

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 23, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending July 23, 2004

LANL Shutdown: All but essential operations are shutdown, as discussed last week. The Secretary of Energy has stated that federal concurrence will be necessary if LANL is to resume operations with significant safety implications. LANL management has categorized all work activities into one of three risk levels: (1) little or acceptable risk (e.g., office work); (2) mid-range risk (e.g., light lab, routine industrial activities); and (3) higher risk (e.g., higher hazard non-nuclear and nuclear activities, certain security activities). LANL has a resumption plan in place for the level 1 activities, which emphasizes personnel behavior and compliance, human error prevention, and management interaction and accountability. Criteria for level 2 and 3 resumptions are still in development. Resumptions will be staggered and occur at the group or activity level.

During the last few years, LANL has improved several processes that will likely have a key role in verification and resumption of higher risk activities, including: (1) In late 2002, LANL issued updated procedures for formal readiness verifications before startups and restarts; subsequently, LANL facilities have trained and begun using these procedures, improving the rigor of verifications. (2) In late 2003, LANL issued a single integrated work control process. Since then, LANL has persisted in further improving work planning, hazard analysis, and work control; recent safety-related work control deficiencies appear due more to compliance issues than process issues. (3) LANL has started to make improvements in the management walk-around (MWA) process; an effectively implemented MWA process could enhance communicating expectations and improving behavior.

Four areas with nuclear safety implications that warrant close scrutiny during this stand-down are: (1) continuing safety system surveillance and maintenance (e.g., TSRs); (2) continuing essential waste operations, particularly managing the current TA-55 backlog and resuming activities that are part of the Quick-to-WIPP Program; (3) completing cleanup and recovery of the room in TA-55 contaminated with Pu-238 last August; and (4) moving forward on nuclear material stabilization activities (e.g., Board Recommendation 94-1 actions). At this time, NNSA and LANL appear to be applying appropriate emphasis to all these areas – except possibly the TA-55 contaminated room cleanup, which was lagging even before the stand-down (site rep weekly 6/11/04).

Plutonium Facility (TA-55): TA-55 reported on Monday that a TSR monthly surveillance of the fire suppression control valve lineup had been inadvertently performed two days late. TA-55 operations management is improving the sequencing of this maintenance to prevent recurrence.

Transportation: The currently approved safety basis for the Chemistry and Metallurgy Research Building (CMR) assumes no high explosive (HE) shipments and limited diesel fuel shipments occur near CMR. In May, CMR declared a potentially inadequate safety analysis (PISA) because there were no controls in place to protect these assumptions and, in fact, such shipments were occurring. On June 3rd, LANL proposed to NNSA both interim admin controls for restricting and rerouting such shipments and longer-term safety basis changes. NNSA action is pending. This week, LANL reported that 15 HE shipments had been made near CMR between mid-May and end of June, indicating that both CMR and the on-site transportation group had not implemented the interim controls. LANL is taking action to implement these controls.