

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 11, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending October 11, 2024

Qualification Board: The resident inspectors attended an oral board for the initial qualification of a candidate CNS production section manager for a certain weapon program.

This examination focused on various fields of knowledge of which a production section manager is required to maintain proficiency. The board administered a thorough and rigorous examination.

Commercial Grade Dedication (CGD): This week, CNS identified two temperature switches installed in different diesel fire pump houses without all required CGD testing. The purpose of these switches is to provide remote temperature monitoring capabilities of the pump houses—with alarm functions—to ensure the facilities are kept sufficiently warm for reliable automatic starting of the diesel fire pumps.

These temperature switches are considered instruments, which are normally replaced with copies that have undergone calibration by metrology. CNS metrology personnel performed the initial portion of the required CGD testing and replaced the individual switch boxes back into the exterior box, which had a quality hold tag indicating further testing would be required following installation. When obtaining these components from the metrology department, CNS electricians only received individual switches and not the box with the attached hold tag. Additionally, in this case, CNS did not include the required quality checks or hold points in the installation procedure. As a result, CNS did not complete the post-installation CGD testing following calibration.

CNS categorized this occurrence as a performance degradation of a safety class structure, system, or component when required to be operable. Upon discovery of this issue, CNS entered the applicable limiting condition for operations for the high pressure fire loop that requires immediate verification of the diesel fire pump house temperature and continued local monitoring thereafter during every shift. Furthermore, CNS plans to (1) replace these switches with copies that have previously passed all required testing, (2) brief the metrology clerks to clarify that they are not permitted to send instruments with hold tags to other organizations without approval from the metrology lab manager, (3) place a quality hold designator across the calibration certificate to help the metrology clerk identify items with hold tags, and (4) revise the installation procedure to include adequate quality checks and hold points for new instruments. CNS also plans to perform a causal analysis for this event.