

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 24, 2004

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Michael J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory (LLNL)
Report for Week Ending September 24, 2004

DNFSB Site Activity: Board Members Conway, Eggenberger and Matthews were at LLNL on September 20 to meet with the Livermore Site Office and LLNL management to discuss current safety issues. The Board Members received briefings on the Plutonium Facility's safety basis, integrated safety management, transuranic waste disposition, and LLNL's support for operations at the Pantex plant. Staff members Andrews and White also attended the briefings, and on September 21 conducted a walk-through review of operations in the Plutonium Facility.

Shipment of Transuranic Waste Off Site: LLNL is finalizing an agreement with DOE's Carlsbad Office to ship transuranic (TRU) waste from LLNL to the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. According to the agreement, a total of 20 shipments will occur, starting in October 2004 and ending in January 2005. Completion of these shipments will result in the removal of approximately 750 drums of TRU waste from the LLNL site. Removal of these drums represents a significant reduction of risk at LLNL. The TRU waste drums being shipped have been characterized using the temporary WIPP Mobile Vendor (WMV) facility at LLNL. This facility operated from April to August 2004 until an occurrence forced the cessation of operations (see weekly report dated August 27, 2004). At the time the facility stopped operation, all but 10 TRU waste drums that were intended to be characterized were completed. It is unlikely that the remaining 10 drums will be characterized and included in the shipment due to complications in restarting characterization operations after the occurrence.

In order to support the shipping schedule, LLNL must be prepared to support operations to load the TRU waste drums into TRUPACT-II shipping containers. An Operational Readiness Review (ORR) was completed in March 2004 to support the operation of the WMV facility. According to the ORR report, the scope of the review did not include the TRUPACT-II loading segment of the WMV. It is not clear what additional reviews will be performed to confirm readiness to perform the loading operations. A review of the loading operation would be appropriate.

Plutonium Facility Safety System Discrepant Condition: During a walk-down of the Plutonium Facility on September 21, DNFSB staff members questioned an existing condition in the safety-class (process) room exhaust system. An open-ended sample port tube was connected to the room exhaust system upstream of the high-efficiency particulate air (HEPA) filters. The only contamination barrier was tape adhered to the end of the tube. Facility management was notified and agreed that the condition did not meet the system design requirements.

On September 22, LLNL issued an occurrence report of the discrepant condition (ORPS report OAK-LLNL-LLNL-2004-0043). According to the report, the condition existed in two locations. The tubes have been removed and the duct penetrations have been sealed using threaded pipe plugs to prevent any release of radioactive material.