

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 12, 2018

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Plant Resident Inspectors
SUBJECT: Pantex Plant Report for Week Ending January 12, 2018

Facility Housekeeping: During walkdowns, the resident inspectors noticed an unusually high volume of combustibles (i.e., empty wooden boxes) in the ramps, adjacent to nuclear explosive operating facilities. In addition to nuclear explosive operations, the facilities adjacent to the ramp are involved in ongoing construction and startup projects, although it is unclear whether those activities contributed to the build-up of material. As part of the fire protection program and as a best business practice, combustibles are minimized in facilities and ramps per approved combustible loading disposition assessments. The CNS facility representative was already aware of the issue and is working with production operations management to address the issue. CNS plans to dispose of excess boxes accordingly. Pantex is also planning to review their excess material disposition processes to see if there are ways to reduce the time it takes to dispose of excess inventory and waste in an effort to prevent recurring waste accumulation in ramps.

Electrical Tester: During a nuclear explosive disassembly operation, production technicians (PT) were performing an electrical resistance test with a Category I tester on a unit when they received an over range reading. The PTs took appropriate action, pausing operations and contacting their supervisor. Tester design personnel responded and completed a tester and cable self-check, which both passed. Operations remain paused, while the design agency and CNS develop a path forward to disposition the unit.

Safety Basis Authorization: In March 2017, CNS declared a potential inadequacy of the safety analysis (PISA) for one weapon program, later determined to represent a positive unreviewed safety question, after identifying the need for additional controls to prevent mechanical impacts to main charge conventional high explosives (see 3/17/17, 5/12/17, 5/26/17 and 6/23/17 reports). Following receipt of additional weapon response information from the design agency, which specified the response information for specific surface materials that could interact with the high explosives, CNS developed and NPO approved a justification for continued operations (JCO). The JCO specifies administrative controls to be applied to reduce the likelihood of technician trips and drops of high explosive charges resulting in release, including specifications for non-rigid surfaces on special tooling and various expectations for technicians to plan their approaches to the unit. NPO approved the JCO in June 2017, with a scheduled expiration at the end of calendar year 2017. Last week, CNS requested an extension to the JCO. As part of the rationale, CNS stated that an upcoming rewrite of the hazard analysis report (HAR) to support an upgrade initiative will address the impacted scenarios and that “a duplicate effort to incorporate the compensatory actions from the JCO would not be time or resource efficient.” During their review of the extension request, NPO recognized that the JCO had already expired. While active operations were not underway, CNS administratively restricted operations covered by this authorization once it was realized that the JCO had already expired. NPO completed their review of the extension request, and has extended the JCO to authorize operations with the compensatory measures until the end of October 2018, or until the HAR upgrade is completed.