DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 14, 2022

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending October 14, 2022

N3B–Electrical Safety: On Thursday, N3B management stopped all work in their facilities with the exception of minimal safety and environmental compliance activities. This stop work was due to concerns with formality of operations. The Environmental Management Field Office is currently finalizing a conduct of operations assessment focused on electrical and lockout tagout practices. Field Office personnel have communicated preliminary concerns regarding training deficiencies and a lack of knowledge among electrical workers. In response, N3B personnel began self-assessing their electrical practices. This led to management pausing all electrical and lockout tagout activities, then stopping those activities, then stopping all work other than minimum safety and compliance tasks. While work is curtailed, N3B management is reinstituting the senior management review process for releasing any work beyond that needed for minimum safety or compliance. They used this process in 2021 when activities were curtailed due to copious safety basis issues.

Plutonium Facility–Electrical Safety: While bagging out waste items, facility personnel discovered two potentially energized capacitors. They paused and reported the discovery. The exact provenance of the capacitors is not known, but they likely came from a blending machine that was size reduced earlier in the year. If the capacitors were fully charged, their stored energy would have exceeded the threshold for a hazardous energy source. Facility personnel have since discharged the capacitors to a safe condition. Transuranic waste specialists are determining whether any adsorbent is needed for the mineral oil in the capacitors. Proposed corrective actions to prevent recurrence of a similar event include additional emphasis on the use of equipment specifications during work planning for size reduction and another round of training on capacitor safety especially for personnel working with transuranic waste.

Plutonium Facility–Criticality Safety: While moving an item into a storage carousel in a glovebox, workers discovered that one of the storage locations was not latched shut per requirements, and the latch was not functional. They paused and reported the discovery. The identified condition violated the criticality safety posting for the glovebox, which forbids non-functional latching mechanisms and staging of items outside of a secured storage location. The non-compliant condition has been resolved, and facility personnel are evaluating better documentation of the expected criticality safety requirements for this box. Personnel who use the storage carousel also noted that its software control system is not reliable. They have provided this information along with a recommendation for a manual movement system to the Los Alamos Plutonium Pit Production Project, which will be installing several more storage carousel boxes of this type.

Onsite Transportation: On Wednesday, the NNSA Field Office requested that Triad provide an impact assessment for proposed compensatory measures to increase the safety of onsite shipments of nuclear material. NNSA provided a series of potential compensatory measures that could strengthen the existing controls in the onsite transportation safety document. Options for compensatory measures included: tying material at risk limits in shipments to packaging configuration, restricting or eliminating the use of wooden pallets, and strengthening pre-transfer checks for hazards along the route.