

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 19, 2015

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending June 19, 2015

**Area G–Safety Basis:** On Thursday, Field Office, DOE-EM, and LANL personnel discussed the status and path forward regarding the Potential Inadequacy of the Safety Analysis concerning the composite source term (see 6/5/15 weekly). LANL personnel presented the result of an extent-of-condition review on the composition of the existing waste. They now believe that the 3.1 percent combustible fraction assumed in the approved safety basis for the aboveground waste population should actually be 12.2 percent and will use 20 percent in future analyses as a bounding value. This change affects 17 of the 29 design basis accidents, which includes nine that have unmitigated doses in excess of the Evaluation Guideline. LANL analysts presented their preliminary analysis indicating that five additional operational restrictions (beyond the current prohibition of new receipts) are necessary to mitigate these accidents, except for the aircraft crash, to acceptable levels. These restrictions involve reduced material-at-risk limits and all but one are currently reflected in the as-found configuration of the site. Area G management expects to relocate inventory from one of the domes to implement all the restrictions and then formally protect them via standing order.

LANL analysts also presented a case for moving forward with a few new additional controls to accept receipt of newly generated wastes (with a limit of 5000 plutonium-239 equivalent curies) from the Plutonium Facility as part of a revised Evaluation of the Safety of the Situation. If approved, the transfer would likely allow a few extra months of waste generation, though personnel did not provide specific projections. LANL anticipates submitting the revision in mid-July and estimates the ability to resume waste receipts at Area G this September.

**Plutonium Facility–Restart Activities:** On Thursday, the contractor readiness assessment (CRA) team out-briefed the results of their review of the Isotope Fuels Impact Tester. The team found that all 21 objectives were met, but identified seven pre-start and 16 post-start findings. The findings generally included issues with procedures, postings, training, drill program execution, and a suspended load path above an operator's limbs.

**Weapons Engineering Tritium Facility (WETF):** This week, a CRA team commenced and completed their review of UC609 shipping container operations. The UC609 is currently the only certified container available to ship bulk quantities of tritium, which WETF personnel will need to support risk reduction efforts later this year. The CRA team found that all 17 objectives were met, but identified four pre-start findings and one post-start finding. The findings involved procedure content, procedure execution, glove removal, and a suspended load path above an operator's limbs.

**Nuclear Criticality Safety:** On Tuesday, the institutional Nuclear Criticality Safety Committee (NCSC) convened for the first time after the LANL Director approved a revised charter on May 28, 2015. The new charter, which is the third in three years, seeks to improve the group's work by emphasizing field observations. The NCSC issued a work plan that includes five fieldwork activities. Additionally, the NCSC leader has gained unescorted access to the Plutonium Facility and has initiated observations related to criticality safety related events (e.g., fact-findings, worker training, interactions with operations).