

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 10, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: A. Boussof and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending February 10, 2023

Plutonium Facility–Infrastructure: Last Friday evening, as part of the on-going Facility Control System upgrade, facility personnel were working on a de-energized panel adjacent to an energized panel that had been installed two weeks prior (see 2/3/2023 report). An electrical worker identified a missing bushing on the energized panel, which should have been installed two weeks prior, and performed an out-of-scope repair. A live lead met the panel wall causing two breakers to trip, the local 120V as well as one in a 480V panel further upstream. On Monday, facility personnel held a fact-finding meeting that identified several potential corrective actions including: formalizing the turnover process from swing shift to night shift, performing an extent of condition review on training among electricians as this worker had not yet completed the required core electrical safety training, using flagged or marked panels to denote their energy status, and assembling a learning team to discuss the absence of voltage checks. The system impacts from this event prevented restoration of the facility to normal operations until Thursday evening.

On Monday, the NNSA Field Office concurred on the Fiscal Year 2023 Technical Area 55 Project Execution Strategy (see 1/6/2023 report). This is the first time the Field Office formally concurred on the strategy that documents planned upgrades, modifications, and maintenance at the Plutonium Facility. The concurrence letter notes that a key change for 2023 is removal of line item funding to support a safety-class active confinement ventilation system from the TA-55 Reinvestment Project III. This is inconsistent with a previous NNSA decision that removed said funding in 2016 (see 11/25/2016 report). In a 2020 briefing to the Board, NNSA again stated that the end state of facility would involve a seismically qualified safety-class active confinement ventilation system (see Exhibit 16 from DNFSB Public Hearing 11/16/2022). In a letter dated 3/15/2022, NNSA communicated to the Board the revised strategy for the active confinement ventilation system and NNSA and LANL discussed this strategy during the Public Hearing on 11/16/2022.

Chemistry and Metallurgy Research Building (CMR): Last week, CMR workers recognized that they failed to execute a required surveillance in August 2022. The requirement is to test open faced hoods handling nuclear material for adequate air flow biannually. During the surveillance evolution last week, a worker noticed three hoods were omitted from the work documentation. Upon further investigation, the workers determined that the surveillance had been skipped in February 2022 due to the room having an access restriction, and the three hoods were not included in subsequent work documentation for August 2022. All three hoods were tested and passed minimum air flows last week. On Monday, a fact-finding meeting was held to discuss the incident. Meeting personnel identified several potential corrective actions including updating the procedure to include fixed data (e.g., hood numbers and dimensions), evaluating a method to improve the tracking of surveillances through completion, and performing an extent of condition review to flag other surveillances that rely on previous paperwork to baseline current needs.

Area G–Stop Work: On Wednesday, N3B released the stop work on excavation of corrugated metal pipes (CMPs), and shortly thereafter, the Environmental Management Field Office released their pause (see 2/10/2023 report). N3B personnel completed and explained conducting a series of new soil penetrometer tests intended to justify that the existing slope of the excavation is acceptable for the soil characteristics. CMP retrieval has not yet resumed as personnel continue to validate that all training, maintenance, and other requirements are in place and documented.