

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 5, 2023

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** A. Boussouf and D. Gutowski, Resident Inspectors  
**SUBJECT:** Los Alamos Activity Report for the Week Ending May 5, 2023

**Staff Activity:** On Tuesday, a staff review team held a remote interaction with Triad and NNSA Field Office personnel supporting their continuing review of Triad's nuclear criticality safety program (see 3/31/2023 report).

**Plutonium Facility–Readiness:** Last week, a contractor team completed the readiness assessment for restart of the Aqueous Nitrate Process at the Plutonium Facility (see 4/21/2023 report). The team briefed NNSA Field Office and Triad personnel on their initial results, which included five pre-start findings and three post-start findings. One finding involved issues with procedures that cannot be performed as written, inadequate procedure validation, and inadequate subject matter expert review of procedures. Other findings included issues with operations records management, inadequate linkage of criticality safety parameters with the master equipment list, and an ineffectively closed pre-start finding previously identified during the management self-assessment.

**Plutonium Facility–Safety Basis:** Triad transmitted to the NNSA Field Office, for information, a major re-baseline of the project execution plan for upgrading the Plutonium Facility's safety basis to meet DOE-STD-3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis* (see 7/22/2022, 7/19/2019 reports). The new plan now expects submittal of a completed safety basis to the field office for approval in the first quarter of fiscal year 2024. Triad also recently submitted to the NNSA Field Office, for concurrence, a revision to their methodology for calculating leak path factor and atmospheric dispersion. This methodology will support mitigated accident analysis in the safety basis under development.

**Plutonium Facility–Emergency Response:** On Tuesday, glovebox workers noticed sparking and a small fire while they were moving materials into a bag within a glovebox. The fire self-extinguished. Personnel in the room evacuated, made appropriate notifications, and the fire department responded. They found no evidence of continued thermal activity. As the response to this event was largely successful, facility personnel plan to issue a lessons learned to share this proper response to a fire. One corrective action from the event is to evaluate the positioning of dropbox manual fire alarm initiating devices as some are located too high for all employees to readily reach.

**Plutonium Facility–Electrical Safety:** Facility workers identified that wiring in the system that performs electrolytic decontamination of plutonium containers was degrading rapidly. The insulation was cracked, consistent with thermal damage. The system has been having issues with electrical components for several months and has undergone several component replacements including a power supply. These changes were not reviewed by electrical safety officers. Last month, when management became aware of the degradation, they paused the operation and requested a walkdown by electrical safety officers. The system is currently out of service while personnel work to identify the cause of the wire degradation and conduct repairs.