

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 10, 2020

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Miranda McCoy, Resident Inspector  
**SUBJECT:** Pantex Plant Activity Report for Week Ending July 10, 2020

**COVID-19:** CNS remains in stage two of the COVID-19 recovery plan. Following an evaluation of state and local COVID-19 trends, CNS personnel determined that the controls set forth in the current standing order—including a site-wide face mask requirement—shall remain in effect (see 5/15/20 report). CNS emergency management personnel continue to track a number of indicators to inform decisions regarding transitioning between stages of the recovery plan or COVID-19 response plan.

**Safety Basis:** Last month, CNS safety analysis engineering personnel declared a potential inadequacy of the safety analysis (PISA) regarding incorrect parameters in the hazard analysis report for one specific weapon program (see 6/26/20 report). The incorrect parameters affected six mechanical and electrical hazards for the program: four production technician trip scenarios, one component drop scenario, and one electrostatic discharge scenario involving tooling. This week, safety analysis engineering personnel performed an unreviewed safety question (USQ) determination on the hazard discrepancies and upgraded the PISA to a positive USQ due to the parameter errors resulting in incorrectly low accident consequences. The NNSA pre-approved measure—implementation of the existing personnel evacuation specific administrative control for low order consequence events—remains in place for operations involving installation and removal of a protective cover. CNS identified the production technician trip scenarios as already appropriately controlled, and applied no additional operational restrictions. Additionally, the electrostatic discharge hazard was determined to be screened via weapon response.

**Fire Detection and Suppression Control System:** Last week, the Pantex fire department responded to a Det-Tronics alarm indicating an issue with the fire detection and suppression control system affecting one nuclear explosive bay. The responsible CNS facility representative and fire protection engineering personnel determined that the issue stemmed from a relay module for the facility, and entered a limiting condition for operation regarding the inoperable fire detection system. Pantex is currently undergoing an effort to replace aging ultraviolet (UV) flame detectors with infrared detectors (see 1/3/19 report), and this affected facility in particular has experienced UV detector trouble signals in June and May of this year. CNS determined that last week's Det-Tronics issue was caused by a connection issue with panel cables, potentially stemming from frequent manipulation of the panel due to ongoing troubleshooting efforts for the detector faults.

**Process Engineering:** CNS process engineering identified an upward trend in written procedure errors for one weapon program while evaluating their internal metrics. The errors rendered several procedures unworkable as written over the past two years. While the current event management requirements would not require further evaluation of the error trend, CNS process engineering pro-actively determined a need to evaluate the errors, identify causes, and develop lessons learned. The group is pursuing an expansive approach to cause determination, compared to usual site processes, that will involve a series of interviews with relevant personnel.