

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 4, 2008

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** B. Broderick and C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending January 4, 2008

LANL resumed operations Wednesday, Jan 2<sup>nd</sup>.

**Plutonium Facility (TA-55):** TA-55 has secured from the outage, is continuing criticality safety reviews of fissile material operations, and is systematically resuming programmatic operations.

**Radiological Protection:** On Thursday evening, radiography of a TA-55 component began and then was immediately secured when it was discovered that one person had not exited the room. Electronic dosimetry indicates little exposure; thermoluminescent dosimeter (TLD) results are pending. TA-55 has suspended radiography until the event can be critiqued and corrective actions put in place.

**Chemistry and Metallurgy Research Building (CMR):** CMR is working to resolve problems with the compressed air system, which is a balance-of-plant system affecting safety-significant ventilation and safety-class fire suppression (i.e., freeze protection). Testing raised concerns that backup air compressors might not automatically start upon loss of control air. CMR is providing capability to promptly detect and manually recover from such loss by continuously manning the operations center.

**Radioactive Liquid Waste Treatment Facility:** Upgrades to the transuranic (TRU) waste treatment systems continue on a tight schedule; craft are working 12-hour shifts this weekend to prepare for hydro-tests. Also, the Joint Evaluation Team (JET) is proposing that TRU operations resume following a lab readiness assessment, with NNSA as the authorization authority; this is subject to NNSA accepting the facility as a hazard category 3 nuclear facility (site rep weeklies 12/14/07, 11/23/07).

**Environmental and Waste Operations:** On Dec 20<sup>th</sup>, LANL submitted an outline of a project execution plan (PEP) for disciplined operations in the Environmental Protection Directorate (EP); this was developed in response to NNSA direction and was motivated by 31 safety and compliance issues that arose in Area G and elsewhere last September and October (site rep weeklies 11/30/07, 11/9/07).

LANL causal analysis found that integrated safety management is not effectively implemented for EP: clear roles and responsibilities are not always defined and understood; line management responsibility for safety is not always evident; competence commensurate with responsibility has not always been established; hazard identification and control implementation are not comprehensive, including for safety bases; priorities are not balanced; safety standards and requirements are not always identified.

In November, LANL began to address these issues, including pausing operations to communicate lessons learned and management expectations. Per the outline, LANL intends to: • evaluate the 2005 improvement plan, develop detailed cost estimates, and issue the initial PEP by Jan 14<sup>th</sup>; • implement formality of operations, as funding permits, by Jan 31<sup>st</sup>; • implement integrated work planning and authorization, establish and staff a core Area G operations organization, and propose an updated Area G safety basis by Feb 29<sup>th</sup>; • identify gaps between current procedures and the safety basis by Mar 28<sup>th</sup>; • identify critical EP staff positions, establish a formal procedure review process, develop qualification standards, and train personnel on conduct of operations by Apr 7<sup>th</sup>; • implement the new Area G safety basis, at risk, in advance of NNSA approval, projected for Jun 29<sup>th</sup>; • verify safety basis implementation by Jul 31<sup>st</sup>; • walk down all EP facilities and correct safety concerns, by Sep 30<sup>th</sup>.