

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 11, 2014

Aging Infrastructure: In response to the concrete spalling event in Building 9204-2 (see 3/21/14 and 4/25/14 reports), contractor structural engineers conducted inspections of areas throughout the site that were known to have similar degradation and evaluated the controls in place to protect workers from falling debris. The report from this evaluation was completed last month and recommends several new mitigating controls that include restricting access in some locations due to severe degradation. CNS senior management is evaluating the recommendations and plans to ensure appropriate controls are implemented at the affected facilities.

Building 9215/Aging Infrastructure: This week, a CNS supervisor found that a piece of concrete had fallen from the ceiling in the stairwell that leads to the basement of M-Wing in Building 9215. The supervisor controlled the area and notified the Shift Manager. Following a structural engineer's inspection of the area, the Shift Manager posted the entrance to the stairwell with signs requiring personnel to don a hardhat prior to entry. The concrete chunk was roughly 3 inches in diameter and 9 inches long. There was no visible indication of reinforcing bar or corrosion in the concrete chunk or the affected area of the ceiling. The structural engineer's review of the drawings revealed the concrete fell from a recessed area between two structural elements, but did not appear to have any discernable structural function. The engineer's proposed corrective action is to install a steel plate to protect personnel from falling debris as they pass under the deteriorated area.

Building 9212: CNS held a fact finding meeting this week to evaluate the inadvertent loss of ventilation in E-wing during activities to install a lockout/tagout on a motor for a pallet conveyor (see 7/4/14 report). The fact finding determined that the lockout/tagout procedure did not require an evaluation of the impacts to equipment not directly involved in the work. Typically, this function is accomplished by the creation of an outage plan, but the requirement to develop an outage plan to support lockout/tagout activities had never been formally codified in a procedure. CNS management has committed to perform a procedural evaluation to determine the person or process that will identify impacts to the facility prior to tagging out a piece of equipment.

This week, Enriched Uranium Operations (EUO) made progress in addressing two significant process equipment challenges identified in the Continued Safe Operability Oversight Team annual report. First, Holden Gas Furnace operations resumed after nearly 8 months of downtime to re-brick the heating surface (see 11/15/13, 12/6/13, and 5/2/14 reports). Second, engineers believe they have identified and repaired the issue that was creating the fault condition in the Primary Extraction raffinate stream's gamma radiation monitoring system (gamma monitor, see 4/11/14 report). The issue appears to have been associated with the power supply hardware internal to the detector housing. Prior to resuming raffinate transfers, EUO must remove the temporary modification that was installed to facilitate resumption of PX operations with an alternate criticality safety control strategy (see 5/23/14 report). EUO must also complete annual calibration testing on the gamma monitor prior to resuming raffinate transfers.