

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 24, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending April 24, 2020

Highly Enriched Uranium Materials Facility (HEUMF): This week, NPO rejected the corrective action plan that CNS developed for the NPO finding related to the residence time tracking noncompliance in HEUMF (see 1/24/20 report). The rejection was based on several shortcomings with the corrective action plan. One concern was that the CNS proposed actions did not give NPO confidence that they would prevent recurrence of the issue. Specifically, the implementation verification review process had not previously identified that the residence time tracking key assumption was not implemented. CNS proposed an action to brief personnel who perform implementation verification reviews on the lessons learned from this issue and “the need to review existing documents for similar problems.” The corrective action plan did not commit to performing an extent of condition review. Also, there was not a direct action to address the specific gaps in the implementation verification review process that allowed this key assumption to be missed.

Last week, CNS determined that the potential inadequacy of the safety analysis for the container currently stored in HEUMF that has potentially pyrophoric uranium metal was not an unreviewed safety question. One key argument was that the hazard evaluation study, a document that is a reference in the documented safety analysis, considers an event like this in several hazard scenarios related to a small fire occurring in a container containing unauthorized material. The frequencies for these scenarios were considered anticipated and the consequences were considered minor. While NPO does not need to approve unreviewed safety question determinations, NPO has been reviewing it. Per procedure, CNS needs to submit an evaluation of the safety of the situation to NPO within 30 calendar days.

Emergency Management: CNS published the after action report for the March exercise that was a continuation of the exercise that occurred in December (see 3/20/20 report). The report stated that all exercise objectives were met and there were no deficiencies or findings. The performance was rated as excellent.

Conduct of Operations: Last week, NPO conditionally approved a February update to the Y-12 conduct of operations applicability matrix. The NPO reviewers found several cases where requirements from DOE Order 422.1, *Conduct of Operations*, could not be found in Y-12 implementing procedures. In addition, several site procedures had apparently not been through a periodic review in more than five years. NPO requested that CNS resolve the concerns when CNS submits a combined Y-12 and Pantex applicability matrix later this year.