

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 18 April 2008
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: C. Martin and T. Spatz were onsite this week to observe the nuclear explosive safety study for W87 in situ mechanical safe arming device operations.

Authorization Basis (AB) Improvements: In FY08, B&W Pantex has made progress in resolving several AB issues that were incentivized as performance objectives in the Pantex FY08 Performance Evaluation Plan (PEP). For example, in an effort to achieve complete configuration management of the documented safety analysis (DSA), B&W Pantex reduced the backlog of approved, but unposted DSA change packages from approximately 70 to 4. Once these four change packages (affecting two DSAs) are posted, the complete 10CFR830-compliant, PXSO approved DSA will be implemented and effective. Similarly, B&W Pantex improved its process for determining whether new information (NI) affects the DSA. In July 2007, there were 36 open NI entries, some of which had been open for several years. B&W Pantex has since closed the 36 open entries and processed 78 of 79 new entries, most within the prescribed time frame of ten days. Other issues with the Pantex AB—such as incomplete treatment of beyond design basis accidents in certain DSAs and a lack of adequate detail for proper implementation of some technical safety requirements—were not included in the FY08 PEP and their resolution has not progressed.

Barrier Development: In March, NA-12 suspended barrier development for 30 days to reevaluate the requirement to have a barrier in place for certain types of operations. Los Alamos National Laboratory recently informed NA-12 that their analysis does not support eliminating this requirement. B&W Pantex will proceed with finalizing the new barrier design. After construction and installation of a mock wooden barrier, the PXSO Manager will review the facility environment and final barrier design and consider removing the August 2007 order to cease procurement and installation activities that support barrier implementation.

B61 Process Anomaly Update: The component involved in the suspected electrostatic discharge event (ESD) of 4 April was radiographed this week. The radiograph confirmed that a valve on the component had actuated. No process changes are planned at this point because the weapon safety specification states that this scenario presents no personnel or nuclear safety hazard. The procedure for this operation will be revised to warn of the potential for this event and to provide instructions on the appropriate response.

W62 Anomalous Unit: In December, a unit failed an electrical test, indicating the potential for a damaged component that could make the weapon more susceptible to ESD hazards. The dismantlement was completed this week using a Justification for Continued Operation that authorized the use of a dielectric cover to protect against a potential ESD insult. The suspect component will be shipped to the design agency for analysis.

Air Conditioned Magazines: The air conditioning units on four pit storage magazines were recently turned off and locked out. This returned these magazines to a passively cooled configuration. The power to the air conditioning units was removed, the temperature monitoring system shut off, and the datalogger disconnected. The pits in these magazines have been repackaged into containers that afford significantly greater thermal protection and have also been redistributed to other storage locations. There were no DSA controls associated with the thermal monitoring or air conditioning of the subject pits.