

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 8, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending June 8, 2007

Davis, Elliott, Goff, Plaue, and Moury were here this week reviewing criticality safety and TA-55 vault operations. Rizzo and Andersen attended a contractor review on the updated seismic hazard analysis and walked down portions of the CMRR construction site related to seismic investigations. Andersen also attended the in-brief for the month-long CMRR nuclear facility Phase Y design review.

Pit Manufacturing: This week, NNSA certified (i.e., diamond stamped) a W-88 pit made by LANL. The last certified pit was made by Rocky Flats and was delivered in 1989.

Plutonium Facility (TA-55): On Monday (6/4), LANL began a three-week institutional assessment of TA-55 operations, patterned after the Facility Evaluation Board (FEB) model used at other sites. This is the third such assessment at LANL and the second at a nuclear facility (site rep weekly 3/30/07).

On Thursday (6/5), two TA-55 workers were hospitalized briefly due to heat stress. The workers were part of a team removing pencil tanks and were wearing respirators and 3 layers of protective clothing due to chemical (acid) and radiological hazards. The team had previously removed several tanks while wearing 2 layers; the third layer and a thicker acid suit were recent changes. TA-55 is curtailing some work and reevaluating work controls, such as stay-times, for these types of jobs.

Criticality Safety: LANL has near term plans to reestablish the Nuclear Criticality Safety Committee (NCSC) and to augment the cadre of full-time criticality safety officers (CSO). These are positive steps in that the NCSC provides independent institutional oversight to help ensure the criticality safety program is robust and adding well trained CSOs helps ensure the program is implemented effectively.

Other opportunities for improving the effectiveness of the criticality safety program may be gained by strengthening the interfaces with other institutional programs. For example, until planned enhancements to the configuration management system are enacted, changes to processes, procedures, and equipment that could affect assumptions or controls important for criticality safety may not receive appropriate review; compensatory measures may be warranted in the interim. Also, the antiquated security-related MASS software program plays a role in maintaining criticality safety, although it was not designed for this function. MASS modernization and functionality improvements are being planned, but funding for much needed upgrades to this critical system is uncertain.

Transuranic Waste Operations: On Wednesday (6/6), LANL completed a thorough management self-assessment (MSA) for repackaging high-activity waste drums in the WCRR facility. A major focus was proficiency of the operators, who have endured several training iterations and an order of magnitude increase in the number of procedures required to run the facility (now roughly 120).

There were numerous findings and observations, including concerns about whether the facility can meet the NNSA-approved combustible loading limits; some operating, surveillance, and in-service inspection procedures were not finalized; some baseline surveillances were not complete. The two-week contractor operational readiness review is expected to start Monday (site rep weekly 5/25/07).