

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 26, 2004

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending November 26, 2004

Tooling Program. Following last weeks failed tooling program assessment, BWXT made numerous personnel changes, involving both managers and technicians, in an attempt to bolster the rigor with which work is performed. The personnel changes are a triage action until operational compensatory measures can be established. The expectations are that management will conduct heightened oversight activities for about 6 weeks to determine where priority attention needs to be applied. A more detailed set of compensatory measures will then be issued and commitments formalized. The functions of tooling tryout have moved from Engineering to Manufacturing with the expectation that conduct of operations will be improved.

Design Adequacy/Backfit Analysis. In September, PXSO tasked BWXT to evaluate the issues with adopting the EFCOG (Energy Facilities Contractors Group) working group report to validate safety system design adequacy. BWXT recently issued an implementation plan that defines a process—similar to the approach promoted by the EFCOG—whereby existing systems and components elevated to safety class or safety significant status undergo a technical evaluation. Because of the age of most of the Pantex safety systems, the safety function validation and code compliance reconstruction will demand considerable engineering effort. Due to priority resources being applied to implementation of controls, the establishment of original design requirements, performance of as-built comparisons, and assessment of design adequacy will not begin until September 2005.

Technical Safety Requirements Integrated Implementation Plan (TSR IIP). Revision 2 of the TSR IIP was issued by BWXT this week. Of note is the scheduled date of the final contractor readiness assessment (CRA), July 2005. The August 2003 plan committed to a final CRA date of March 2005, with full effectiveness of all controls shortly thereafter. Also of interest are the controls with seismic issues. About 20 controls will not be fully implemented until a separate Seismic Project is complete. The TSR IIP does not include schedules for modifications and repairs to facilities and equipment that must be accomplished to support full implementation of seismic-related controls.

PXSO Line Oversight. PXSO recently issued a line oversight program plan for fiscal year 2005 that will be piloting a risk assessment model based on the Heinrich Pyramid approach. The FY 2005 evaluation areas were selected based on perceived need of line oversight emphasis (e.g., conditions of approval database, TSR control implementation, tooling and safety class system maintenance, unreviewed safety question program, system engineering program).

Electrical Occurrence. A Pantex Security Officer flipped a light switch in a ramp in the material access area, causing a short circuit and an electrical arc. The housing behind the switch was discovered partially full of water. The amount of corrosive products in the housing indicated that the water had been there for an extended period of time, but only recently rose to a level sufficiently high to cover two electrical contacts and create a short circuit. Nuclear explosives are not normally transported in the ramp where the faulty light switch is located and the switch configuration in the bays is different from that where the event occurred.