

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 20, 2010

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending August 20, 2010

On Wednesday, staff members Pasko and Shuffler conducted a telephone conference call with LASO and LANL personnel to discuss the results of a recent review of the Chemistry and Metallurgy Research Building Documented Safety Analysis and plans for post-2010 operations.

**Transuranic Waste Operations:** This week, LANL began their contractor readiness assessment for open drum debris sorting operations with up to 2.5 combustible equivalent Ci in Area G. The review team is evaluating operations in both the Dome 231 Permacon and inside a containment tent in Building 412. This review is expected to be complete next week (site rep report 7/30/10).

**Weapons Engineering Tritium Facility (WETF):** LANL completed a management self assessment of function test operations at WETF this week. The team recommended that the activity proceed to a contractor readiness assessment following root cause determination and corrective action closure of pre-start findings. The team identified seven pre-start findings including issues with emergency management response (concerns with emergency response were identified during the NNSA operational readiness review for phase I operations). WETF personnel are working on closure of these findings and plan to begin the contractor readiness assessment on Monday.

**Fire Protection Program:** This week, NNSA completed a review of the LANL fire protection program with focus on overall program, fire hazard analyses, self-assessments, integration of fire protection with facility projects and fire department response and capabilities. The preliminary outbrief by the team noted a number of findings including issues with training and qualification of the fire protection staff, implementation of the fire system impairment program and self assessments. A final report for this review is expected in the next few weeks.

**Plutonium Facility – Unreviewed Safety Question:** As noted on July 23<sup>rd</sup>, LANL had declared an unreviewed safety question based on the presence of potentially explosive ammonium nitrate powder identified on high efficiency particulate air (HEPA) filters in a 200 area plenum. This week, sample analysis concluded that material found in a 400 area HEPA plenum is also ammonium nitrate. Based on these results, similar compensatory measures have been implemented in the 400 area (e.g., suspension of aqueous operations). Last week, LANL prepared an Evaluation of the Safety of the Situation (ESS) based on the information available concerning the ammonium nitrate in the 200 area plenum. The ESS noted that the material would not begin to approach an explosive hazard until one-half inch had accumulated (based on explosive expert evaluation). Further, the ESS identified that material accumulation was occurring very slowly. LANL proposed monitoring the material as part of the TSR Hazardous Material Protection Program and taking corrective actions if material reached one-quarter inch. Based on the results for the 400 area, LANL is revising the ESS to address the 400 area activities (site rep report 7/9/10 and 7/23/10).

**Waste Operations:** LANL has formed an investigation team to evaluate the Area L event involving red fuming nitric acid that occurred last week. The team will establish the event timeline, determine how the event occurred and identify recommendations for LANL management. The investigation is expected to be complete in early-September (site rep report 8/13/10).