

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 10, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for the Week Ending May 10, 2024

Staff Activity: M. Bradisse was on site providing resident inspector support.

Plutonium Facility–Emergency Response: On Monday evening, a fire alarm activated in a laboratory room with several furnaces running under an unattended operations permit. Responding fire department personnel found no evidence of a fire. Facility employee response to this alarm was greatly improved from the event last month (see 4/12/2024 report). One of the corrective actions from that event was to develop additional training on alarm response for all Plutonium Facility workers. That computer-based training was assigned to all personnel two weeks ago. The alarm was likely caused by waste heat raising internal glovebox temperatures above the fire alarm threshold. There were no unusual conditions or unexpected behavior observed during these furnace runs. A similar event happened in the same room last year. Facility personnel plan to investigate the heat loading from this furnace process and develop corrective actions to avoid further fire department responses.

Plutonium Facility–Radiological Control: Last Thursday, workers were contaminated during an operation involving the processing and handling of two sets of heat source plutonium pellets. After processing one of the sets, a worker noticed an area of discoloration on one of the glovebox gloves and called over the person in charge (PIC) for a second opinion. They did not identify any glove breaches, but upon pulling out of the glovebox gloves, the worker's personal protective equipment (PPE) glove alarmed the nearby hand radiation monitor. Radiological control technicians responded to the scene and facilitated an orderly exit from the room to prepare for decontamination work. Upon trying to exit the room, the PIC alarmed the hand and foot monitor at the lab room door, indicating contamination on the skin of his right palm. He had not used the glovebox gloves in question during that job evolution. The worker who had been using the glovebox gloves prior to the alarm, along with two other workers who had used those gloves earlier in the job, all had contamination on their PPE. Radiological control technicians successfully decontaminated all four individuals. There was no evidence of an airborne release or further contamination spread beyond the gloves and the workers. At the fact-finding meeting for this event, participants noted that these glovebox gloves were relatively new, having been installed only two weeks prior. Investigation into the source of the contamination, including an analysis of the glovebox gloves and the equipment used to install them, is ongoing.

Plutonium Facility–Operations: Last week one of the trolleys for transporting material within a wing of the Plutonium Facility stopped functioning properly. This week, personnel performed a planning walkdown to evaluate a safe means to insert a camera into the trolley line for troubleshooting. Meanwhile, production personnel are evaluating other means to move material between glovebox lines if the trolley line remains out of service for an extended period of time.

Transuranic Liquid Waste Facility (TLW): On Wednesday, the visiting staff member joined Triad management on a routine walkdown of the TLW construction site. In March, Triad submitted the 90% draft documented safety analysis to the NNSA Field Office for review and informal comment to support submittal of a 100% document later this year.