

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 16, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Frank Harshman resident inspector
SUBJECT: Oak Ridge Activity Report for Week Ending September 16, 2022

DNFSB Staff Activities: Clinton Jones traveled to the Savannah River Site (SRS) this week for a site visit with the SRS resident inspectors. At Y-12, DNFSB headquarters staff, R. Eul, R. Jackson and W. Dumayas visited the Uranium Processing Facility (UPF) as part of the transition of responsibilities to the incoming UPF cognizant engineer (W. Dumayas). R. Jackson and W. Dumayas also conducted walkdowns with the resident inspector to observe current processes in Buildings 9212 and 9215. The walkdowns included a discussion of CNS's process relocation strategy for the eventual transition of production operations from Building 9212.

Building 9212: CNS is awaiting delivery of a hydrogen fluoride (HF) cylinder that is needed to run the Oxide Conversion Facility (OCF). NPO and CNS have decided to place the facility in cold standby after this cylinder is exhausted. OCF houses two fluidized bed reactors that convert uranium trioxide to uranium tetrafluoride (UF₄). The metal reduction process is then utilized to convert the UF₄ to uranium metal. Once the remaining stock of UF₄ has been exhausted Y-12 will then place the metal reduction process in cold standby. These processes will be replaced by Direct Electrolytic Reduction and Electrorefining once those projects have been completed.

DOE Oversight: The resident inspector attended the outbrief for the DOE Office of Enterprise Assessments' (EA) review of CNS's management of safety issues at Y-12 (see 7/29/22 report). The EA team reviewed the management and closure of issues that had been created after January 2020. The assessment was limited to the areas of radioactive waste, nuclear engineering, and conduct of operations. The EA team interviewed CNS contractor assurance personnel and managers responsible for resolving issues and select NPO personnel. The EA team also observed CNS meetings that are used to determine the significance level of issues. Although the EA team did identify some deficiencies with the handling of issues at Y-12, it ultimately concluded that CNS is adequately implementing a graded approach for issues management.

Qualification Board: The resident inspector observed the final qualification oral board for a Building 9212 shift manager candidate. Overall, the resident inspector concluded that the conduct of the board was adequate and met the qualification board standards. The questions contained sufficient depth and covered a broad range of topics. Questions related to safety or that resulted in an entry into a limiting condition for operation were designated ahead of time as critical questions. The candidate would fail the entire board if an unsatisfactory grade were received on any critical question. The facility utilized scenario-based questions for all but one of questions presented. These questions integrated multiple concepts and were beneficial in testing the candidate's breadth of knowledge vice asking factual short answer questions.

Building 9204-2E: CNS completed the second of two critical lifts to replace equipment utilized to maintain the quality of the atmosphere inside the glovebox. This equipment is located on the mezzanine above one of the gloveboxes. The glovebox was placed out-of-service prior to the lifts and will remain so until the completion of the replacement.