

## **DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

**MEMO TO:** Timothy Dwyer, Technical Director  
**FROM:** Matthew Duncan and Rory Rauch, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Report for Week Ending March 16, 2012

**Nuclear Explosive Safety (NES) Rule (NESR) Violation:** As recently reported, B&W declared a NESR violation after discovering that a procedure was directing technicians to perform a dual-concurrent, rather than independent, verification of the position of a stronglink (see 3/2/12 report). Last week, B&W rescinded the NESR violation after discovering that the NESR, as written in the W76-1 NES Study Report (the document of record), did not require the verification to be independent. Instead, B&W reported the event as a management concern because the wording of the NESR in the W76-1 NES Study Report is inconsistent with the wording of the NESR in procedures and other associated documents. For example, the coordination copy of the W76-1 NES Study Report (the version transmitted to the approval authority for review and approval) and the configuration-managed reference document that lists the specific NESRs for all weapon programs both required the verification to be independent. B&W NES personnel performed an extent-of-condition review and found no other substantial differences in the wording of specific NESRs between documents. B&W and NNSA NES personnel are attempting to determine how the differences in the wording of this NESR were introduced.

**Abnormal Stronglink Position:** As recently reported, an electrical test on a nuclear explosive showed a stronglink in an abnormal position (see 2/17/12 report). Subsequently, the responsible design agency (DA) issued an information engineering release stating that the position of the stronglink did not affect the current weapon response information for the process. However, while the operation was paused waiting in part for DA input, the quarterly in-service inspection for the hoist in the facility lapsed. Prior to resuming operations, B&W generated an evaluation of the safety of the situation (ESS), which documented the basis for continued safe operations with the hoist. System engineering performed an operability evaluation of the hoist and concluded that the hoist would continue to meet all functional requirements. The primary basis for the conclusion was that the most important subset of quarterly inspections is required to be performed prior to resuming operations. PXSO approved the ESS and technicians successfully completed the operation last week.

**High Pressure Fire Loop (HPFL) Operability:** One of the surveillance requirements for the HPFL system requires a condition test of the underground piping of the system every five years. The purpose of the surveillance activity is to ensure that obstructions have not impaired the operability of the HPFL. Due to HPFL piping replacement activities, B&W utilities personnel were unable to perform this surveillance activity on certain portions of the HPFL within the prescribed surveillance period or the additional 15 month grace period. Before the surveillance period lapsed, PXSO approved a justification for continued operations (JCO) providing the basis for continued operability of the HPFL in the absence of the five year pipe condition test. The JCO, which expires on August 30, 2012, references a fire protection engineering evaluation that concludes the presence of an obstruction that would prevent satisfactory performance of the HPFL system is unlikely. The conclusion is primarily based on the acceptable results of the last pipe condition tests (performed in 2005) and the acceptable results of the full flow testing of the fire suppression systems in most nuclear explosive facilities during the last two years.