

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 15, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Brandon Weathers, Resident Inspector
SUBJECT: Oak Ridge Activity Report for Week Ending April 15, 2022

Oak Ridge Environmental Management: The team that conducted Isotek's Contractor Operational Readiness Review (C-ORR) for the Initial Processing Campaign issued their final report last week (see 1/21/22 and 1/28/22 reports). Isotek performed C-ORR activities over two periods in January and March due to the need to pause the C-ORR in late January because of COVID-19 staffing impacts and weather-related equipment failure issues (see 2/4/22 report).

The C-ORR team issued three pre-start findings. The first two findings were that the implementation of the conduct of operations and the radiological protection safety management programs did not fully satisfy the C-ORR Plan of Action and applicable DOE Orders. Pertaining to conduct of operations, the C-ORR team noted issues with control of equipment and system status, formality in communications, narrative logs, administrative/reference procedure compliance, and independent verification. With respect to radiological protection, the C-ORR team identified issues with radiological access control, radiological work permits, and personal protective equipment donning and doffing execution. The C-ORR team determined that 45 of the 49 prerequisites were adequately satisfied and the remaining four prerequisites were not met. The third finding was that those four prerequisites were not fully implemented as required by the C-ORR Implementation Plan and the Plan of Action.

Several DNFSB staff members observed both portions of the Initial Processing Campaign C-ORR. DNFSB staff observations from the first portion of the C-ORR were noted in the DNFSB Oak Ridge Activity Report for February 4, 2022. Overall, the staff observed weaknesses with the conduct of operations program, procedure implementation, and radiological protection. The DNFSB staff also noted several issues with the emergency drills. The C-ORR team documented an observation in their report that additional attention is needed for Isotek's operational drill program.

Highly Enriched Uranium Materials Facility (HEUMF): CNS discovered that a logical connector in the HEUMF Technical Safety Requirements (TSR) had been historically misapplied. In 2013, the TSR was modified to allow greater operational flexibility to switch between "OR" logical connectors in Limiting Condition of Operation action paths within a given condition. That modification explicitly stated that the completion time does not reset when moving between actions. However, the TSR did not clarify whether the completion time was an interim completion time or the final completion time for the action path. CNS recently realized that a verbatim interpretation of the TSR meant that once an action path had been chosen and the alternate action path completion time had lapsed, they cannot change between alternate action paths. Previous switching between alternate action paths due to this misapplication of "OR" logical connectors resulted in Y-12 missing multiple Limiting Condition of Operation action completion times. After discovering the issue last week, CNS filed an occurrence report for TSR violations that is meant to cover all past misapplications.