

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 14, 2021

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Christopher Berg, Acting Resident Inspector  
**SUBJECT:** Pantex Plant Activity Report for Week Ending May 14, 2021

**DNFSB Staff Activity:** A staff review team conducted a follow-up teleconference with NPO to discuss lines of inquiry regarding federal oversight of the Pantex external dosimetry program. Topics included the oversight strategy used prior to, during, and following the degradation of the program and the loss of dosimetry processing capability (see 9/11/20 and 4/30/21 reports).

**Fire Suppression System (FSS):** During construction activities for the high pressure fire loop lead-in replacement project for four nuclear explosive bay facilities, the subcontractor installed supports for the safety class FSSs that did not meet design requirements and were not acceptable for use (e.g., did not meet nuclear quality assurance requirements). At the event investigation, participants identified that the issue partially resulted from the subcontractor submitting a design change request for this installation via an inappropriate mechanism—i.e., a request for information (RFI)—which does not require the same level of review and scrutiny by all pertinent CNS engineering groups. Multiple CNS personnel did review and approve this RFI but failed to recognize the introduction of an inappropriate design change. CNS system engineering eventually identified the issue, which occurred prior to the facilities being returned to service.

As corrective actions, CNS is developing a design to replace the existing FSS supports, and is evaluating other project RFIs to verify no design changes are included. Finally, CNS will conduct a causal analysis for this event, and, in the interim, plans to require an additional supervisor review and signature when dispositioning subsequent RFIs.

**Facility Structure:** During an annual in-service inspection of the facility structure for certain bays, interlocks, and corridors, system engineering identified chipped concrete at the ceiling-wall intersection in one corridor. The detached concrete—measuring approximately 2 inches by 1.5 inches by 0.75 inches—had not fallen to the floor but remained suspended due to the presence of expansion joint material. CNS declared the event as a performance degradation of any safety class structure, system, or component that prevents satisfactory performance of its design function when required to be operable, as well as a violation or noncompliance of a credited hazard control. As corrective actions, CNS plans to remove the chipped concrete and inspect the area for signs of additional loose material. At this time, CNS has not conducted further investigation into the cause of the damage.

**Public Address System (PAS) Outage:** Due to an unidentified issue with one PAS amplifier, while removing power from another amplifier as part of a planned electrical outage, the PAS experienced an unplanned outage in sections of the plant, including the Zone 12 material access area. The operations center discovered the situation when announcements went unanswered. In response, CNS conservatively paused operations in affected areas, placing them in safe and stable configurations. Craft workers installed a generator to supply power to the one amplifier, restoring the PAS and allowing operations to resume. To prevent recurrence, CNS plans to use a temporary generator during future planned electrical outages that will affect PAS amplifiers.