

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 15, 2013

MEMORANDUM FOR: S. A. Stokes, Acting Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending March 15, 2013

Plutonium Facility – Seismic Safety: This week, the field office submitted a memorandum to NNSA-HQ recommending that the Deputy Associate Administrator for Infrastructure and Operations approve the Safety Evaluation Report (SER) for the Plutonium Facility safety basis addendum associated with seismic performance. In January, LANL submitted an updated addendum to address review team comments and respond to the steps identified under Exigent Circumstances in the DOE memorandum dated September 17, 2012. The NNSA review team, which included subject matter experts from the field office, the NNSA Albuquerque Complex, and DOE Headquarters, developed the SER that concludes LANL adequately addresses the Exigent Circumstances for the potential post-seismic collapse. The SER also concludes that with implementation of the identified near-term risk reduction measures, the Plutonium Facility can continue to operate safely without any undue risk to the public while longer-term structural modifications are completed.

The near-term risk reduction measures proposed by LANL in the safety basis addendum include: 1) reducing the material at risk (MAR) limit for the laboratory floor; 2) reducing the MAR limit for the vault; 3) crediting newly-analyzed safety-class containers; and 4) removing one kilogram of heat source plutonium from the floor by the end of calendar year 2013. The field office memorandum notes that they plan to provide LANL with the following safety basis direction following NNSA-HQ approval: completion of items 1-3 above within 30 days; accelerated completion of item 4 above by October 1, 2013; completion of structural upgrades to resolve currently identified deficiencies (i.e. strengthen roof girders and captured columns) by March 1, 2016; and accelerated disposal and robust packaging of excess MAR including a plan for FY 13 activities within 30 days. Although the field office intends to direct completion of facility upgrades by March 2016, the LANL safety basis addendum and current schedule indicate the repairs will be complete by the end of calendar year 2014.

Area G – Safety Basis: LANL submitted a letter to the field office providing a scope of proposed changes for the approved, but not yet implemented, Area G Basis for Interim Operations (BIO) for review and approval (see 1/11/13 weekly). The proposed changes are categorized under four objectives including: reflect reduced above ground MAR limits based on waste disposition efforts; support of 3706 campaign goals; improve confidence level for successful and timely BIO implementation; and respond to previous comments (including those in the November 19, 2012, Board letter). When approved, these proposed changes will be made with the continued goal of having the BIO implemented by the end of FY13.

Chemistry and Metallurgy Research (CMR) Building – Confinement Vessel Disposition (CVD) Project: Following a series of startup delays, the CVD project Management Self Assessment is scheduled to commence on March 18, 2013. Due to the length of time that has elapsed since the start of the project, a System Adequacy Analysis (SAA) has been drafted to evaluate whether items procured as far back as 2002 meet quality assurance requirements that have changed over this time period. This SAA and a criticality safety evaluation for shipping the confinement vessels from their current storage location in Technical Area-55 to CMR will have to be completed prior to commencing operations. The current plan targets June 2013 for operational start-up, with the goal of completing one confinement vessel this fiscal year.