DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 17, 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 December 17, 2004

DNFSB Site Activity: Board member Matthews was at LLNL on December 14 and 15 to review the implementation of integrated safety management (ISM) and to meet with Livermore Site Office and LLNL management to discuss current safety issues. Staff member White assisted in the ISM reviews that included observations of operations in the Plutonium Facility and several other nuclear and radiological facilities. Staff members Martin and Shackelford were also at LLNL attending meetings on Multi-Unit Operations at Pantex.

Nuclear Facility Authorization Basis Corrective Action Plan: The Livermore Site Office has been working with LLNL to ensure that the process for developing authorization basis documents, such as safety analysis reports, is effective. LLNL's Assurance Review Office (ARO) closure assessment report, dated April 28, 2004, concluded that a number of the corrective actions could not be verified as completed (see weekly report dated September 3, 2004). During the past two months, LLNL has made some progress in resolving the open issues. The remaining commitments are the development of authorization basis procedures, formalization of on-the-job training programs for safety analysts, and assessment of the effectiveness of the corrective actions. This week, LLNL made a commitment to the Livermore Site Office to complete the remaining actions within the next month.

Plutonium Facility Occurrence: On December 10, 2004, a circuit breaker tripped following surveillance testing of the ventilation system in the Plutonium Facility. According to the occurrence report (ORPS report OAK–LLNL-LLNL-2004-0069), after the surveillance testing was complete, the facility operators were switching the lead and lag fans back to the initial configuration. Once the lead fan was reactivated, the associated circuit breaker tripped. The facility was in the maintenance mode during the surveillance testing and was maintained in that mode, as required by the limiting condition for operation (LCO), until the ventilation system was restored to normal operation. Facility personnel performed electrical checks of the system and also performed visual inspections of the belts, bearings and fan motor. Facility management directed that the surveillance be performed again to ensure that the fans could be transferred without incident. This time the transfer was successful and operability of both fans was restored and the LCO was exited. The electrical system engineer is continuing to evaluate the system to determine the cause of the breaker trip.

Heavy Element Facility Risk Reduction Program: The Heavy Element Facility recently completed an inventory shipment to the Oak Ridge National Laboratory. The shipment of these items decreased the inventory of the facility below the threshold for a Hazard Category 2 facility per DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports.* The inventory reduction campaign is continuing with the goal of reducing the inventory in the facility to achieve Radiological Facility status by April 2005. In order to achieve this goal, LLNL must continue to remove contaminated items from gloveboxes and perform decontamination of the internal surfaces of the gloveboxes.