

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 20, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** A. Holloway and C. Stott, Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending September 20, 2024

**Staff Activity:** C. Stott traveled to Lawrence Livermore National Laboratory to attend training for a Nuclear Explosive Safety Study convened to assess proposed operations that will be performed at the Pantex Plant for a certain weapon program.

**Conduct of Operations:** This week, CNS held a critique for an event in which two electrical cables for a certain nuclear explosive had been interchanged by production technicians during installation. CNS quality assurance inspection technicians identified the discrepancy during a quality hold point. CNS asserts that, given the particular components involved, “[t]he incorrect connection does not pose a safety issue or hinder the functionality of the unit.”

According to CNS, production technicians had routed the two cables incorrectly during a step in the procedure prior to the hold point. Of note, while the two similar cables are labeled, the labels are on the opposite side of the cables from where they are connected, and the associated connection points are not labeled. During the critique, CNS production technicians confirmed that they were referencing the relevant figure in the procedure, but the figure identifies the cables by the same color with only a small feature to differentiate the two. Furthermore, CNS noted other potential event contributors, such as distractions due to issues with the facility blast door interlocks and a separate nonconformance on the unit that required some attention by the technicians.

During the critique, CNS proposed four actions: (1) provide training to the production technicians for this particular unit configuration, focusing on proper cable connections; (2) brief the technicians regarding procedural adherence and attention to detail; (3) perform a human factors evaluation of the operating procedure and associated engineering controls; and (4) compile a lessons learned to distribute to other staff.

**Special Tooling:** Last week, CNS production technicians utilized a copy of special tooling after the preventive maintenance due date as listed on the equipment sticker. While the technicians physically moved the tooling from one nuclear explosive cell to another, they did not complete the required administrative steps in the sitewide database used to track movement of tooling; this database provides a visual indicator if the maintenance date is due within two weeks or later. Furthermore, prior to performing the operations, the technicians transposed the date when reading the maintenance sticker and did not notice the discrepancy. During the critique, CNS personnel specified that the maintenance expiration date on the sticker is before the actual due date to facilitate handling any logistical issues that may arise when retrieving tools.

CNS plans to brief technicians for this weapon program on the importance of checking the due dates on tooling maintenance stickers, brief all technicians about features in the sitewide database used to track movement of tooling, and evaluate the overarching procedures to ensure clarity of the responsibilities for personnel performing material moves.