

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Timothy Hunt and Dave Kupferer, Pantex Site Representatives  
**DATE:** 13 January 2006  
**SUBJECT:** Pantex Plant Weekly Report

**DNFSB Activity:** Staff members A. Matteucci and R. Rauch were on-site this week to observe the W87 NESS kick-off meeting.

**W56 Dismantlement Activities:** This week, a nuclear explosive safety (NES) change evaluation was performed to assess the proposed treatment of potential electrostatic discharge (ESD) hazards in W56 dismantlement operations. The design agency provided new information in July 2005 that altered the current weapon safety specification statement that certain components are ESD insensitive and resulted in an operational suspension. The process changes evaluated by the NES study group (NESSG) included modification of a component cover to assure electrical conductivity and a restriction on the use of the radiological vacuum cleaner during some procedural steps. The NESSG concluded that the proposed operations provide adequate protection against postulated ESD hazards. It is expected that the Site Office Manager will authorize operations allowing BWXT to recommence dismantlement activities next week.

Personnel and tooling issues continue to delay startup of the W56 spinner process. The latest projected date for the startup of the process-following readiness and nuclear explosive safety reviews-is April 2006.

**B61 Seamless Safety for the Twenty-First Century (SS-21):** In July 2005, PXSO approved the B61 Hazard Analysis Report (HAR) submitted by BWXT, which analyzed SS-21 disassembly, inspection, and rebuild operations. However, PXSO included conditions of approval regarding ESD hazards and the associated controls. In particular, PXSO directed BWXT to provide additional information that would allow PXSO to determine the risk of operating with static dissipative flooring, including its interface with lightning controls. This week, representatives from the Albuquerque Service Center, Los Alamos National Laboratory, Sandia National Laboratories, BWXT and PXSO met at Pantex to discuss the details contained in a proposed revision of the B61 HAR. The revised HAR, and associated revisions to the Sitewide Safety Analysis Report, details the functional requirements of the static dissipative flooring and includes reliability information gathered from testing. Static dissipative flooring has been installed in two nuclear explosive facilities to date.

**W62 Dismantlement Suspension:** W62 operation were suspended recently after a cutting tool was unsuccessfully utilized during a component extraction activity. This is the same tool that was modified last month after three failures of the bit and component damage were experienced during the same procedural steps. BWXT Engineering personnel believe that the issue is not with the tool, per se, but more of a process or weapon configuration concern. The preliminary BWXT evaluation indicated that the assembly process on the older weapons may be contributing to the difficulty in separating and extracting the component (e.g., the presence of adhesive between components). No contamination or evidence of component damage was noted. Process steps will need to be revised and the cutting bit will again be redesigned to allow for a deeper cut.

**B83 SS-21:** A path forward has been developed by BWXT to resolve ESD issues identified during the B83 NES study last spring. The component preconditioning issue will be addressed by using a newly designed cover and assuming less conservative ESD environments. The weapon responses, readiness and NES reviews, and revised authorization basis documentation are planned to be completed in time to support a September 2006 restart. It is now anticipated that the B61 or W87 program will be the first insensitive high explosive weapon system to implement the SS-21 process.