

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 3, 2019

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Zachery S. Beauvais and Miranda McCoy, Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending July 5, 2019

**Immediate Action Procedures (IAP):** This weekend, production technicians (PT) performing ALT disassembly operations smelled an acrid odor following removal of a cover and entered their IAP. Per the immediate action procedures, the PTs exited the bay and notified the operations center and their section manager. The operations center contacted the on-call nuclear explosive safety representative and other engineering personnel. They entered the bay, inspected the unit and directed actions to package an explosive component that had been previously removed to reach a safe and stable configuration. Per the normal process, this component is packaged immediately following removal to prevent specific hazards. Following the safe and stable determination, NES administratively restricted access to the facility. CNS program management convened an anomalous unit determination meeting. The assembled experts determined that the unit did not need to be declared anomalous. PTs were performing multi-unit operations in the facility at the time of the IAP entry. Operations on both units are paused until the design agency releases a special instruction and NES processes an IAP release. PTs noticed a similar issue requiring IAP entry last year (see 8/24/18 report). CNS and the design agencies were able to develop a process to safely disassemble that unit.

**Lightning Location and Protection System (LLPS):** The Pantex DSA credits a lightning detection and warning system, which includes an LLPS subsystem, as safety class. The LLPS includes (1) a local sensor network operated by Pantex but located across the Texas panhandle, (2) a nationwide sensor network that is not operated by Pantex, and (3) the phone and internet lines needed to connect these sensors with the Pantex operations center. The plant recently experienced outages on various portions of this system, requiring an unexpected entry of the associated limiting condition of operation (LCO). The LCO requires the operations center to issue lightning warnings for the plant. The details of the various outages are listed below.

- A local sensor in Clarendon, TX, has experienced intermittent network outages for the past several weeks. The local telephone network operator is attempting to resolve these issues. The Clarendon sensor remains unavailable.
- A wind storm last week knocked over a fence and caused other physical damage to the sensor located in Boys Ranch, TX. Plant electricians evaluated the damage and found evidence of a possible small electrical fire. CNS system engineering has previously identified the need for repairs to the fence. The Boys Ranch sensor remains inoperable.
- Last week, the plant lost internet connectivity resulting in lost communications with the nationwide sensor network. CNS information technology personnel are currently investigating the cause of this loss of connectivity. The outage lasted less than an hour, upon which the system was restored. The operations center exited the LCO at that time.

CNS System engineering has categorized the event as performance degradation of a safety-related system when it was required to be operable. System engineering has also submitted a series of work orders to modify the fencing around the local sensors.