

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 23, 2021

**MEMORANDUM FOR:** Christopher J. Roscetti, Technical Director  
**FROM:** D. Gutowski, Resident Inspector  
**SUBJECT:** Los Alamos Activity Report for Week Ending July 23, 2021

**DNFSB Staff Activity:** Staff member L. Lin was on site this week for resident inspector training in preparation for an assignment at the Savannah River Site. Members of the DNFSB headquarters staff called into the virtual Los Alamos National Laboratory Master Asset Plan Deep Dive held this week by the NNSA's Office of Safety, Infrastructure, and Operations.

**Plutonium Facility–Operations:** On Monday, there was a spill of over 200 gallons of water in the Plutonium Facility. Following refilling of a seal water tank, a worker did not close one valve, and another spring-closed valve did not fully shut, resulting in water flow. The water moved into a ventilation header where it drained out of an inactive glovebox. An alarm in the Operations Center was not acted on as personnel thought it was an expected alarm during the maintenance evolution. The water spread contamination to the floors of adjacent rooms and into the basement. No individuals were contaminated or injured during the event. Triad personnel are drying and decontaminating the impacted rooms. They also entered the New Information process to evaluate whether water ingress into gloveboxes through the ventilation system could result in an unanalyzed criticality scenario.

**Plutonium Facility–Construction:** Last Thursday, a continuous air monitor (CAM) alarmed inside a tent while construction workers were separating internally contaminated piping from a glovebox slated for removal. CAM alarms positioned in the room outside of the tent did not alarm. All the workers were in respiratory protection, and none were contaminated. During the fact finding this week, participants noted that having point source ventilation located an appropriate distance from the cut would likely have helped capture contamination. There was also a discussion of the challenges of performing equipment removals where active facility assets are in the same room as construction work (see 7/2/2021 report).

**Area G:** Last Thursday, N3B personnel discovered that a monthly Technical Safety Requirements surveillance of thermal separation distances had not been performed. The thermal separations are established to reduce the likelihood of fire propagation between defined areas where material at risk is present. A line in a reference table used while performing the surveillance was inadvertently deleted in March 2020. Additional revisions had been made since then without the error being caught. Furthermore, the version in document control was two revisions out of date. A causal analysis of this event is planned. All separation distances in the impacted area are currently in compliance.

On Thursday, the Environmental Management Field Office and Headquarters approved the Evaluation of the Safety of the Situation (ESS) for the PISA related to DNFSB TECH-46 and potentially energetic drums (see 6/25/2021). They provided two directed changes. First, they directed N3B to revise one of the existing compensatory measures in the submittal to identify additional physical barrier types to protect waste containers of concern from forklift impacts. Second, they directed that N3B install jersey barriers to prevent forklift impacts to stacked shielding adjacent to drums of concern. On Monday, Environmental Management unconditionally approved the ESSes for dome construction classification and horizontal sympathetic drum deflagrations (see 6/4/2021 report).