

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending July 10, 2015

Z. McCabe was at Y-12 to augment site rep coverage.

Building 9204-2/Aging Infrastructure: Last month, a CNS structural engineer performed a walkdown of an area in the basement of Building 9204-2 after receiving reports of chips of spalled concrete falling from the ceiling. When the engineer was able to gain access, he noted locations of spalled concrete and significant cracks in two concrete beams. The beams are 36 in. deep (including the 6-in. ceiling slab) and 16 in. wide. One of the beams had horizontal cracks near the level of the lower horizontal reinforcing bar and these cracks are about five ft. in length. This beam also had a vertical crack at about mid-span that appeared to be almost the full depth of the beam and roughly 3/8 in. wide. Another beam adjacent to the first beam (on the next column line over; about 14 ft. away), also had horizontal cracking and a thinner vertical crack. The ceiling area has staining on the concrete indicative of solution leaks from legacy processing that was conducted on the floor above years ago. The CNS structural engineer informed the Shift Manager of the cracks, who directed the area to be cordoned off to prevent unauthorized entry. In addition, CNS management has directed structural engineering personnel to start preliminary design work to stabilize the beam with the more significant vertical crack. The area below the beam is heavily congested. Therefore, the design for a support will not be as simple as installing a vertical column and may require construction of a structural steel frame.

Oak Ridge National Laboratory (ORNL): UCOR, the contractor for the Melton Valley Closure Project, has taken actions to address the failure to comply with the Specific Administrative Control (SAC) associated with the control of flammable materials during a waste handling operation (see 6/26/15 report). The UCOR Waste Manager directed a pause of all transuranic waste operations that implement SACs. Prior to resuming each operation, the UCOR Waste Manager is requiring the Operations Manager to ensure each SAC is adequately implemented or appropriate revisions to its implementing document (e.g., technical procedure) have been made. In addition, UCOR has issued a standing order that requires all technical procedures for Waste Disposition Operations to be designated as “continuous use,” which will require the procedure to be “in hand” during the work activity. In addition, for the first time use or after a revision of these procedures, the work will be performed using a “reader/doer” method.

Building 9204-2E/Aging Infrastructure: This week, CNS approved the startup of canning operations in Building 9204-2E. Establishing this capability in Building 9204-2E was one of the key near-term material-at-risk (MAR) reduction measures identified in the Y-12 Highly Enriched (HEU) Uranium Mission Strategy (see 2/6/15 report). Prior to this week, canning operations, which involve placing HEU material into a sealed container approved for storage in the Highly Enriched Uranium Materials Facility (HEUMF), were performed in Building 9212. Establishing this capability in Building 9204-2E allows dismantled parts from Building 9204-2E to be canned and sent directly to HEUMF. This in turn reduces the MAR in Building 9212 by reducing the number of parts that require interim storage in Building 9212 before being canned.

The site reps observed the demonstration of Building 9204-2E canning operations as part of the CNS readiness assessment (RA). In general, personnel were proficient in the performance of operations. The RA team identified no findings and three observations, which primarily involved paperwork discrepancies. The site reps provided several observations for the RA Team Lead and Building 9204-2E Production Manager’s consideration, including some opportunities to enhance the content and execution of procedures.