

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 19, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending April 19, 2024

Staff Activity: Executive Director for Operations M. Buhler, Acting General Counsel J. Gilman, Deputy Technical Director R. Tontodonato, and Pantex Cognizant Engineer C. Berg accompanied the Board on their visit to the Pantex Plant.

Board Visit to Pantex: This week, Chair Joyce Connery and Vice Chair Thomas Summers traveled to Pantex to hold discussions with federal and contractor staff regarding nuclear operations, conduct walkdowns of key onsite facilities, and meet with offsite community stakeholders. The visit included tours of the emergency operations center, fire department, emergency services dispatch center, nuclear explosive and special nuclear material operating and staging facilities, and high explosive production facilities. PFO and CNS management provided an overview of the activities performed within these facilities. The Board members and staff attended briefings from PFO and CNS that covered topics including the recent wildfire emergency declaration and site response, Recommendation 2019-1 Implementation Plan status, special nuclear material repackaging, production schedule and challenges, disciplined operations improvement initiatives, NNSA field office separation, site contract transition, fire protection program enhancements, safety basis modernization and redesign, aging infrastructure management, and status of the dosimetry program.

Facility Appurtenances: This week, a CNS facility engineer identified a loose conduit clamp above an interlock door in a special nuclear material staging bay. Per Pantex Technical Safety Requirements (TSR), appurtenances within nuclear material staging bays are required to remain in place during design basis seismic events to prevent impacts with special nuclear material. Consequently, CNS declared a safety basis noncompliance, restricted facility access, and initiated a work order to repair the clamp.

Technical Safety Requirements: Last month, CNS declared a TSR violation after production technicians obtained electrical test results outside the acceptable range but did not install a required protective cover while executing immediate-action procedures (see 3/15/24 and 3/22/24 reports). Upon leaving the facility, the technicians notified CNS nuclear explosive safety personnel that the immediate actions did not require cover installation, which informed the decision to re-enter the facility. CNS and the respective design agency have since determined that this nuclear explosive does not meet criteria to be declared an anomalous unit. After receiving confirmation from the design agency that the test results had no safety ramifications, CNS executed a nuclear explosive engineering procedure that resumed the electrical testing—which obtained results within acceptable ranges—and placed the unit within a transportable configuration. The resident inspectors were present at the well-attended causal analysis that garnered potential corrective actions, such as (1) specifying and appropriately training expectations after obtaining electrical test results outside of acceptable limits and (2) grouping electrical tests within the procedure based on the potential safety consequence and need to initiate immediate actions.