

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 2016

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending November 4, 2016

Maintenance Activities: The series of electrical outages that started in mid-October finished earlier this week, ahead of schedule (see 10/28/2016 report). The outages allowed maintenance personnel to make numerous repairs to the plant electrical distribution system. Most nuclear explosive operations that were paused for the maintenance outage have resumed. Nuclear explosive cell facilities in one building remain down for a planned maintenance turnaround.

Nuclear Explosive Transportation: Last week, the CNS transportation department began performing nuclear explosive loading and unloading operations at the 12-98 loading dock, which had not been used for such operations since 2012. The loading dock normally used for these activities is unavailable due to ongoing maintenance. The 12-98 loading dock remained an authorized location for nuclear explosive moves in the applicable safety basis and nuclear explosive safety master study. The 12-98 loading dock lacks an elevated platform allowing the direct loading of nuclear explosives onto safeguards transporters (SGT), as is normally performed. Rather, the design of the 12-98 loading dock requires material movers to lift nuclear explosives onto a flatbed trailer prior to rolling the items onto the SGT. This type of load is performed routinely in Zone 4, but has not been recently performed in Zone 12. While observing operations at this facility, a site representative questioned how CNS management authorized the work without having performed a readiness review. Applying the interpretation that all vehicles, areas, and infrastructure used during onsite transportation constitute one facility, CNS management determined that there had not been an extended shutdown of any facility, activity, or operation and thus this use of the 12-98 loading dock did not require a readiness review. Transportation department management walked down the work area with applicable subject matter experts, reviewed procedures and authorization documents, and processed necessary changes to the area material limits prior to starting operations; however, these activities were not performed following existing plant processes for restart or relocation of operations. CNS management acknowledged that current plant processes for determining required readiness reviews are ambiguous with respect to transportation activities and represent a potential weakness. To address this, CNS committed to determine if readiness activities are required for changes that occur in transportation activities.

Fire Barriers: CNS safety analysis engineering personnel submitted a justification for continued operations (JCO) for NPO approval following the discovery of a missing fire damper in a safety-significant fire barrier separating the Special Nuclear Material Component Requalification Facility (SNMCRF) from a neighboring mechanical room, and the subsequent determination of a positive unreviewed safety question (see 10/28/2016 report). The JCO proposes resuming operations in SNMCRF after implementing a ten-foot, marked, combustible exclusion zone on either side of the affected wall and verifying compliance at least once every two weeks. The effectiveness of the proposed compensatory measures is supported by an engineering evaluation developed by facility engineering personnel, which concludes that potential external fires could not propagate from the mechanical room into SNMCRF. CNS plans to eventually perform necessary modifications to bring the facility into compliance with fire barrier requirements. NPO had not yet reviewed the JCO at the time of this report.