

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Frank Harshman, and Clinton Jones, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending November 4, 2022

Transuranic Waste Processing Center (TWPC): Last week, OREM contractor United Cleanup Oak Ridge, LLC (UCOR), assumed responsibility for the TWPC site from North Wind Solutions, LLC. DOE established the TWPC as a regional center for the management, treatment, packaging, and shipment of the DOE transuranic waste legacy inventory. Prior to UCOR assuming responsibility, UCOR and North Wind conducted a 60-day transition period in preparation for the transfer of responsibilities. Immediately after transition, UCOR paused all operations in order to conduct a thorough review of each individual process utilizing a Management Review Board (MRB) to review each evolution separately. MRBs are comprised of UCOR management and facility personnel. The resident inspector observed the first of multiple scheduled MRBs to be conducted at TWPC. The MRB process encompasses procedure reviews, discussions with supervisors and workers, and in-field walkthroughs. The purpose is to determine the adequacy of the current procedure, the proficiency and level of knowledge of the workforce, and the field conditions to determine if any deficiencies exist that need to be addressed prior to resuming the operation. Also, UCOR utilizes the MRBs to determine the level of enhanced oversight that may be warranted to allow resumption of those specific evolutions in a safe and compliant manner.

Nuclear Criticality Safety: On Friday, October 28, a special nuclear material operations (SNMO) clerk identified additional non-compliant nuclear criticality safety (NCS) loading (see 10/28/2022 report) with two birdcages in Building 9204-2E. As a result of these issues the Assembly/Disassembly Operations Director and Operations Manager suspended all fissile material handling activities in Building 9204-2E until an extent of condition review could be performed to verify proper loading of birdcages in the building. The following day, a visual inspection by SNMO workers was completed on the contents of all birdcages in the building. Three more conditions that violated criticality safety evaluations (CSEs) were identified. The ongoing birdcage loading investigation scope and extent of condition review in Building 9204-2E was then expanded to Building 9212 and Building 9215. There were no additional non-compliant birdcages identified in Building 9215, however in Building 9212, four birdcages were found that violated CSEs. Subsequently, the Enriched Uranium Operations Director placed a hold on all operations utilizing birdcages in Building 9212. During the critique for the initial birdcage issue, NPO requested CNS issue an Occurrence Report based on a management concern of safety significance since ten separate CSE violations had been found within a week. Also, three resumptive actions were required to allow Building 9204-2E to continue fissile material handling activities. These were to brief all personnel in the building on the event and the current procedural requirements, issue a standing order to give clear direction on use of the general fissile material handling procedures, and to issue an oversight plan for container and material handling practices. Similar resumptive actions are being worked on at Building 9212 where there is a hold on all operations utilizing birdcages. DOE facility representatives plan to perform a reactive assessment on the container and material handling practices.