

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 19, 2004

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending November 19, 2004

DNFSB Staff Activities. Outside Expert R. West was at the Pantex Plant this week observing the NNSA tooling program assessment.

Safety Class (SC) Structures, Systems, and Components (SSC). As a result of questions raised by the Board regarding caulking procured to seal cell gaps without the appropriate dedication process, a BWXT task team was formed to perform an assessment of material controls for installation and maintenance of SC SSCs. Identified weaknesses in the acquisition level 1 (ACL-1) process – the level required to procure safety class material – were noted by the team in the areas of development of material specifications, segregation of ACL-1 material, configuration management of SC material, and application of acquisition and control requirements. As a result, non-essential repairs and modifications to SC SSCs were suspended pending an engineering evaluation to determine the extent of the condition. No deficient conditions were found during the review of 74 SC controls and 14 SC systems that would compromise SSC operability. The task team suggested several improvements to the SC material supply chain process. Consequently, BWXT committed to establishing procedure upgrades, business process enhancements and physical controls to strengthen the supply chain process and reduce the likelihood of introducing nonconforming material into safety class systems.

NNSA Tooling Program Assessment. The NNSA assessment of the Pantex tooling program—a deliverable in the June 18, 2004 Board letter—was suspended mid-week due to the number of findings discovered in the first two days of the review. Many of the assessment team findings mirror those found by the Board's staff and other previous reviews; specifically in the areas of receipt and inspection, formality of operations and documentation, and configuration management. Among the functional areas identified as unsatisfactory by the team were design, procurement, fabrication and acceptance. Although most of the corrective actions in the Tooling Improvement Plan had been completed prior to the start of the review, an inadequate validation of implementation by the contractor was evident and some of the actions did not address the noted concerns. No major findings were noted that would compel the site to shut down operations due to imminent safety issues. PXSO is in discussions with BWXT as to a path forward to identify corrective actions and perform a readiness verification that validates that the tooling program is acceptably implemented prior to recommencing the assessment.

Combustible Loading. Due to an operational mishap during weapon disassembly activities last week, cell work had been halted. Production personnel left the facility unattended with process combustibles within the approved standoff distance from the high explosives and nuclear material during the following two shifts, resulting in a programmatic combustible material loading violation. When left unattended, process combustibles for this program are required to be either relocated to minimize a thermal insult to sensitive components, containerized in approved containers, moved to an approved stand-off distance, or evaluated by the fire protection engineer to determine potential thermal impact. The specific administrative safety control violated prohibited staging of uncontainerized or unevaluated combustibles within 3 feet of the thermally sensitive components. An Engineering Instruction was drafted to disconnect and move the combustible components/tooling to a proper standoff distance.