DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 3, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director

FROM: D. Gutowski, Resident Inspector

SUBJECT: Los Alamos Activity Report for Week Ending September 3, 2021

Area G: On Wednesday, Environmental Management Field Office and Headquarters personnel conditionally approved four Justifications for Continued Operations including the one pertaining to DNFSB TECH-46 and potentially energetic drums (see 8/6/2021 report). The approval letter included two conditions of approval and nine directed changes for the four submittals. The requested changes primarily relate to the details of combustible controls.

On Sunday morning during a post-weather event walkdown, facility personnel discovered one of the poles supporting the catenary lightning protection system around Dome 48 had fallen onto the dome. No waste containers were impacted. There was minor structural damage to the dome frame and a new tear in the fabric. The dome was already scheduled to be reskinned for existing fabric degradation. On Sunday afternoon, facility management authorized immediate actions outside of the facility's safety basis in order to remove the pole using equipment containing liquid fuel beyond current limits. They successfully removed the pole without incident and removed all equipment. The lightning protection system is not formally credited in the safety basis, and its operability is currently degraded. Facility personnel are evaluating repair options to the system and to Dome 48.

Radioactive Laboratory Utility Office Building (RLUOB): Triad personnel completed an Implementation Verification Review (IVR) for the upgrade of RLUOB to a Hazard Category 3 nuclear facility to be known as PF-400. The team identified two findings: one related to filter replacement frequency and the other regarding material at risk controls for hallways.

Transuranic Waste Management: An extent of condition review following the RLUOB's IVR team's questions on the Specific Administrative Control (SAC) prohibiting polysaccharides and concentrated nitric acid identified five transuranic waste drums at the Chemistry and Metallurgy Research Building (CMR) that may contain a prohibited mixture. Both facilities have the same prohibition on concentrated nitric acid and polysaccharides. While further evaluation concluded there was no immediate concern, the question highlights challenges in compliantly loading waste drums. CMR and RLUOB generate waste drums over time where individual bags of waste are evaluated and then combined into a single drum. As written, the facility SACs totally prohibit the presence of concentrated nitric acid and polysaccharides in the same drum with no allowance for trivial quantities. The waste packaging requirements procedure has a more limited prohibition, and individual loading procedures do not note the SAC. The procedures also do not provide guidance on evaluating combinations from different bags in the same waste container.

Emergency Management: On Wednesday, Technical Area 55 personnel held a coached tabletop training drill. The scenario was a criticality event in the Plutonium Facility. Drill participants identified several items for follow-up including assessing communications capabilities in the alternative Operations Center. Facility personnel ordinarily perform a required annual field drill and facility evacuation for a criticality event. This was not performed in Fiscal Year 2020 due to COVID, so the last field performance was in October 2019. The field drill for Fiscal Year 2021 is planned later in September.