

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 11, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: E. Freeman and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending October 11, 2024

Plutonium Facility–Material at Risk (MAR): After accounting for newly performed non-destructive assay measurements of holdup, facility personnel determined they were almost at the MAR limit for heat source plutonium fine powders on the first floor. Heat source plutonium operations are heavily curtailed while efforts are being made to containerize material, reduce MAR values, and restore operational flexibility to avoid an unplanned entry into a limiting condition for operations (LCO) if the limit is exceeded.

Area G–Work Control: Last Thursday, N3B engineering personnel paused work on installation of new liquid impediments at Pad 281 in Area G. These impediments are being installed as safety-class components that will mitigate fuel pool fires in the new safety basis. The engineer and quality assurance personnel were verifying that rebar had been installed per design requirements when they noticed that an engineering signature block to verify that all drawings and specifications are approved and current had not been completed. Further investigation determined that only drawings for Pad 281 were fully approved, while drawings for work in progress at Dome 153 covered by the same package had not been signed. Also, drawings for another project were erroneously attached to the work package. Field personnel did have the correct drawings with them, but not as part of the approved work package. Engineering personnel determined that the installation was compliant with the design. Efforts are in progress to fix this work package and improve work control processes more broadly.

Area G–Safety Basis: Last Wednesday, N3B personnel noticed combustible materials located within a combustible restrictive area (CRA) in Building 412 in Area G. N3B personnel notified the operations center and management, and then moved the material in question outside of the CRA on last Thursday. However, on Tuesday this week, quality assurance staff discussed the event in further detail with safety basis staff and determined that based on the initial statement that greater than 100 pounds of combustibles were inside a CRA, a LCO should have been entered at the time this was identified, as no actual weights were available to prove compliance with limits. N3B later determined that the combustible materials in question were far below the 100-pound limit; however, N3B management noted that since staff did not enter the LCO when this was first identified last week, this was a violation of the technical safety requirements.

Plutonium Facility–Readiness: On Tuesday, the NNSA Field Office requested that Triad resubmit the corrective action plan from the federal readiness assessment of restart of aqueous nitrate operations (see 3/8/2024 report). The Field Office asked that Triad resubmit the plan after addressing comments from the field office regarding the fire protection program.

Plutonium Facility–Safety Basis: On Monday, the NNSA Field Office unconditionally approved closure of the evaluation of the safety of the situation associated with receipt and repackaging of large quantities of heat source plutonium (see 9/6/2024 report).