DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 31, 2026

Pantex Plant Resident Inspectors Activity Report for Week Ending July 31, 2026

Staff Activity: The DNFSB cognizant engineer for Pantex was on site to provide resident inspector augmentation, receive updates on recent issues, and conduct walkdowns of facilities.

Special Tooling: This week, PXD tooling and machine design (TMD) engineers discovered that certain enhanced transportation carts—credited in the safety basis to protect nuclear explosives during transportation—had been previously modified without documented analysis or approval. Specifically, during maintenance activities to update these transportation carts, PXD special tooling mechanics noticed contact between the casters and associated fasteners, interfering with the ability of the casters to freely spin as designed. As a result, these mechanics modified the casters by grinding down the housing to alleviate interference from the heads of the fasteners used to secure them to the cart. PXD special tooling mechanics stated they were verbally given permission to perform these modifications in 2023 by a TMD engineer. After discovery of this undocumented modification, PXD TMD engineering performed an extent-of-condition review of this issue and discovered that most of these transportation carts have been updated to the revised design and have modified casters. PXD issued a stop work event—preventing further use of these transportation carts—and applied "do not use tags" to the equipment. PXD subsequently released unmodified copies of the carts for use. For the remaining modified equipment, PXD TMD engineering initially stated that these changes were not a safety concern. However, before returning these carts to service, PXD is currently analyzing each cart to verify only limited base and/or weld material was removed from each caster, ensuring structural integrity of the caster is maintained. PXD plans to convene a fact-finding meeting to discuss performance gaps leading to the event and potentially develop further actions in response to this issue.

Electric Vehicles: Currently, PXD disallows government-owned plug-in hybrid and electric vehicles from entering material access areas (MAAs) due to the potential lithium-ion battery fire hazard to nuclear and high explosive facilities and transportation routes. PXD designates these vehicles by applying yellow stickers or magnets. However, PXD does not apply these markings to subcontractor vehicles, relying on these individuals to understand and comply with this requirement. Additionally, the resident inspectors note that several hybrid vehicles—that are not plug-in—now use lithium-ion batteries in their drivetrains. Currently, Pantex does not include these vehicles in their MAA prohibition. Furthermore, the resident inspectors note that the hazard from a lithium-ion battery fire has not been analyzed in the safety basis, nor has PXD implemented a robust method to ensure these subcontractor vehicles are not introduced into the MAAs. The resident inspectors have relayed these observations to PFO and PXD personnel.

Special Nuclear Material Component Surveillance: Last week, PFO sent a memorandum to PXD directing a work scope increase that includes transferring to Pantex non-destructive evaluation surveillance activities from Los Alamos National Laboratory for a certain special nuclear material component. As a result, PXD is required to fully qualify the procedures and processes associated with these activities to commence this increased scope in fiscal year 2028.