

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 5, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: A. Gurevitch, M. Bradisse (acting), and C. Berg (acting), Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending November 5, 2021

Staff Activity: The resident inspectors continued to observe nuclear explosive safety study group deliberations regarding the introduction of two additional weapon program operations into the newer vacuum chamber facility (see 10/29/21 report).

The resident inspectors and DNFSB staff members met with personnel from NPO, NNSA Office of Stockpile Sustainment, and NNSA Office of the Chief of Defense Nuclear Safety regarding proposed changes to DOE-NA-STD-3016, *Hazard Analysis Reports for Nuclear Explosive Operations*. These changes include the increase in weapon response screening threshold—the limit on when safety class controls need to be considered for high order consequence scenarios—for weapon programs in their ultimate user configuration. This was the second such meeting to discuss DNFSB lines of inquiry regarding the proposed changes (see 9/10/21 report).

Technical Safety Requirements (TSR) Violation: Last week, while performing work in a special nuclear material facility, a construction electrician placed his tool belt on the ground to assist with another task, but mistakenly left it unattended after completing that task. Production technicians discovered the unattended equipment after approximately an hour, controlled the materials, and contacted their supervisor. The Pantex TSRs require that all combustible materials be controlled or accounted for at all times, including transient combustibles such as a tool belt. Consequently, this situation represented a violation of the TSR combustible loading specific administrative control, and was categorized as such. As a corrective action, CNS supervisors briefed the involved construction personnel on combustible loading requirements. In particular, the briefing stressed the requirements for this specific facility, which has a unique layout compared to other facilities at Pantex. This may have contributed to confusion regarding the areas where the control applied. The resident inspectors noted that the briefing was thorough and the reception was professional. CNS plans to extend this brief to all construction personnel.

Fire Protection: CNS identified that a cabinet used to store flammable materials within a nuclear explosive cell had not undergone all the necessary inspections required for special tooling. While this cabinet met the requirements provided by fire protection engineering, CNS also had assigned it a special tooling number, requiring certain inspections be conducted. Of note, these cabinets are unique in that ownership is currently shared between the fire protection engineering and production tooling organizations. This likely contributed to the confusion and lack of necessary acceptance inspection by tooling personnel. At the event investigation and critique, personnel identified that as a corrective action, CNS plans to eliminate the dual ownership for this equipment by removing these cabinets from the special tooling program.

Electrical Tester: Last month, NPO directed CNS to replace an electrical resistance tester with a newer model on the list of approved testers for a specific weapon program. Given all other weapon programs have implemented this newer tester, these actions facilitate the retirement of the older electrical tester from nuclear explosive operations.