

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: Clinton Jones and Frank Harshman, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending September 1, 2023

Board Visit: Board Vice Chair T. Summers, staff members D. Andersen, Z. Demeke, A. Hutain, R. Oberreuter, and the resident inspectors conducted site visits to the Y-12 National Security Complex and Oak Ridge National Laboratory. During the visit, the Vice Chair and staff walked down Buildings 9212, 9215, Highly Enrich Uranium Materials Facility (HEUMF), Uranium Processing Facility (UPF), the new Emergency Operations Center (EOC), and new Fire Station. In Building 9212, the walkdown included casting operations and the processing area where two briquette fires occurred (see 02/24/2023 and 08/11/2023 reports); this walkdown included discussions of transition to UPF, with a focus on safely maintaining existing infrastructure. In Building 9215, the walkdown included machining operations, enriched uranium chip collection, electrorefining, and the future location for the direct chip melt project. The Vice Chair and staff also walked down the location of the Building 9215 nuclear criticality safety violation (see 05/05/2023 report) and held in-field discussions with members of CNS management. At HEUMF, the Vice Chair and staff conducted a general walkdown of the building and discussed CNS's recent discovery of drums that potentially contain pyrophoric material (see 08/18/2023 report). At UPF, the Vice Chair and staff members were provided a status update of the project followed by a walkdown of the construction site. CNS briefed the Vice Chair on the outcome of the special event investigation and causal analysis of the nuclear criticality safety violation that occurred in Building 9215. CNS also provided an update on the emergency notification system compensatory measures and corrective actions identified during recent fire events (see 02/24/23 and 06/16/2023 reports). At the Oak Ridge National Laboratory, the Vice Chair and staff walked down Buildings 2026 and 3019. 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.

Emergency Management: The Vice Chair and staff observed CNS perform a full scale emergency exercise that was designated the site's annual exercise. The exercise scenario involved a severe weather event that damaged two buildings resulting in injuries and a spill of hazardous material. Several workers were simulated as injured during the exercise. CNS categorized the event as a site area emergency. Personnel from DOE Headquarters and external organizations participated in the exercise, including the Tennessee Emergency Management Agency. This was the first full participation exercise in Y-12's new EOC and under the new EOC staffing construct (see 04/14/2023 report). CNS conducted a post-exercise hotwash and will produce an after-action report to identify corrective actions based on the feedback provided.

Stakeholder Interaction: The Vice Chair and staff members met with the Oak Ridge Environmental Peace Alliance (OREPA). OREPA is a nonprofit grassroots organization with the stated goal to stop nuclear weapons production at the Y-12 Nuclear Weapons Complex. The Vice Chair and staff provided insights into the Board's purpose and enabling legislation. The Board's staff also answered several safety-related questions provided by the OREPA staff. Overall, the resident inspectors found the dialog productive, although no members from the OREPA board were available for the interaction.