

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 5, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending March 5, 2021

Staff Activity: C. Berg provided resident inspector augmentation and observed demonstrations for a nuclear explosive safety (NES) change evaluation (NCE).

NES: NNSA conducted several NES evaluations over the past two weeks, including two NCEs and an operational safety review (OSR).

- *Failed Electrical Test NCE*—NNSA conducted an NCE to evaluate a proposed path forward for a unit that failed an electrical test in February due to an incorrect tester software setpoint (see 2/26/21 report). The proposal included a re-test of the unit, authorization to override the anticipated failed test, and continuance with disassembly. The NES study group also evaluated the project team’s proposal to follow the same path forward for future units that fail the same electrical test between now and when the tester software can be updated. The study group concluded with no deliberation topics, findings, or minority opinions.
- *Dielectric Hazard NCE*—The project team provided a kickoff briefing followed by operational demonstrations in a nuclear explosive bay for proposed operations with a new dielectric hazard control set (see 10/25/19 report). The resident inspector and augmenting resident inspector questioned the application of the personnel evacuation specific administrative control—which specifies a five-minute evacuation time—for operations involving the additional controls, which would have to be removed during an evacuation scenario. They also noted several errors or missing steps in the nuclear explosive operating procedures, as well as challenges in performing the NCE due to document changes leading up to and during the NCE.
- *OSR*—Last week, as part of an OSR for one weapon program, the NES study group and the Board’s staff observed mechanical assembly operations. During an electrical verification step of a safety component, production technicians obtained an out of tolerance reading. Following an evaluation of the electrical tester, and with the approval of CNS NES and process engineering, the production technicians placed the unit into a safe and stable configuration. CNS acquired design agency input and subsequently developed a nuclear explosive engineering procedure to allow resumption of operations.

Safety Basis: NPO approved an extension to a justification for continued operations (JCO) related to special tooling functional requirements. The extension will allow time for NPO to approve a safety basis change package to close out the JCO. The JCO will expire in August.

After discussions with NPO regarding the hazard categorization documentation for canned subassembly reacceptance operations, CNS is updating the documentation to reflect that they are not taking credit for engineered or administrative controls (see 2/26/21 report). NPO plans to review the revision, but DOE Standard 1027 does not require NPO approval of the document.