

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 13, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** A. Holloway and C. Stott, Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending December 13, 2024

**Conduct of Operations:** This week, the resident inspectors attended a PXD investigation for a cable that was damaged during nuclear explosive transportation. During the investigation, PXD transportation personnel indicated they had reviewed the informal transportation paperwork prior to beginning operations. This paperwork did not indicate that any cables were present, and no updates were given verbally during the associated weekly meeting. Subsequently, PXD personnel proceeded with operations under the impression that cables were not present. While certain items were being moved, PXD transportation personnel discovered that a cable was present and had been damaged. These personnel paused operations, notified the operations center, and obtained a safe and stable determination. PXD transportation management noted that, while the transportation paperwork should have listed cables present, the formal load sheet does list and identify the location of any cables that are present; if personnel had reviewed the load sheet rather than the informal transportation paperwork, they would have recognized the presence of cables prior to beginning operations. During the investigation, PXD noted that the operating procedures remained in a vehicle cabin while personnel were performing operations nearby. Per PXD processes, general use operating procedures, such as transportation procedures, are only required to be nearby while operations are being conducted. PXD senior management questioned whether the informal paperwork should be discontinued since they may not contain all the pertinent information, as in this case. PXD agreed to address this topic during the causal analysis. PXD has currently identified two candidate actions. The actions include transportation personnel reviewing the load sheet and visually checking specific locations for the presence of cables prior to beginning these activities. PXD plans to do a critique as well as a causal analysis.

**Nuclear Explosive Operating Procedures:** This week, the resident inspectors attended a causal analysis concerning a safety requirement that the site contractor had not incorporated into the applicable nuclear explosive operating procedure. The design agency for this weapon program created this requirement and relayed it to Pantex years prior to these particular operations being performed. During a recent process review, a representative from the design agency questioned where this requirement is flowed down into the procedures. Upon discovery that the requirement had not been incorporated, PXD personnel applied nonconformance tags to all applicable nuclear explosives and issued a stop work event notification for the affected procedure. During an extent of condition review, PXD process engineering did not find any more missing requirements for this program but did find (1) a second requirement was incorrectly captured in the procedure, (2) a third requirement required clarification, and (3) a fourth requirement—with concurrence from the design agency—needed to be removed from the design agency documentation. In the causal analysis review, PXD personnel discussed that the leading contributing cause of this issue was that the design agency had relayed the missed requirement in the *Introduction* of their document to Pantex as opposed to the expected *Assembly Procedure* section. PXD discussed plans for capturing this gap in performance and relaying it to the design agency. Additionally, PXD is still reviewing their internal process for implementing design agency requirements to look for improvements before completing further extent of condition reviews for other programs.