

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 19, 2019

**MEMORANDUM FOR:** Christopher J. Roscetti, Technical Director  
**FROM:** J.W. Plaue and D. Gutowski, Resident Inspectors  
**SUBJECT:** Los Alamos Activity Report for Week Ending April 19, 2019

**DNFSB Staff Activity:** Z.S. Beauvais and P.J. Migliorini were onsite to supplement routine oversight activities. On Thursday, a staff team conducted a teleconference with Triad and NNSA Field Office personnel to discuss the technical veracity of the recently approved evaluation of the safety of the situation concerning the biokinetic solubility of plutonium-238 materials (see 3/8/2019 report).

**Worker Safety–Accident Investigations:** Last month, Triad management approved corrective actions responding to the issues identified in the investigation report from the August 2018 event where a worker received an intake of plutonium-238 from a puncture wound (see 2/8/2019 report). As part of the process, they screened and developed actions for more than 50 issues associated with the judgements of need and opportunities for improvement identified in the report. Corrective action due dates range from some that have already completed to the end of September 2019. Notable corrective actions include: strengthening work planning processes for programmatic maintenance and facility construction; redesigning the cable crimp to eliminate the puncture hazard; replacing the locations that have inappropriate galvanized steel cabling with stainless steel or titanium; identifying similar hazards for all cable applications throughout the plant; evaluating training and qualifications for the person in charge position; evaluating the feasibility of a rapid bioassay methodology; and generating management observations verification guidance on work instruction usability.

On Thursday, the investigation team out-briefed the results of their review of the dropped load resulting in a near-miss at the Radiological Laboratory Utility Office Building and eleven other similar events that have occurred since 2016 (see 3/8/2019 report). The team recommended actions associated with strengthening lift categories and plan content, ensuring non-working supervision is present for all moderate and high hazard jobs, and enforcing better work pause, planning, and pre-job briefing practices. Notably, the team identified that many past corrective actions have not been applied systematically across the laboratory to address what are actually cross-functional/organization issues. As such, management decided to ensure that the final corrective actions were integrated with the corrective actions planned in response to the joint investigation of the sub-contracted construction event (see 1/11/2019 report).

**Plutonium Facility–Conduct of Operations:** This Tuesday, workers made an error in the material movement process while returning containers to the floor storage location in the processing room with a large number of individual special nuclear material cans (see 1/25/2019 report). They did not complete a step in the material movement procedure that requires verification that the database matches the physical configuration of the nuclear material. Performing this step should have caught the discrepancy between the database and physical configurations. There are currently 144 containers in this floor storage location, creating the potential for a lengthy verification process. Another team discovered the error the next day.

**Area G:** On Tuesday, N3B workers inadvertently parked a fueled vehicle in a combustible restricted area. Another worker questioned whether the entry had been authorized and logged by Operations Center personnel. As it had not, this constituted a violation of a Technical Safety Requirement for combustible liquid control. N3B management recognized this as repeat violation (see 10/12/2018 report) and recommended performing a formal causal analysis to prevent further recurrence.