DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 13, 2015

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending November 13, 2015

NPO Oversight: On October 14, 2015, an event occurred during electrical work performed by Johnson Controls, Inc. (JCI), a contractor that reports directly to NNSA, in which a JCI electrician paused work after recognizing that he had been working on an energized lighting fixture in Building 9204-2E. The NPO, CNS, and JCI joint investigation revealed that the electrician had mistakenly operated outside the lock-out/tag-out (LO/TO) process and failed to conduct the final check to ensure the fixture was not energized. The site reps questioned NPO personnel on how oversight of this contractor is performed. The NNSA Contracting Officer's Representative (COR) for JCI indicated that oversight is implemented through management of the contract, which specifies that NNSA is required to ensure that JCI follow applicable DOE orders, policies, and site procedures. JCI has a Worker Safety and Health Program plan that received NPO approval and a specific LO/TO procedure for lighting work that was reviewed and approved by CNS, NPO oversight personnel, and the COR. NPO field oversight personnel indicated that they have not received formal direction on how to oversee JCI's work activities, but conduct oversight of JCI as part of the normal course of their assigned duties. Subsequent to this event, NPO initiated preparation of a more formal process for performing oversight of non-management and operating contractors that work on the Y-12 site, but report directly to NNSA. NPO envisions that the process will provide improved identification of potential oversight needs and agreement on responsibility for implementation of oversight activities.

Building 9204-2/Aging Infrastructure: In March 2014, a degraded portion of a concrete ceiling fell into a hallway in the Building 9204-2 oven room (see 3/21/14 report). Earlier this year, CNS started Phase I of the repairs of this area, which included demolition of the degraded concrete. CNS's change control processes were applied on this phase of the work but the reviews did not include the Phase II scope of work to install new steel grading and beams. Designs for the new structural equipment received the appropriate engineering reviews; however, new structural components were installed last month prior to conducting the required reviews by operations personnel, per the site change control procedure. CNS management is evaluating how the process broke down. Based on discussions during last week's fact finding meeting, the failure may be partially due to personnel being distracted by other issues (e.g., the discovery of concrete degradation in another section of the building, see 10/2/15 report). Management is reviewing the implementation of change control processes for other construction projects in the facility to ensure the appropriate design elements are reviewed prior to starting installation.

Building 9212: This week, CNS completed a readiness assessment (RA) for operations with a new storage system for process condensate effluent from the intermediate evaporator and high capacity evaporators in Building 9212. The Continued Safe Operability Oversight Team had long recommended replacement of the old storage tanks, which were showing signs of degradation and presented ongoing industrial safety, radiological and nuclear criticality safety concerns. The site reps observed the RA demonstrations, which largely comprised simulated acts as transfers with fissile solution cannot occur until startup authorization is received. Operators demonstrated adequate knowledge of the location and required position of the system valves during the simulation. The RA team identified one pre-start finding involving inadequate labeling to reflect the operator's office area as exempt from large geometry exclusion area controls. This finding was addressed prior to completion of the RA. CNS developed a startup plan to address the transition from authorization to first use operations with fissile solutions. The plan primarily prescribes additional management oversight for these activities.