

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Timothy Hunt and Dave Kupferer, Pantex Site Representatives  
**DATE:** 3 November 2006  
**SUBJECT:** Pantex Plant Weekly Report

**DNFSB Staff Activity:** R. Rosen and outside expert D. Boyd were at Pantex to observe the second week of the NNSA readiness assessment for B83 SS-21 operations.

**Technical Safety Requirement (TSR) Violation:** Last week, a BWXT engineer improperly entered an electrostatic discharge (ESD) program area without the required safety footwear. The production technicians immediately questioned if the engineer's footwear met the ESD program requirements. The footwear did violate a TSR administrative control that requires all personnel to be equipped with continuity-tested ESD footwear prior to bay entry. The engineer had completed the required read-and-sign training but stated that the entry area was poorly marked.

**Non-SS-21 Process:** A recent failure of a workstand has compelled BWXT to develop recovery actions to complete a W76 disassembly. The engineering procedure will include two hoist lifts that are not part of the normal, SS-21 disassembly process. A Justification for Continued Operation is being developed to address any additional controls and a nuclear explosive safety change evaluation is being planned. The activity has been mocked and demonstrated by the production technicians.

**Nuclear Explosive Safety Study (NESS) Findings:** There are 60 post-start NESS findings that BWXT has yet to close. BWXT has submitted closure packages to NNSA for 25 of the 60 findings. Of the remaining 35 findings, six are more than five years old. In addition, NNSA recently approved closure of two pre-start NESS findings regarding ESD hazards of the B83 SS-21 process. Closure of these two findings is a result of an 18 month effort on the part of BWXT and the design agencies, particularly Lawrence Livermore National Laboratory.

**Unreviewed Safety Question (USQ) Process:** BWXT has undertaken a program to train a contingent of tooling, system, and process engineers, as well as production and facility personnel – the control owners – to perform USQ evaluations. Historically, authorization basis (AB) analysts have performed the USQ evaluations. The training consists of an AB overview, new information criteria, AB change control, and creation of AB documentation. BWXT is currently planning that the USQ evaluations will be peer reviewed by qualified AB personnel until the control owners demonstrate proficiency in the USQ evaluation process. This responsibility shift should alleviate a significant workload for AB personnel and improve sitewide familiarity with the Pantex safety basis; however, it is yet to be seen how the shift will effect the control owners duties or the near-term quality of USQ evaluations.

**Pantex Procedures:** BWXT and the design agencies have undertaken a joint project to make the procedure approval and change processes more efficient. The goal is to reduce the procedure change approval time by 50 percent in the first year. Based on an evaluation of more than 1600 weapons procedures (e.g., engineering instructions, procedures, nuclear explosive operating procedures) developed during the past ten months, the average processing time is 23 days. The planned improvements will allow the engineers to electronically process procedure changes – relieving the production technicians from annotating the changes – and have all required reviews done concurrently. BWXT expects these improvements to be implemented by May 2007.