

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 13, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Zachery S. Beauvais and Miranda McCoy, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending December 13, 2019

Operations: Production technicians (PT) performing disassembly operations on an ALT program noticed an acrid odor upon removal of a cover. PTs have encountered this same situation twice recently for the same program (see 7/5/19 and 8/24/18 reports). During the event this July, PTs entered immediate action procedures to safe and stable the unit and an anomalous unit determination meeting was convened. The meeting determined that the unit was not anomalous, and CNS and the design agencies were able to develop a process to safely disassemble the unit. Given similarities to the previous two events, no additional anomalous unit determination meeting was convened, and PTs were able to continue disassembly with a similar nuclear explosive engineering procedure to the ones used for disassembly of the previous two units. The applicable design agency has not yet communicated any cause of the acrid odor.

Early this week, a screw on a non-production unit failed during torquing. The PTs paused operations while CNS and the design agencies determine a path forward. CNS is awaiting a specification exception release from the design agency in order to complete assembly and subsequent disassembly of the unit.

Construction: This week, a subcontractor excavating near a firing site impacted and damaged fire alarm cables. The excavation activities were taking place in a radiation control area, precluding typical hydroexcavation. The applicable permit instructed the subcontractor to hand dig instead; during the course of hand digging, the subcontractor was able to locate the cables at one location, but did not locate them along the full length. At this point, the subcontractor should have paused work and contacted CNS to request locator services. The fire alarm cables were unenergized and out-of-service at the time of the incident. The fact finding determined that a causal analysis and mistake proofing meeting (CAMP) was unnecessary. Earlier this year, a subcontractor performing excavation activities impacted and breached a natural gas line, resulting in the declaration of an operational emergency (see 8/23/19 report). As a result of the event, a number of corrective actions have either been completed or are due in the near future. In particular, several actions involve an increased focus on configuration management of utility drawings. Since this event in August, subcontractors performing excavations have damaged several conduits and discovered a number of conduit lines not present in utilities drawings. Many of these conduits were unenergized and abandoned in place. The high amount of construction activity and poor previous configuration management of balance-of-plant utilities drawings contribute to the high number of conduit impacts.

Protective Covers: Last week, safety analysis engineers discovered that an off-normal unit had been staged with a legacy cover that did not meet the current language in the documented safety analysis (DSA) (see 12/6/19 report). Since this discovery, Pantex engineering completed a crosswalk of DSA requirements to the current configuration of units that have been in extended staging. None of these long-term staged units were found to conflict with DSA requirements. A CAMP will determine the need for any additional corrective actions.