DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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

DNFSB Staff Activity: A. Matteucci was onsite to observe the first week of the W88 Nuclear Explosive Safety Study (NESS). C. Martin and A. Gwal were onsite to observe a B83 Nuclear Explosive Safety Change Evaluation (NCE).

NESS Prerequisites: DOE Order 452.2C, *Nuclear Explosive Safety*, states that a NESS may not begin until "...completion of the DOE-approved safety basis for the operation." The W88 cell disassembly and inspection NESS began on Tuesday morning. PXSO conditionally approved the Hazard Analysis Report and Technical Safety Requirements that same morning, at which time a request to convene the NESS was transmitted to the NNSA Nuclear Explosive Safety Division. A revision to the Sitewide Safety Analysis Report (SAR), which addresses two controls for W88 hazards, has not yet been approved by PXSO. In February 2006, the W87 NESS was convened prior to approval of two Satellite Facility SAR change packages. In March 2006, BWXT identified that six Sitewide SAR change packages had not been approved prior to starting the B61 NESS. At that time, PXSO expressed its expectation that BWXT would have completed and final documents prior to NESS reviews.

W88 NESS Demonstration: This week, production technicians demonstrated the W88 disassembly and inspection process for the W88 NESS review team. The NESS review team requested that the production technicians deviate from their procedure during the demonstration. Specifically, the NESS review requested that grease pump operations not be repeatedly performed. During the demonstrations, the operating procedure instructed the production technicians to disconnect a facility compressed air supply line from a grease pump. Because the grease pump was not physically being used during the demonstrations the production technicians mistakenly disconnected the vacuum line from the vacuum fixture. The vacuum fixture was holding the mock physics package. After the production technician disconnected the vacuum line, the mock physics package fell a few inches back into the midcase. It appears unlikely that the production technicians would have disconnected the wrong hose during normal operations.

Applicability Matrices (AMs) Configuration Management: At Pantex, the Technical Safety Requirement AMs are used to identify the applicability of safety related controls to each facility and weapon program. During a readiness assessment in March 2006, an NNSA review team identified a pre-start finding that the AMs applied an engineered bonds control to a facility that does not have engineered bonds (operations were ongoing in the subject facility). BWXT safety basis analysts had previously determined that the subject facility does not need engineered bonds, and PXSO concurred, but this event raises questions regarding configuration management of the AMs. During a review performed by PXSO's systems engineering group one month ago, PXSO identified that the AMs had not been corrected to fully address the March pre-start finding. To date, the AMs have still not been corrected. It appears neither BWXT nor PXSO considered the AMs discrepancy to be a reportable occurrence.

Conduct of Operations: While production technicians were performing a W87 disassembly operation, a step was mistakenly stamped off as completed. The error was discovered after three subsequent steps were performed using the reader-worker-checker protocol. A back-out procedure was generated and operations resumed without any direct safety concern encountered.