

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 15, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending June 15, 2018

DNFSB Staff Activity: On Monday, members of the Board's staff held a teleconference with site personnel to discuss the uninterruptable power supply for the Plutonium Facility and other topics related to electrical distribution systems (see 5/25/2018 report).

Plutonium Facility–Conduct of Operations: On Wednesday, two separate groups of programmatic personnel attempted to move materials through a glovebox trolley system. This trolley line has a discontinuity where material must be lowered into a dropbox and transferred to the other half of the trolley line. The work teams were not aware of each other's material moves, and one team discovered the other team's material when lowering a trolley bucket to complete their move. The groups appropriately paused and declared a potential process deviation. This configuration exceeded the mass limits for the drop box, but was within the credible upset condition analyzed in the criticality safety evaluation. The materials have been moved back to their original locations. Facility personnel are evaluating interim administrative measures to prevent recurrence of this type of event. There is a longer term design project to replace the glovebox trolley system and facility management requested that engineered controls to prevent this type of event be evaluated in the design process.

On Thursday, LANL management briefed the NNSA Field Office on the corrective actions associated with the recent unexpected level drop of plutonium-238 aqueous processing waste solution (see 6/8/2018 report). Based on further actions, they now believe it is more likely that the mechanism for the solution loss was a leak or spill instead of evaporation. Accordingly, they are taking a broad look at strengthening and unifying responses to spills across the plant. They also reported that they had secured resources to begin design development work next year on engineered metal tanks to minimize use of the plastic carboys. Additionally, they created a new operations team focused on processing these solutions in order to achieve a balance between production and waste processing.

Plutonium Facility–Training: Plutonium Facility management started training fissile material handlers to a new revision of the material handling and movement procedure. Key changes include a more explicit requirement that the person in charge of a move remain at the job site during the move and validate that the material inventory report is updated. In response to events during the past year, management has also reinvigorated programmatic training with several initiatives including: (1) hired experienced handlers to conduct training, (2) started a 'study hall' in the cold lab training facility where workers can bring questions to experienced personnel and practice activities using the high fidelity mockup equipment; and (3) launched a new training course to improve glovebox awareness for craft workers.

Area G: On Tuesday, N3B personnel conducted an operational drill involving response to a contaminated individual. Notably, the chief drill coordinator emphasized the need to eliminate the historical tolerance for simulation of response actions.