

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 25, 2008

**MEMORANDUM FOR:** T. Dwyer, Technical Director  
**FROM:** B. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending July 25, 2008

Staff members March and Galaska were on site this week for a fire protection review.

**Federal Oversight:** Based in part on a perceived inconsistency in the condition of facility equipment and LANS metrics related to equipment maintenance, the NNSA site office performed a “for cause” review of deferred maintenance. The review team recently completed their review and concluded that LANL does not maintain equipment to prevent damage, loss or deterioration. Key preliminary findings included: LANL’s deferred maintenance definition is not consistent with DOE’s definition and is not managed, adequately funded and worked off; equipment condition assessments are not performed as required; preventive, corrective and predictive maintenance are not used to ensure equipment availability; and LANL is not adequately informing NNSA of significant risks related to equipment condition. A final report is expected by the end of July.

**Criticality Safety:** This week, the site office performed an assessment of the LANL Nuclear Criticality Safety Program focused on aspects of field implementation at the Plutonium Facility, Chemistry and Metallurgy Research Building and Area G. The assessment was conducted using some of the same personnel from the 2005 review that prompted development of the Program Improvement Plan to establish a compliant, standards-based criticality safety program. During the outbrief, the team observed that significant progress has been made since 2005 on priority issues. They also observed a need for increased criticality safety group presence on the operating floor in facilities and better-defined roles, responsibilities, and interface expectations for criticality safety officers.

**Plutonium Facility:** The site office has approved changes to a justification for continued operations (JCO) to reconfigure material in two Plutonium Facility vault rooms to bring them into compliance with new interim criticality safety evaluations (CSE). The new CSEs specify a lower limit for material staged in floor locations and a new limit for storage drawers in which no more than one location per drawer may contain metal items. Some floor locations and many drawers in the affected vault rooms are not currently in compliance with the new limits. These locations will be remediated using controls identified in the revised JCO. Once this material reconfiguration is effected, the four vault rooms that prompted concerns about reduced criticality safety margins last September will all be in compliance with new, standards-based CSEs (site rep weeklies 3/21/08, 12/21/07, 9/21/07, 9/7/07).

**Hoisting and Rigging:** Recent crane incidents prompted an institutional task team review of cranes, hoists and rigging equipment. Based on a sampling review, the task team concluded that despite prior corrective actions, laboratory processes remain inadequate to ensure that all in-service cranes, hoists and rigging have been inspected and maintained in accordance with applicable requirements. In response, LANL management issued a set of aggressive compensatory measures including direction to equipment-owning organizations to immediately check inspection and maintenance records and lock and tag any deficient equipment out of service. Facility Operations Directors (FOD) were also instructed, within two weeks, to perform independent verification walkdowns to ensure deficient equipment has been locked and tagged out of service. FOD verification walkdowns are ongoing and this process has already resulted in dozens of cranes being removed from service.