

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 6, 2025

**TO:** Technical Director  
**FROM:** Pantex Plant Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending June 6, 2025

**Technical Safety Requirement (TSR) Violation:** This week, PXD declared a TSR violation after a PFO facility representative observed production technicians perform desiccation activities on a nuclear explosive without completing pre-operational checks of the facility. PXD utilizes pre-operational checks to ensure nuclear explosive facilities meet TSR requirements before beginning operations. PXD technicians perform these checks before every shift to verify that the area around the workstand is free from tripping hazards; to verify that safety-class structures, systems, and components are operable; and to read and reinforce the safety requirements for proper approaches to the unit. PXD technicians perform desiccation activities on nuclear explosives before leaving the unit for an extended time or when environmental conditions are outside of specified ranges. In this case, technicians discovered that conditions within a facility were not in specification upon entry and proceeded to desiccate the unit without performing pre-operational checks. PXD plans to evaluate this issue during an upcoming event investigation.

**Safety Basis:** Last week, PXD Safety Analysis Engineering declared a potential inadequacy of the safety analysis (PISA) after discovering contaminants in a particular 35-account material used to clean a specific nuclear explosive component (see 5/30/2025 report). This week, after further evaluation, PXD determined that this PISA represents an unreviewed safety question and continued to restrict operations in the associated nuclear explosive facility. During the event critique, PXD identified performance gaps associated with the event, which include: (1) PXD did not immediately recall all potentially affected 35-account material upon discovery of the contaminant; (2) PXD did not identify the issue as reportable upon discovery of the contaminant; (3) PXD did not immediately enter the nonconformance process for the nuclear explosive components that had been cleaned with the 35-account material; and (4) PXD found some 35-account material containers repurposed in a manner that may have introduced the contaminants. Currently, PXD plans to conduct a root cause evaluation to develop actions to prevent recurrence.

**Special Tooling:** This week, PXD Quality Assurance Technicians (QAT) discovered a nuclear explosive inside an enhanced transportation cart (ETC) that was positioned slightly closer to the ETC door than expected. Upon discovery, the QATs notified the required PXD organizations to obtain a safe and stable determination for the unit. A stop block within the ETC is designed to inhibit movement of the unit toward the door. PXD Tooling & Machine design engineers noted that the mechanism that moves with the unit inside the ETC had wedged on top of the stop block, allowing the unit to sit closer to the ETC door. Subsequently, the PXD Tooling & Machine design manager declared a stop work event to prevent further use of these carts pending further evaluation of the issue. PXD plans to convene an event investigation next week.

**Component Failure in Radiation Alarm Monitoring System (RAMS) Equipment:** This week, PXD personnel noted a burning smell originating from RAMS equipment within a nuclear explosive training bay. PXD Electrical Safety determined that the odor was due to a blower motor failure within the equipment, which is also used in defense nuclear facilities.