

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 20, 2019

**MEMORANDUM FOR:** Christopher J. Roscetti, Technical Director  
**FROM:** J.W. Plaeue and D. Gutowski, Resident Inspectors  
**SUBJECT:** Los Alamos Activity Report for Week Ending September 20, 2019

**Plutonium Facility–Transuranic Waste Management:** Last Thursday, a waste management worker lost control of a 320 pound pipe overpack container (POC) as he was attempting to tip and roll it off of a metal pallet. The POC toppled to the ground missing the worker. Three workers then righted the POC and contacted the operations center. Radiological protection and container engineering personnel then determined the container was undamaged. The work crew recognized their failure to properly pause work and held an immediate post-job. At the fact-finding this week, workers discussed a control in the procedure that specifies the use of two people for the movement of heavy items “if item is beyond your level of comfort.” Several workers noted that their formal training indicated it was safer for an individual to perform such moves. Management noted the current saturation of waste containers contributed to the event and took an action to investigate narrow engineered drum handling equipment. This Thursday, a waste management worker lost control of a different POC while moving it with a drum handler—no injury occurred and the POC was undamaged. Management has paused all waste container movements pending a review of procedures and training.

Last week, waste management workers sampled the headspace of the containers with corroded filters and found them to be compliant with flammable gas requirements (see 9/6/2019 report). They continue efforts to procure and establish a capability to open the drums for intrusive investigation. Notably, neither Triad nor N3B currently possess the capability to open transuranic waste containers for remediation if prohibited contents are found or other issues emerge.

**Plutonium Facility–Safety Basis:** Triad safety basis personnel determined that unanalyzed heat source plutonium hold-up in dropboxes constituted a positive unreviewed safety question. The currently implemented safety basis states that holdup in locations other than analyzed gloveboxes is “insignificant.” Recent measurements of several dropboxes found holdup in the gram range. Safety basis personnel are evaluating the appropriate way to account for this material.

Triad personnel also concluded that the storage of non-destructive assay sealed calibration sources in non-fire rated storage locations also constituted a positive unreviewed safety question. The issue of storage within the facility grew out of a similar concern with sources on an outside waste storage pad (see 8/12/2016 report). The currently implemented safety basis contains fire scenarios beyond the temperature limits for the sources. The approved, but not yet implemented safety basis includes a new fire analysis that does not exceed temperature limits based on actual combustible loading in the area.

**Area G–Radiological Protection:** N3B recently adjusted their approach to facility radiological protection. They reviewed radiological survey data and found that since 2012 no contamination levels exceeded release criteria for vehicles, personnel, domes, and buildings. As a result, they removed the requirement to perform a radiological survey for personnel, and in most cases vehicles, prior to exiting Area G. Instead, personnel are required to survey only at the radiological buffer areas associated with the three Sort, Segregate, and Size Reduction enclosures. N3B has compensated for the reduced number of personnel surveys by increasing routine monitoring of domes from monthly to weekly. Triad personnel also continue to perform retrospective analyses for environmental compliance of the monitored stacks on a weekly basis and perimeter boundary stations on a quarterly basis.