

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 9, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for the Week Ending February 9, 2024

Staff Activity: M. Bradisse was on site providing resident inspector support. While on site, he attended fact-finding meetings, toured the Weapons Engineering Tritium Facility to discuss the safety implications of an upcoming mission, and made several entries into the Plutonium Facility.

Plutonium Facility–Decontamination and Decommissioning (D&D): Last Wednesday, Plutonium Infrastructure personnel discovered several issues in a room undergoing D&D activities. This room contains legacy gloveboxes, which workers are cleaning and preparing for eventual removal. Workers discovered that while some gloveboxes in the room had the correct version of the required criticality safety posting, other gloveboxes had a previous version that should have been replaced. Additionally, the workers discovered that two drums in the room had separate issues. The first drum had a specific criticality safety posting that meant it was not allowed in this room. The second drum had conflicting labels, such that it was marked as both as “empty” and “in progress” despite containing nuclear material. The workers also discovered discrepancies with material inventory printouts on several pencil tanks, which are staged for size reduction. At the fact finding, workers stated that, during one work evolution, they were running low on battery power for their respiratory equipment, which caused them to exit rapidly and miss the conflicting labels on the second drum. Corrective actions for this event include developing a lessons-learned document, and evaluating techniques for displaying criticality safety posting techniques to ensure such postings are replaced with current versions when necessary and avoid inadvertently introducing disallowed items into areas.

Last week in a different room, there was a continuous air monitor alarm in a contamination control tent supporting D&D work. There was no active D&D work occurring at the time; rather, personnel were smoke testing the tent to test for adequate ventilation flow. All personnel in the tent evacuated. Personnel in the laboratory room, but outside of the tent, also evacuated due to an announcement from the operations center. Further airflow measurements concluded that for large tents like this one, there can be a stagnant air layer that allows contamination to collect on elevated surfaces which can then be mobilized when the airflow changes. Additional filtered vents added near the top of this tent resolved this issue without the need for an additional air mover. This approach will be applied to future large tent installations. Another corrective action is to improve communications regarding the location of alarms to avoid unnecessary evacuations without radiological survey for personnel who are already one airspace away from the alarm. Unrelated to the airborne event, a management walkdown of this tent last week identified several housekeeping issues that were promptly resolved.

Federal Oversight: Last week, the NNSA Field Office transmitted to Triad an assessment of nuclear safety issues at the laboratory from the DOE Office of Enterprise Assessments (DOE-EA). The letter requested that Triad address the findings, deficiencies, and opportunities for improvement from the report. The report noted considerable improvement in issues management since the last DOE-EA assessment in 2019. It identified two findings related to persisting weaknesses: that Triad does not adequately identify items that do not meet requirements or need improvement, and that Triad does not adequately train and qualify its workforce on identifying and resolving issues. There were also several deficiencies and opportunities for improvement identified for Triad and one deficiency for the NNSA Field Office: that the field office has not performed assessments of the contractor assurance system.