

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 2, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending January 2, 2009

Mr. Broderick was offsite this week.

Plutonium Facility: Last week, the site office issued their Safety Evaluation Report (SER) for the Documented Safety Analysis (DSA) and Technical Safety Requirements. Implementation of these documents includes upgrading the classification of the fire suppression system for non-seismically induced fires and identification of material-at-risk (MAR) limits for weapons-grade plutonium. The SER identified 13 Conditions of Approval (COAs) including the following:

- submittal of an integrated project management plan in March 2009 for the upgrades proposed in the DSA that provide a safety class active confinement ventilation system within the next 3 to 5 years;
- for the facility fire suppression system, completion of a gap analysis against NFPA 13 and 25, system adequacy analysis and TSR operability requirements – these actions are due in March 2009 with a subsequent projectized plan to address the results in May 2009;
- completion of a comprehensive Fire Hazards Analysis (FHA) that is integrated with the DSA and the identification of effective combustible loading control procedures that eliminate the possibility of a floor-wide fire – the FHA is due in June 2009 with procedures and DSA integration during the next annual update (December 2009);
- LANL shall accelerate the schedule for seismically upgrading gloveboxes – completion by the end of Fiscal Year 2011.

All of the COAs are required to be included in the site issues management tracking system. LANL is also required to submit a resource-loaded implementation schedule with a completion date of no later than the end of calendar year 2009.

Chemistry and Metallurgy Research Building (CMR): Recently, LANL submitted their evaluation of an exit strategy for the CMR Building that does not include use of the CMR Replacement Nuclear Facility (CMRR NF). The report asserts that all options evaluated given this constraint substantially increase the safety, security and programmatic risks at LANL versus the current approved baseline. Alternatives for analytical chemistry/material characterization were identified as having the largest scope, schedule and budget implications. LANL recommends additional evaluation of elevating the Radiological Laboratory, Utility, and Office Building to a category 2 nuclear facility if the CMRR NF is significantly delayed. LANL also recommends pursuing additional actions to improve the Plutonium Facility vault utilization.

To support operations at CMR beyond 2010, LANL is in the process of developing a 10 CFR 830 compliant DSA. During development of the safety basis, LANL committed to providing portions of the analysis in 3 phases. In early October, LANL submitted the second phase of the analysis. This week, the site office provided comments to LANL including better identification of MAR for accident scenarios and identification of safety class controls for assumptions that are identified during scenario development for design basis accidents.