

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 8 December 2006
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: A. Matteucci was at Pantex to observe W88 operations.

Restart of W88 Cell Operations: Operations to disassemble and inspect the first, and oldest, of three authorized W88 units started on Monday. Several issues with minor safety significance arose during the process but were adequately addressed by engineering, laboratory, and production personnel. A cursory visual inspection of the exposed portion of the component of concern to the design agency indicated no obvious structural degradation. The goal of BWXT is to complete disassembly of the other two units by the end of December and then prepare to rebuild three units.

Facility Personnel Limits: On two occasions, the number of personnel in the cell during W88 operations exceeded the allowable limit posted in the facility. DOE M 440.1-1A, *DOE Explosives Safety Manual (ESM)*, requires that "personnel limits within the explosives work area (bay, cell, etc.) shall be established and controlled." BWXT has established a personnel limit of 16 in the subject facility based on criteria in the ESM. The capacity was exceeded because the access control system was not reset after being programmed to a higher limit to support earlier readiness activities with a trainer unit.

Technical Safety Requirement (TSR) Violation: This week, a sealed shipment of conventional high explosives (CHE) was accepted by BWXT and relocated to Zone 4 to be unloaded. Personnel responsible for unloading the shipment discovered that there was 20 times more material than was described on the *Material Movement – Planning and Authorization* form. There is a TSR that precludes shipments of more than 1290 pounds of CHE from traveling within 1400 feet of any Zone 12 Material Access Area ramps, corridors, or loading docks in order to prevent a potential explosion from interacting with special nuclear material. While transferring the subject shipment from plant entrance to Zone 4, the shipment traveled within about 600 feet of nuclear explosive bays, ramps, and loading docks located in the Zone 12 MAA. BWXT has declared a TSR violation.

W76 SS-21 Startup Approval Authority: Three weeks ago, BWXT recommended to PXSO that an NNSA readiness assessment (RA) did not need to be performed prior to startup of W76-1 SS-21 disassembly and inspection (D&I) operations. The basis for BWXT's recommendation was that the W76-0 D&I process, which is currently authorized, is almost identical to the proposed W76-1 D&I process. This week, PXSO formally disagreed. Since the analysis to support the new operations has not been completed, performance of an NNSA RA will be required prior to authorization of W76-1 D&I operations. However, PXSO noted that, once that analysis is complete, it would entertain the possibility of revisiting this decision.

Legacy Materials: BWXT has been storing scores of empty B/W53 cases in an unsheltered area of Zone 4 for many years. The cases are tagged as potentially containing radioactive contamination internal to the case. The cases were elevated off the ground onto railroad ties a couple years ago and are surveyed semiannually. Environmental contamination sampling around the cases was last performed in 2005. The results of the sampling were comparable to typical background readings. Hundreds of B28 cases, similar in construction and use to the B/W53 cases, were dispositioned during the past few years by a sanitization and recycling subcontractor in Oak Ridge, TN. BWXT is negotiating with the same contractor to accept the B/W53 cases.