

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 13, 2009

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending February 13, 2009

Board member Bader and staff member Pasko were onsite this week to observe an Integrated Nuclear Planning workshop. Pasko also discussed Board Rec. 2004-2 with LANL and NNSA personnel.

**Chemistry and Metallurgy Research (CMR) Building:** LANL recently submitted the Documented Safety Analysis (DSA) and associated Technical Safety Requirements (TSR) for post-2010 operations in the CMR Building. The DSA supports continued analytical chemistry and material characterization activities in Wings 5 and 7, confinement vessel disposition activities in Wing 9 and deactivation activities in the other CMR wings. Wing 9 hot cell work in support of the Advanced Fuel Cycle Initiative is not currently analyzed in the DSA. Off-site consequences for a seismically induced facility fire scenario are estimated to be approximately 36 rem (Wing 9 material-at-risk to support confinement vessel disposition contributes approximately 14 rem to this scenario).

**Weapons Engineering Tritium Facility (WETF):** Hot operations at WETF have been suspended since October due to systemic pressure safety issues. A comprehensive review of potentially affected safety systems is underway to evaluate the full extent of pressure safety issues at WETF. This ongoing review recently identified a situation where the failure of a compressor servicing a glovebox could release a sufficient volume of gas to over-pressurize and breach the glovebox. No tritium was present in the affected glovebox upon discovery; however, this condition did result in facility management declaring a TSR violation. The compressor is now physically isolated and its failure can no longer challenge glovebox integrity. Although it resulted in a TSR violation, this discovery is positive because the identification and correction of this type of issue was the reason facility management chartered the ongoing safety reviews at WETF (site rep weeklies 12/19/08, 10/17/08).

This week, LANL also resubmitted a DSA and associated TSRs for WETF that were revised to address comments from a previous NNSA review. The priority for review, approval and implementation of the resubmitted WETF safety basis documents is likely to be highly dependent on the outcome of ongoing transition planning to consolidate all gas transfer system research, development and design activities at Sandia National Laboratories (site rep weekly 1/16/09).

**Plutonium Facility:** LANL management has submitted an implementation plan for the recently approved Plutonium Facility DSA and associated TSRs. Although the site office Safety Evaluation Report requested implementation by the end of calendar year 2009, the resource loaded schedule currently shows implementation completing in March 2010. LANL plans to implement the TSRs in four phases with an Implementation Verification Review after each phase (site rep weekly 1/2/09).

**Safety Basis:** LANL currently has ten nuclear facilities (or activities) that require DSAs. Three of these facilities have 10 CFR 830-compliant DSAs that are approved and implemented (WCRR repackaging facility, Nuclear Environmental Sites, and Onsite Packaging and Transportation); two facilities have compliant DSAs that are approved but not yet implemented (Plutonium Facility and Material Disposal Area-B); two facilities have submitted nominally compliant DSAs pending NNSA review (CMR and WETF); and three facilities are still developing compliant DSAs (Area G, Radioactive Liquid Waste Treatment Facility and RANT shipping facility).