

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 31, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending October 31, 2003

Hadjian, B. Jones, Jordan, and Rizzo (OE) were on site reviewing bases for seismic and flood hazard analyses and their application to the CMR replacement facility and TA-18 flood retention structure.

Integrated Safety Management (ISM): Next Monday (11/3), LANL begins implementing a single work management approach that addresses common safety issues identified in recent assessments and accident investigations (site rep weekly 10/17/03). This is an interim action until longer-term improvements can be implemented, expected next May. LANL provided a detailed orientation on the approach to about 1,000 people this week. The need for interim action was driven by a recognition that work at LANL is generally performed safely and consistent with industry standards, but a significant injury or near-miss has occurred on average every 6 weeks during the last 6 to 8 months (e.g., site rep weeklies 10/18/02, 4/11/03, 8/15/03, 9/5/03, 10/3/03). Thorough LANL investigations of these events identified common safety issues. NNSA oversight and involvement was pivotal in the scope and timing of the action. While success is not assured, the site rep believes that these are the most positive actions that have taken place here to improve worker safety during the last two years.

Weapons Engineering Tritium Facility (WETF): This week, WETF completed ahead of schedule the implementation of 8 new technical safety requirement (TSR) surveillance procedures, required by the safety basis approved in April 2002. To support implementation, NNSA this week approved TSR page changes to clarify the control room halon fire suppression requirements. LANL curtailed WETF programmatic activities on July 25th so that the facility could focus on TSR implementation. WETF plans to resume programmatic activities in a phased manner under a senior supervisory watch. Overall, implementation has been long in coming. Facility management and personnel, assigned operational advisors, and the NNSA facility rep all played key roles in this accomplishment.

WETF also reported this week that the lightning protection system has undergone repairs to fix all deficiencies and been inspected by LANL for compliance with NFPA-780. An independent inspection is scheduled next week. A Sandia lightning protection expert is also conducting a review of the system for possible improvements. LANL will provide conclusions to NNSA by November 14th.

Chemistry and Metallurgical Research Building (CMR): The CMR TSRs includes a program intended to ensure that material not in active use is placed inside robust safes to protect it during catastrophic events, such as a major fire or earthquake. On October 17th, CMR reported a TSR violation, based on a determination that this program was not properly implemented. Specifically, items within safes were found to not be packaged consistent with that used for surrogate items during qualification tests of the safes in 2000. This issue may not have been recognized for an extended period because (a) the tested package configurations are not clearly documented in the TSRs, CMR procedures, or the qualification report, and (b) there appears to be no standard packaging procedure that is used by the different programmatic groups working in CMR. Since October 17th, CMR has clarified the procedure for using the safes, and inspected and repackaged items as deemed necessary. It appears worthwhile for LANL to consider standardizing packaging as part of both the planned CMR safety basis upgrade (expected in January) and the planned LANL review of confinement pedigree for all TA-55 and CMR plutonium items outside a glovebox environment (site rep weekly 10/17/03).