

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 10, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: T.L. Hunt, Acting DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory
Report for Week Ending June 10, 2005

Activity Summary: Michael Merritt was on leave this week. Tim Hunt was on site performing site representative duties.

Plutonium Facility Management Self-Assessment (MSA): LLNL continues to perform its management evaluation of 17 Plutonium Facility Technical Safety Requirement (TSR) surveillance procedures and administrative control programs and operations in preparation for its Readiness Assessment for limited operations currently scheduled to commence in mid-July. To date, nine of the program assessments have been completed, several with final reports generated, with the remaining eight assessments in progress. Although LLNL believes the assessments are on track to be finished next week and a final comprehensive MSA report issued by the end of June, closure of identified issues does not appear to be occurring at a rate that will support that schedule. Preliminary results of completed assessments indicate the procedures program currently has the most significant findings with quality assurance also likely to show deficiencies. LLNL has established a database to track corrective actions and the MSA team will verify adequate closure of pre-start findings prior to planned declaration of readiness in July.

Emergency Exercise: This week, LLNL's Emergency Response Organization evaluated its readiness during an integrated exercise involving a mock criticality accident in the Plutonium Facility and the concurrent simulated release of hazardous materials at the Radioactive and Hazardous Waste Management (RHWM) complex. The subsequent controller/evaluator debrief provided generally positive feedback with typical weaknesses identified related to communication and sheltering. The quick response of the Health and Safety Technicians at the criticality scenario venue was identified as a strength. Specific inadequacies were observed at the Plutonium Facility with respect to the timeliness of reconciling the accountability list of facility personnel at the assembly point with the entry log of persons in the Radioactive Material Area when the criticality alarm sounded, the unavailability of Health Physicists – due to Superblock access restrictions – requested by the Health and Safety Technicians to provide support, and the clear identification of personnel in the facility who were not participants in the exercise.

Office of Independent Oversight and Performance Assurance (OA) Review: In April, LLNL submitted its Corrective Action Plan (CAP) addressing the OA team's findings from the October 2004 assessment. Upon review, the OA team determined last week that the CAP does not clearly define each of the causal factors; particularly those relating to verbatim compliance and the "expert-based" system. The time frame for resolving the identified corrective actions was also found to be unacceptably long, some stretching out for more than two years. LLNL also did not provide adequate information on how independent verification of the closure of findings would be accomplished and some Plutonium Facility vital safety system deficiencies were not comprehensively addressed. The CAP submitted by LSO on April 6, 2005 was found by OA to be responsive to the team's findings.