

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 4, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** Frank Harshman and Clinton Jones, Resident Inspectors  
**SUBJECT:** Oak Ridge Activity Report for Week Ending October 4, 2024

**Staff Activity:** The resident inspectors (RI) led walkdowns of Buildings 9204-2E and 9215 for five team members from the DNFSB Office of Inspector General. Separately, the RIs met with the Associate Administrator for NNSA Office of Environment, Safety, and Health and the Acting Deputy Associate Administrator for Safety. The meeting included several YFO senior managers and staff personnel. The RIs discussed their observations on the contractor assurance system and fire protection program (see 5/31/2024 report) among other oversight activities. Further discussions focused on planned DNFSB FY 2025 reviews and RI activities.

**Building 9204-2E:** CNS completed installation of a new criticality accident alarm system (CAAS) and continues to test the new system (see 10/6/2023 and 12/22/2023 reports). CNS is completing all the technical safety requirements (TSR) surveillances as part of the implementation plan for the safety basis changes. While conducting the TSR surveillance that tests the ability of the credited CAAS uninterruptable power supply to sound the alarm and actuate the warning lights, the alarm and lights lost power 90 seconds into the test, well short of the 10-minute requirement. CNS is currently investigating the cause of the failed CAAS surveillance. The identification of the cause, subsequent repair, and retest of the system is required prior to placing the new system in service. CNS is not required to enter a limiting condition for operation since the legacy CAAS system remains in service. An RI discussed the issue, troubleshooting efforts, and planned actions with a shift technical advisor in the facility. The RI found the path forward appropriate and will continue to shadow the CNS efforts to bring the new CAAS system online.

**YFO Oversight Activities:** The Y-12 and Pantex field offices completed a joint assessment of the implementation of CNS fire protection programs at Pantex and Y-12. The review was performed over several months and focused on the processes, methods, and approaches developed to fulfill applicable DOE directive requirements. The report contained one finding, three performance problems, and two observations for Y-12. An RI reviewed the report and found it to be consistent with previous RI observations (see 1/5/2024, 5/10/2024, and 7/12/2024 reports). CNS is required to develop formal corrective actions in response to the report.

**Worker Self-Protection:** CNS evaluated safety basis documents to determine whether the methodology for facility worker self-protective actions has been appropriately implemented. The evaluation concluded that facility worker self-protective actions are used in mitigated and unmitigated consequence determinations for the facility worker in a manner that is justified based on criteria outlined in Cognizant Secretarial Officer for Safety memorandum to NNSA, *Guidance Memorandum Outlining Expectations on Use of Facility Worker Self Protect in Safety Analysis for National Nuclear Security Administration Projects and Facilities*, dated January 2024. The evaluation also identified three specific recommendations to improve the documentation of facility worker protections and update hazard evaluation command media.