

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 9, 2005

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending December 9, 2005

**Plutonium Facility (TA-55):** TA-55 is LANL's largest and most complex nuclear facility by most metrics and is currently operating under a 9-year-old safety basis and a new set of interim technical safety requirements (iTSRs) that are still being implemented. The iTSRs include compensatory measures for TA-55's dominant nuclear safety issue, which is the still-open question on effectiveness of the passive confinement strategy in the event of a major accident (site rep weekly 9/23/05). It's likely that final resolution will involve some combination of confinement ventilation, fire suppression, containerization, glove-box upgrades, material-at-risk limits, and specific administrative controls.

While their report is still draft, the recent DOE Office of Independent Oversight (DOE-OA) review at LANL raises questions on the TA-55 ventilation and fire suppression systems, as well as safety basis. LANL has actions underway that may address many – but perhaps not all – of these specific issues over time; these actions include the TA-55 Reinvestment Project, the LANL conduct of engineering technical baseline reconstitution, and the LANL efforts in response to Board Recommendation 04-2 on active confinement. Given (a) the importance of NNSA and LANL reaching timely resolution on confinement strategy and (b) the potential impacts on that resolution from these issues, it may be appropriate for NNSA to initiate a focused safety system oversight (SSO) review at TA-55 soon after the DOE-OA report is finalized, which is expected before the end of the month.

**Nuclear Safety Oversight:** The NNSA Site Office (LASO) partial stand-down continues (site rep weekly 11/25/05). LASO is working on a procedure to integrate federal activities during the 3-month pause, which has now been underway 3 weeks. LASO also appears poised to shift staff to address a growing backlog of LANL safety basis proposals requiring federal action; the backlog grew from 7 to about 30 during the first two weeks of the pause. The NNSA Chief of Defense Nuclear Safety (CDNS) office had 2 people on site this week focused on TA-18 and TA-55 operations; several NNSA Service Center managers were also on site Thursday to discuss future Service Center support for LASO.

On the contractor side, LANL has embedded 8 people in facilities as institutional oversight; their first weekly report to LANL management is due today and will be discussed with LASO next Tuesday.

**Training:** As part of the Operational Efficiency (OE) project, LANL has assessed most of its lab-wide courses (~600) and determined that the majority of course-providers have not used the systematic approach to training required by the DOE nuclear training order and LANL policy. This standard approach has five sequential steps: analyze needs; set objectives; develop materials; deliver training; and evaluate effectiveness. Full implementation would not only strengthen sustainability of many resumption-related corrective actions but also address concerns among many on the need for more meaningful and effective training. LANL plans to develop a prioritized list of courses needing improvement within the next few weeks and have a schedule for course revisions by mid-February.

**Critical Experiments Facility (TA-18):** Last Friday, NNSA (NA-10) approved Critical Decision 2, the performance baseline, for the Nevada Test Site critical experiments facility (CEF). Scope includes 4 of the 5 assemblies at TA-18; SHEBA is excluded. Scheduled completion is 1<sup>st</sup> Quarter FY 2010.

**Am-241 Contamination Event:** Last week, the LASO Manager signed the report on the NNSA Type B investigation into the inadvertent contamination release that occurred in July 2005 (site rep weeklies 8/12/05, 7/29/05). NNSA release of the report is expected shortly.