DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 15, 2018

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Plant Resident Inspectors
SUBJECT: Pantex Plant Report for Week Ending February 16, 2018

Fire Barrier System: The resident inspectors observed fire protection engineering and crafts personnel validate the configuration and location of fire dampers in ducting supporting mechanical rooms, electrical rooms, and a non-nuclear, high explosive radiography facility. The validations are being performed as part of an ongoing corrective action plan to better establish the configuration basis for fire dampers across the Zone 12 material access area (see 12/9/16 report). The validation team referenced facility drawings and related maintenance procedures as they performed the validation. In areas where access ports were not available and the presence of dampers was not readily apparent, crafts personnel were authorized to drill small holes into the duct work to facilitate the inspection. The team exercised this option for a duct extending between a mechanical room and the control area of a high explosive radiography facility, penetrating a labeled fire wall. Upon closer inspection, the team determined that there was not a damper installed. Fire protection engineering will evaluate the condition against the current fire hazards analysis. Fire protection engineering is nearing completion of the validations, having completed initial inspections in most identified areas and submitted numerous maintenance procedure revisions for further review and approval. The remaining areas that have not yet been validated either have active construction activities that prevent a detailed validation or have physical interferences that prevent crafts personnel from completing the necessary steps.

Construction Safety: The CNS Construction Management Department paused all construction work to hold a safety stand-down briefing to all CNS construction employees and subcontractors. The stand-down was held following a series of recent construction-related injuries and occurrences. While the majority of the events occurred in non-nuclear areas, one of these events involved a worker's finger being crushed while moving a computed tomography unit into a nuclear facility. CNS construction and industrial safety management discussed the need to conduct construction operations in a safe manner and discussed past events.

Packaging Operations: The resident inspectors attended a causal analysis and mistake proofing (CAMP) meeting last week related to a recent personnel injury during nuclear material packaging operations (see 1/26/18 report). The injury occurred while a production technician (PT) was using a piece of special tooling—a straddle lift truck—for an operation for which it had never been analyzed but was routinely performed. The PT who sustained the injury was present at the CAMP and provided a useful perspective and detailed account of the event. Representatives from industrial safety and industrial hygiene suggested actions to require leather gloves for all container handling activities and to identify pinch points on similar tools. The team agreed to evaluate these actions but did not commit to completing them. The procedure that was being performed when the event occurred does not specify what tools can be used to move nuclear material containers. This was identified as a gap during the fact finding conducted for this event. Immediately following the injury, production personnel removed the straddle lift trucks from service. A second pallet jack design, authorized for moving tooling on the warhead measurement campaign, will be used in its place. The CAMP team agreed to evaluate specifying this alternate tooling design in the procedure, but did not commit to changing the procedure. At the time of this report, the corrective actions have not been finalized.