

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 5, 2022

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending August 5, 2022

Plutonium Facility–Transuranic Waste Management: On Thursday, facility personnel held a fact-finding meeting to evaluate an event where potential transuranic waste from a demolition activity was inadvertently staged in a low-level waste bag. Following the discovery of this discrepancy, the area was roped off to restrict access. Fact-finding participants noted that the proper waste disposal process was not adequately relayed to maintenance workers. Facility personnel also acknowledged that their current work planning processes have weaknesses in identifying material at risk during demolition activities and integrating waste planning. They plan to improve their work planning processes to address these weaknesses.

Plutonium Facility–Infrastructure: Facility personnel continue their efforts to replace the chlorine gas system in the Plutonium Facility (see 1/17/2020 report). The old system has been removed, but the new one is not operational yet. The original mass flow controllers for the new system had too large a flow range for accurate control so new ones had to be purchased and installed. There were also issues with material compatibility for sealants in the system. Programmatic personnel are preparing to go through readiness with the new system and are performing procedure walkthroughs using the new human machine interface, however until the new system is pressure tested, they cannot do a high-fidelity cold run using inert gas.

Electrical Power Interruptions: The site experienced two power interruption events last week that impacted nuclear facilities. During the first one, the Plutonium Facility experienced a brief power dip likely due to lightning. The backup diesel generators activated promptly so all safety systems remained functional. The second event over the weekend was far more widespread as a lightning strike caused a transformer to trip at the TA-5 substation. All loads from that transformer were lost as a tie circuit breaker failed to close automatically. Workers restored power after several hours by manually closing that breaker to shift the loads to another transformer. Impacted nuclear facilities that lost power included Area G, the RANT Shipping Facility, and the Transuranic Waste Facility (TWF). The Plutonium Facility did not lose power, however ancillary facilities at TA-55 did. As there were a tremendous number of alarms coming in with the widespread power losses, some notifications to on call duty officers for facilities that were unmanned at the time such as TWF and RANT were delayed for several hours. The diesel generators at TWF activated properly but did not automatically deactivate once power was restored. Facility personnel are troubleshooting the system.

Area G: This week, N3B and Central Characterization Project personnel performed transuranic waste mobile loading operations for the first time since October 2020 (see 8/27/2021 report). Fourteen drums and eight standard waste boxes were successfully loaded for shipment to the Waste Isolation Pilot Plant. Some of these containers did not meet the requirements for indoor shipping through RANT and required mobile loading. The activity was completed within the one-year timeframe for maintaining readiness.