

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 8, 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 March 8, 2019

**DNFSB Staff Activity:** R. Davis and P. Migliorini were on site to review the safety basis for the RANT Shipping Facility.

**Transuranic Waste Management:** This week, as part of the initiative to alleviate waste accumulation challenges at the Plutonium Facility, Triad personnel executed three shipments to the Transuranic Waste Facility (see 3/1/19 report). Overall, they transferred 98 containers, which included a shipment of 40 containers representing the largest single batch received to-date. Triad personnel continue working with the Carlsbad Field Office to obtain approval to send containers to the Waste Isolation Pilot Plant (WIPP). There are now several hundred containers from two different waste streams that have obtained some of the necessary approvals.

**Plutonium Facility–Safety Basis:** Last Friday, the NNSA Field Office approved Triad’s evaluation of the safety of the situation (ESS) for the positive unreviewed safety question (USQ) related to biokinetic solubility of heat source plutonium (see 12/21/2018 report). The approval notes that the analysis is reasonably conservative and that references not included in the ESS provide an adequate basis to use the Type S dose conversion factor for all oxides fired above 800 °C for two hours. Oxides and some other compounds that have not undergone this heat treatment will continue to use an intermediary dose conversion factor between Type S and M. The approval contained one directed action to revise the ESS to include Technical Safety Requirements for the new material-at-risk limits. The Board’s staff await interaction with Triad and the NNSA Field Office on questions concerning the technical validity of this approach.

Last Thursday, Triad safety basis personnel concluded that the potential inadequacy of the safety analysis related to transportation of nuclear material in the Plutonium Facility’s freight elevator constitutes a positive USQ (see 2/1/2019 report). The currently analyzed drop height for a container falling from a vault shelf does not bound the height from a fall due to an elevator failure. As a compensatory measure, management directed that all nuclear materials conveyed using the elevator or dumb waiter are to be packaged in accordance with existing requirements.

**Chemistry and Metallurgy Research Building:** On Wednesday, safety basis personnel entered the New Information process to evaluate transportation of nuclear material in the elevators after determining the positive USQ for the elevator in the Plutonium Facility.

**Area G:** Last month, the EM Field Office and N3B approved the performance based incentives for fiscal year 2019. Notable activities include: restart two processing lines to sort, segregate, and size reduce transuranic waste; utilize these lines to remediate 192 containers in preparation for disposal at the WIPP; reconfigure Area G access and radiological controls; implement N3B’s new safety management programs; and develop and begin executing a strategy to create a new safety basis.

**Worker Safety:** Last week, workers lost control of a laser table weighing about a metric ton while moving it into a laboratory in the Radiological Laboratory Utility Office Building. On Thursday, Triad management commenced a team investigation after identifying a recent trend in rigging incidents.