

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 13, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: E. Freeman, D. Gutowski, and J. Kemp, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending December 13, 2024

Staff Activity: A. Boussouf was on site Monday to meet with Triad and NNSA Field Office personnel to follow-up on fire modeling topics for the staff review of the new Plutonium Facility documented safety analysis (see 10/25/2024 report). The discussion focused on the efficacy of the fire suppression system during design basis fires and how that impacts accident analysis. M. Bradisse was on site providing resident inspector support.

Area G–Operations: On Wednesday, N3B personnel finished the size reduction of all remaining corrugated metal pipes (CMP). During this project, they excavated and cut a total of 158 CMPs into five segments each. N3B plans to characterize the standard waste boxes that contain CMP segments throughout 2025 for shipment to the Waste Isolation Pilot Plant.

Plutonium Facility–Safety Basis: Last Thursday, based on questions from the NNSA Field Office, Triad personnel declared a potential inadequacy of the safety analysis (PISA). The current safety basis considers the boiling liquid expanding vapor explosion (BLEVE) hazard to be beyond extremely unlikely, however Triad personnel are assessing whether this is the appropriate frequency for this hazard.

On Thursday, the NNSA Field office approved the safety basis temporary modification supporting construction in a process room containing molten plutonium processes with two directed changes (see 11/15/2024). The directed changes are related to inspections that will be performed to verify that newly installed columns meet seismic design category 3. The resident inspectors and headquarters staff walked down the room where this construction will occur and discussed the planned approach to installation with Triad project personnel.

Chemistry and Metallurgy Research Building (CMR): A resident inspector visited the CMR yard with Triad personnel to observe the planned storage location for radioactive material and discuss the planned implementation strategies for the recently approved addendum to the safety basis allowing said storage (see 12/6/2024 report).

Federal Oversight: On Monday, two NNSA Field Office staff members went through a final qualifying activity to become Senior Technical Safety Managers. The qualifying activity was a hybrid between an oral board and a field walkdown at the Weapons Engineering Tritium Facility. Both individuals performed well. The resident inspector observed that the balance between the more structured oral board and the walkdown was more conducive to adequately evaluating the candidates than the previous qualification activity, which focused more on the walkdown portion of the hybrid approach (see 2/2/2024 report).