

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 8, 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 8, 2018

**Plutonium Facility–Conduct of Operations:** On Wednesday, Plutonium Facility personnel held a post-job review after a plastic carboy of plutonium-238 aqueous processing waste solution experienced an unexpected level drop of about 5 of 6 liters. Programmatic operations personnel speculated that the solution evaporated through the threads of an intentionally loose cap after experiencing thermal heating from a proximately stored container of plutonium-238 fuel materials. They were unable to arrive at a more definitive explanation because at least two other solution spills recently occurred in this location and current practice does not involve the recording of precise carboy volumes. Post-job personnel discussed corrective actions to ensure greater balance between production and waste processing operations so as to minimize the backlog of waste solutions, as well as to evaluate processes for staging and spill response. Longer-term, the group is looking toward establishing engineered tanks in lieu of continued reliance on plastic carboys (see 3/16/2018 report).

**Plutonium Facility–Radiological Control:** On Tuesday, workers alarmed survey monitors when exiting a room where they were performing visual examination of items in preparation for bag-outs. Responding personnel discovered contamination on the personal protective equipment of two individuals and no skin contamination. Surveys of the work area found a contamination spread on areas of the room floor with evidence that a loose clamp on a bag-out port may have been the source of the contamination. The floor has been decontaminated and the room released back to operations. There have been several other discoveries of contamination on personal protective equipment during the past two weeks due to various reasons including breached glovebox gloves and work in elevated areas that are not routinely surveyed.

**Area G:** During a visual inspection on Thursday, workers noted two drums with evidence of possible degradation. They paused, reported their observations, and facility personnel entered the appropriate abnormal operating procedure to respond to drums with suspect integrity. Further investigation found the drums were intact. Facility management held a hotwash to evaluate emergency response performance. They concluded that the overall response went well and identified areas for improvement, notably in communications with resources located outside of Area G.

**Radiological Laboratory Utility Office Building (RLUOB):** On Monday, the NNSA Field Office approved the revised Safety Design Strategy for upgrading RLUOB to hazard category 3 (see 2/16/2018 report). The approval included two directed actions. First, the next revision of the strategy must include a technical justification for excluding the Central Utilities Building as part of the facility. The second was to address chemical mixtures in accordance with DOE-STD-3009-2014.

**RANT Shipping Facility:** Last Friday, the NNSA Field Office concurred with the contractor's Safety Basis Strategy for revising the RANT Documented Safety Analysis and Technical Safety Requirements (see 5/4/2018 report).