

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 26, 2024

**TO:** Katherine R. Herrera, Acting Technical Director  
**FROM:** D. Gutowski, Resident Inspector  
**SUBJECT:** Los Alamos Activity Report for the Week Ending January 26, 2024

**Staff Activity:** On Tuesday, the Board's staff held a remote factual accuracy meeting for a complex-wide review of electrical cable maintenance (see 6/23/2023 report).

**Plutonium Facility–Infrastructure:** At the end of last year, Triad issued the annual revision of the TA-55 Project Execution Strategy (PES) (see 1/6/2023 report). Key accomplishments in the last fiscal year highlighted in the latest PES include: completion of phase 2 seismic testing of cast-iron fire suppression system fittings, completion of six seismic cluster analyses for gloveboxes, and completion and commissioning of the new Facility Control System. Major activities planned for this fiscal year include: completing the construction of a new high pressure fire water feed for the non-seismic building separation project, completing the design for fan replacements for Zone 1 exhaust and Zone 2 bleed-off, completing six more seismic cluster analyses for gloveboxes, and completing the construction and commissioning of two instrument air system compressors.

**Plutonium Facility–Safety Basis:** This week, the NNSA Field Office transmitted to Triad its response on the leak path factor and atmospheric dispersion methodology. The field office did not concur with the revised methodology and directed Triad to use the currently approved one. The field office previously submitted comments regarding the justification for the overall reduced conservatism in the proposed calculation (see 10/27/2023 and 12/8/2023 report).

**Plutonium Facility–Readiness:** On Thursday, the NNSA Field Office approved the corrective action plan from the contractor readiness assessment for resumption of aqueous nitrate operations (see 1/5/2024 report). The federal readiness has been postponed due to an equipment issue identified this week.

**Transuranic Waste Facility (TWF)–Criticality Safety:** On Tuesday, Central Characterization Project (CCP) personnel were performing drum measurements at the High Efficiency Neutron Counter at TWF. Their initial measurements exceeded the 200 fissile gram equivalent criticality safety limit for three 55 gallon drums at TWF. Under their normal practice, CCP tags these drums to note the high initial reading, but does not report the values until they are validated through expert analysis and adjusted to account for instrument uncertainties. TWF operations personnel noted the tags and entered their criticality response process. The final validated value on all of these drums was below the 200 gram limit. Waste generator data from when the drums were originally received at TWF from Technical Area 55 also showed they were below the limit. Triad and CCP personnel plan to ensure that there is a consistent understanding of which types of data are appropriate to use for criticality safety compliance at TWF. There is an existing memorandum from the Nuclear Criticality Safety Division from 2011 that is referenced in the TWF criticality safety evaluation. This memorandum recommends using waste generator data for criticality safety compliance for transuranic waste operations in Area G as opposed to the practice at the time that initially used waste generator data then flipped to validated assay data from CCP.