

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 22, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending March 22, 2024

Staff Activity: This week, M. Sautman and C. Berg were on-site to attend site activities, receive updates on recent events, walk down nuclear explosive facilities, and provide general support.

Readiness Assessment: Earlier this month, CNS demonstrated nuclear explosive operations as part of the ongoing contractor readiness assessment for multi-application transportation attachment device (MTAD) operations on a weapon program (see 3/8/24 report). Previously, NPO approved a safety basis change package that allows CNS to conduct MTAD operations in locations currently not designated for such activities (see 4/7/23 report).

This week, CNS announced the suspension of the contractor readiness assessment due to challenges experienced during the demonstrations, including procedural adherence and conduct of operations concerns. The resident inspectors note that the personnel performing these nuclear explosive operations are onsite transportation personnel who are not usually involved in such activities. Furthermore, this procedure is designated as *General Use*, and as such, does not have the same operational requirements as *Critical Use* procedures—including directly following the sequence of steps and utilizing place keeping. The Board's staff notes that, in general, criteria for readiness assessment resumption should be well defined by the project team to ensure readiness to proceed with the evaluation.

Nuclear Explosive Operations: Last week, while performing an electrical resistance test on a unit, CNS production technicians obtained results outside the acceptable range defined in the nuclear explosive operating procedure. The technicians initiated immediate-action procedures (IAP), exited the facility, and subsequently reentered the facility to apply a protective cover required to establish a safe and stable configuration (see 3/15/24 report).

The Technical Safety Requirements (TSR) specify that the protective cover—i.e., an electrical connector cover—shall be applied to the unit unless directed by the procedure. During the investigation, CNS noted discrepancies between technician training, procedural direction, and safety basis expectations. Specifically, the technicians were trained to enter IAPs upon failure of a single electrical resistance measurement, while the procedure directed completion of all resistance measurements and application of the protective cover prior to IAPs. As the protective cover had not been reapplied by the technicians prior to initially leaving the facility, CNS declared a TSR violation.

During the event critique, CNS discussed corrective actions, including adding clarification to the procedure, addressing inconsistencies between technician training and procedural direction, and assessing the cause of the failed test. At the current time, CNS has evaluated the electrical testing equipment and noted no anomalies. As a result, CNS and the respective design agency plan to convene an anomalous unit determination meeting next week. CNS also plans to conduct a causal analysis for this event.