

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 12, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: Frank Harshman and Clinton Jones, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending January 12, 2024

Building 9204-2E: In July of 2023, the resident inspector (RI) attended an event investigation and subsequent critique for the use of lifting fixtures without engineering testing and inspection (ET&I) labels (see 7/14/2023 report). One of the proposed corrective actions at that time was the common action of briefing the production employees. The RI questioned whether a briefing to the production employees would really prevent recurrence of this considering that these same employees were already taking an annual computer-based training refresher course that covers inspecting lifting fixtures for proper load testing prior to use. Despite this refresher, workers had repeatedly used fixtures in fissile material operations whose inspections had expired for multiple years or had no inspection stickers on them. In response to the RI's question, the production director added a corrective action to have the systematic review process include that the prerequisites of procedures capture current lifting fixture inspection. The systematic review process has a disciplined operations specialist (DOS) review relevant procedures to ensure they are addressing issues previously identified in the contractor assurance system. When the RI recently reviewed how this corrective action was implemented, he found that the DOS only reviewed two procedures and closed the action by stating, "I'm not sure how to capture that moving forward we will incorporate, with all systematic reviews, the addition of checking ET&I stickers in the applicable prerequisites." In the RI's opinion, the action taken to close this corrective action did not satisfy the original intent nor would it prevent recurrence of this issue in the future.

Nuclear Criticality Safety: The RI observed a nuclear criticality safety (NCS) operational review of casting operations in Building 9212. CNS is required to perform NCS operational reviews on active fissile material operations annually. The reviews are led by a NCS engineer (NCSE) with assistance from a NCS officer. CNS performs operational reviews to ensure that approved operating organization fissile material activities continue to be performed in accordance with all applicable NCS guidance. The RI reviewed the NCS operational review procedure and observed the conduct of the in-field portion of the review with no issues identified. The resident inspector also observed several other operations in the casting wing of Building 9212 including knock out and coating activities with no issues identified. The resident inspector discussed the conduct of the review and the operations observed with the NCSE and found the answers sufficient.

Fire Protection: CNS has a NFPA 25 equivalency that outlines that the 5-year internal piping inspections (IPI) is required for all safety class, safety significant, and all dry pipe systems (regardless of grading/classification). The wet pipe systems in Building 9995 do not meet these requirements and therefore are not required to have IPI performed unless certain abnormal conditions listed in the equivalency exist. The RI conducted a review of previous performances of the sprinkler system IPI in two buildings adjacent to building 9995 to ascertain if a revision to this equivalency was warranted based on observed conditions in the other buildings. The RI found no indications of significant internal issues in those reports.