

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 17, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: J. Flora and R. Tontodonato, Acting Resident Inspectors
SUBJECT: Oak Ridge Activity Report for the Week Ending February 17, 2023

Staff Activities: J. Flora and R. Tontodonato traveled to Oak Ridge this week to provide resident inspector coverage. In addition to the activities summarized below, the acting resident inspectors met with NPO management to discuss nuclear criticality safety focus areas identified by NPO, planning for separation of NPO into separate NNSA field offices for Pantex and Y-12 in conjunction with the planned separation of the management and operating contracts for the two sites, and NPO's plan for briefing the Board in response to the Board's letter on reactive material hazards at Y-12.

Uranium Processing Facility (UPF): The acting resident inspectors walked down the UPF construction site and received a briefing on the plan for transitioning operations from Building 9212 to UPF and other facilities. The walk down included the Main Process Building and the Salvage and Accountability Building. The acting resident inspectors observed the new firewater supply tank, constructed as part of the UPF project, which will also provide a safety-credited firewater supply to the Highly Enriched Uranium Materials Facility. The UPF buildings' structures are mostly complete. Construction currently focuses on installation of facility systems and process equipment and extensive interior finishing work. It is notable that CNS has already begun cleanup work to reduce hazards in Building 9212 and get a head start on eventual decommissioning. These activities include cleanout and isolation of out-of-service systems and removal of legacy low-equity items that are no longer needed.

Uranium-233 Disposition Project: The acting resident inspectors walked down the Disposition Project operations in Building 2026 at ORNL. The facility continues to extract Thorium for medical applications and down blend and immobilize the process uranium for offsite disposal. Facility management discussed how they are adequately protecting the production workers from the extraction chemistry and radiological hazards.

Building 9720-5: The acting resident inspectors walked down materials storage areas in Building 9720-5, which houses a variety of radioactive and nonradioactive materials stored in cans, drums, and other types of containers. The facility has a single radiation area containing one legacy radioactive item awaiting disposition. The facility appeared to be in good condition overall, despite dating to the 1940s. The acting resident inspectors noted a number of criticality postings with handwritten annotations that were severely faded due to age. Facility personnel acknowledged the concern and discussed a potential approach for fixing the signage. The acting resident inspectors also noted that the floor and other surfaces in low-traffic areas were covered with paint chips that are flaking away from the ceiling, indicating the need to renew the coatings to preserve the structure. Facility personnel acknowledged the paint concern and pointed out a section of ceiling that had been repainted to test a candidate coating for application throughout the facility.