

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2025

TO: Technical Director
FROM: Pantex Plant Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending May 30, 2025

Staff Activity: This week, the DNFSB cognizant engineer for the Pantex Plant visited the site to provide resident inspector augmentation, and to observe and evaluate operational demonstrations for an ongoing contractor readiness assessment.

Contractor Readiness Assessment (CRA) Activities: Last month, PXD commenced the CRA for the startup of new nuclear explosive operations on a certain weapon program. The PXD CRA team plans to conclude its review of the associated activities this month, after reviewing operational demonstrations performed with a trainer unit and performing interviews with personnel in various PXD organizations that will support these operations. During the demonstrations, DNFSB staff provided both the CRA and project teams with opportunities to improve these operating procedures.

Safety Basis: Last month, PXD discovered a contaminant in a particular 35-account material that technicians had used to clean certain nuclear explosive components. The term *35-account material* refers to commercial products authorized for use during—or in support of—nuclear explosive operations. PXD conducted an event investigation and concluded that additional information was needed through an extent of condition review. This week, following the review's conclusion, PXD safety analysis engineering declared a potential inadequacy of the safety analysis (PISA) after discovering this 35-account material may have also been used on an additional component in a nuclear explosive facility. As a result, PXD has restricted operations in the affected facility. Furthermore, PXD plans to conduct an event critique next week to identify performance gaps, determine corrective actions, and develop a path forward.

Additionally, PXD safety analysis engineering recently declared a separate PISA after discovering that the evaluation of an existing drop hazard within the safety basis did not account for the cumulative weight of multiple items that technicians remove from above a nuclear explosive in a single procedural step. As noted in the associated PISA notification form, PXD did not establish operational restrictions due to existing controls that address the hazard. After further evaluation, PXD determined that this PISA does not represent an unreviewed safety question.

Nuclear Explosive Operations: Recently, PXD personnel held discussions with design agency personnel regarding a particular odor that production technicians had previously identified emanating from a unit during nuclear explosive disassembly operations (see 5/2/2025 and 5/9/2025 reports). Subsequently, PXD authorized personnel to re-enter the affected facility to collect data supporting the anomalous unit determination process. Upon receiving the results of the requested data, personnel from PXD process engineering, PXD nuclear explosive safety, and design agency system engineering concluded that the unit did not represent an anomalous condition. Based on this determination, PXD released the facility for resumption of disassembly operations using a nuclear explosive engineering procedure.