loop (HPFL):** Due to funding shortages, critical decision (CD)-3 approval for the Zone 12 South HPFL upgrade project has been delayed to July 2009 and CD-4 pushed back 17 months to September 2012. The delay has increased the estimated cost by about 20 percent, to more than \$40 million. A separate fire protection lead-in project is working to achieve CD-0 early in FY09. The \$85 million project is currently scheduled to complete construction in about 10 years.

**Authorization Basis (AB) Goals:** B&W Pantex has submitted a project plan to accomplish various tasks in FY09 that will improve the AB. Significant goals include developing a specific administrative control to better define the decision criteria for issuing lightning warnings; resolving questions related to appurtenances with potential seismic vulnerabilities; and closing out new information, conditions of approval, and potential inadequacies in the documented safety analysis (DSA) in a more timely manner. Using current staffing numbers, the AB department estimates a five person shortfall toward executing this plan.

**Lightning Safety:** The Nuclear Weapons Complex Electromagnetic Committee gathered last week to discuss the actions necessary to disposition open lightning safety concerns. While progress on several issues remains slow, Sandia National Laboratories is finalizing a report that demonstrates concrete spalling is not a credible event in reinforced concrete facilities at Pantex.

**W76 Operational Suspension:** All W76 cell disassembly operations were suspended this week when B&W Pantex declared a positive unreviewed safety question. A disassembly fixture was not designed to maintain control of a component being held in the fixture in the event of a falling man impacting the component. Analysis indicates that the unmitigated risk of the falling component is bounded by other accidents and the hazard analysis report will be clarified to show this scenario is acceptable. Other programs with similar processes and tooling are not affected by this discovery.

**Technical Safety Requirement (TSR) Implementation:** This week, PXS0 informed B&W Pantex that it plans to conduct assessments of the implementation of TSR controls on a quarterly basis in FY09. These assessments are not a substitute for the PXS0 expectation that B&W Pantex assess the implementation of all TSR controls on a five year cycle.

**Microwave Furnace Operations:** Process prove-in commenced this week on the first production-scale microwave metal melter installed in the complex. The furnace will be used to sanitize excess non-radioactive weapon components. The moderate hazard operation will begin in 2009 after a limited-scope NNSA readiness assessment.