

August 23, 2024

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy J. Dwyer, Technical Director
FROM: E. Freeman and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending August 23, 2024

Staff Activity: On Wednesday, a staff team held a discussion with Triad and NNSA Field Office personnel to discuss conclusions from the staff's review of decontamination and decommissioning activities at the Plutonium Facility (see 6/28/2024 report). On Thursday a different staff team remotely met with Triad engineering personnel regarding engineered safety systems in the Plutonium Facility.

Plutonium Facility–Operations: Last Wednesday, glovebox workers opening a container holding a plutonium ingot saw evidence of rapid oxidation and high temperatures. They immediately replaced the container lid and found that a glovebox glove in contact with the container was thermally damaged. They treated this as a potential glove breach. Responding radiological control personnel found no evidence of contamination spread from the damaged glove. The cause of this oxidation event is unknown as it involved an ingot rather than high surface area metal such as turnings. Oxidation of turnings is anticipated during this process, and the procedure includes steps to address potential reactions. The container is no longer hot and has been moved to a different location for further evaluation.

Area G–Work Control: On Monday, workers did not fully adhere to the work package while replacing filters in the ventilation system for the Dome 375 Perma-Con where N3B personnel cut and package corrugated metal pipe segments. During the activity, a worker observed evidence of air flow and paused work. They determined that an intake damper had not been closed prior to filter removal. During the fact-finding meeting for this event, participants noted several deficiencies such as the lack of a dedicated reader, personnel turnover due to a weather delay, and a lack of awareness of the type of work package used and its significance. Participants also agreed on several compensatory measures including the development and rollout of training on work package types, ensuring adequate personnel are available, and to revise the work package.

RANT Shipping Facility–Work Control: On Tuesday, a radiological protection employee performed work to install additional shielding around a radiological counting instrument in the RANT Shipping Facility. This work was not on the plan of the day, operations center personnel were not aware of it, and the electrical and lead hazards were not fully accounted for. Resident workers noticed the changes to the instrument and contacted the operations center. Given the uncertain calibration of the instrument, personnel unloaded and recounted a transuranic waste shipment that had already been prepared for shipment to the Waste Isolation Pilot Plant. This event is similar to the event involving an excavation within a nuclear facility fence line and reinforces the importance of keeping non-resident workers fully informed of all requirements for working at nuclear facilities (see 8/16/2024 report).

Transuranic Waste Facility–Emergency Preparedness: On Wednesday, Triad personnel conducted an emergency preparedness drill at the Transuranic Waste Facility. The scenario involved two transuranic waste drums falling from a pallet while being lifted on a forklift. The falling drums injured and contaminated one worker, and a second worker had a personal medical episode while exiting the facility. This drill involved activation of the Emergency Operations Center at the primary alternate location (see 7/19, 8/2/2024 reports). This was a minimum staff activation to collect data on whether minimum staffing levels were adequate.