

## **DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

**MEMO TO:** Timothy J. Dwyer, Technical Director  
**FROM:** Timothy Hunt and Rory Rauch, Pantex Site Representatives  
**DATE:** 17 July 2009  
**SUBJECT:** Pantex Plant Weekly Report

**Board Review:** Dr. Peter Winokur and staff member D. Minnema were onsite to review safety culture and nuclear safety performance indicators.

**Lightning Safety:** The Nuclear Security Enterprise Electromagnetic Committee met this week to discuss the actions needed to resolve outstanding lightning safety concerns. B&W Pantex is behind schedule in its efforts to verify intrinsic bonding of facility penetrations to the Faraday cage. The committee has developed and approved a method for intrinsic bond verification using time-domain reflectometry, but issues with the calibration of equipment and facility availability will limit the progress the committee can make for the remainder of the fiscal year. Development of the inductive current transformer (ICT) concept (a second method for intrinsic bond verification) has not progressed beyond the proof-of-concept stage. Sandia National Laboratories will aid in upcoming ICT development activities at Pantex.

**Nuclear Explosive Safety Change Evaluation (NCE):** Last week, NNSA convened an NCE to evaluate W76-1 operations with certain components that do not meet their performance objectives and may not meet lab-specified nuclear safety design objectives. The NCE group approved the disassembly (excluding three tests) of two units that were built several months ago with these components. The partial disassembly of a unit to replace this component was also approved. The assembly of units with these components was proposed, but this proposal was withdrawn.

**PXSO Facility Representatives (FR):** Last week, the ninth of ten FRs became fully qualified after successfully completing the oral board. The final FR, hired earlier this year from another NNSA site, is core qualified and is implementing an accelerated schedule to become fully qualified by the end of the year.

**Nuclear Material Tracking:** B&W Pantex uses two tracking systems to maintain inventory of nuclear components/material during weapon production activities: MRP (for assemblies/subassemblies) and Move Right (for each individual item of nuclear material). The two tracking systems are not fully integrated and subsequent to several recent moves of a subassembly, Move Right showed nuclear material in an incorrect location for a couple days. An MRP transaction that put a subassembly into the next higher assembly level during the build process had not been completed (because it was a partial assembly), resulting in material weights not being updated in the Move Right system; however, no facility overloads occurred. A review of the procedures for the affected program was performed to ensure adequate guidance is being supplied to the production technicians on MRP transactions.

**Fire Alarm Control Panel (FACP) Degradation:** A smoke alarm and an AC power failure signal were received at emergency services dispatch this week. Upon investigation, the fire department discovered that a domestic water leak in an equipment room supporting a nuclear material storage facility had sprayed water on an FACP. The water leak was from a bypass pressure regulator valve located above the subject FACP which did not have a protective spray shield installed. Utilities personnel have isolated the degraded valve pending receipt of a new one from the vendor. The FACP is not a credited safety system in this facility and no compensatory measures were required.