

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 26, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: Clinton Jones, Resident Inspector
SUBJECT: Oak Ridge Activity Report for Week Ending May 26, 2023

Criticality Safety: The resident inspectors (RI) observed nuclear criticality safety (NCS) briefings that were conducted by CNS as part of their recovery plan from the recent NCS pause (see 5/5/2023 report). The briefings given by the production department were of the rigor expected. The significance of the event was stressed and details of what the consequences could have been were emphasized. Feedback from the audience was appropriate based on the content presented. The maintenance department held several briefings. The one maintenance briefing the RIs attended was unacceptable. The presenter read straight from notes on PowerPoint slides as fast as possible and stressed that maintenance personnel were not fissile material handlers, so the subject did not apply to them. The resident inspector provided feedback to the NPO Maintenance Program Manager about the briefing and its lack of rigor. The NPO Maintenance Program Manager reached out to others that attended the briefing and received similar feedback. CNS was informed of the feedback and took action to rebrief all personnel that attended the maintenance session. The resident inspectors attended one of the makeup sessions and provided feedback to both NPO and CNS that it was greatly improved.

CNS committed to confirming the knowledge of fissile material handlers after the briefings by testing them on the NCS general handling criteria specific to the areas in which the individuals perform work. The initial results of the written examination revealed a passing rate of 77 percent of the employees tested. The personnel that did not pass with a score of at least 70 percent will be required to retake the two-day NCS training course that includes an exam. Personnel that obtained a score of between 70 and 80 percent will be remediated by retaking the exam per the CNS training policy.

CNS issued a second revision to the NCS pause standing order requiring additional NCS reviews of maintenance packages and oversight for maintenance activities in fissile control areas. The revision further refined what the roles of oversight personnel include and clarified exceptions to the document. Guidance for the prerequisites hold point and waste hold point were added with examples to clarify how the direction should be applied.

Building 9212: CNS held an update briefing with NPO to discuss a path forward for resumption of operations in reduction after a third pressure excursion in February shut it down again (see 1/6/2023 report). Potential changes to the operation included performing reduction with the reactor unattended in the room to remove the potential for personnel injury if pressures reached the point of breaching the containment vessel. Once the process had been initiated, reentry into the room would be prohibited for a preset time. Furthermore, a continuous air monitor and audible indications could be utilized to determine if the containment vessel had been breached. The topic is still up for discussion before details are finalized and reduction operations resume.