

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending May 30, 2003

DNFSB Activity Summary: The Pantex Plant was closed on Monday for the Memorial Day Holiday. W. White was on leave Tuesday and Wednesday and on site for the remainder of the week. J. Deplitch was on site Tuesday and Wednesday to observe the nuclear explosive safety review of W88 seamless safety tooling changes. J. Shackelford, C. Shuffler, and outside expert R. West were on site Wednesday and Thursday to review hoisting and rigging operations in nuclear facilities.

W88 Seamless Safety Tooling: NNSA conducted a nuclear explosive safety review this week for the new seamless safety tooling for W88 bay operations. The review was performed by a five member team, consisting of a chairman from the NNSA Service Center and members from PXSO, Los Alamos National Laboratory, Sandia National Laboratories, and BWXT. The W88 project team presented a top-level description of the warhead, an overview of current W88 bay operations, a description of the process changes related to the tooling upgrades, and a description of the associated impacts on the W88 Hazard Analysis Report.

The review team and the project team discussed the significance of the tooling changes with respect to the criteria of a "minor" change as defined in Chapter 11.7, "Nuclear Explosive Operations Change Control Process," of the Development and Production Manual. Demonstrations of the tooling and process changes were cancelled when two members of the review team concluded the tooling changes were too substantial to meet the criteria of a "minor" change. A unanimous conclusion is required to consider the change minor. NNSA must now conduct a nuclear explosive safety study of the proposed tooling changes before they can be implemented.

The contractor readiness assessment for implementation of the new tooling also remains on hold. Weapon response from the design agency is undergoing peer review and is not yet final. Provided the weapon response screens out any new hazards from the tooling changes, NNSA has agreed that BWXT will have startup authority for implementation of the tooling changes and no NNSA readiness assessment will be required.

The proposed bay tooling eliminates several lifts and should provide enhanced safety for W88 bay operations. The implementation of the new tooling is also a deliverable to the Board in the Implementation Plan for Recommendation 98-2, *Safety Management at the Pantex Plant*. The original due date for the deliverable was May 21, 2003; however, this date was contingent on the use of an "abbreviated validation process." Given the intent of the commitment, NNSA and BWXT will, presumably, pursue completion of the required nuclear explosive safety study and contractor readiness assessment in an expedited manner. [II.A]

Hoisting and Rigging: The Board's staff reviewed various aspects of the hoisting and rigging program at the Pantex Plant this week. Of particular concern were deficiencies in the hoisting and rigging program revealed by the recent hoist failure in a mass properties facility. These deficiencies included failure to follow vendor recommendations for maintenance without technical justification and lack of an adequate failure analysis prior to initial resumption of hoisting operations. Also apparent during the review was a lack of clarity and consistency for expected operator actions in the event of a hoist failure. Following the incident in the mass properties facility, BWXT initiated a number of specific and programmatic actions to address concerns related to the hoisting and rigging program. [II.A]