

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 17, 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 February 17, 2023

**Board Activity:** On Friday, the resident inspectors and staff member D. Bullen joined Vice Chair T. Summers on a tour of the Trinity Site with Sandia Field Office personnel, hosted by the Defense Threat Reduction Agency.

**Staff Activity:** M. Sautman was on site to evaluate resident inspector performance. R. Jackson and Y. Li attended a workshop in Los Alamos on the Plutonium Facility Seismic Performance Reassessment Project.

**Plutonium Facility–Criticality Safety:** Triad personnel identified two unanalyzed criticality safety scenarios for the vault in the Plutonium Facility. First, a new technical basis suggests that the previous 4” flooding depth due to fire sprinkler actuation in the vault is not defensible and new, higher numbers are more appropriate. The impact of this greater depth of moderator is under evaluation. The second scenario involves repackaging operations and the potential for open containers to fill with water if sprinklers actuate. While criticality safety personnel evaluate these scenarios, vault operations are limited. No overpacking or placement of containers on the floor is currently allowed.

**Los Alamos Neutron Science Center (LANSCE)–Emergency Response:** On Monday, a fire broke out in a non-radiological LANSCE building. An employee smelled smoke coming from a room where an ultrasonic cleaner, which heats and agitates ethanol, was being used. The employee extinguished the fire, called the emergency operations support center and 911, but did not activate the fire alarm pull station. The Los Alamos Fire Department responded to the scene, performed smoke venting, and released the facility soon thereafter. The following afternoon, facility personnel held a fact-finding meeting to discuss the incident. Meeting participants noted that the equipment had been left unattended and there was poor housekeeping in the area, which contributed to the fire spreading several feet across the lab table. The worker’s account was that 2-to-3-foot flames were present when they used the portable fire extinguisher. Facility management initiated a housekeeping pause in response to this event.

**Readiness:** Triad personnel started a self-assessment of their readiness to harvest containers containing high quantities of heat source plutonium that will exceed normal material at risk limits (see 4/1, 7/8/2022 reports). The assessment will continue next week, and concurrent contractor and federal readiness assessments will take place prior to startup.

A contractor team commenced their readiness assessment for plutonium coupon studies at the Weapons Engineering Tritium Facility. The review will continue into next week, and a federal readiness assessment will follow.

**Transuranic Waste Facility (TWF)–Safety Basis:** The NNSA Field Office transmitted a letter to Triad stating that the revision to the TWF safety basis is not approved, and that a new revision addressing field office comments should be provided (see 12/23/2022 report). Of note, the field office provided mandatory comments on the lengthy new completion times for limiting condition of operation actions.