

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 26, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: Frank Harshman and Clinton Jones, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending January 26, 2024

Board Visit: Chair J. Connery, staff member D. Andersen, and the resident inspectors conducted site visits to the Y-12 National Security Complex, Transuranic Waste Processing Center (TWPC), and Oak Ridge National Laboratory (ORNL). At Y-12, the Chair met with the NPO site office leadership and CNS senior managers. CNS provided an overview of 2023 nuclear criticality safety issues and corrective actions, conduct of operations improvement initiatives, and an overview of the aging management program including an update on the Extended Life Program. During the visit, the Chair and staff walked down Buildings 9204-2E, 9212, 9215, Highly Enriched Uranium Materials Facility (HEUMF), Uranium Processing Facility (UPF), and the new emergency operations center. In Building 9212, the walkdown included casting operations, the processing area where two briquette fires occurred (see 02/24/2023 and 08/11/2023 reports), and reduction operations. In Building 9215, the walkdown included machining operations, the machine coolant system, electrorefining, the site of the nuclear criticality safety violation that led to a site-wide fissile material handling pause (see 05/05/2023 report), and the future location for the direct chip melt project. At HEUMF, the Chair and staff conducted a general walkdown of the building and discussed the future interface of UPF with HEUMF, including process flow, with CNS management. At UPF, the Chair and staff members were provided a status update of the project followed by a walkdown of the construction site. At TWPC, the Chair and staff meet with UCOR executive leadership who provided an overview of site operations and a walkthrough of the facilities. At ORNL, the Chair and staff meet with Isotek Systems executive leadership and walked down Building 2026, observing operations in the process hot cells. OREM and Isotek staff provided an update of the U-233 Initial Processing Campaign and the path forward for the disposition of the remaining material in Building 3019.