DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 5, 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 5, 2005

Plutonium Facility Resumption Status: The final report for the LLNL management self-assessment (MSA) for resumption of "reduced activity" in the Plutonium Facility has been issued. The MSA report identifies a total of 159 findings, 42 of which are considered to be pre-start. The pre-start findings must either be corrected or have compensatory measures in place prior to resumption. Closure of pre-start findings related to testing and inspection of fire protection equipment will determine when LLNL will be in a position to proceed with the planned readiness assessment. The fire system testing is now scheduled for early next week. The commencement of the readiness assessment process should officially begin shortly thereafter.

Unreviewed Safety Question Process: In late July, the Livermore Site Office provided direction to LLNL concerning its application of the unreviewed safety question (USQ) process as it relates to Environment, Safety and Health (ES&H) Manual documents. The LSO letter addresses the need to review changes to ES&H Manual documents referenced in nuclear facility documented safety analyses and Technical Safety Requirements to implement safety programs that have not been subjected to the USQ process. LSO has directed LLNL to take six specific actions that will either correct or compensate for deficiencies in this matter. One of the actions is that no changes to the LLNL ES&H Manual shall be approved for implementation at LLNL Hazard Category 2 or 3 nuclear facilities without subjecting those changes to the USQ process.

Plutonium Facility Occurrence: On August 3, 2005, LLNL reported discrepant as-found conditions in various rooms in the Plutonium Facility (ORPS report OAK–LLNL-LLNL-2005-0062). During system walk-downs, system engineers found that Unistrut seismic supports for portions of the glovebox exhaust system, nitrogen system, and argon system were not properly anchored to the facility structure. Apparently, as facility modifications were made in various laboratories over time, the Unistrut supports were re-configured, and in some cases were not re-secured properly. Facility management is prioritizing the necessary repairs based on the level of difficulty to perform the repairs and the near-term activities planned to be performed in the specific rooms. Some repairs must occur prior to resumption of reduced activity work.

Radioactive Waste Management Occurrence: An employee that was restricted from performing radiological work to preclude additional radiation dose was found to have received additional occupational exposure despite the restriction (ORPS report OAK–LLNL-LLNL-2005-0061). The individual was placed on restriction after the WIPP Mobile Vendor contamination incident in August, 2004 (see weekly report dated August 27, 2004) and was restricted from receiving any additional occupation exposure for the remainder of 2004. However, dosimetry records indicate additional external exposure was received. The total effective dose equivalent for the individual was less than 10 percent of the annual occupational dose limit of 5 rem. LLNL management is reviewing its control procedures for work restrictions to determine how the restriction was violated and to determine if procedure modifications are required to prevent future occurrences of this type.