

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2006

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director

**FROM:** C. H. Keilers, Jr.

**SUBJECT:** Los Alamos Report for Week Ending October 6, 2006

LANL briefed Bader (Board Member), Keilers, and Martin on LANL's Reliable Replacement Warhead (RRW) design on Wednesday. Bader, Martin, and Rauch also had informal discussions with LANL on pit manufacturing options. Martin and Rauch attended a LANL energetic materials review.

**Chemistry and Metallurgy Research Building (CMR):** On Monday (10/2), the CMR fire protection engineer determined that flash-over could occur from one wing to the opposing wing across the spinal corridor and that this possibility is not addressed in the current CMR safety basis; the facility implemented compensatory measures, including a fire watch. On Wednesday, CMR secured the fire watch based on nearby combustibles being reduced to below a new calculated flash-over limit.

**Management:** Effective this week, LANL rolled out their contractor assurance system (CAS), and the NNSA Site Office (LASO) began their oversight pilot. Within the last two weeks, LANL has also established an institutional management review board (IMRB) to oversee the lab's new issue and corrective action management system (ICAM) and to prioritize institutional issues and corrective actions. All three of these efforts currently have low maturity, which is not unexpected. LANL has been developing the CAS since Jun 1<sup>st</sup> and intends to implement and improve the system in a deliberate manner during the next two years; the LASO pilot is on the same schedule.

For example, LANL is deploying better software for tracking performance and managing issues; CAS is highly reliant on line managers properly using these tools, establishing their own metrics, performing objective self-assessments, and faithfully following up on issues; this is the foundation of CAS. LANL line managers have performed these functions inconsistently and often poorly in the past, and LANL is starting to train managers now on how best to perform these functions in the future. For LASO, the oversight pilot depends on CAS being successful and accessible to federal oversight. LASO has also deployed more staff in nuclear facilities and has increased the pool of people assigned as subject matter experts; however, their relevant training and experience is generally low.

**Institutional Safety Programs:** LASO has forwarded to DOE HS-1 a new update of LANL's integrated corrective action plan that was prepared in response to last year's two Type B investigations and the DOE-OA review (site rep weekly 9/1/06). LASO recommends approval and delegation of authority to LASO for change control; LASO referenced processes it used to follow up on previous Type B investigations. The site rep observes that LASO has been unsuccessful in driving Type B corrective actions to closure, such as those still open from the Aug 2003 Pu-238 release.

This week, LANL closed the Operational Efficiency (OE) Project, which has been LANL's mechanism during the last two years for improving institutional safety programs. LANL asserts that 90 % of the OE milestones have been met and independently verified (i.e., 138 of 153). The remainder involve integrated work management (5), lock-out tag-out (1), quality assurance (1), vital safety systems (1), and training (2). LANL has assigned responsibility for followup to particular associate directors and has committed the IMRB to monitoring implementation.

**Formality of Operations:** LANL plans to issue an integrated set of manuals for operations, engineering, and maintenance by Oct 31<sup>st</sup>, review requirement applicability and identify gaps by mid-December, and issue a training manual and integrated implementation plans in January 2007.