

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 21 September 2007
SUBJECT: Pantex Plant Weekly Report

Lightning Bond Wires: Following the discovery in February 2006 that numerous bond wires were excessively long (i.e., greater than 24 inches), BWXT developed a plan to shorten the bond wires—or justify acceptability—by the end of 2006. Two schedule extensions have been granted to resolve the issue. The second extension expires at the end of this month with 102 bond wires remaining to be addressed. The latest schedule now shows completion of the project in February 2008, assuming the facilities are available to perform the modifications.

Potentially Inadequate Safety Analysis (PISA): BWXT declared a PISA Monday when it was determined that an electrical tester that makes a connection to multiple nuclear explosives was not evaluated for a potential insult to one program. A hold has been placed on the use of the tester for the W62 program until weapon response is received from the design agency. The PISA was discovered as BWXT was working through its new information backlog using the recently revised work instruction on processing new information.

Nuclear Explosive Safety (NES) Change Control: NNSA recently issued a draft revision to DOE M 452.2-2, *Nuclear Explosive Safety Evaluation Processes*. The scope of this revision is significant and incorporates requirements from DOE-STD-3015, *Nuclear Explosive Safety Evaluation Process*, and Chapter 11.7 of the Development and Production Manual, *Nuclear Explosive Operations Change Control Process*. The draft manual introduces the concept of a contractor NES change evaluation (CNCE) process with extensive, but subjective, criteria to be used to determine whether a NES study group should be formed to perform an NCE. The contractor organization would be required to maintain an auditable record of the bases for CNCE determinations.

W80 SS-21 Startup: Last week, NNSA completed its readiness assessment (RA) of W80 SS-21 disassembly and inspection (D&I) operations. The RA team identified only one post-start finding, regarding the seismic analysis BWXT performed prior to installing dissipative flooring. As a lesson learned, the RA team cautioned that schedule pressure faced by the project team has the potential to negatively impact readiness reviews. This has been a common observation of groups that have performed recent reviews. The W80 NESS final report, with no findings, was also approved and issued this week. The W80 SS-21 D&I operations could start next week.

Seismic Upgrade Project: Due to budget constraints, limited seismic-related activities were accomplished in fiscal year (FY) 2007. Safety-related improvement actions completed in FY07 included the modification and seismic qualification of ceiling appurtenances in cells 12-96 and 12-85 and seismic qualification of the upgraded 12-44 cells and associated equipment. Contingent on available funding, plans for FY08 and beyond include modification of remaining cell ceiling appurtenances, installation of seismically qualified emergency lights in all cells, and installation of seismically qualified hoists in the balance of nuclear facilities.

Documented Safety Analysis (DSA) Project Status: There were 264 controls affected by approved, but un-posted, DSA change packages. Of those 264 controls, 130 have been verified and are fully effective (posted). A large majority of the 119 controls that are implemented and validated, but not effective, are directly affected by the external explosion change package which has issues that are currently being resolved. The remaining 15 controls are either in the implementation process or pending PXS0 review and approval.