

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 18, 2025

TO: Technical Director
FROM: Los Alamos Site Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending April 18, 2025

Waste Characterization, Reduction, and Repackaging Facility (WCRRF)–Readiness: On Thursday, the NNSA Field Office gave the final approval to Triad to begin glovebox size reduction operations at WCRRF.

Plutonium Facility–Operations: The contractor has recently announced the beginning a phased approach to 24/7 operations in the Plutonium Facility. Contractor management determined that this change was needed to support the pit production mission. This week, resident inspectors performed an observation of backshift activities inside the facility. The backshift work had management presence and conduct-of-operations oversight. Resident inspectors observed significant equipment changes, including several rooms in which gloveboxes have been removed, and preparations are underway for new installations. They discussed the changes with Plutonium Infrastructure management. The resident inspectors also observed ventilation system surveillance activities.

Plutonium Facility–Glovebox Safety: On Monday, workers in the Plutonium Facility entered a laboratory room and found two broken glass vials in a glovebox. The vials contained different solutions, one of which contained small amounts of heat-source plutonium. Based on the visible evidence, the contractor believes the plutonium bearing solution pressurized over about a month and burst near the other vial, causing it to break as well. Normally, the solution would not have remained in the unvented glass vials for so long. However, in this case, there was a delay due to other operational constraints. There were no injuries, and the workers who discovered the broken vials made appropriate notifications. The contractor stated that they will conduct an extent-of-condition review, analyze options for replacing twist-top glass vials with a version that has lids designed to relieve pressure build up, and will review lessons learned for broader sharing with relevant laboratory facilities.

Area G: Last week, N3B and Central Characterization Project personnel identified that one of the standard waste boxes holding a cut corrugated metal pipe segment exceeded the fissile gram equivalent limits for shipment and placement at the Waste Isolation Pilot Plant. They do not believe that additional measurements to reduce uncertainty applied to the measurement will show that the container is indeed compliant. N3B personnel are evaluating the best means to remediate this container. The cutting equipment in Dome 375 remains in place. N3B has decided that the equipment will not be deactivated and decommissioned until all the segments have been assayed, as one possible remediation method involves cutting the non-compliant segment into smaller pieces.

PF-400–Emergency Preparedness: On Wednesday, Triad personnel held an emergency preparedness drill at PF-400. The scenario for the drill simulated a glovebox fire leading to a facility evacuation. Due to substantial construction in Technical Area 55 to support expanding operations in the Plutonium Facility, the assembly area for individuals who are not working in radiological areas has been temporarily located in a new location. A key aspect of this drill was ensuring that personnel could safely navigate through the construction to the new assembly area.