

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 6, 2026

TO: Technical Director
FROM: Pantex Plant Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending March 6, 2026

Safety Basis: This week, PXD safety analysis engineering personnel declared a potential inadequacy of the safety analysis (PISA) after they identified that the assumed speed of an item being hoisted during nuclear explosive operations is not conservative within the safety basis. Specifically, PXD noted in the PISA determination that the documented speed of manual hoisting operations needs to be increased to reflect a bounding, worst-case scenario. As a result of the increased potential hoisting speed in the safety basis exceeding current weapon response impact thresholds, PXD may need to establish a new control or credit an existing control in the safety basis to prevent the associated magnitude hazard scenario. However, PXD did not deem operational restrictions necessary for this PISA because they considered existing controls adequate.

Special Tooling: This week, PXD tooling design personnel paused the use of certain vacuum lifting fixtures after discovering that normal use of the tool was not meeting the necessary safety margins for load-bearing equipment per tooling program requirements. PXD utilizes this fixture to lift a certain nuclear explosive component during operations. Previously, PXD production technicians had raised concerns to PXD tooling design personnel regarding the amount of elastic deformation of the tool during use and the amount of time required to complete procedural steps with the tool. As a result of these concerns, PXD tooling design personnel observed the technicians conducting these operations and performed additional analyses and modeling of the tool. They concluded that while the tool continues to perform its safety function—i.e., provide structural integrity and positive control of the nuclear explosive component—the current processes that utilize this tool “do not prevent deflection of the tool beyond the design intent” and requirements of the PXD tooling design manual are not met. As a result of this analysis, PXD paused the use of these lifting fixtures and scheduled a fact-finding meeting for next week.

Electrical Receptacle Fire: This week, while charging electric carts in a facility within a material access area, PXD personnel noticed an electrical outlet had ignited. The personnel disconnected the electrical cord, called the operations center to dispatch the fire department, and used a fire extinguisher on the outlet. PXD safety and industrial hygiene personnel applied “do not use” tags to the electrical outlet and an electric cord reel connecting the electric cart battery charger to the outlet. PXD plans to conduct a fact-finding meeting for this event next week.

Electrical Arc: Last week, after a subcontractor completed maintenance on a motor control center (MCC), PXD personnel heard a loud noise and saw smoke from the equipment upon restoring electrical power. The PXD maintenance section manager immediately removed power from the equipment and reapplied the lock-out tag-out that was removed prior to energization. In the fact-finding meeting, PXD electrical safety personnel noted that they had tested the insulation of the MCC cables prior to installation by subcontractor personnel. However, the subcontractor personnel may have inadvertently damaged the cable insulation during installation due to an unprotected metal rail located inside the MCC. PXD developed further actions to replace the damaged cable and inspect the MCC prior to returning it to service.