DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 8, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending September 8, 2023

Staff Activity: A staff team held a remote meeting with Triad and NNSA Field Office personnel to discuss initial conclusions from its review of the glovebox integrity (see 6/30/2023 report).

Plutonium Facility–Radiological Safety: Last Thursday, a worker alarmed the hand and foot monitor while exiting a laboratory room. Responding radiological technicians discovered contamination on the worker's protective bootie. Further investigation of the room, which processes heat source plutonium, discovered contamination below a glovebox and flaky material that appeared to be corrosion products. Workers noted that it is not uncommon to spill liquids in that dropbox, as the caps for the carboys are often not fully sealed and are easily knocked over. There have also been instances of carboys leaking in gloveboxes (see 6/15/2018, 6/26/2019 reports). Workers taped the underside of the glovebox to control further flaking and contamination spread. The glovebox is posted out of service and the access to the room is restricted. Facility personnel are developing a room entry plan to gather more information, which will include collection of flaky material for chemical analysis. Engineering personnel will evaluate the integrity of the glovebox. Once additional data is collected to understand the condition of this glovebox, personnel plan to perform an extent of condition review of other gloveboxes with the potential for liquid spills and unexpected corrosion.

Plutonium Facility–Safety Basis: The contractor completed and submitted the revised safety basis addendum supporting the receipt of large quantities of heat source material (see 9/1/2023 report). The NNSA Field Office and headquarters are reviewing the submittal.

Work Planning and Control: Last Wednesday, personnel from a sub-tier construction contractor damaged the fence around a material disposal area. The workers were performing excavation work supporting the Transuranic Liquid Waste Project. They did not pause work and decided to repair the damaged fence. While replacement of this fence is part of this subcontractor's scope, the fence repair they performed was not in their authorized scope of work for the day. During cutting activities for the repair, a small fire ignited in the vegetation in the material disposal area. The workers extinguished the fire with water and a fire extinguisher, made notifications to operations personnel, but did not call the fire department as required. Operations personnel called the fire department who did respond to verify the fire was fully extinguished. There was no hot work permit for this activity. Also, as the laboratory was under Stage II fire restrictions at the time, any hot work activities would have required review and approval by fire protection engineering personnel. Management paused the work until a training event could be held to reinforce the importance of pausing work, emergency notifications protocols, work scope definition, and content of prejob briefings.

Waste Characterization, Reduction, and Repackaging Facility (WCRRF)–Safety Basis: Last Friday, Triad submitted to the NNSA Field Office for approval a documented safety analysis that supports restart of the WCRRF as a hazard category 3 nuclear facility, downgraded from its original hazard category 2 designation. The submittal includes changes requested in the recent conditional approval of the preliminary documented safety analysis (see 9/1/2023 report).