

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 10, 2017

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending February 10, 2017

Hoist Components and Ceiling-Mounted Appurtenances: CNS management has released nearly half of all facilities impacted by safety concerns related to falling hoist components (see 1/27/2017 and 2/3/2017 reports) back to full or limited operations. CNS management continues to administratively restrict hoist use in those facilities where hands-on hoist evaluations and drive coupler replacements, where applicable, cannot be performed until sensitive materials are removed. The potential inadequacy of the safety analysis declared for the coupler failure was determined to meet the criteria for a positive unreviewed safety question. CNS is developing a justification for continued operations (JCO) to allow use of affected hoists following coupler replacement. Many of the facilities remaining to be released back to operations are subject to a newly identified concern with the ability of light fixtures to meet electrical equipment classifications specified in the DOE Explosive Safety Standard. Specifically, during walkdowns to evaluate ceiling mounted appurtenances, system engineers identified a number of light fixtures with unengaged or missing latches used to fasten the fixture cover in place. CNS is planning maintenance activities to restore compliance of the lights in affected areas.

Technical Safety Requirement Violation: In 2013, Pantex received information from the Design Agencies that specified critical temperatures at which fire exposure could lead to nuclear material release for four pit types. Fire protection engineering determined that additional safety requirements, including the use of a fire watch, are necessary when these pits are removed from their approved containers for surveillance or other activities. The requirement for the fire watch was stipulated in a combustible loading disposition (CLD) and specified in a temporary procedure developed for a limited surveillance campaign in 2014, but was not promulgated into additional operating procedures specifying activities with these pits. Special nuclear material technicians performed repackaging activities last week, per an approved procedure, on pits with the additional thermal restrictions for the first time since 2014. Following further review, CNS management determined that additional measures specified in the CLD were not in place during the repackaging activity, in violation of a combustible control specific administrative control. As immediate corrective actions, Process Engineering has restricted execution of SNM surveillance procedures authorized for these pit types, and Production Support has restricted movement of these pit types in the local move authorization system.

Nuclear Explosive Operations (NEOs) Authorization: NPO approved three JCOs, reauthorizing legacy dismantlement NEOs on a weapon program that has been paused following determination of increased component sensitivities to electrostatic discharge (ESD) hazards (see 11/18/2016 report). Two of the JCOs implement process changes to address these hazards during transportation and disassembly operations, including changes to package components with an increased sensitivity as early as practicable and specifying bay layout requirements. The third JCO extends compensatory measures previously in place to address ESD hazards encountered due to the use of non-dissipative containers (see 3/27/2015 report). Additionally, NPO approved an evaluation of the safety of the situation developed to address potential hazards for a similar component on a separate weapon program (see 1/27/2017 report).