

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 18 July 2008
SUBJECT: Pantex Plant Weekly Report

Technical Safety Requirement (TSR) Implementation Verification Review (IVR): B&W Pantex recently developed a process—in part to address an issue raised in a Board letter dated 5 February 2008—that will verify all new and revised authorization basis controls are properly implemented before making them enforceable. It should be noted that the periodic verification of the effectiveness of specific administrative controls will not be a part of this process. IVR actions may include checking the flowdown of controls into drawings and procedures, validating training and maintenance records, and verifying field installation or implementation of TSR controls.

W76 Readiness Activities: There will be no formal readiness reviews for the restart of W76 operations in a 12 kV environment. B&W Pantex will instead perform an IVR that will be shadowed by PXSO facility representatives. For proposed W76 operations in a 5 kV environment, B&W Pantex recommends both a contractor and NNSA readiness review. PXSO also plans to request a nuclear explosive safety change evaluation for both processes.

Potential Inadequacy of the Documented Safety Analysis (PISA): Two years ago, an advance change order (ACO) from the design agency revised the weapon response document to correct critical aspects of the Faraday cage configuration (e.g., the installation of connector covers) for a particular program currently staged in Zone 4. B&W Pantex declared a PISA when it discovered that this information had not been incorporated into the authorization basis. B&W Pantex has since discovered another design agency document that conflicts with the Faraday cage specifications in the ACO. The design agency is expected to clarify its position early next week. In the meantime, compensatory measures have been identified that require the weapon program to remain in a Faraday cage facility and personnel to obtain a clear weather forecast prior to opening facility doors.

Fire Protection Upgrades: In August 2005, the PXSO system engineering group determined the high pressure fire loop (HPFL) is most vulnerable to failures of the lead-in piping from the loop to the facility. NNSA has now identified funding to replace these lead-ins out of the Facilities and Infrastructure Recapitalization Program (NA-52). A CD-0 package is being prepared for the fire suppression lead-in project, which is estimated to complete in FY15. A separate project to replace the HPFL underground piping has been suspended since December 2007 due to insufficient funding. Project personnel are considering the possibility of re-baselining the HPFL project to facilitate coincident replacement of the HPFL and lead-in piping.

Nuclear Material Program Management Plan: B&W Pantex issued its annually updated plan that addresses the life cycle management of pits, canned subassemblies, tritium reservoirs, and radioisotopic thermoelectric generators. Of particular note are the options for pit/weapon storage consolidation. At currently assumed production rates—and in anticipation of delays in off-site shipment of pits—space to stage material will become an issue by 2014. Options being evaluated to increase storage capacity include relocating some current operations in 12-64 bays and raising the plutonium mass limits in those bays, delaying movement of the pit repacking lines to 12-116 and using that space for staging, and arranging for just-in-time delivery of weapons to minimize on-site storage time.