

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 19, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending March 19, 2021

DNFSB Staff Activity: Members of the Board's staff held discussions with NNSA Field Office and Triad personnel as part of a review of the onsite Transportation Safety Document. The review examined adherence to applicable requirements, the completeness of the hazard and accident analyses, and the ability of the control set to ensure worker and public safety.

Transuranic Waste Management: On Monday, Triad personnel commenced an investigation for the event associated with the suspected titanium welding fume condensate that readily ignited into sparks during a waste drum-out (see 3/5/2021 report). The team's chartered outcomes include: (1) a comprehensive articulation of the facts and timeline, (2) an assessment of procedures governing the introduction of materials into the glovebox environment, (3) an assessment of the event response and recommendations for improvement, (4) a review of corrective actions taken in response to the radiological release event that occurred at the Waste Isolation Pilot Plant (WIPP) on February 14, 2014, and (5) a determination on the extent-of-condition regarding other processes that may be at risk of inadequate waste characterization. The team includes a mix of onsite and virtual participants from internal and external sources, including representatives from the Central Characterization Program (CCP) and the WIPP contractor. NNSA has assigned two observers. This week, the team walked-down the gloveboxes and locations within the Plutonium Facility that were involved in the waste generation and conducted a number of interviews.

Operationally, Triad has released most waste drum-out activities; however, CCP management has paused all characterization activities at the Plutonium Facility effectively meaning that no waste drum-outs can occur. Triad personnel have concluded that there are four containers at LANL with similar titanium welding fume condensates. These containers are isolated and within the Plutonium Facility confinement structure. No safety basis level restrictions or controls have been placed on the containers.

Area G–Safety Basis: On Tuesday, N3B submitted to the EM Field Office the second half of the extent-of-condition review of design basis accidents in the current Area G safety basis. During the course of this part of the extent-of-condition, seven issues were evaluated through the Initial Confirmatory process with four resulting in potential inadequacies of the safety analysis.

On Tuesday, the EM Field Office acknowledged N3B's letter describing their restricted operations (see 3/12/2021 report). On Wednesday, N3B transmitted to the EM Field Office for approval a revised safety basis strategy to update and upgrade the Area G safety basis. This revision is intended to address DOE comments from the previously rejected strategy noting that it did not include adequate information regarding managing safe operation of the facility while addressing the large number of issues with the current safety basis (see 2/5/2021 report). In their transmission letter, N3B noted that, per their restricted operations letter of last week, they would be providing an integrated plan for interim safety basis management by March 25, 2021. This plan is expected to detail a phased approach including development of a consolidated evaluation of the safety of the situation for a restricted operational envelope and additional analyses to support expanded operations.