

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 8, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending May 8, 2020

COVID-19: This week, NNSA approved CNS's request to extend the mission critical operations stage of the Pantex COVID-19 response plan until late May. In early April, Pantex began transitioning to the current stage, which was initially approved to continue until Monday (see 4/10/20 and 4/17/20 reports). Given the amount of ongoing mission critical work, many nuclear explosive facilities remain operational, and a high percentage of production technicians and their supervisors remain onsite to perform or support nuclear explosive operations.

Safety Basis: Safety analysis engineers declared a potential inadequacy of the safety analysis (PISA) related to code management system (CMS) operations for one weapon program. During a revision to the program's safety basis, CNS personnel omitted analysis of CMS operations in staging areas of multi-unit facilities. Safety analysis engineers subsequently identified mechanical hazards associated with the operations that require additional evaluation. In response to the PISA, CNS implemented an operational restriction prohibiting CMS operations for that program from taking place within a specified standoff distance from weapon components and non-ultimate user configuration units.

Fire Detection and Suppression Control System: This weekend, a LaMarche battery charger transmitted a trouble signal to the Pantex operations center. LaMarche chargers are a component of the secondary power supply supporting the safety class deluge fire suppression system. Based on the trouble signal, fire protection engineers determined that the secondary power supply for three bays was not operable. As one bay was not in use, the facility representative entered the limiting condition for operation for the two operational facilities. Pantex fire department personnel were unable to reset the trouble signal. Fire protection engineers implemented a panel watch, and crafts workers successfully cleared the trouble signal this Monday.

CNS fire protection engineering has noted several similar events over the past two years (see 7/19/19 report); previous recent events did not result in fact findings but were investigated through electrical preventive maintenance activities. Following this weekend's trouble signal, CNS conducted a fact finding that referenced the three LaMarche charger inoperabilities in 2018 and 2019 and investigated the recent trouble signal. CNS committed to evaluating the three previous events and communicating the results of this evaluation to NPO.

Wall-Mounted Appurtenances: In late March, CNS systems engineering performed a number of in-service inspections (ISI) in preparation for personnel unavailability during the COVID-19 containment phase. While performing an annual ISI of a bay, system engineers noted a loose conduit clamp. Two weeks later, when reviewing a list of identified repairs, system engineers recognized that the loose conduit clamp constituted a documented safety analysis noncompliance. CNS engineering located pictures of the facility dating back ten years that indicated the loose conduit clamp had remained unidentified through six ISIs. The associated ISI requires visual inspection to verify there are no loose or missing anchorages.