

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 12, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending March 12, 2021

Highly Enriched Uranium Materials Facility (HEUMF): In February, CNS completed an additional portion of an extent of condition review stemming from the 2017 discovery of unanalyzed materials in HEUMF (see 5/11/2018 report). HEUMF uses nuclear material control and accountability identification designators (material form codes) as a basis for accepting material into the facility. The material form codes have varying degrees of specificity that range from broad categories to more specific material characteristics, such as form, process/source, or compound. Consequently, some materials that fit a broad material form code could be more accurately accounted for under a more specific material form code. The most recent CNS review focused on materials at Y-12 that would benefit from being reassigned to a more specific material form code. The CNS reviewer held several meetings with stakeholders to disposition the results of the review. These meetings included personnel from nuclear material control and accountability, operations managers, nuclear criticality safety engineers, and other subject matter experts, as necessary. Ultimately, the review team proposed the reassignment of 829 items to more applicable material form codes. CNS entered the new information process as a result of one of the proposed material form code changes for a container in HEUMF. Other containers with the proposed material form code were also stored in HEUMF, but those containers were specifically accepted under the Area 5 Deinventory Project (10/3/2016 report). The subject container was not associated with the Area 5 Deinventory Project and was not located in the designated area within the facility for Area 5 Deinventory Project containers. CNS reviewed the specific material stored in the container and determined that it is safe in its current location based on it being a “stable oxide” and that it does not present criticality accident alarm system detection concerns. Using that basis, CNS determined that a potential inadequacy of the safety analysis did not exist.

The recent review also identified 185 items that were transferred to HEUMF as part of the Area 5 Deinventory Project and may benefit from a more specific material form code, but deferred further review of those items to a nuclear criticality safety review of all Area 5 Deinventory Project materials in storage at HEUMF that is planned later this year. That upcoming review will either confirm or reassign material form codes for Area 5 Deinventory Project materials and assign additional subform codes to the material form codes.

Emergency Management: CNS and NPO performed a full-scale exercise this week, as scheduled (see 1/29/21 report). The exercise scenario involved a collapsed roof. Y-12 has been one of the few DOE sites that continued performing full-scale exercises over the past year. A full participation exercise is scheduled for late April.

COVID-19: The federal and contractor organizations at Y-12 and Oak Ridge Environmental Management held COVID-19 safety pauses this week that were developed from information in the DOE COVID-19 workplace safety plan.