

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 26 May 2006
SUBJECT: Pantex Plant Weekly Report

Pantex Production: BWXT is recommending that NNSA consider deferring or eliminating upgrades to the 12-64 bays and three 12-44 cells for nuclear explosive operations (NEOs) if proposed production improvements are implemented. BWXT has determined that production capacity is primarily constrained by technician resource levels and SS-21 program authorization. Transferring training and staging operations from facilities certified for NEOs could increase production space by an estimated 50 percent. Currently, about 80 percent of production delays can be attributed to issues associated with process flow, technical problems, procedures, or tooling. BWXT has identified that multi-unit processing, expeditious laboratory support during anomalies, timely issuance of correct procedures, and improved maintenance and scheduling of tooling would likely decrease the number and duration of delays.

Documented Safety Analyses (DSAs): BWXT recently issued a project plan for PXSO approval that discusses the goals for completing implementation of the remaining Technical Safety Requirement (TSR) controls and archiving all legacy safety basis documents (e.g., Fire and Lightning Bases for Interim Operation). The end state DSA cannot be achieved until about 50 authorization basis change packages that resolve previously encountered issues from the TSR Integrated Implementation Plan activities are incorporated into the approved DSAs. PXSO responded that its minimum expectations include the use of the unreviewed safety question process to revise DSAs and TSRs, the transition plan should delineate all controls yet to be implemented, and the final DSAs should consolidate all approved safety basis changes. At the anticipated conclusion of this project in September, all DSAs will have been made effective.

Fire Protection: It was identified Tuesday that the battery charger that maintains backup power for the safety-class Det-Tronics ultra-violet flame detection system in the 12-84 East bays was indicating a trouble signal due to an over-temperature condition. The inadequately controlled portable fan used to keep the air circulating around the battery charger had been moved. Since there is no air handling unit for cooling this facility, the fire barrier doors to the equipment room were also blocked open. There were seven entries in the 2005 tracking and trending report of this power supply going into trouble mode because of the hot environment. BWXT is taking immediate actions to ensure the fire doors to the equipment room are kept closed, apprise crafts personnel of the fan and fire door requirements, and install cooling equipment proximate to the battery charger as a permanent fix in lieu of the portable fan.

Electrostatic Discharge (ESD): In March, the ESD task team (BWXT and the three design laboratories) met to discuss concerns with the ESD environment analysis methodology proposed by Lawrence Livermore National Laboratory (LLNL). The task team agreed that use of the LLNL approach was acceptable for the short-term, but that long-term efforts should be made to better define the Pantex environment for use in future weapons response calculations.

Building 12-44, Cell 1: Following hazardous material decontamination and upgrades to the infrastructure, Cell 1 was recently released for unrestricted access and now meets requirements for a non-nuclear/non-explosive facility. Production Tooling Support will initially use the cell for storage with additional upgrades to support nuclear explosive work a future consideration.