

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 27, 2006

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending January 27, 2006

**Am-241 Contamination Event:** On Tuesday (1 /24), the NNSA Type B investigation team leader briefed LANL management on the findings on the Am-241 release of July 2005. The team concluded that the onsite and offsite responses provided adequate protection of the workers, the public, and the environment and that the direct cause was repeated handling of highly contaminated items without any radiological controls. The site rep will report further on this next week (site rep weekly 12/23/05).

**DOE Independent Oversight:** On Wednesday (1 /25), the NNSA Site Office (LASO) requested LANL to respond to the recent report by the DOE-SP Office of Independent Oversight and to provide a corrective action plan (CAP) for identified deficiencies (site rep weekly 1/13/06). Because of the similarity in institutional issues, LANL is developing an integrated CAP, expected in March, that will address the DOE-SP report, the Am-241 contamination event, and the TA-48 acid vapor inhalation injury event (site rep weekly 10/14/05). On the DOE-SP report, the site rep believes that the issues asserted on TA-55 vital safety systems warrant a timely, focused, and objective examination because of their potential impact on resolution of the confinement strategy issue (site rep weekly 12/9/05).

**Plutonium Facility (TA-55):** TA-55 has visually inspected and taken swipes on the exterior of the approximately 100 containers in the vault with characteristics most like the one that leaked on Dec 19<sup>th</sup>; they have found no indications of other failed packaging, including no discernable increase in contamination levels (e.g., CAMs). The plan for these containers during the next few weeks is to introduce them in small groups into a glovebox line for repackaging. Subject to the results of comprehensive surveys, limited vault operations with compensatory measures may resume next week.

**Radioactive Liquid Waste Treatment Facility (RLWTF):** The TA-50 transuranic (TRU) liquid waste processing system is in marginal condition (e.g., site rep weeklies 7/1/05, 10/29/04, 7/30/04). Near-term, LANL plans to resume operating the existing system in order to process current backlogs of TA-50 and TA-55 acidic solutions and to de-inventory the TA-50 existing equipment. By mid-2006, LANL intends to replace the TA-50 leaking caustic waste receipt tank, by-pass existing equipment, and install new equipment. To support near-term operations, LANL plans to invoke new operational controls for confirming system integrity and rapidly detecting and responding to leaks.

The TA-50 pump house and influent storage facility construction project is struggling. Although the expected source-term is low, NNSA designated this as a Hazard Category 2 nuclear facility in 2004 and designated several safety-significant systems, such as the structure (PC-2) and liquid confinement system (site rep weekly 2/6/04). In September, LANL took over management of construction. The below-grade concrete structure appears largely in place now, and the storage tanks are being delivered. Last week, an NNSA independent project review (IPR) team identified about a dozen concerns with the project; their final report is expected in a few days. This week, NNSA and LANL began a quality assurance review focused on the steel and concrete construction because of questions raised during the IPR team review. Based on what is known now, NNSA and LANL are considering actions, up to and including suspending the project until the issues are further understood and a path-forward is defined.

**Critical Experiments Facility (TA-18):** This week, NNSA approved releasing the hold on decommissioning the four critical assemblies that are to move to Nevada (site rep weekly 12/16/05).