

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 6, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending September 6, 2024

Staff Activity: C. Berg was onsite to perform facility walkdowns, attend event investigation meetings, and provide resident inspector support.

Conduct of Operations: This week, CNS conducted an investigation for a conduct of operations event that occurred last week. During this event, CNS production technicians performed a self-check of an electrical resistance tester and recorded the resulting value, which was outside the acceptable range specified in the operating procedure. After the result was recorded, the technicians proceeded to perform electrical tests on a nuclear explosive as if the previous self-check value was within the acceptable range. During the event investigation, CNS asserted that the recorded value was accurate and within specifications, but had been misread by CNS quality assurance personnel. Consequently, in stark contrast to a previous similar instance (see 5/24/2024 and 5/31/2024 reports), CNS resumed operations without a nuclear explosive safety evaluation. So far, CNS has listed two candidate actions: brief the production technicians on “checking entries for accurate recordings” and publish a lessons learned report related to “accurate and legible recording of readings.”

Nonconformance Process: Earlier this year, CNS became aware of a broken fastener on a single copy of handling gear (H-gear) containing a nuclear explosive. The fastener—one of four—holds a panel in place on the H-gear. Prior to attempting to move the unit, CNS formally notified the applicable design agency of the issue. Additionally, CNS wrote a nonconformance report for the unit but did not apply a nonconformance tag as required per site requirements. Upon receipt of design agency guidance but prior to dispositioning the nonconformance report, CNS developed and executed nuclear explosive engineering procedures to apply metallic tape to the broken fastener in order to transport the unit to another nuclear explosive facility, remove the unit, and perform permanent repairs to the H-gear. During the event investigation, CNS discussed that they do not currently apply nonconformance tags to units in these certain staging facilities, which would signal the existence of a nonconformance that requires action prior to performing operations on the unit. CNS is performing an extent of condition review to apply nonconformance tags to all applicable units in these facilities. Additionally, CNS is evaluating their procedures to ensure nonconformance tags are applied to such units in the future.

Commercial Grade Dedication: During a closeout review of a recent work package to install a new compressed air line in a nuclear explosive cell, a CNS facility engineer discovered that the associated air hose clamps had not been tested as required by the commercial grade dedication process. Upon discovery, CNS paused all operations in the cell, entered the new information process, and developed a nonconformance report for the air hose clamps. Subsequently, CNS maintenance personnel performed the required commercial grade dedication testing on excess air hose clamps from the same material lot. CNS exited the new information process and returned the facility to operations. CNS plans to brief applicable infrastructure personnel on the event.

