

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 8, 2012

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B.P. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending June 8, 2012

**Plutonium Facility:** On Friday, Plutonium Facility management formally declared the 2011 Documented Safety Analysis (DSA) and associated Technical Safety Requirements (TSR) to be implemented. Prior to declaring implementation, facility personnel closed all pre-implementation findings from an independent Implementation Verification Review (IVR) conducted in May. Chief among the recent actions to close IVR findings was completion of verification and validation activities for changes to the safety-related Material at Risk (MAR) Tracker software and successful performance of all TSR-level MAR surveillance requirements using MAR Tracker. This week's implementation of the 2011 DSA and TSRs retires the 2008 DSA and TSRs and the 2011 Justification for Continued Operation that addresses seismic vulnerabilities of the facility structure.

**Federal Oversight:** This week, the office of the NNSA Chief of Defense Nuclear Safety (CDNS) completed their biennial review of the Los Alamos Site Office. The CDNS team noted significant improvement in overall performance since the prior review in 2009 with objectives met in all functional areas. Findings were identified in a number of areas; however, significant previous issues identified in 2009 for Maintenance and Startup and Restart of Nuclear Facilities were judged to be adequately resolved. The team also noted that contractor weaknesses in several areas indicate a need for continued strong performance by the site office.

**Area G – Safety Basis:** This week, the site office responded to the Evaluation of the Safety of the Situation (ESS) and Unreviewed Safety Question Determination (USQD) for criticality safety issues associated with Fiberglass Reinforced Plywood (FRP) box processing and storage at Area G. In April, LANL identified several above-ground FRP boxes that exceed 325 Fissile Gram Equivalents (FGE) and were not specially controlled in accordance with the applicable Criticality Safety Limit Approval document. The USQD performed by LANL was determined to be negative; however, the site office response does not agree with this result because they believe this information could “increase the probability of occurrence of an accident previously evaluated in the facility's documented safety analysis.” The site office concurs with the ESS and requests that LANL re-evaluate the USQD. Consistent with the ESS, LANL will perform a specific criticality safety evaluation prior to processing containers with greater than 325 FGE.

**Transuranic Waste Operations:** This week, the 1,000<sup>th</sup> shipment of LANL-generated transuranic waste was sent to the Waste Isolation Pilot Plant in Carlsbad, NM. Also, LANL work to support the Framework Agreement between NNSA and the New Mexico Environmental Department is currently proceeding ahead of schedule in terms of volume shipped, <sup>239</sup>Pu-equivalent curies shipped, and total shipments. To support near-term Framework Agreement work scope, LANL personnel expect to complete field work this month on the installation of a new large Permacon structure in Dome 375 and upgrades to a smaller existing Permacon structure in Dome 231, both at Area G. These Permacons will house FRP box processing lines similar in nature to the processing line currently operating in Building 412 at Area G. This month, LANL personnel also plan to resume drum venting operations in Dome 33, using drums that contain less than Hazard Category 3 quantities of material (i.e. less than 0.52 <sup>239</sup>Pu-equivalent curies).