

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 20, 2020

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Miranda McCoy, Resident Inspector.  
**SUBJECT:** Pantex Plant Activity Report for Week Ending March 20, 2020

**COVID-19 Emergency Preparedness:** CNS Emergency Management personnel are currently finalizing a site response plan for COVID-19. Additionally, a pandemic response group has been meeting daily to walk through challenges and logistics associated with COVID-19 response.

**Documented Safety Analysis:** Last week, while reviewing a repair procedure during the revision process for that document, a safety analysis engineer noted that the current procedure violated a requirement in the DSA process description, thus constituting a DSA noncompliance. The process description required that doors on the enhanced transportation cart (ETC) be closed prior to installation of one component, precluding associated hazards and the need for additional controls; the procedure directed technicians to install the component while the ETC doors remained open. Fact finding participants traced the discrepancy back to procedure changes from early 2017 that reversed the sequence of steps within the procedure. The procedure subsequently went through review, approval, and readiness activities. Due to the fact the process description is a fairly unique portion of the DSA for requirements, the discrepancy was not discovered at that time. In response to the DSA noncompliance, the procedure was moved to an inactive status while it could be revised to match the process description. Process engineering personnel additionally committed to conduct an extent of condition review of the flowdown of process description expectations into the procedures for this weapon program.

**Lightning Protection System:** The lightning location and protection system (LLPS) failed to detect lightning strikes nearby in Bushland, approximately 30 miles from the site, therefore not performing its design function. The LLPS is one component of the safety class lightning detection and warning system, and typically provides lightning strike data within a 60 mile radius, allowing the site to issue lightning warnings and suspend activities as required. Prior to the failure, maintenance personnel had performed work on the LLPS servers to disable an obsolete protocol. Upon bringing the servers back into service, personnel noted that a server displayed incorrect time and date information. Systems engineering personnel subsequently noted that lightning strike data observed from other sources was not captured by the LLPS. In troubleshooting the issue, systems engineering personnel discovered hardware issues that resulted in the event, and were able to get an LLPS server operational.

**Fire Protection System:** This week, an infrared (IR) flame detector in a nuclear explosive bay faulted. Pantex has been replacing aging ultraviolet flame detectors with new IR detectors over the past few years, and has noted that the IR detectors have faulted several times starting in October 2019 (see 10/4/19 and 1/3/20 reports). CNS personnel previously held a causal analysis meeting and intend to pull data from the IR detector logs to better clarify the cause of these faults; this data collection has been delayed due to difficulties accessing the logs. The CNS facility representative additionally initiated a work order to troubleshoot and repair the IR detector in question.