

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 22, 2008

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending February 22, 2008

The site reps were on-travel and at DNFSB headquarters in Washington DC for most of this week. The staff also had a video-teleconference on the safety of waste and environmental programs.

Radiological Facilities: LANL has corrected conditions that caused an air-flow reversal in the Radiochemistry Laboratory (TA-48-1) hot cells and has resumed hot cell operation (site rep weekly 2/1/08). While investigating the event, LANL found safety-related weaknesses involving ventilation maintenance and testing, temporary modification control, equipment potential single-point-failures, and operator responsiveness to alarms.

These safety problems are not unique to TA-48; LANL recently found another facility with similar configuration control issues. Radiological facilities have less oversight and lower management awareness of such issues than hazard category 2 and 3 nuclear facilities. Under the formality of operations initiative, LANL is becoming increasingly aware of these problems in radiological facilities and is beginning to set consistent expectations. However, determining extent-of-condition and implementing consistent practices that ensure safe operations with high confidence will be challenging.

Criticality Safety: TA-55 has resumed operations for one vault room after completing the augmented limit review process for it; two other vault rooms are close to resumption. Vault operations were suspended last September due to margin-of-safety concerns (site rep weeklies 9/28/07, 9/21/07).

Transuranic (TRU) Waste Operations: LANL has resumed the new TRU waste facility project. The New Mexico Environmental Department has concerns on the supporting Resource Conservation and Recovery Act permit modification. Because of these concerns and funding issues, NNSA and LANL appear at-risk of a multi-year hiatus in the repackaging, storage, and shipping functions for newly generated TRU waste after the legacy waste project closes (site rep weekly 10/5/07).

Integrated Nuclear Planning: Last week, representatives from LANL, NNSA Headquarters, and the NNSA Site Office held an Integrated Nuclear Planning (INP) workshop. LANL presented their recently established Office of Integrated Nuclear Planning organization, which has secured dedicated funding and time-and-effort commitments for key individuals. Agenda items included a general discussion on how onsite INP efforts would interface with the headquarters-level Integrated Plutonium Activities Committee. Other topics included CMR life extension; impacts to TA-55 aqueous processing, specifically the Advanced Recovery and Integrated Extraction System, due to budgetary issues and headquarters sponsorship changes; and the outlook for future LANL Pu-238 operations.

Chemistry and Metallurgy Research Building (CMR): Floor storage wells in Wing 9 are equipped with a cooling water system. The cooling water system is not authorized for use and was thought to be isolated, however, water was recently discovered in the system. In response, facility personnel removed the residual water and installed robust isolation to preclude inadvertent water intrusion in the future. Water extracted from the system was sampled and found to have no detectable activity.