

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 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 January 10, 2025

Plutonium Facility–Radiological Control: This week, Triad personnel held a fact-finding meeting related to a December contamination spread in a heat source plutonium laboratory room resulting in several individuals with contamination on their personal protective equipment (PPE). The event occurred during process vent line testing for a line that had recently been repaired. Other radiological events occurred earlier during work on this line. The workers were wearing appropriate PPE when the spread occurred. They discovered the contamination through self-survey at the hand and foot monitors at the room exit and made appropriate notifications preventing further spread. Radiological control technicians traced the contamination source back to a piece of folded plastic with soldering debris, which had not been identified and disposed of during previous survey and cleanup efforts. Full time radiological control technician coverage had not been assigned to the work. The contamination was successfully removed. Facility personnel are developing several ideas to help prevent similar contamination spread during congested work underneath gloveboxes, including assigning full time radiological control technician coverage, performing cold mock-ups prior to performing the work, and improving lighting conditions.

Plutonium Facility–Safety Basis/Readiness: Late last year, Triad submitted to the NNSA Field Office for approval a page change to the Plutonium Facility's safety basis to support disposal of spent ion exchange resin from the aqueous nitrate process. The changes included two new scenarios in the hazards analysis related to resin disposal, a change in the resin design feature to specify that overpressure hazards are only credible when the resin is confined, and additional description of resin disposal. There are no new controls. Restart of the aqueous nitrate process is awaiting closure of prestart findings from readiness, which include developing a path forward for resin disposal (see 3/22/2024 report).

Area G–Safety Basis: On Wednesday, N3B submitted a request to the EM Field Office to extend five justifications for continued operations (JCO) documents currently in place but expiring in February 2025. Previously, N3B was working to implement a newly approved safety basis that was approved by DOE in November (see 11/15/2024 report). In December 2024, however, DOE instructed N3B to immediately redirect resources from the TA-54 documented safety analysis implementation to support the Flanged Tritium Waste Container (FTWC) venting project and to seek an extension of the JCOs (see 12/20/2024 report). N3B has requested that the JCOs be extended one year to February 2026.

Emergency Preparedness: On Monday, the NNSA Field Office provided its concurrence on Triad's prioritized list of Pre-Incident Plans (PIP) to update in the coming months. Due to software changes, PIPs are maintained and updated manually until a long-term software solution is implemented. Triad has identified what PIPs are out of date and prioritized these based on a risk-informed ranking. The NNSA Field Office has requested a status update in 60 days.