

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 9, 2022

TO: Katherine R. Herrera, Acting Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending December 9, 2022

Staff Activity: Staff members C. Beaty, J. Heath, and L. Lin were onsite this week for an initial visit to support a review of decontamination and decommissioning (D&D) at the Plutonium Facility and the Chemistry and Metallurgy Research Building.

Plutonium Facility–Fire Protection: On Thursday, the resident inspectors identified approximately 40 flammable gas cylinders staged outside of the Plutonium Facility in a configuration that violated the minimum separation distance from oxygen cylinders. The resident inspectors notified facility operations management of the issue. The improper staging of flammable cylinders outside of the Plutonium Facility has been a recurring issue; the resident inspectors identified a similar non-compliance on the other side of the facility in July which has been resolved.

Plutonium Facility–Criticality Safety: On Thursday, workers identified that some units of one model of water-resistant containers used to store nuclear material in the Plutonium Facility had lids that were not secure even after proper closure. They informed criticality safety personnel as this type of container is widely used in areas where the criticality safety evaluation requires water resistant containers or containers that remain closed while in transit. Further inspection of units of this container model suggested that the poor closure may be specific to a large batch of recently purchased containers that have minor differences from previous purchase batches evident on visual inspection; there is no obvious visual distinction between functional and non-functional containers within the same batch. Facility personnel are inspecting containers in use and restricting procurement and distribution of new containers while they determine whether there was a specification change or procurement error with these containers.

Plutonium Facility–D&D: On Tuesday, the resident inspectors and staff review team observed a cold mockup demonstration for the removal, downsizing, and disposal of criticality-safe geometry cylindrical tanks (pencil tanks). The demonstration involved the cutting of metal piping of a similar material and geometry inside a glovebag. Triad D&D personnel shared lessons learned from their mockup activities, discussed hoisting logistics, and the planned safety protocols for the activity. Pencil tank D&D in the Plutonium Facility is scheduled to start in 2023.

Chemistry and Metallurgy Research Building (CMR)–D&D: Glovebox removal activities in CMR are not being performed this fiscal year. In August, transuranic waste management personnel expressed concerns with the planned strategy to package gloveboxes with lower activity items from the same rooms to be disposed of as low-level waste. They considered that there was a substantial likelihood that some containers could exceed limits for transuranic waste and would then have to be opened and repackaged. Waste management personnel are currently preparing acceptable knowledge documentation for waste generation from glovebox D&D at CMR. Once that is complete, the approach to resuming glovebox removal will be developed. Meanwhile, the D&D subcontractor is performing lower risk low-level waste removal activities in CMR.