

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 2003

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** W. White, Pantex Site Representative  
**SUBJECT:** Pantex Plant Activity Report for Week Ending January 10, 2003

**DNFSB Activity Summary:** W. White was on site all week. Staff members J. Deplitch and A. Matteucci, along with outside experts L. McGrew and R. West, were on site Tuesday through Thursday to review the Pantex Plant training program. Staff also reviewed BWXT progress towards addressing previously identified issues related to procedural adherence and conduct of operations.

**Procedural Adherence:** BWXT presented to the Board's staff this week progress in addressing procedural adherence concerns raised in October 2001 by the Board. Most of the corrective actions developed following the Board letter and a similar letter by DOE have been implemented. Two significant actions that remain are implementation of a computer-based system, 'move right,' that assists in the control of nuclear material and explosives and the implementation of the interactive electronic procedure system that will replace the paper procedures currently used in nuclear explosive operations. Open questions from the review include the requirements for software quality assurance for these systems and the readiness reviews, if any, that will be conducted prior to implementation of the systems. Followup discussions will be held with BWXT and PXSO to explore these issues.

Staff observations of W87 and W79 operations showed significant improvement from past observations. Minor concerns were noted with the formality of operations, but those concerns were identified by BWXT personnel and immediately resolved. The improvement over the past few weeks with respect to adherence to combustible loading controls for these programs was particularly impressive, especially on the W87 program. Personnel for this program have adopted an approach to combustible loading used on other programs that emphasizes having no combustibles in the facility unless they are in use or containerized. The catalyst for this improvement was the recently conducted NNSA readiness assessment for implementation of controls in the *Fire Protection Basis for Interim Operation*. Although a final report is not yet available, this assessment was completed December 20, 2002. The assessment is a deliverable to the Board under Recommendation 98-2. [II.A]

**W88 Lifting Occurrence:** On Friday morning, a hoist failure occurred in a mass properties bay during the lift of a W88 unit. Technicians were lowering the unit into a fixture when they reached a point that required them to stop the lift and install an orientation tool. The unit did not stop its descent. The technician controlling the lift pushed an emergency stop switch on the pendant, which also failed to stop the descent of the unit. At this point, the technician controlling the lift, the technician monitoring the lift and the technician acting as a reader all went to the unit to assist in controlling it as it descended into the fixture.

No visible damage occurred to the unit, but a complete inspection cannot occur while the unit is in the fixture. BWXT immediately suspended all hoisting of nuclear material and explosives at the Pantex plant. Following a critique of the occurrence, BWXT decided to allow resumption of hoisting in facilities other than mass properties facilities, provided an evaluation of the plant air system shows no foreign material in the air system that might impact other hoists at the plant. Hoisting operations in mass properties facilities will remain suspended until the cause of the hoist failure can be determined. This is the fourth occurrence in the past three years that appears to involve a significant design flaw or equipment failure of these safety-class hoists in the mass properties facilities. It is not clear at this point how BWXT will justify continued use of these hoists. [II.A]