

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 29, 2016

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Report for Week Ending July 29, 2016

**High Pressure Fire Loop (HPFL) Break:** CNS discovered a break in the HPFL lead-in piping to a nuclear explosive bay. Though authorized, there were no operations occurring and no units present in the facility at the time of discovery. Subsequently, CNS fire protection engineering and a CNS facility representative walked down the area to assess the situation. The corresponding post indicator valve was closed to isolate the lead-in and stop water leakage. The break and subsequent isolation only affects the one facility. The occurrence was categorized as a performance degradation of a safety class structure, system, or component when not required to be operable. As part of the Bay and Cell Reinvestment Campaign, CNS is in the process of replacing aging facility HPFL lead-ins; however, this facility was not due for a lead-in replacement in the near-term. CNS will be determining if the lead-in can be temporarily repaired to allow for operability of the facility until the lead-in is replaced, or if full replacement is needed before the facility can be brought back online.

**Concrete Demolition:** A CNS subcontractor began demolition within two cells to replace concrete that was identified to not meet minimum strength requirements (see 5/27/16 report). The site representatives performed a walkdown of the two cells with the system engineer and project manager to see the progress in the demolition. A site representative also observed a quality hold point inspection that was specified by CNS to allow the project and system engineers to verify demolition progress before proceeding. The subcontractor has cut out rebar and removed the concrete to where the mechanical splices are exposed; CNS will be providing further instruction to the subcontractor to continue the demolition without impacting conduits and fire suppression system components that are within close proximity to the demolition hole. CNS has also prepared a commercial grade dedication package that specifies the critical characteristics needed for the replacement concrete, rebar, and mechanical splices, as well as the necessary acceptance testing.

**Hazard Analysis Task Team (HATT):** NNSA convened and a site representative observed portions of a HATT walkdown related to an upcoming weapon program repair campaign startup. HATT members included the NNSA program manager and representatives from Pantex and the respective design agencies. During the HATT walkdown, production technicians executed the proposed nuclear explosive operations (NEO) on a trainer unit for HATT members to observe. While observing and also during subsequent discussions, the HATT identified all hazards in the NEOs to allow for further characterization, analysis, and control set determination. The HATT particularly focused on the NEOs that differ from the currently approved disassembly and inspection operations.

**Fire Barrier Justification for Continued Operations (JCO):** CNS completed actions to close the JCO for fire doors that could not provide a required fire barrier (see 8/28/15 and 9/25/15 reports). JCO closure was accomplished by modifying the doors to cover visible gaps around the doors and demonstrating their equivalency to necessary requirements.