

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 30, 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 30, 2023

**Staff Activity:** J. Abrefah, M. Bradisse, F. Ruz-Nuglo, and E. Tetteh were on-site to continue their glovebox integrity review. Their visit included tours of a cold laboratory and the Plutonium Facility.

**Plutonium Facility–Readiness:** The contractor and federal readiness assessment teams completed their field activities and presented their initial findings regarding their parallel reviews of readiness to commence heat source plutonium harvesting. The contractor team provided six pre-start findings. The federal team concluded the contractor team performed adequately and mirrored the six contractor findings and added one additional pre-start and one post-start finding. The federal team will finalize its assessment following review of the final report from the contractor team. The most significant findings shared by the two review teams involved material-at-risk controls. There are inconsistencies on allowable material-at-risk within the safety basis supporting this activity, the implementing procedures, and the emergency planning hazards assessment.

**Plutonium Facility–Emergency Management:** On Wednesday, Triad personnel performed the annual criticality evacuation drill for the Plutonium Facility. The scenario for the field drill was a criticality event in a laboratory room where workers were transferring material-at-risk into a safe and observed a blue flash of light indicating a criticality event. The drill was initiated via sounding of the criticality alarm. The resident inspectors observed facility command actions from the PF-400 operations center as well as the Plutonium Facility evacuation, accountability, and radiation and contamination surveying of evacuees. One key lesson from the drill was that participants noted issues with the badge readers used for accountability, forcing a lengthier manual process.

**Plutonium Facility–Decontamination and Decommissioning:** Last week, workers were installing glovebags to support removal of solution tanks in an aqueous processing laboratory room. The general criticality safety requirements document for the facility requires that criticality safety personnel evaluate catchments that can collect liquid on a case-by-case basis to determine if a criticality safety evaluation is needed to perform the work safely. There is a specific evaluation for this activity that allows catchments, and the work documentation for this process included a hold point to consult with criticality safety personnel prior to installing the glovebags. Due to equipment issues, the work crew performed tasks in a different order, which later led to the crew skipping this hold point. While there was no immediate criticality safety concern from this event given limited potential for liquids, management is evaluating how to prevent future mistakes of this nature. Improvements include: enhancing consistency across all work requirements documents and improving pre-job briefings to ensure warnings and hold points are addressed before starting work.

**Waste Characterization, Reduction, and Repackaging Facility:** This week, the NNSA Field Office authorized Triad's request to commence design and modifications to the facility to support future Hazard Category 3 operations.