

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 31, 2025

TO: R.T. Davis, Acting Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending January 31, 2025

Conduct of Operations: Last week, PXD production technicians discovered that they had used an incorrect revision of a procedure during nuclear explosive disassembly operations. During the event critique, PXD discussed that the operational differences between the two procedure revisions were minor and did not result in any safety or quality concerns. PXD did note several prior instances of technicians using the incorrect nuclear explosive operating procedure revision (see 2/24/2023, 10/6/2023, 1/19/2024, and 3/29/2024 reports) and questioned the adequacy of previous corrective actions. PXD is planning to brief this issue to all production technicians, emphasizing the importance of checking that every procedure is the current revision prior to use. Additionally, PXD plans to develop further actions during a causal analysis for this event.

Material Access Area Transportation: Last week, PXD production technicians loaded a high explosive transportation cart (HETC) with an insensitive high explosive subassembly that was then transported by a PXD material handler. During transit, a bystander notified the material handler that an HETC door was open. The material handler secured the door with a ratchet strap and returned the HETC to outside the originating nuclear explosive bay. After the technicians properly closed and latched the HETC door in the rampway, the material handler completed the move. After being informed of the move, PXD weapons operations management declared a Technical Safety Requirement (TSR) violation since two technicians did not properly close and latch the HETC door prior to use. After the move was complete, PXD tooling and machine design engineers evaluated the HETC, determining that there were no issues with the door latching mechanism. Notably, while PXD completed this move outside of a high explosive move window, which was only recently allowed by PFO (see 12/20/2024 report), PXD contends that no other transportation activities passed this HETC while the door was open.

During the event critique, PXD personnel documented the following concerns: (1) two technicians did not verify that the HETC door was closed and latched per the TSR; (2) the technicians did not complete a required transportation checklist for this activity; (3) the material handler did not pause the move and make proper notifications upon discovery of the open door; (4) the ratchet strap that held the door closed was not a proper transportation configuration; (5) the material handler did not terminate the move after returning to the originating bay, so the HETC was not formally inspected prior to completing the move; and (6) the move was permitted to recommence without notification to the production section manager. PXD plans to brief all production technicians and material handlers on the importance of reporting abnormal events and verifying HETC doors are latched prior to all transportation activities. Additionally, PXD plans to conduct a causal analysis to evaluate the various transportation forms and procedures that govern these activities. The resident inspectors note that the TSR implementing procedure, which requires two technicians to verify that the HETC doors are properly closed and latched, is a *general use* procedure and implements forty-seven other TSR controls. At Pantex, *general use* procedures are normally less rigorous, and steps are only required to be read prior to execution if the individuals performing the activity deem it necessary to ensure adherence.