

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 29, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending November 29, 2024

Conduct of Operations: Recently, PXD production technicians discovered that an adapter used for the self-test of an electrical tester—performed prior to nuclear explosive operations—did not pass the required testing. The production technicians changed the adapter, performed another self-test with adequate results, applied an appropriate tag on the first adapter to denote the initial failed test, and continued nuclear explosive operations. PXD tester engineering later received the suspect adapter and determined that the production technicians did not follow procedural steps requiring notification of PXD tester design personnel upon discovery of the failed self-test. In the event critique, PXD personnel discussed plans to brief production technicians on expectations following a failed self-test, including notification of appropriate personnel.

Facility Appurtenances: This week, PXD held an event investigation for two locker cabinets that were not secured to the facility structure despite being located in seismically-qualified nuclear explosive transportation routes within a material access area. The Technical Safety Requirements clearly state that equipment in these locations shall be qualified to withstand a credible seismic event without falling. Subsequently, PXD categorized the issue as a noncompliance of a credited hazard control specified in the safety basis. During the investigation, PXD safety analysis engineering and facility engineering personnel stated that the locker cabinets were previously analyzed and were described as *transient* despite being placed in the same location for numerous years. As such, PXD contends that seismic requirements do not apply to the unsecured locker cabinets despite all other locker cabinets in the vicinity being secured to the seismically-qualified structure. Nevertheless, PXD is planning to secure the locker cabinets to the structure. Additionally, PXD plans to perform a causal analysis to address any potential gaps in the process for installing new equipment in seismically-qualified locations within material access areas. The resident inspectors are questioning the previous analysis for *transient* items since it does not provide any restrictions for item storage along these transportation routes (e.g., equipment weight, dimension, or time in place).

Nuclear Explosive Facilities: Earlier this month, while conducting walkdowns of a nuclear explosive facility in maintenance mode, PXD personnel discovered that the recently installed electrostatic dissipative (ESD) floor tiles cause interface issues with certain special tooling used during operations. In this instance, PXD observed misalignment between the transportation cart and the workstand. The previous Pantex contractor discovered other issues in another facility when different special tooling—used to spread the load of a workstand across the ESD floor tiles—was damaged during use (see 9/13/2024 report). PXD special tooling program personnel are currently assessing the interface issues caused by the ESD tiles and evaluating potential options for resolution. PXD personnel noted that resolution for this most recent issue may require modification of the special tooling, the ESD floor tiles, or both, as well as possible reevaluation of certain processes within the facility. The resident inspectors will continue to follow these issues as additional nuclear explosive facilities are transitioned from existing ESD epoxy floors to the new ESD floor tiles.