

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 29, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending January 29, 2021

DNFSB Staff Activity: A staff review team conducted a teleconference with CNS and NPO to discuss action items taken by Pantex following transmittal of a Board letter last year regarding high pressure fire loop lead-in construction quality assurance and flowdown of safety basis requirements (see 1/17/20 report). CNS has completed the majority of the action items in the corrective action plan.

Readiness Activities: NPO approved commencement of startup activities for restart of nuclear explosive disassembly operations for one weapon program that was previously paused due to internal charge generation hazards (see 10/25/19, 5/31/19, and 3/29/19 reports). A federal readiness assessment will be performed for these operations. NPO also approved startup activities for joint test assembly operations for one weapon program that have not been performed in the past 12 months. CNS will perform a checklist contractor readiness assessment for the joint test assembly operations.

Nuclear Explosive Operations: While performing disassembly operations last week on one unit, production technicians noted an out-of-tolerance value during an electrical test and paused operations. Per procedural instructions, the failed electrical test did not require that production technicians enter immediate action procedures. This week, a group composed of CNS engineering, CNS nuclear explosive safety, and design agency system engineering personnel determined that the unit did not constitute an anomalous unit. Pantex has received a draft special instruction engineering release from the applicable design agency, and CNS process engineering is currently developing a nuclear explosive engineering procedure to allow production technicians to continue to disassemble the unit.

Conduct of Operations: Production technicians performing nuclear explosive assembly operations noted mismarked components in a subassembly. Explosives technicians should have previously marked the components to indicate re-acceptance tolerance per their procedure. Explosives technicians, engineers, supervisors, and Pantex product verification each had opportunities to note the mismarking; however, the components were accepted, packaged, and provided to the nuclear explosive assembly facility with the incorrect markings. Following verification of the discrepancy, production technicians repackaged the subassembly and paused operations. CNS held an event investigation for the incident, and later reconvened their event investigation in order to gather additional detail for the timeline of events. In a recent monthly operational awareness report, NPO communicated concerns with CNS's event investigation process not fully capturing all relevant facts and process gaps for events. CNS provided a response to the awareness report this week; the response documented corrective actions that will be completed over the next few months to address NPO's concerns. Specific actions include creation and implementation of a briefing to address expectations for critiques and event investigations, as well as minor updates to the Pantex and Y-12 event management training plans to capture the identified issues.