

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 21, 2006

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: M. J. Merritt and J.W. Plaue (acting), DNFSB Site Representatives
SUBJECT: Lawrence Livermore National Laboratory (LLNL)
Report for Week Ending April 21, 2006

DNFSB Staff Site Activity: J. Plaue was at LLNL this week augmenting site representative coverage.

Plutonium Facility Readiness Assessment: This week, LLNL began its readiness assessment (RA) to return to normal operations. LLNL has defined normal operations as those activities that were approved and authorized prior to the stand-down of the facility on January 15, 2005. Based on the Livermore Site Office (LSO) approved Plan of Action, LLNL's primary goals for this RA are to verify:

- the effectiveness of the safety management programs;
- proper completion of recovery plan commitments and corrective actions;
- the continuing effectiveness of corrective actions;
- compensatory measures are no longer required; and
- the facility is conducting operations in compliance with the existing Safety Analysis Report requirements and can continue operations in a compliant manner.

Achievement of these goals will be determined based on the independent review team's evaluation of documentation, interviews with facility personnel, and observations of programmatic operations and maintenance activities.

In parallel, LSO is executing an Oversight Plan for the RA. One aspect of this plan uses an oversight team to ensure the rigor of the LLNL RA is adequate to support their conclusions. Based on their review, the team will submit a recommendation on whether to return to normal operations. In addition, a separate effort of verification and validation (V&V) of the corrective actions will be performed by subject matter experts. LSO has defined verification as confirming the corrective actions have taken place, and validation as an assessment that the actions completed have been effective in addressing the issue. This V&V effort will lead to a separate recommendation to the LSO manager on whether to return to normal operations. Final reports on the RA results are expected next week.

Hardened Engineering Test Building Activity: A radiation measurement activity was conducted in the Hardened Engineering Test Building, Building 334 this week. The activity consisted of removal of nuclear material from a container, handling of the material, and passive radiation measurements. The previous performance of this activity (see weekly report dated March 31, 2006) lacked discipline in work permit implementation and conduct of operations. The activity performed this week was improved significantly. LLNL management improved the process for work permit development to better define radiological controls and criticality safety requirements. The Fissile Material Handlers and Hazard Controls Technician performed the handling activity in a manner consistent with that required in the Plutonium Facility. The requirements of the work permit, including survey requirements, personal protective equipment, and dosimetry requirements, were strictly adhered to during performance of the work.