

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 27, 2022

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: A. Boussouf, D. Gutowski, and J. Plaue, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending May 27, 2022

DNFSB Staff Activity: On Wednesday, the Board's staff held a call with DOE and N3B personnel to discuss the proposed atmospheric dispersion protocol that will support the new DOE Standard 3009-2014 compliant documented safety analysis under development for Area G.

Weapons Engineering Tritium Facility: Last Wednesday, there was a procedure execution error during a first time use validation using helium as a surrogate gas for tritium. A worker inadvertently opened a cap in the tritium gas handling system instead of opening a valve. The individual noticed the error immediately and tightened the cap, but helium was released into a glovebox. Tritium levels in the box increased but remained below alarm setpoints. This is the third procedure error at the facility since the beginning of the year (see 1/28/2022, 3/4/2022 reports). Facility management suspended gas transfers and is performing an extent of condition on the tritium gas handling system to look for other caps that could be inadvertently loosened. The tritium gas handling system will remain out of service until it is leak tested.

Radiological Laboratory Utility Office Building/PF-400: The resident inspectors walked down portions of the facility with Triad engineering personnel to further discuss the modeling assumptions used in the calculation justifying the equivalency to remove the HEPA filter deluge system (see 11/5/2021, 3/5/2022 reports).

Plutonium Facility–Emergency Management: Last Wednesday, there was an emergency medical response to the Plutonium Facility due to a head injury in the basement. Facility personnel later held a fact-finding meeting to discuss the incident and the response. One key item that emerged was that this was the first medical response to the facility following the disbanding of the Medical Response Team (MRT). The MRT was a volunteer group of personnel who maintained a level of first responder training to promptly respond to injuries in the protected area. They usually moved patients out of the facility to meet the fire department outside of some security or radiological boundaries to improve response time. Training and communications of this change is incomplete, which led to some communications errors during this response. Also, the Building Emergency Plan update reflecting this change is still in approval.

On Thursday, Triad personnel conducted a tabletop drill to train on emergency response actions associated with a criticality accident at the Plutonium Facility. In the scenario, four individuals were adjacent to the accident and needed emergency medical attention. One key item discussed at length during the tabletop was the medical response including integrating medical needs with security and radiological requirements, and the capabilities of the local hospital to deal with four potentially contaminated patients at once.

Area G–Readiness: A contractor team finished its readiness assessment for retrieval of the Corrugated Metal Pipes (CMP) and briefed DOE and N3B on their initial findings. The team had three pre-start findings and six post-start findings. Key findings included: procedure compliance is not at the expected level of performance; the five CMPs with higher dose rates were not addressed as part of reviews to minimize dose; and the event investigation meetings held to evaluate two events during demonstrations did not include all the actions described in the company policy for learning from events.