

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 17, 2012

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B.P. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending February 17, 2012

**Chemistry and Metallurgy Research Replacement (CMRR):** This week, NNSA-Headquarters provided direction to LANL on the CMRR-Nuclear Facility (CMRR-NF) noting that, consistent with the President's budget, no funding is requested for the facility and construction of the CMRR-NF is deferred for at least five years. The budget request includes \$35M to accelerate actions to optimize storage capacity in the existing Plutonium Facility vault. The NNSA-Headquarters direction notes that the budget request will require optimized use of existing infrastructure to maintain continuity of programmatic activities. LANL is requested to provide an interim briefing in 30 days and a final plan in 60 days that include the following elements:

- A plan to substantially complete CMRR-NF design by the end of FY 2012 including design close-out activities to ensure project documentation is available for potential future use.
- An orderly phase out of NNSA program activities at the existing Chemistry and Metallurgy Research Building concluding in approximately 2019 (following completion of the Confinement Vessel Disposition project in Wing 9).
- Plans for continued analytical chemistry capabilities to support mission needs that include maximum use of the Radiological Laboratory, Utility and Office Building (RLUOB).
- Capability to safely and securely move material between RLUOB and the Plutonium Facility and address sample preparation at the Plutonium Facility.
- Consider options at other NNSA sites to address residual analytical chemistry needs.
- Maintain required material characterization capabilities using the Plutonium Facility and Building 332 at Livermore as a Hazard Category 2, Security Category 3 nuclear facility.
- Minimize nuclear material at the Plutonium Facility by processing, packaging, and shipping excess materials including a plan and estimated timeline to stage bulk quantities at the Device Assembly Facility.

**Plutonium Facility:** This week, LANL requested site office review and approval of an Evaluation of the Safety of the Situation (ESS) for a potential criticality safety issue for the Confinement Pressure Vessels (CPVs) stored at TA-55. In January, LANL identified that no existing criticality safety evaluation (CSE) exists to support storage and movement of these vessels contrary to statements in the TA-55 Hazard Analysis. Immediate actions were taken to ensure the CPVs were not moved and this issue was evaluated and determined to be an Unreviewed Safety Question. The ESS concludes that there is essentially no potential for an inadvertent criticality as long as the CPVs are not moved. The ESS states that the compensatory measure on movement will remain in place until LANL develops CSEs that support storage and movement at TA-55. LANL plans to transfer and disposition these vessels during the Confinement Vessel Disposition Project at CMR.

**Federal Oversight:** The NNSA office issued a letter to LANL this week noting ten operational events in the last month that indicate potential issues with control and integration of work activities. The letter requests LANL evaluate the events and identify common cause and systemic issues. The laboratory also continues actions associated with the LANS Nuclear Safety Culture Analysis and Improvement Plan that responds to a September 2011 site office request on improving nuclear safety.