

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 7, 2025

TO: R. T. Davis, Acting Technical Director
FROM: E. Freeman, D. Gutowski, and J. Kemp, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending February 7, 2025

Plutonium Facility–Radiological Control: Last Wednesday, a worker in a laboratory room identified contamination above their ear during a routine survey following work in an open front hood. Responding radiological control technicians confirmed the presence of a hot particle in the individual’s hair and successfully decontaminated them. Radiological control personnel did not identify any further contamination spread or evidence of airborne radioactivity; however, they were unable to identify the source of the contamination. While the interior of the hood was contaminated, it was well below action levels to trigger decontamination. Corrective actions under consideration include monitored evolutions of this work activity by radiological control personnel, ergonomic review, and evaluating survey and doffing techniques for fume hood work using sleeves with two pairs of gloves.

Plutonium Facility–Continuous Improvement: On Wednesday, Weapons Production and Plutonium Infrastructure held their quarterly safety pause (see 6/14/2024 report). Key topics discussed during the pause included lessons learned from the installation of a new glovebox (see 3/15/2024 report), fire issues with new lighting fixtures (see 11/22/2024 report), and demonstrations of respirator usage with hardhats or in tight areas. The pause also included a discussion of positive outcomes where proactive questions or thorough radiological monitoring caught minor events before they could increase in hazard.

Plutonium Facility–Safety Basis: Last Friday, the NNSA Field Office unconditionally approved the page change to the Plutonium Facility’s safety basis supporting disposal of spent ion exchange resin from the aqueous nitrate process (see 1/10/2025 report).

On Monday, Triad submitted the evaluation of the safety of the situation associated with boiling liquid expanding vapor explosions of cryogenic tanks to the NNSA Field Office for approval. This revised document changed the probability of such an event to “extremely unlikely” from “beyond extremely unlikely” (see 12/20/2024 report).

Area G–Safety Basis: On Wednesday, N3B submitted a new revision of the Basis for Interim Operations for Area G to the Environmental Management Field Office for review and approval. This revision accounts for an increased standoff distance for the flanged tritium waste containers (FTWC) stored at Area G and is consistent with the direction from the Field Office to prioritize support for the FTWC venting project (see 1/31/2025 report).

DNFSB resident inspectors conducted a walkdown of Area G on Thursday to confirm the installation of engineered controls required under the new documented safety analysis (DSA). The revised DSA for Area G, approved last year (see 11/15/2024 report), is currently directed to be implemented by the end of September 2025. The resident inspectors were able to verify the installation of liquid impediments and observed progress in evaluating existing vehicle barrier placements and condition.