

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 23, 2023

**TO:** Katherine R. Herrera, Acting Technical Director  
**FROM:** A. Boussouf and D. Gutowski, Resident Inspectors  
**SUBJECT:** Los Alamos Activity Report for the Week Ending June 23, 2023

**Staff Activity:** On Thursday, the resident inspectors met with the NNSA Associate Administrator for Environment, Safety, and Health and members of his staff, along with NNSA Field Office personnel, to discuss health and safety concerns at the Los Alamos National Laboratory. On Wednesday, a headquarters staff team held a remote interaction with Triad and NNSA Field Office personnel to support a complex-wide review of above and underground electrical power cables. On Thursday, a headquarters staff team held a remote interaction with Triad and NNSA Field Office personnel to provide initial conclusions from their review of seismic testing of Fire Suppression System fittings.

**Plutonium Facility–Operations:** Last Monday, facility personnel were heating a legacy item in a process furnace to burn off excess moisture or nitric species in preparation for disposition. Several hours later, workers noticed an abnormal amount of smoke emanating from the furnace, fogging of the glovebox windows, and elevated furnace temperatures. Workers actuated the emergency shutoff for the furnace and paused their work activities. The following day, operations personnel noticed evidence of a surface reaction on the stainless-steel glovebox internal walls as well as a glossy coating on the glovebox gloves. A fact-finding meeting was held to discuss the incident on Tuesday. Meeting participants noted that the item placed in the furnace may have had excessive residual moisture which was unapparent from external observation. Furnace activities remain paused pending chemical analysis of the glovebox interiors. Facility personnel plan to check for similar legacy materials slated for disposition to prevent recurrence.

**Plutonium Facility–Readiness:** This week, a contractor readiness assessment team and a federal readiness assessment team started their concurrent review of heat source plutonium harvesting planned at the Plutonium Facility (see 2/17/2023 report).

**Plutonium Facility–Glovebox Safety:** Last week there was one glovebox glove breach and one glovebox glove failure in the Plutonium Facility. The breach was in a heat source plutonium box where a worker felt airflow along their arm due to a substantial tear in the glove. They responded appropriately and remained in the glove while radiological control technicians arrived to assist. The source of the tear is still under evaluation. The other event was in a weapons grade box where an old, degraded glove developed a small crack upon use. Neither event resulted in skin contamination or any airborne alarms.

**Area G–Safety Basis:** Last Wednesday, the Environmental Management Field Office and Headquarters approved N3B’s site specific atmospheric dispersion protocol that will support the new Documented Safety Analysis under development (see 4/21/2023 report).

**Federal Oversight:** Last week, the NNSA Chief of Defense Nuclear Safety issued their report from their 2023 biennial assessment of the NNSA Field Office (see 3/10/2023 report). They reviewed ten functional areas and found that eight met expectations; one, emergency management, exceeded expectations; and one, conduct of operations/facility representative, did not meet expectations.