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 25, 2011

DNFSB Staff Activity: F. Bamdad, B. Laake, C. Martin, M. Moury, and T. Spatz were onsite to discuss B&W's plan to upgrade the document safety analysis (DSA).

DSA Upgrades: Last week, B&W issued the latest revision of the DSA Upgrade Initiative (DSAUGI) Project Plan. This version of the plan was broadened to describe the tasks and milestones necessary to upgrade all Pantex DSAs, not just those scheduled to be upgraded in FY11. The general objectives of the DSAUGI project are to create consistency between DSAs, improve the quality of hazard analyses and accident scenarios, improve control linkage in accident scenarios, enhance adequacy of controls discussions, and enhance process and facility descriptions. The project is scheduled to complete in 2015.

Some of the elements of the DSAUGI project are intended to address issues identified in the Board's letter of July 6, 2010, such as B&W's practice of using initiating event probabilities to justify the decision not to apply controls to hazard scenarios for which the design agency determined a weapon response was credible. The Board's staff met with safety basis representatives from PXSO and B&W this week to discuss the DSAUGI project plan and provide input on the proposed upgrades. The discussions were productive and B&W plans to modify its guidance document for the plan based on staff input. The Board's staff will review this guidance document and will evaluate future changes that result from the DSAUGI project.

Electrostatic Discharge (ESD) Controls: This week, production technicians discovered that the barrier plate of the engineered ESD footwear checker had been bent away from the badge reader to allow an individual to use the reader without performing the intended electrical resistance measurement. This is the third occurrence of this event in the last seven months (see 8/27/10 and 11/19/10 reports). The badge reader log shows that a security police officer (SPO) used the badge reader in order to perform the daily check that the facility was properly secured; however, the SPO maintains that he found the footwear checker in the damaged condition. Notwithstanding who damaged the footwear checker, the SPO failed to follow the special protocol for performing security verifications on this facility, which prohibits the use of the badge reader. In anticipation of the increased prevalence of this new footwear checker, manufacturing division management is seeking to apply this special protocol to all facilities.

Research and Development (R&D) Safety: Last week, a class 4 laser unexpectedly fired during an R&D activity supporting new special nuclear material (SNM) component requalification facility (SNMCRF) technologies. The lone scientist in the facility was adjusting the waveform generator from the 30 to 50 percent power setting and the laser fired at maximum power. The laser was not designed to fire upon adjustments to the waveform generator. The scientist was standing approximately 6 ft. from the laser when it fired and thus was not injured. In addition, he was wearing the specified personal protective equipment (eye protection) and had filled out all required forms and checklists prior to performing work. SNM division personnel performed an extent-of-condition review and determined that the lasers currently utilized at SNMCRF are designed differently (internal waveform generators) and are therefore unlikely to be susceptible to this apparent design flaw. Further, the lasers in SNMCRF are interlocked such that the laser cannot fire without a class 1 enclosure in place.