

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 6, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: T. D. Burns Jr. and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending May 6, 2005

Management: UC has named R. W. Kuckuck as interim LANL Director, effective May 16th.

Waste Operations: Certain TA-54 waste characterization operations (i.e., high efficiency neutron counting and real-time radiography) currently require handling drums about 1.5 feet higher than their maximum certified drop height of 4 feet. Since the drums are a credited safety feature, LANL identified this as a potential inadequacy in the safety analysis and then implemented compensatory measures. LANL plans to resolve this by lowering the equipment to below the drum's certified drop height. NNSA has approved continued operations under the compensatory measures until no later than May 20; however, modifications to lower the equipment may not be complete until mid-June. Cessation of characterization for nearly a month would significantly hamper LANL's ability to ship waste to WIPP and does not appear to be in the best interest of overall risk reduction at the lab.

Radioactive Liquid Waste Treatment Facility (RLWTF): In response to the investigation reported last week, LANL is taking actions, such as: stop non-routine radiological work in the affected division pending review for and correction of integrated work management deficiencies; review related work to determine if the resumption startup plan was effectively implemented; ensure the facility's perspective of the event is heard and evaluated; and review the investigation report to identify higher-tier management concerns and the state of compliance with the worker radiation protection rule (10 CFR 835). LANL's actions appear appropriate. LANL should be commended for a thorough investigation.

Electrical Safety: As a result of events discussed last week, LANL held a mandatory 2-hour training session this week; it was effectively given. LANL is also increasing the electrical safety training opportunities for its work force. Electrical safety will likely continue to challenge LANL because of the large site-wide electrical work-scope and the age and condition of facilities.

Plutonium Facility (TA-55): To expedite removal of security category I/II nuclear materials from TA-18, NNSA has approved temporary staging of these items in three safeguarded (SST/SGT) trailers at TA-55 prior to completion of the trailer tie-down pads. NNSA is requiring that the staged items be in certified DOT Type B shipping packages and that the storage duration be limited to seven months.

Critical Experiments Facility (TA-18): NNSA has approved the start-up notification report (SNR) for uranium-based critical experiments on the Planet machine (site rep weekly, 4/15/05). LANL is using a deliberate approach to resume this operation, which includes a management self-assessment (MSA) that started this week. An independent laboratory readiness assessment is scheduled for the week of May 16. The first operation is currently expected during the week of June 13.

Issue Reporting: High-reliability organizations have processes that reward the discovery and reporting of errors (ref: DNFSB/TECH-35, Dec 2004). LANL has improved at self-identification and reporting of issues in the last few years. For example, the PAAA system has become one of the most effective systems at LANL for identifying and tracking closure of nuclear safety issues; LANL internally reviewed more than twice as many issues for PAAA applicability in 2004 than in 2001 (i.e., 343 vs 151); comparing the same years, the percentage of PAAA reports resulting from assessments instead of occurrences increased from 4 % to 66 %. Recent feedback (e.g., on the RLWTF investigation) does not positively reinforce this trend; instead, it could lead to suppression of reporting and thoroughly investigating issues, making it ultimately more difficult to identify and correct safety issues.