

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Timothy Hunt and Dave Kupferer, Pantex Site Representatives  
**DATE:** Friday, April 1, 2005  
**SUBJECT:** Pantex Plant Weekly Report

**DNFSB Staff Activity:** J. A. Malen observed the third week of the B83 NESS.

**Disassembly Anomaly:** On March 30, during the disassembly of a nuclear explosive, an anomaly occurred which is not covered in the existing safety analysis. During the disassembly process, pressure is applied to remove a section of the unit. The unit separated at an unexpected location resulting in damage to a component and a situation whereby continuing operations became untenable. The special tooling used and accompanying gage will be removed and tested to ensure they were functioning properly during disassembly. The nuclear explosive was placed in a stable condition pending analysis and development and approval of a recovery process.

**Cracked High Explosive (HE) Recovery:** BWXT continues to pursue actions to recover from a high explosive main charge that cracked during disassembly operations in February. A NES Change Evaluation (NCE) of the proposed process modifications was completed this week. The NCE team's acceptance of the process is subject to resolution of concerns with the procedural format, inspection requirements, and mechanical separation details. Operations may restart as early as next week following approval of the procedure and justification for continued operation.

**Special Nuclear Material Move:** BWXT and PXSO have, respectively, verified and approved the implementation of an Automated Guided Vehicle (AGV) to perform pit staging, retrieval, tracking, and inventory operations. The second AGV NNSA readiness assessment was completed this week and unrestricted operations are expected to commence next week. Last weekend, the AGV was used, in a manual as opposed to automated mode, to move several pits from one staging room to another. An Unreviewed Safety Question Evaluation of the activity was performed prior to the material movement and resulted in a negative conclusion.

**Nuclear Explosive Safety Study Participation:** DOE-STD-3015-2004, *Nuclear Explosive Safety Evaluation Process*, identifies minimum team staffing requirements to perform NES studies. Per the standard, PXSO is required to provide one person for NES evaluations at Pantex. This week, PXSO formally requested a permanent exemption from the requirement for mandatory participation on all NES studies. PXSO personnel are a key component of NES reviews, contributing detailed and historical knowledge of Pantex operations to the team. PXSO stated in its exemption request letter that the NNSA reorganization and increased formality of site office field oversight are straining the available PXSO NES resources.

**Chemical Inventory Control:** In November 2002, an assessment by the Office of Oversight and Performance Assurance (OA) found inadequacies in the mechanisms BWXT used to identify, track, and assess hazardous materials. BWXT has recently developed an integrated tracking system that, when linked to all inventory databases, will provide the capability to readily retrieve safety-related information. To become fully operational by October, the integrated chemical inventory control project requires additional software, personnel and training resources. The ability to identify hazardous materials and where they are located will enhance the ability of the fire department and emergency response organization to react to anomalous situations that could potentially impact nuclear operations.