

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 1 December 2006
SUBJECT: Pantex Plant Weekly Report

B83 SS-21 Start-up: The B83 SS-21 disassembly and inspection process was authorized by PXSO this week, almost 18 months after the Nuclear Explosive Safety Study identified a pre-start finding requiring additional electrostatic discharge (ESD) analysis. The approach for performing the ESD analysis was determined by the design agency about six months later. Subsequently, the Hazard Analysis Report was revised, additional tooling was fabricated, and supporting reviews were reconvened.

W88 Cell Operations Restart Project: This week, PXSO directed BWXT to update the Master Authorization Agreement to indicate that W88 cell disassembly and inspection processes are authorized. Both a Nuclear Explosive Safety Study and an NNSA Readiness Assessment recently assessed the readiness of the proposed W88 processes. Four pre-start findings were identified during the aforementioned reviews, each of which BWXT has subsequently addressed. BWXT expects that W88 cell operations will be restarted next week.

W76 Activities: When the trunnions on an assembly stand jammed during operations in October, the physics package was left in an elevated position. The recovery actions to complete the disassembly, which included two hoist lifts that are not part of the normal, SS-21 process, were implemented by BWXT this week and were partially successful. Despite procedure and equipment inadequacies, the production technicians were able to transfer the physics package into the transportation cart where it is currently in a safe and stable condition. A conductive gasket, part of the Faraday cage boundary of the transportation cart, fell off during operations and must be replaced before the unit can be moved out of the facility.

During other W76 operations, a vacuum line attached to a piece of special tooling that holds a major subassembly sheared off while in operation. Vacuum was lost to the holding fixture but gravity held the subassembly in the fixture. The production technicians shut a valve to prevent the potential loss of vacuum to a similar fixture, which was holding the other half of the subassembly. Line management directed the technicians to continue operations to the point where the unit was in a safe configuration. The technicians were not aware of any action they performed that may have stressed the hose. The tooling failure is being analyzed by engineering.

The Department of Energy's (DOE) Office of Enforcement conducted an investigation earlier this year into the circumstances surrounding three unsuccessful attempts to remove the midcase from a W76 subassembly in March/April 2005. The investigation concluded that violations of DOE's nuclear safety rules occurred. NNSA recently issued a Preliminary Notice of Violation to BWXT that proposed a fine of \$110,000. The identified issues included failures to maintain safety limits and comply with existing procedures, inadequacies in the operating procedure, and deficiencies in the tooling calibration program.

Unreviewed Safety Question (USQ) Program: In November, BWXT requested PXSO approval of revised USQ program procedures. This week, PXSO rejected the procedure revisions because the procedures did not adequately implement the expectations delineated in DOE Guide 424.1-1A, *Implementation Guide for Use in Addressing USQ Requirements*. PXSO noted that the USQ procedures did not clearly address either independent peer review or management review and approval.