

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 19, 2009

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending June 19, 2009

The staff held a teleconference this week with NNSA and LANL personnel to discuss the Chemistry and Metallurgy Research Building Replacement Project.

**Engineering:** LANL recently achieved a significant milestone in strengthening its engineering program and coming into compliance with DOE expectations. Every vital safety system at LANL now has an assigned cognizant system engineer (CSE) and each system's CSE has completed at least an interim level of qualification. Significant work remains to improve the overall maturity and effectiveness of the CSE program. However, the sustained management attention and resource allocation being devoted to recruiting, training and qualifying CSEs is establishing the foundation necessary to achieve the critically important goal of improving and maintaining confidence in the efficacy of LANL's vital safety systems (site rep weekly 12/5/08).

**Contractor Assurance:** Last week, a 'facility-centered' Director's Independent Assessment began at the Chemistry and Metallurgy Research Building. Eighteen functional areas (including engineering, operations, maintenance and safety basis) will be evaluated using formal criteria, review and approach documents. This is the first 'facility-centered' Director's Assessment performed by the laboratory since FY07. These assessments are intended to provide independent, broad-based evaluation of a facility's compliance with DOE requirements (site rep weeklies 10/24/08, 10/17/08, 5/23/08).

**Sitewide Seismic Hazards:** LANL continues to evaluate the impacts of the 2007 updated Probabilistic Seismic Hazards Analysis (PSHA) on structures, systems and components (SSCs) in nuclear facilities. As approved by the site office in April, the Justification for Continued Operations (JCO) that covers this multi-facility issue expires on June 30, 2009 for WETF, RLWTF, WCRR, RANT and CMR and on June 30, 2010 for the Plutonium Facility.

Last week, LANL requested a 5 month JCO extension for the facilities scheduled to expire in June 2009 (i.e., to November 2009) to accommodate an increased need for site subject matter experts in seismic and structural areas to support the CMR Building Replacement Project. For each of the facilities identified above, LANL plans to 1) perform quantitative seismic analysis of SSCs, 2) develop a facility-specific JCO, if required based on the analysis, 3) revise the safety basis, if required, and 4) identify modifications/upgrades to address deficiencies (site rep weeklies 4/17/09, 1/9/09, 9/12/08, 6/27/08).

**Transuranic Waste Operations:** The NNSA site office recently approved the annual updates of the WCRR repackaging facility Basis for Interim Operation and Technical Safety Requirements. In addition to including previously approved safety basis revisions, the update includes the following notable changes: use of ICRP 72 dose conversion factors; changes to the TSR minimum staffing level and; revision to the WCRR acceptance criteria to allow transuranic waste containers with headspace hydrogen concentrations up to 4%. The site office approval letter reiterates that operations in the waste characterization glovebox that exceed 300 PE-Ci will require a safety basis change and installation of an NFPA Standard 801-compliant automatic fire extinguishing system.