

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 30, 2005

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending December 30, 2005

The laboratory was closed this week, providing an opportunity for reflection.

LANL is in a transformation. In the long term, the contract decision last week will eventually reshape the lab and conceivably the entire nuclear weapons complex. In the short-term, this decision ended one period of uncertainty for the workforce while ushering in another. The safety implications of personnel distraction during this period have LANL management's attention.

There has been tremendous activity since the lab-wide stand-down of July 2004 and throughout this year. Indicators of LANL progress included:

- resuming nuclear operations safely and deliberately within 6 months;
- identifying several thousand issues during resumption and quickly addressing about 400 such issues that were deemed an unanalyzed risk or imminent danger;
- establishing the Corrective Action Review Board (CARB) as an independent quality check on actions taken on the approximately 2,000 non-institutional issues found during resumption;
- consolidating line responsibility for most nuclear operations at the associate director level, and consolidating operations authority with a few key individuals – the RDLs;
- making substantial progress on the Operational Efficiency (OE) Project, which is intended to address weaknesses in key institutional functions, such as training and quality assurance;
- resuming transuranic waste shipments to WIPP after an 18-month hiatus, and by year's end shipping about one-fifth of the roughly 2,000 higher activity drums that constitute the Quick-to-WIPP set – these shipments are key to addressing the lab's postulated highest-consequence nuclear accident;
- developing and starting implementation of interim technical safety requirements (iTSRs) for the Plutonium Facility (TA-55) – these are key to continuing safe operation of TA-55 under the 9-year old safety basis and to compensating for the still-open confinement strategy question, which is TA-55's dominant nuclear safety issue;
- recognizing emergent safety concerns and briefly suspending nuclear operations on at least four occasions in four separate nuclear facilities.

The key criticism may be the slow pace. The DOE Office of Independent Oversight (DOE-OA) recently summed this up well: to paraphrase – resumption-related corrective actions in general and integrated work management (IWM) implementation in particular are lagging from where they ought to be; also, both federal and contractor assessment systems, including issue management, warrant improvement (site rep weeklies 11/4/05, 10/21/05, 12/31/04). The contract competition likely hindered progress, since the commitment needed to some long-term fixes will also require long-term ownership.

On the federal side, NNSA oversight of LANL was reactionary and steadily deteriorated this year. DOE-OA also summed this up well: NNSA is not always performing effective oversight that drives continuous improvement in integrated safety management, in the contractor assessment system, and in other areas; recent efforts have focused on NNSA Site Office internal organizational matters and would benefit from management and organizational stability and increased headquarters support. The issues with NNSA oversight were best-illustrated by some of the problems that arose during the TA-18 Early Move Project, particularly with the TA-55 pad startup process (e.g., site rep weekly 7/8/05). While the Early Move Project achieved its FY-05 objectives, it adversely impacted many safety initiatives, such as nuclear material stabilization, criticality safety improvements, and TA-55 confinement strategy resolution. In the case of the TA-55 pad, programmatic priorities dominated startup to the point that restoring balanced priorities nearly derailed the Early Move Project. While LANL has taken some actions, NNSA has apparently done little to study and avail itself of lessons learned from this project.