DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 23 November 2007
SUBJECT: Pantex Plant Weekly Report

BWXT Nuclear Explosive Safety (NES) Member Qualification: A BWXT management self-assessment evaluated the training, qualification, and certification program for personnel who have responsibilities to support NES evaluations and change control. The scope was limited to the sections of DOE Order 452.2C, *Nuclear Explosive Safety*, that require implementation of a formal, comprehensive training program. No findings were identified; however, the review did not evaluate the qualifications of the two BWXT NES members.

Documented Safety Analysis (DSA): BWXT has issued a FY2008 DSA Project Plan that is intended to address well known DSA concerns. The project includes actions from and supersedes the end-state DSA project. BWXT is expected to implement the remaining controls that were affected by approved but "un-posted" safety basis change packages by the end of this calendar year. The following safety analyses are expected to be completed prior to October 2008: code management system, W87 armed mechanical safe and arm detonator (MSAD), W88 SS-21 (cell and mass properties), human factors, seismic, and security. In addition, BWXT is planning to archive legacy DSAs, perform consistency checks on posted DSAs, and improve compliance with DOE specific administrative control requirements during this fiscal year.

Degraded Blast Valve: A blast valve in one of the newly upgraded 12-44 cells was found in a degraded condition during an annual in-service inspection. A welded joint holding a protective housing over a potential leak path failed, exposing a small gap. No operations have taken place in the cell since modifications were completed earlier this year. The safety class valve was removed from the cell for further evaluation. Examination of similar valves is pending the outcome of the engineering evaluation.

Special Tooling: A BWXT independent assessment of special tooling identified eleven weaknesses. Concerns ranged from procedural compliance issues to inattention to detail. The most significant concerns involved the review process for tooling design and deviation documents and the lack of accompanying documentation for tooling received from vendors. BWXT has implemented improvement measures to make tracking of tools more efficient and increase tooling availability to greater than 90 percent while improving first-time through acceptance.

Radiation Safety: For FY2007, the average cumulative total effective dose equivalent for the 289 Pantex employees with measurable dose was 97 mrem (maximum dose was 717 mrem). There were no personnel contamination events, exceedances of DOE limits or local administrative control levels, or instances of contamination found outside of prescribed areas.

Contractor Assurance System (CAS): BWXT recently issued its FY2008 CAS plan. During FY2007, BWXT performed 229 management self-assessments and 21 independent assessments. During FY2008, BWXT plans to perform more than 230 management self-assessments and 18 independent assessments.