

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 10, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: T. D. Burns Jr. and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending December 10, 2004

Malen, Plaue, and Tontodonato were here this week reviewing nuclear material management and other activities. Burns was off-site this week.

Resumption Status: The LANL Director has approved resuming 77 % of the moderate and higher risk activity groups (i.e., 24 of 24 moderate risk; 9 of 19 higher risk; 33 of 43 total). Considering nuclear operations, the LANL Resumption Review Board (RRB) has forwarded to the Director the recommendation that TA-18 fully resume following resolution of pre-start findings; NNSA has not concurred. The TA-50/54 lab readiness review (LRR) team completed field work on intrusive waste operations about 3 weeks ago and expects to submit its report today. LRRs for the site services contractor (KSL) and for on-site transportation are still open. The TA-21 tritium facility (TSFF) has a de-inventory plan but will need management support for this as an essential activity. NNSA has formally declared that the site-wide unreviewed safety question (USQ) issues constitute an open pre-start finding for every nuclear facility; LANL and NNSA have informally agreed to not let this impact operations, based on LANL's intent to address the issues on a timely basis (site rep weekly 11/26/04).

Critical Experiments Facility (TA-18): NNSA has established its own interim senior supervisory watch over on-going TA-18 security category I/II material operations (i.e., the Early Move Project). The watch consists of 3 federal site office assistant managers. The trigger events for this action were: (a) TA-18 conducting security category I/II operations last Friday without the LANL senior supervisory watch, counter to this activity's approval conditions; and (b) a TA-18 worker in respirator and protective clothing reclining on the floor in a controlled contamination area on Wednesday, also during a security category I/II operation. A few likely underlying causes for these issues are attitude, training/level-of-knowledge, unclear management expectations, and programmatic pressure to meet Early Move milestones, which have no schedule contingency. Overall, TA-18 operational control does not appear commensurate with the risks of either current activities or full resumption.

Plutonium Facility (TA-55): LANL determined this week that a TA-55 worker may have received an elevated Pu-238 uptake in June. The potential uptake was detected via a discretionary bioassay among personnel who were working in a Pu-239 lab-room that had one elevated fixed-head weekly sample (~150 DAC-hours, Pu-238). The glove-box work station below the sampler was found to have a glove with a pin-hole leak. There were no other indicators of a release, and the other workers in the room during this period were not found to have received an elevated dose. LANL is investigating.

Nuclear Material Management: NNSA and LANL need to apply more emphasis on finishing the corrective actions from the Pu-238 Type B investigation of a year ago; as is, the priority assigned to the TA-18 Early Move Project may overwhelm other areas needing attention. Constraints on transuranic waste operations are also skewing the risk reduction strategy toward packaging and storing materials over processing or discarding. These constraints include: (a) TA-50/54 not approved to resume; (b) TA-50 RLWTF material condition, as previously reported; (c) TA-54 above-ground inventory nearly at the safety basis limit; and (d) continued delay in LANL resuming WIPP shipments. As a result, TA-55 caustic liquid waste tanks are full, and the TA-55 PF-4 basement waste inventory is approaching control limits (e.g., in some areas, drums are double-stacked). Without action, TA-55 could become "waste-logged," which has both safety and national security mission implications.