

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 29, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending January 29, 2021

Conduct of Operations: Last year, NPO issued a report to CNS that identified concerns in several areas, including disciplined operations (see 4/17/20 report). CNS has been working to make improvements in this area, with significant NPO oversight. CNS and NPO established a disciplined operations council to integrate continuous improvement efforts at both Y-12 and Pantex. The council is an executive level governance body co-chaired by an NPO deputy manager and the CNS chief operating officer. The council has since identified four areas for potential improvements regarding disciplined operations, including (1) performance metrics, (2) ensuring clear direction and understanding of expectations, (3) deployment of a comprehensive floor-time presence model, and (4) procedures. For floor-time presence, CNS's current vision would potentially include conduct of operations observations and coaching, work team self-inspections bi-annually, an annual systematic review by stakeholders, an annual production evaluation process review by external reviewers, and readiness recertification every four to five years. CNS performed a pilot work team self-inspection across the site at the beginning of the year and it was reportedly a value-added exercise. CNS is incorporating feedback from the pilot run and is planning to evaluate all of the opportunities for improvement identified by the work teams.

Power Disruption: Last Friday afternoon, Y-12 experienced a very short loss of power due to a vehicle accident in Oak Ridge that resulted in a fault on an off-site distribution tower. There were only two reported impacts at nuclear facilities. At the Highly Enriched Uranium Materials Facility, several air handling units and exhaust fans turned off which resulted in the loss of smoke detection capability for the system that isolates the secondary confinement system. Operations personnel entered the applicable limiting condition of operation that required verifying the status of the fire protection system and restoring operability of the system that isolates the secondary confinement system. Since the power interruption was so short (less than a second), the secondary confinement system did not turn on and the electrical distribution system for the Highly Enriched Uranium Materials Facility did not need to automatically establish backup power for the secondary confinement system. At Building 9204-2E, the shift manager entered the limiting condition of operation for a temporary loss of criticality accident alarm system power because some of the systems there do not have an uninterruptable power supply. Operations personnel performed all required actions and a surveillance. Both of the impacts at nuclear facilities were reportable per DOE Order 232.2A as performance degradations of safety systems.

Emergency Management: CNS and NPO had planned to perform a full participation exercise this week, but another DOE organization that planned to participate decided it should be postponed until later this year due to the COVID-19 pandemic. Y-12 has been one of the few DOE sites that continued performing full-scale exercises. The last full-scale exercise was September 1, 2020 (see 10/16/20 report). The next full-scale exercise is scheduled for early March.