

## **DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

**MEMO TO:** Timothy J. Dwyer, Technical Director  
**FROM:** Timothy Hunt and Rory Rauch, Pantex Site Representatives  
**DATE:** 3 July 2009  
**SUBJECT:** Pantex Plant Weekly Report

**Damaged Electrical Cable:** While inserting a physics package into a reentry body (RB), production technicians severed one of two cables that run the length of the RB. The cable was not connected at either end at the time so no electrical threat was posed. The procedure required three technicians observe the cables during the mating to ensure they were not pinched or damaged. The technician responsible for protecting the subject cable during insertion apparently lost visual contact with the area where the damage occurred and was not able to halt the action before the cable was cut. A recovery procedure to disengage the components, replace the cable, and reinsert the physics package was subsequently exercised.

**Software Quality Assurance (SQA):** Track Right is a material tracking software that maintains specific information on pit storage configurations. Although Move Right is the material tracking software of record for the site, all Zone 4 and pit transactions are entered into Track Right and Move Right is updated through an interface program. Last week, a series of transactions in Zone 4 exposed an error in the Track Right to Move Right interface program. Information technology (IT) has developed and implemented the software patch. Inventory management and IT personnel do not believe this event exposes any weaknesses in their SQA practices.

**Environment, Safety and Health (ES&H) Assessment:** The Office of Independent Oversight for ES&H programs (HS-64) conducted an assessment recently and its ratings reflected an overall improvement in the B&W Pantex and PXS0 ES&H programs since 2005; however, some specific weaknesses were noted. In evaluating essential safety system functionality, the assessment team identified deficiencies in the legacy calculations and surveillance procedures supporting the documented safety analysis. Despite these weaknesses, the team found no indication that safety systems were unable to perform the function(s) for which they are credited. B&W Pantex is developing corrective actions for the identified weaknesses.

**Power Outage:** An electrical fault occurred recently on one of the two main electrical circuits that feed the plant, necessitating near-term repair work. On Wednesday afternoon, maintenance personnel impaired the fire and radiation monitoring systems in the facilities fed from the southeast 12,470 volt electrical distribution circuit to allow electrical power to be shut off and repairs performed. Most of the bays and cells in the Zone 12 material access area were affected and operations were placed in a safe condition prior to deenergizing systems. The power is scheduled to be restored Friday afternoon, after which B&W Pantex facility personnel will need to complete a loss of power checklist before returning nuclear facilities to operation.

**Vacuum System:** Vacuum systems are occasionally connected to tooling during nuclear explosive operations to hold high explosive main charges. Since pieces of explosives can be dislodged and introduced into the vacuum lines, there is a requirement that each section of piping is to be color coded (white) and labeled (“HE Contaminated”) to warn maintenance personnel that explosive residue may be present in the line. A new vacuum line was installed in a nuclear explosive bay several months ago and has not been coded and labeled. B&W Pantex facility management initiated a work request last week to bring the vacuum line into compliance.