DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 9, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending November 9, 2001

Critical Experiments Facility (TA-18): The site rep understands that the pace of some operations is increasing in TA-18. Earlier this week, an operator removed highly irradiated target foils from COMET, a general-purpose assembly machine, and received about 200 mrem in less than two minutes. For perspective, the total annual exposure for all facility personnel has been less than 1 man-rem. Also, next Tuesday, LANL intends to reconfigure COMET for the next series of experiments – the fourth reconfiguration this year. Normally, reconfiguration is done after a one-to-two week shutdown; however, conducting this evolution next week is expected to result in operators working in a high radiation area. Reconfiguration typically takes 1 to 3 hours. The facility is increasing emphasis on as-low-as-reasonably-achievable (ALARA) practices for these tasks.

High Efficiency Particulate Air (HEPA) Filters: TA-54 has instituted a nuclear-grade HEPA filter inspection process for the Decontamination and Volume Reduction System (DVRS) and has recently rejected 21 of an order of 59 filters received (i.e., about 35 percent rejection). The inspection criteria are based on the applicable DOE HEPA filter standards. Specifically, 12 were rejected for defects such as media deviation, gasket problems, and face-guard damage, and 9 were rejected because they were received improperly stacked on the pallets. Of particular interest, these HEPA filters had already been through and passed inspections at the vendor, at the DOE HEPA filter test facility, and at LANL receipt inspection, which raises questions at LANL and elsewhere on the consistency and thoroughness of these types of inspections.

TA-18 Flood Retention Structure (FRS): The site rep believes that DOE and LANL need to clarify responsibilities and make progress toward resolution of open issues with the FRS, including those identified in the Board letter and staff report issued this week. Some of these issues have been known for some time. Particularly, in May, DOE approved a positive Unreviewed Safety Question related to the FRS, subject to several conditions equivalent to Technical Safety Requirements (TSRs). Among these were LANL submitting to DOE a structural review, an emergency action plan, and maintenance and inspection procedures. In July and September, LANL submitted a maintenance/inspection plan and an emergency action plan. DOE action is imminent, but the site rep understands that there are issues. In August, LANL identified several key uncertainties. Among others, these included the roller-compacted concrete strength, foundation strength assumptions, and erosion controls. It appears appropriate to move quickly to address these uncertainties, finalize an emergency action plan, and implement appropriate FRS maintenance and inspection procedures.

LANL Authorization Bases (ABs): DOE and LANL have an aggressive schedule for AB upgrades during the next 6 months (site rep weekly 10/26/01). For the plutonium processing facility (TA-55), DOE has provided feedback to LANL and next week, a small, joint DOE-LANL team plans to review the current TA-55 hazard analyses. LANL intends to submit a 90% package for TA-55 in late December, receive DOE comments in February 2002, and submit the final package in April 2002. In the same time-frame, LANL will be preparing and DOE will be reviewing similar submittals for TA-18 and the Weapons Engineering Tritium Facility (WETF). Frequent positive engagement between DOE and LANL, as well as establishing a mutually acceptable resource-loaded schedule and interim milestones (such as the TA-55 review next week), could contribute to timely success.