

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 28, 2018

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending September 28, 2018

Area G–Readiness: This week, a four-person team conducted the contractor readiness assessment of mobile loading operations. The team reviewed documents, conducted interviews, and observed an operational demonstration and a drill. At their out-brief, the team concluded that all objectives were met without findings. The federal assessment is expected to conclude next week. N3B personnel hope to complete any necessary corrective actions and receive restart authorization in order to utilize the five shipments to the Waste Isolation Pilot Plant that are scheduled for N3B during the next two months.

Plutonium Facility–Conduct of Operations: On Tuesday, a worker conducting pre-requisite checks of a glovebox discovered that the inventory of nuclear material exceeded the posted criticality safety limit. The worker responded appropriately and made the required notifications. Management and criticality safety personnel then agreed to move an item to a different glovebox thereby restoring compliance with the limits. At the fact-finding, a different worker explained that he had moved material into the glovebox on Monday afternoon as part of a housekeeping activity. This activity was not discussed at the pre-job briefing and the worker did not utilize the material movement procedure, which required a use-every-time checklist and peer check for the amount of material that was moved. The division leader announced several corrective actions including a work pause for next Monday to emphasize elements of conduct of operations, as well as temporarily mandating use of the material movement checklist with a supervisor-level approval for all material moves—the procedure currently only requires this level of rigor for moves that exceed 3 kg.

Plutonium Facility–Glovebox Safety: Last Friday, while executing a maintenance procedure on the newest direct-metal oxidation furnace, a worker snagged and breached a glovebox glove on a handle while reaching with a wrench to remove a stuck bolt. The response to the breach was consistent with procedure and there were no indications of an airborne release of radioactive material. Fact-finding personnel noted that the handle did not present an obvious sharp hazards and discussed that the worker was not wearing protective over-gloves because of the dexterity required for the job. Glovebox safety experts suggested trying a newer type of over-gloves that offer improved dexterity. Some of the discussion also indicated opportunities to strengthen the design process used for new equipment. For example, the worker was removing bolts on a flange that requires periodic removal for maintenance. However, no special tooling had been provided to access bolts that have limited clearance from a nearby cooling water conduit and no torque specifications were provided in the maintenance procedure. The work team identified these as areas for further consideration.

Plutonium Facility–Safety Basis: On Wednesday, facility management declared a technical safety requirement violation after an operator determined that a surveillance on an accelerometer had exceeded its required periodicity. Facility personnel successfully executed the surveillance later that afternoon. Fact-finding personnel noted that surveillances are currently tracked in an electronic database, but that dates are manually entered for the roughly 2700 surveillances performed annually. Facility personnel completed an extent-of condition review and found no further errors. As an interim corrective measure, they plan to introduce independent verification of the dates in the database while they work to utilize improved software functionality.