

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 1, 2018

**TO:** Steven A. Stokes, Technical Director  
**FROM:** Ramsey P. Arnold and Zachery S. Beauvais, Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending June 1, 2018

**DNFSB Staff Activity:** F. Bamdad, E. Fox, R. Jackson, A. Poloski, and S. Seprish were on-site to conduct interactions with CNS and NPO personnel.

**Load Path Verification:** The Pantex technical safety requirements (TSR) require load path verification prior to performing hoist lifts involving, or having the potential to pass over or near nuclear explosives and other sensitive components. Implementation of this provision requires two technicians to verify the correct load path of all components attached to the facility crane hook through to the items being hoisted. During a periodic management self-assessment of the facility crane program, CNS process engineers identified a discrepancy in the implementation of this control. While operating procedures directing lifts of nuclear explosives implemented second technician verification of the load path, this was not uniformly implemented for the verification of special tooling in the load path. CNS management determined that this discrepancy violated the TSR. CNS has identified similar issues with procedural implementation of second person verification within the past year (see 10/27/17 report).

**Freestanding Equipment:** CNS safety analysis engineering declared a potential inadequacy of the safety analysis (PISA) related to hazards involving the potential impact of freestanding equipment on nuclear explosives and sensitive components. The PISA addresses a variety of unit configurations encountered during bay operations on one nuclear explosive program. The approved hazard analysis addresses impacts from freestanding equipment through a specific administrative control that implements a standoff. That control is applicable for some pieces of freestanding equipment but does not extend to all equipment that could make contact with the unit. As an immediate operational restriction, CNS extended the standoff to additional pieces of equipment encountered during operations in the facility.

**Temporary Procedure:** Production technicians previously paused operations in a nuclear explosive bay when they were unable to remove a gland nut from a unit. The unit was placed in a staging facility while CNS engineering awaited additional instructions from the design agency. Following confirmation from the design agency that the nut could be safely removed using additional torque, process engineering developed a temporary procedure to direct the work. Following modifications to allow the use of a breaker bar, the temporary procedure was performed successfully; however, the production technicians encountered an additional issue upon returning to the normal disassembly procedure. Prior to staging the unit following the initial issue, production technicians installed an additional cover to achieve a transportable configuration. The normal disassembly procedure does not address the presence of this cover, thus prompting the technicians to pause operations when it was encountered. While a validation was performed for the gland nut removal procedure, its scope did not extend to the steps directed in the normal disassembly procedure. Process engineering is developing an additional temporary procedure to address this discrepancy.