

## **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 December 2, 2011

**DNFSB Staff Activity:** R. Rosen observed the second week of the nuclear explosive safety (NES) study for the B83 tooling upgrade project.

**NES Study:** The chair of a recent NES study for certain nuclear explosive assembly operations forwarded the coordination copy of the report for approval to the Deputy Assistant Deputy Administrator for Stockpile Management. The report has two pre-start findings, three post-start findings, five deliberation topics, and six Senior Technical Advisor comments. Although the report's findings have yet to be approved, there are three worth mentioning here as they required timely attention.

One of the pre-start findings is that during a procedure to install a certain component, technicians could inadvertently drop the installation tool and component onto the nuclear explosive. The NES study group also identified a related post-start finding that the design of the installation tool does not preclude the drop scenario. The Board's staff and site reps discussed these findings with members of the NES study group, B&W, and PXSO, and asked whether the concerns raised by these findings would also apply to the currently authorized and operating disassembly process (the same tooling is used to install and remove the component in question). B&W decided to suspend any existing ongoing disassembly operations for this program while they formally assessed the issue according to their new information process. B&W later relaxed the restriction to allow the partial disassembly of nuclear explosives from this program up to the point in the process when these findings would be applicable. B&W has since declared a potential inadequacy of the safety analysis and kept the operational restriction in place as a compensatory measure.

Another notable post-start finding is that the NES study group identified two pieces of electrical equipment (a magnifying glass with a light and a gauging tool) that were used during demonstrations without being evaluated as required by the electrical equipment program. This is a recurring issue.

**Quality of Work:** This week, the PXSO manager issued a memo to B&W indicating his concern with a series of errors committed by B&W personnel in recent weeks. The errors cited in the memo include the recent procedure configuration management issue (see last week's report), high pressure fire loop lockout issue (see 11/18/11 report), and the recurring failures of the B&W electrical equipment program (see above entry and 4/24/09, 12/11/09, 1/15/10, and 5/28/10 reports). The memo suggests that the underlying cause of these events is a deviation from quality principles and requests that B&W provide a report within 60 days of the date of the memo to identify and address the reasons for these non-compliances. The memo also asks that B&W look beyond the recent specific issues and typical statistics (e.g., total recordable case rates and mission deliverable rates) for more systemic problems and broader causes. The memo specifically cites contract consolidation activities and budget uncertainties as potential causes for B&W to consider.