

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 8, 2016

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Report for Week Ending July 8, 2016

**Enhanced Transportation Cart, Type II (ETC-II):** A production technician (PT) was temporarily pinned between an empty ETC-II and bay interlock door following brief uncontrolled movement of the ETC-II. The PT was not injured in the event. Additional PTs were conducting operations in a contamination area (CA). Per procedure, the ETC-II was introduced to the radiation buffer area outside the CA. PTs in the CA opened the ETC-II door, causing it to roll backwards toward the PT located between the cart and the interlock door. The Pantex General Safety Requirements specify that all mobile handling gear, including the ETC-II, are to have wheel locks installed or brakes applied when positioned in its desired location. Brakes are only to be released when the handling gear is being purposefully moved. The brakes were not applied to the ETC-II when this event occurred, as the ETC-II had not yet been placed in its desired position and was only momentarily paused.

**Cell Concrete Repair:** CNS Project Engineering, in conjunction with Facility Engineering and Infrastructure Projects, recently completed the design package for the removal of discrepant concrete installed in the equipment areas of two nuclear explosive cells. The concrete was installed as part of facility repairs to support high pressure fire loop lead-in replacement and was later discovered to not meet code-specified strength requirements (see 6/3/2016 and 5/27/2016 reports). The design package specifies quality hold points to inspect the reinforcing elements after initial concrete removal and to inspect the exposed rebar to ensure that cutting performed for splice removal did not cause unacceptable damage. CNS is currently developing the design package for installation of compliant concrete in these locations.

**Combustible Loading Violation Corrective Actions:** Plant management recently approved the causal analysis and corrective action plan developed following the discovery of a combustible radiation shield stand staged in violation of standoffs specified in the Technical Safety Requirements (see 5/6/2016 report). Radiation shield stands are used during certain special nuclear material (SNM) processing operations. The causal analysis determined that SNM technicians did not remove the stand when transferring the facility to production stores for staging use, in part, because they inaccurately assumed production stores had similar requirements for use of the stand. Additionally, the causal analysis determined that not all production stores material handlers received proper training to combustible material controls, which caused the handlers to fail to recognize the stands as combustibles. CNS plans to perform corrective actions, which include improvements to the combustible loading controls training provided to production stores personnel, changes to the process for transferring facilities from processing to staging, and new requirements to label radiation shield stands with markings to “remove to interlock when not in use.” A site representative previously noted deficiencies in the conduct of the initial causal analysis and mistake proofing meeting held to address this issue (see 5/27/2016 report). The final set of corrective actions appears to address the initial concerns.