

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 26, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: Frank Harshman and Clinton Jones, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending July 26, 2024

Building 9204-2E: The resident inspector (RI) observed an on-the-job training (OJT) evolution that covered re-containerization of parts and the removal of parts from a welded can. To move the container with potential radiological contamination from the storage vault to the work area, a multipurpose cart is used that has two postings, one for criticality safety requirements and one stating a radiological work permit (RWP) is required. Since the multipurpose cart can be used for both radiological and non-radiological work, the postings have two sides. One side of each posting states not in use, enabling the cart to be used for non-radiological work. During the evolution, the workers rolled the cart to the work area where the weld station was located and started to remove parts from the container on the multipurpose cart. Only one of the two postings had been flipped over to the in-use side. The RI inquired with the OJT instructor as to why the RWP posting was flipped to the not in use side even though work with contaminated equipment was being performed. The RI made the comment after allowing work to proceed for several minutes to see if any of the other nine people present, including two supervisors qualifying on the task, could identify the issue. Subsequently, the radiological control technician (RCT) corrected the posting after some discussion with the OJT trainer.

On another OJT activity for the re-containerization procedure the following week, the RI asked a RCT for clarification on whether taping of anti-contamination gloves and ankles was required on the RWP that two OJT instructors and a trainee had signed onto. The RCT stated it was not required. The RI confirmed the RWP, that was written for high contamination area work, required personnel to tape seal the gloves and shoe coverings to the anti-contamination clothing with the radiological control manager who was in the area. As a result, the work was paused, and the OJT instructors and worker were recalled by the RCT to tape seal their gloves and shoe coverings per the RWP requirements. There was no spread of contamination and the area the personnel had entered prior to being recalled was only a contamination area, not a high contamination area where work would be performed during actual cutting operations. Radiological control management was present during this issue and assured the RI that both issues would be briefed to his personnel.

Building 9720-82: CNS filed an occurrence report based on the loss of power to the Highly Enriched Uranium Materials Facility that resulted in the inoperability of the secondary confinement system (SCS) exhaust fans, automatic transfer switch, and safety significant power distribution system on Saturday morning. The shift manager (SM) responded to the facility based on a call from the operations center that notified him of loss of power to the Y-12 site. Upon arrival, the SM discovered the emergency diesel generators (EDG) had started but were not supplying the building loads as expected. Three hours after the outage occurred, normal power was restored to the site. The SM had to manually shut down the EDGs to allow normal power to be restored to the safety systems due to a fault that occurred with the voltage output of one of the EDGs. CNS created a work package to troubleshoot the issue with the EDGs and will remain in the applicable limiting conditions for operation until the system is repaired.