

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 12, 2025

**TO:** Technical Director  
**FROM:** Pantex Plant Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending September 12, 2025

**Staff Activity:** This week, members of the DNFSB headquarters staff were on site to conduct a review of the PXD fire protection inspection, testing, and maintenance program. The staff members conducted walkdowns of nuclear explosive facilities, special nuclear material facilities, warehouses, diesel fire pump houses, and the emergency services dispatch center, and held discussions with PXD fire protection personnel.

**Incorrect Gas Introduced into Nuclear Explosive:** Last month, PXD gas laboratory engineers discovered that an incorrect gas had been introduced into a nuclear explosive during assembly operations (see 8/1/2025 report). This week, PXD personnel convened a causal analysis for this event, where they stated that the technician—who obtained the incorrect gas cylinder during these operations—had not reviewed the gas specification label prior to cylinder use. PXD personnel noted the setup portion of the procedure stipulates the type of gas to use for different types of units, while the operational steps did not contain this level of specificity. Furthermore, multiple cylinders of different gases were present in the facility equipment interlock area, and to ensure correct gas cylinder selection, the PXD personnel in the causal analysis stated that the operational steps must specify the required gas and recorded this as a corrective action. Additionally, PXD developed a second action requiring technicians to manually record the lot number listed on the gas cylinder label.

PXD noted that this causal analysis was limited to a certain weapon program in which this event occurred. Some PXD personnel questioned if the actions developed in this causal analysis could help prevent similar occurrences during assembly operations on all other applicable weapon programs. While PXD personnel initially concluded that they would not pursue this extent-of-condition, subsequent discussions with the resident inspectors suggest that such an evaluation may still occur. The resident inspectors also questioned the adequacy of corrective actions from a previous similar event (see 6/9/2023 report). However, the PXD participants stated that this causal analysis is limited to this specific occurrence, and they did not know how to process that type of performance gap. Additionally, one PXD participant conveyed the similarity between this event and a different type of human performance issue when a technician utilized an incorrect tool for certain operations performed in a special purpose facility, but PXD did not create any actions to address the observed resemblance.

**Facility Engineering:** This week, PXD facility engineering personnel discovered that a facility within a material access area was not included in the configuration management program. The Pantex contractor previously prohibited nuclear explosive, special nuclear material, and explosive operations within this facility. After upgrading it to an explosives-only facility in 2022, the contractor did not follow site requirements to enter the facility structure into the configuration management program. PXD does not believe any modifications occurred to the facility structure due to existing design requirements, which were routinely inspected prior to this change in facility mission.