

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 11 April 2008
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: C. Martin was onsite this week to observe the nuclear explosive safety study for W87 in situ mechanical safe arming device operations. J. Deloach, B. Laake, C. Roscetti, and outside expert R. Lewis were onsite to perform a training review.

Procedure Adherence: A technical safety requirement (TSR) violation was declared Thursday when it was determined that production technicians did not perform a safety-related step as written. A PXSO facility representative observed that the task exhaust was positioned above exposed high explosives during a cleaning operation, contravening the TSR requirement and procedural step to keep it below the top of the charge to prevent potential mechanical impacts if dropped. When the procedure was revised last year to include this control, a decision was made to not train the production technicians on the change.

Vital Safety System (VSS) Assessment Methodology: DOE Order 420.1B, *Facility Safety*, requires periodic assessments of safety system operability, reliability, and material condition. In 2005, B&W Pantex system engineering, with informal agreement from PXSO, established a schedule to review one third of all VSSs each year with a cycle time of three years between recurring assessments. By August 2007, B&W Pantex had fallen well behind this schedule. At that time, VSS assessments were being performed in accordance with the project plan to institutionalize assessments, per DNFSB Recommendation 2000-2, *Configuration Management, Vital Safety Systems*. It was determined that the model vertical slice baseline assessment in this plan was too resource intensive and would not allow system engineering to assess every VSS at least once every three years. Therefore, in FY08, system engineering began performing material condition walkdowns (MCWs) instead of VSS assessments. MCWs are intended to assess VSS operability, reliability, and material condition (in accordance with DOE Order 420.1B), but do not assess the safety system's interface with other processes, such as document change control. B&W Pantex plans to review these out-of-scope elements through contractor self assessments.

Replacement of Uninterruptible Power Supply (UPS) Batteries: Because of maintenance resource issues, replacement of about 15 UPS battery banks (five identified as safety-related) prior to their 5-year expiration dates is behind schedule. The manufacturer's operational life expectancy of 10 years was reduced due to the inability of Pantex to ensure the battery banks are maintained in a properly controlled environment. The UPS batteries that support safety-related systems—e.g., emergency lights in nuclear explosive facilities— will be replaced on a priority basis. Monthly, quarterly, and annual preventive maintenance activities are relied upon to ensure continued operability of the batteries in the interim.

Authorization Basis (AB) Department Staffing: In December 2007, a B&W Pantex self-assessment identified staffing shortfalls for critical AB positions. From December 2007 to March 2008, the AB department achieved its short-term staffing goals by increasing the number of qualified AB analysts from 8 to 30. The number of qualified unreviewed safety question evaluators and reviewers also increased from 32 to 40 during that time.

B&W Pantex Management: Greg Meyer was named General Manager of the Pantex Plant this week. He had previously served as Deputy General Manager.