

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 16, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: C. Stott and C. Berg (acting), Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending June 16, 2023

Staff Activity: NPO and CNS provided a briefing to the Board and its staff on the status of (1) the Recommendation 2019-1 Implementation Plan (IP), (2) the field office separation between Pantex and Y-12, and (3) the Pantex management and operating contractor transition.

Recommendation 2019-1: On June 5, 2020, NNSA transmitted a revised IP to the Board in response to Recommendation 2019-1. Over the past few years, NPO and CNS have completed 66 of 69 IP deliverables addressing several concerns identified within the Recommendation. On June 15, 2023, the NNSA Administrator provided the Board with another revision to the Recommendation 2019-1 IP, which modified deliverables associated with establishing special tooling performance criteria. Pantex merged these deliverables with portions of the *Pantex Safety Basis Vision*, which resulted in the development of performance criteria for all specific administrative controls and design features. Given the complexity of this effort, NNSA modified the IP to include the NPO-approved B61 Hazard Analysis Report revision, with the new performance criteria, and a schedule for modernizing the remaining safety basis documents.

Conduct of Operations: During an Operational Safety Review, the study group and Production Section Manager (PSM) noticed that a technician did not use the appropriate footwear checker before entering a nuclear explosive bay. Prior to entering the facility, the technician used the permanently installed footwear checker and received a green light, which normally indicates a successful check of the footwear electrostatic dissipative properties. Previously, a CNS Facility Representative took the permanent device out of service and installed a portable checker. During the investigation, CNS discovered that the permanent equipment was not unplugged nor signage applied, as required by procedure, to indicate it had been taken out of service. Furthermore, CNS participants noted the site provides inadequate training for portable footwear checker use. Upon discovery of the mistake, the PSM notified the technician, who then exited the facility and used the portable checker with successful results. As a corrective action, CNS plans to brief the Facility Representatives on the requirement to hang signage on footwear checkers that have been removed from service. Also, CNS plans to conduct a causal analysis to determine other opportunities for improvement, including training on use of portable footwear checkers.

Facility Appurtenances: Last week, technicians discovered a loose filter housing on an overhead crane in a nuclear explosive bay. As described in the Technical Safety Requirements, facility appurtenances within nuclear explosive facilities are designed to remain in place during design basis seismic events to prevent impacting a nuclear explosive. After discovery, CNS performed an extent of condition review—including for adjacent components and fittings—and found three other facilities with loose filter housings. For those facilities not already in repair mode, CNS paused operations to allow execution of work orders to resolve the issue. During the investigation, CNS categorized this event as a safety basis noncompliance and determined that preventive maintenance procedures failed to check for filter housing tightness. CNS will modify the maintenance procedures to ensure filter housing tightness via dual concurrent verification.