

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 6, 2020

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending November 6, 2020

Transuranic Waste Management: Triad personnel completed two shipments of transuranic waste using the mobile loading capability from an outdoor pad at the Plutonium Facility to the Waste Isolation Pilot Plant (WIPP). The shipments contained a total of about 48 containers and included a large fraction of containers that could not be shipped to the Transuranic Waste Facility of the RANT Shipping Facility primarily due to material-at-risk limits or other onsite shipping requirements. The last mobile loading shipment from an outdoor pad at the Plutonium Facility was in September 2018 (see 12/13/2019 report).

Area G–Safety Basis: Last Friday, N3B submitted to the EM Field Office for review and approval a safety basis strategy for developing a new Area G safety basis. The field office has been pursuing various strategies to improve or otherwise develop a new safety basis for Area G since 2015 (see 7/5/2019 report). N3B's current strategy states that a new safety basis will be developed using DOE-STD-3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*, and DOE-STD-5506-2007, *Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities* (or successor) for waste parameter calculations. The strategy states that planned changes from the existing safety basis will incorporate: (1) revised fire standoff distance calculations; (2) material-at-risk calculations using the draft revision of DOE-STD-5506; (3) a revised number of containers involved in a fuel pool fire as a function of revised pool fire size calculations; and (4) lessons learned the WIPP radiological release event and DNFSB/TECH-46, *Potential Energetic Chemical Reactions Involving Transuranic Waste at LANL*. The strategy further indicates that only near-term activities will be analyzed and that planned container retrievals from underground pits and trenches will need to be analyzed in future revisions. The schedule includes submittal of draft chapters during the course of the year leading to a final completed document to the field office in February 2022. Additional time will be needed for a final federal review and approval cycle. N3B plans to develop a separate schedule for implementation and notes that it could be impacted if the new safety basis identifies safety controls that are not currently budgeted. The EM Field Office is reviewing the strategy.

Plutonium Facility–Glovebox Safety: This week, facility management released analytical chemistry personnel to resume use of oval gloveports of the type involved in the recent glove push-through events (see 10/2/2020 report). With this release, work remains paused in only one of the nine gloveboxes using oval ports. Triad has also been closely collaborating with the vendor on designs and testing of prototypes for an engineered solution.

COVID-19 Impacts: The State of New Mexico and the laboratory continue to experience growth in new weekly cases. Plutonium Facility operations were impacted this week by a confirmed positive case with fourteen close contacts requiring precautionary isolation. These individuals largely work in the same group providing a support function for compliant facility operations. The NNSA Field Office and Triad senior leadership discussed additional measures to minimize operational impacts, including an effort to develop lessons learned from recent cases with large numbers of close contacts.