

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 4, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: E. Freeman and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending October 4, 2024

Weapons Production: The NNSA Field Office diamond stamped the first production unit of a plutonium pit for the current mission at the Plutonium Facility signifying that it met all requirements. The Plutonium Facility is continuing its operational transition to support pit production. DNFSB will continue to provide oversight focusing on the changes with a significant safety nexus such as: equipment removal and installation to support production needs; the hiring and training of tremendous numbers of new workers; and adjustments to shift work schedules, notably much greater activity outside of the daytime.

Plutonium Facility–Radiological Control: On Monday, workers performing a cold introduction of a container into a heat source plutonium glovebox line experienced a contamination event. The workers moving the container through the spool piece connecting the intro hood and the glovebox realized that the container was not fitting through the opening as expected so paused work and moved the container back into the hood. The attending radiological control technician detected contamination on the personal protective equipment and skin of the worker handling the container on the hood side. The individual was successfully decontaminated. There was some contamination spread within the room, but no evidence of any airborne radioactivity. The door between the glovebox and the hood does not open fully meaning this size of container could not be introduced through the planned location. In order to avoid similar events, facility management is planning to assess door configurations. They also plan to issue a lessons learned document to reinforce the importance of both minimizing movement when there is a high potential for a contamination spread and verifying clearance prior to moving items.

Area G–Radiological Control: On Wednesday and Thursday last week, N3B had two radiological control issues during size reduction activities for corrugated metal pipes (CMPs) in Technical Area 54. The first occurrence involved the improper doffing of personal protective equipment as well as the accidental contamination of a worker’s personal shoe, which was missed during handheld surveys on exit from a contamination area. The second occurrence involved the temporary misplacement of, and subsequent search for, a check source used by the radiological control technicians within a contamination area. N3B radiation control management called a pause on work for their staff to review lessons learned from these events and to identify potential measures to prevent recurrence.

Plutonium Facility–Criticality Safety: Triad personnel recently started testing the filters in the lids of SAVY containers to assess whether exposure to the radiological conditions in a glovebox line degrades the water resistance of the filter over time. SAVY containers are credited as safety-class to provide a damage ratio in fire and drop scenarios. The water resistance is not a part of that safety function. However, they are considered water resistant containers for criticality safety purposes in locations where criticality safety evaluations designate materials must be stored in such a container. Initial tests have shown some filters experiencing water penetration. These lids have been marked as not water resistant. Triad personnel are planning additional testing in a formalized manner to evaluate whether these initial data points challenge the continued use of SAVY containers as water resistant.