

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: Friday, July 15, 2005
SUBJECT: Pantex Plant Weekly Report

DNFSB Activity: The Board and headquarters staff were on-site this week to discuss safety issues with BWXT and PXSO management in addition to observing plant-wide operations.

Conduct of Operations: On 13 July, BWXT issued its report on the systemic causes of recent conduct of operations deficiencies, which concluded no generic programmatic failure occurred. The weapon program events that were evaluated included the four identified in the Board letter of 2 May. In addition to corroborating weaknesses noted in a previously developed conduct of operations improvement plan, the report identified several additional judgments of need that will be incorporated into the revised improvement plan. BWXT plans to enhance its conduct of operations by incorporating routine monitoring of nuclear operations by subject matter experts (e.g., Nuclear Safety Officers), training the production technicians on process-specific authorization basis controls, and improving the fidelity of trainer units.

Thermal Monitoring System (TMS): On 11 July, auto alert capability for TMS wellness checks was lost from the four monitored nuclear material storage magazines. Under this circumstance, a Technical Safety Requirement administrative control requires that manual hourly checks be made to ensure magazine temperature limits are not exceeded. Due to other issues being dealt with by the Operations Center, one of the hourly checks was not performed and resulted in a TSR violation. The temperature inside the magazines did not exceed any action levels and the system was restored the following day. A similar TMS failure occurred in two magazines in May and corrective actions subsequently developed were not effective in preventing a recurrence.

Unreviewed Safety Question (USQ) Process: As a result of weaknesses identified in the BWXT USQ process subsequent to the W56 cracked high explosive incident in January 2004, several corrective actions were proposed and implemented. PXSO periodically reviews completed USQ evaluations to assess effectiveness of the actions and has noted significant improvements. A recent PXSO review identified nine observations in addition to a considerable increase over the past few months in the number of USQs that are screened out before determining the impacts to the authorization bases. The observations include the following: equivalencies for critical item replacement are periodically based on a suppliers statement; some procedures do not clearly establish what changes need to go through the USQ process; and some standards do not describe the specific requirements of the authorization basis documents being met.

Paint Bay Contractor Operational Readiness Review (ORR): BWXT recently conducted an ORR to independently verify readiness to operate the Paint Bay as a nuclear explosive facility and to conduct B83 painting operations. The ORR identified 10 pre-start and 11 post-start findings. The following two pre-start findings were related to the special tooling program: (1) the documentation that could demonstrate the acceptance of special tooling was unavailable and (2) a misassembled tool was delivered to the paint bay. The review team noted that although the authorization basis is extremely complicated, it was in excellent shape with respect to the identification and flowdown of controls. The team also noted that configuration management was lacking with regards to documenting the maximum speed of the facility crane assembly as required in the safety basis.