

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 23, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Zachery S. Beauvais and Miranda McCoy, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending August 23, 2019

Operational Emergency: This week, a subcontractor performing excavation of a fire water pipe unintentionally breached a natural gas line with a backhoe. The workers paused work immediately, and notified personnel performing nearby work with potential energetic ignition sources, who also immediately paused work. The plant shift supervisor declared an operational emergency and completed notifications to relevant offsite agencies and DOE headquarters as required by DOE Order 151.1, *Comprehensive Emergency Management System*. Pantex utilities operators were able to isolate the leak via an upstream valve. Immediately prior to the event, emergency response operation (ERO) personnel were preparing to begin an onsite drill. As a result of this timing, ERO personnel response to the event was prompt; however, some personnel noted confusion regarding whether communications were referring to the drill or a true operational emergency.

During the fact finding for the event, the subcontractor noted that they believed the natural gas line was approximately twelve feet away from its actual location. The utility drawings for the area incorrectly document the location of the gas line. In July, in preparation for these excavation activities, Pantex utilities operators performed a verification of the natural gas line location; however, they were unable to verify the full length of the line using a pipe locator. Separately last week, the subcontractor performed hydro-excavation in the immediate area that also did not identify the nearby natural gas line. In response to the event, CNS has paused all mechanical excavation activities until a review of all mechanical excavation permits can be conducted.

Readiness Activities: NPO personnel continued the federal readiness assessment (FRA) of operational changes to support a life extension program (LEP) (see 6/21/19 report). During the assessment outbrief, the FRA team noted that a finding from the contractor readiness assessment (CRA) regarding the use of high explosive mats that presented potential tripping hazards had not yet been adequately resolved. The FRA team also noted concerns regarding use of a task exhaust system that could not be demonstrated during the assessment (see 7/23/19 report). Additionally, both onsite staff (see 8/16/19 report) and the FRA team noted a number of errors in procedures, including procedural steps that could not be implemented as written. Onsite staff also noted a hand lift operation that presented a potential drop hazard.

The CRA concluded in July and noted eight pre-start findings. At this time, the nuclear explosive safety (NES) study has two open findings regarding the LEP operations.

NES Change Evaluation (NCE): This week, a NES study group evaluated a proposed path forward for disassembly of a unit with a stuck case component (see 7/12/19 report). The NES study group noted no findings or deliberation topics, but did recommend Pantex NES personnel attend the execution of the nuclear explosive engineering procedure. Additionally, the project team accepted suggested procedure modifications that may reduce impact hazards.