**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

November 7, 2008

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director
**FROM:** B. Broderick and R.T. Davis
**SUBJECT:** Los Alamos Report for Week Ending November 7, 2008

This week, Board members Bader, Brown and Mansfield were onsite to conduct facility walkdowns and discuss topics including the Radioactive Liquid Waste Treatment Facility Replacement and Formality of Operations. Staff members Eyler, Kasdorf, Pasko, Plaue and Sautman were also onsite.

**Radioactive Liquid Waste Treatment Facility (RLWTF):** On Monday, facility personnel successfully transferred sufficient material from TK-7 such that the tank level is below the active leak site that had been identified. Additional actions, which have yet to be developed, will be required to remove the remaining residual sludge from this degraded tank; however, these actions will not be performed prior to formal restart of transuranic liquid waste operations (site rep weekly 10/31/08).

This week, LANL began their Readiness Assessment (RA) for the restart of transuranic liquid waste processing at RLWTF after extensive upgrades were completed to restore the capability to process transuranic liquid waste from the Plutonium Facility. This capability has been unavailable since 2006. On Wednesday, the RA team concluded that the facility had not met the approved readiness prerequisites and LANL management agreed to terminate the review. A number of evolutions could not be performed because facility personnel identified errors in the approved procedures at the pre-evolution brief. Reviews of the remaining procedures by the RA team identified several additional errors that point to inadequate procedure verification and validation. LANL is developing a path forward to resolve these issues and restart this readiness activity. Similar issues with regards to procedure adequacy were identified during other recent readiness assessments related to interim radiography and remote drum venting (site rep weeklies 8/8/08, 6/6/08).

**Plutonium Facility:** Last week, LANL formally submitted a proposed Plutonium Facility documented safety analysis (DSA) to the NNSA site office for review. New features of the proposed DSA include elevating the functional classification of the fire suppression system from safety significant to safety class for non-seismically induced fires and specifying material-at-risk limits for weapons-grade Pu. While the proposed DSA continues to rely on safety class passive confinement, the planned improvements section commits to implementing a safety class active confinement ventilation system and other important upgrades to improve the Plutonium Facility's safety posture over the next three to five years. If approved, the proposed DSA would replace the existing 1996 Final Safety Analysis Report and a compilation of several dozen other documents that currently constitute the Plutonium Facility safety basis. The scope of the NNSA site office review is limited to ensuring comments from previous review cycles have been adequately resolved. NNSA intends to complete its review and formally act on the proposed DSA by the end of the calendar year.

**Formality of Operations:** The NNSA site office has reviewed about three-quarters of FY08 Conduct of Engineering deliverables (e.g. Vital Safety System Assessments, System Health Reports, Operability Determinations and System Design Descriptions) and estimates that greater than one-third have quality or consistency issues. The site office plans to provide feedback to LANL on the issues identified during these reviews. Timely communication of NNSA issues and observations appears warranted to ensure that new deliverables, which continue to be produced at an aggressive pace, do not continue to suffer from known process deficiencies.