

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 14, 2018

TO: Steven A. Stokes, Technical Director
FROM: D. Shrestha and B. Weathers, Acting Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending June 15, 2018

DNFSB Staff Activity: M. Helfrich and A. Hutain were on site to conduct a review of the Y-12 Emergency Management Program.

Building 9212 Casting: CNS personnel made an initial attempt to resume casting operations in the west casting line on June 13, 2018. Casting operations have been paused since late March 2018 due to the discovery of unexpected uranium accumulation (see 03/30/18 report). Prior to resuming the casting operations, the applicable criticality safety evaluation was revised and implemented, non-destructive assay of the entire casting line after final cleanout was performed, the Inadvertent Accumulation Prevention Program was revised, multiple procedures were revised, water hoses were replaced, and an enhanced oversight management plan was implemented. The enhanced oversight management plan established a subject matter expert oversight team to provide in-field oversight of casting activities. The casting resumption activities also resulted in crediting passive design features requiring the development of new inspection criteria and surveillances. CNS personnel encountered a problem with the main line conveyor transformer during the casting resumption attempt on June 13, 2018. CNS personnel fixed the problem and were able to successfully resume casting operations on June 14, 2018.

Building 9212: CNS personnel identified two pressure transmitters (PT) for Stack 43 that were found to be out of calibration. A work order was submitted to replace the PTs, but the PTs went out of calibration before the replacement. During this period of overdue calibration, CNS conducted process operations requiring Stack 43. Upon discovery, all operations requiring Stack 43 were placed on hold. Fact finding and critique meetings were held for this event. One contributor to the event involved the software that is used to track the status of the calibrated equipment. This software identified a duplicative set of appropriately calibrated pressure transmitters within the stack; though, these transmitters were not installed. At the critique meeting, multiple extent of condition action items were identified and CNS personnel are finalizing those action items.

Transuranic Waste Processing Center (TWPC): Recent transuranic waste shipments from TWPC to the Waste Isolation Pilot Plant were found to have elevated contamination levels. The contamination readings were due to the decay of Radium-226 to polonium and lead that settled on the exterior of drums. To avoid future elevated contamination readings, TWPC personnel plan to wipe down the entire exterior surface of the waste drums and perform smears on all drums prior to loading into TRUPACT II shipping containers.

Highly Enriched Uranium Materials Facility (HEUMF): CNS submitted a proposed document change notice to NPO for the HEUMF Technical Safety Requirements (TSR). The submittal was in response to NPO's March 8, 2018 letter directing CNS to revise the HEUMF TSRs in order to improve the acceptance criteria associated with the fire protection system main drain test (see 03/09/18 report).