

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Timothy Hunt and Dave Kupferer, Pantex Site Representatives  
**DATE:** 16 March 2007  
**SUBJECT:** Pantex Plant Weekly Report

**Special Nuclear Material Component Requalification Facility (SNMCRF):** BWXT received authorization this week to start SNMCRF operations. The plan is to send a select number of pits through the workstations to prove-in the process and obtain an engineering release from the design agency. The schedule shows production of the first W76-1 diamond stamped pit in May.

**Lightning Issues:** BWXT systems engineering recently committed to address three lightning-related issues that had previously been undertaken by Sandia National Laboratories. The issues resulted from the lightning protection nuclear explosive safety master study performed in 2000. High voltage laboratory testing will be performed to support a spalling analysis and define the indirect lightning effects environment by 31 December. The third task, to be done by 15 April, involves an engineering evaluation of stand-off distances that takes into consideration the contributions from bond inductances.

**Seismic Project Plan:** BWXT recently submitted a project plan to PXSO in which BWXT commits to evaluate and, if necessary, modify overhead items in cells 12-96 and 12-85 to be compliant with performance category-3 (PC-3) seismic qualification criteria. These facilities were selected to be evaluated and modified first because they are already scheduled to be taken out of service during the next several months to facilitate upgrades to the high pressure fire loop system. The approved safety basis assumes that overhead items in the bays and cells are designed not to fall during a performance category-3 seismic event; however, the overhead items have not yet been qualified to meet this requirement.

**Seismic Qualification of Tooling:** A technical safety requirement violation was declared when it was discovered that mobile storage cabinets in some nuclear explosive bays were not seismically qualified. An engineering analysis performed last year indicated that the overturning moment of two types of cabinets during a PC-3 seismic event made them unstable, but no controls were implemented. BWXT has suspended operations in the affected facilities pending development of administrative controls or removal of the cabinets from the bays.

**Unit Tracking and Documentation:** While preparing to perform post-mortem disassembly operations on a joint test assembly last week, three inadequately marked containers were opened in an attempt to identify which container housed the unit to be disassembled. Upon inspection it was determined that none of the containers housed the required item. Records indicated the subject unit was shipped to Pantex in 1991 and contained radioactive material as well as explosive components that had likely been expended. It was determined this week that the unit had actually been processed in 1991 but available documentation did not accurately reflect this.

**Trainer Unit Upgrade:** BWXT recently issued a W80 trainer upgrade plan that supports a performance objective to incorporate a high quality trainer unit into weapons training programs in FY07. The unit will be used by the production technicians to prepare for SS-21 operations on W80 war reserve units. The trainer unit is to be upgraded to a high quality status – defined as meeting requirements of the specification drawing – by the end of September.