

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 12, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Michael J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory
Report for Week Ending August 12, 2005

DNFSB Staff Site Activity: Staff member T. Hunt was at LLNL observing fire suppression system testing and readiness assessment activities in the Plutonium Facility.

Plutonium Facility Safety System Testing: This week, as part of preparations to proceed with the readiness assessment for limited operations, the Plutonium Facility was placed in maintenance mode to verify operability of several components of the fire suppression system. Potential deficiencies in the safety-class fire suppression system were noted during the recent management self assessment, which concluded that inspection and testing of some system components was needed to assure operability under normal and accident conditions. System Engineering developed a test procedure, performed a system walk-down to validate the procedure, briefed facility and operations personnel prior to testing, and provided direction and support during procedure execution. The facility was isolated from the fire mains during the testing and a 2-hour fire watch was instituted during system shutdown. Functional testing of the fire water tanks pressure control valves (PCVs) and system check valves was successfully completed. PCV actuation pressure settings have been confirmed and the system description will be updated.

The performance of the testing by management, engineering and operations personnel was notable in the areas of verbal communications, procedural development and compliance, work control and system alignment, and evaluation and recovery from unexpected conditions. The exercise also proved valuable as an indication of the benefits of performing work in accordance with the recently issued Nuclear Materials Technology Program Conduct of Operations Manual.

Plutonium Facility Resumption Status: On August 12, 2005, the Plutonium Facility Manager declared readiness to proceed with the readiness assessment (RA) for limited operations. Facility management considers that all actions required for resumption have been completed, with the exception of a manageable list of open pre-start findings. To support the declaration of readiness, LLNL submitted a Technical Safety Requirements (TSR) recovery plan for the fire protection program. Additionally, as discussed above, all pre-start findings related to testing and inspection of fire protection equipment have been closed. The TSR recovery plan also contains actions to update procedures and surveillances to be compliant with National Fire Protection Association (NFPA) requirements.

The LLNL and Livermore Site Office (LSO) RA teams are prepared to officially begin the RA the morning of August 15 after an in-briefing for the teams by LLNL. In effect, RA team observations began on August 9 when some members of the RA teams observed briefings and work evolutions supporting the testing of the fire suppression system. The conduct of the RA is expected to last approximately two weeks.