

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 17, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Frank Harshman, Clinton Jones, and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending June 17, 2022

Board Visit: Board Vice Chair T. Summers, Board member J. Roberson, staff members C. Roscetti, M. Helfrich, and the resident inspectors met with federal and contractor personnel at the Y-12 National Security Complex and Oak Ridge National Laboratory. During the visit, the Board members walked down and observed operations in Buildings 9204-2E, 9215, 9212, 9995, Uranium Processing Facility (UPF), Transuranic Waste Processing Center (TWPC), and Building 2026. In Building 9204-2E, the walk down included assembly, disassembly and teardown operations. In Building 9215, the walk down included machining operations, enriched uranium chip collection, and areas where equipment will be installed for the electrorefining and direct chip melt projects. In Building 9212, the Board members walked down the reduction, casting, and holden gas furnace processes. In Building 9995, the Board members toured the various analytical labs, observing a number of examples of how the aging infrastructure can impact operations in that building. At UPF, Board members were provided a status update of the project and toured the construction site. The Board members also observed the Y-12 annual emergency exercise, in which multiple outside organizations participated. CNS briefed the Board members on nuclear criticality safety improvements and CNS's strategy to mitigate potential impacts of UPF project delays, particularly on existing infrastructure. At Oak Ridge National Laboratory, the Board members walked down TWPC and visited Building 2026. They discussed the status of TRU waste processing at TWPC and the U-233 disposition campaign at Building 2026 with personnel from OREM, North Wind Solutions, and Isotek.

Emergency Management: CNS performed a full participation exercise this week that was designated the site's annual exercise. The exercise scenario involved a fire in Building 9212, which necessitated evacuating personnel from the facility. Several chemical operators were simulated as potentially being radiologically contaminated during the exercise. CNS categorized and classified the event as a general emergency. Personnel from DOE Headquarters and numerous external organizations participated in the exercise, including the Tennessee Emergency Management Agency, Methodist Medical Center, media outlets, and the Emergency Operations Centers for the state and several surrounding counties. The Board members (T. Summers and J. Roberson), resident inspectors, and DNFSB headquarters management and technical staff observed the exercise from various locations.

Federal Oversight: Earlier this year, NPO facility representatives evaluated how CNS developed and managed operator aids relative to the requirements in DOE Order 422.1C, *Conduct of Operations*. The facility representatives found several operator aid implementation issues. Examples included expired or unauthorized operator aids and a lack of personnel knowledge about the purpose of operator aids. NPO characterized the results of the evaluation as a degradation in operator aid implementation and noted that CNS should consider using the independent assessment program to provide focused evaluations of conduct of operations principles. NPO transmitted these results to CNS in May. CNS is in the process of performing a causal analysis and developing an action plan.