

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 14, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Michael J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory
Report for Week Ending January 14, 2005

Independent Oversight Inspection: On January 6, 2005, the Department of Energy Office of Independent Oversight and Performance Assurance (OA) issued its report for the inspection of environment, safety, and health (ES&H) management at LLNL that was conducted from October 18-28, 2004 (see weekly reports dated November 19 and October 29, 2004). The final report identifies or confirms deficiencies in a number of areas relating to nuclear facility operations. The report documents twenty four findings LLNL and the Livermore Site Office (LSO) must address in a corrective action plan by March 7, 2005. The following are some of the more significant safety issues identified in the findings:

- An LSO lack of rigor in assessments and operational awareness;
- Inadequate analysis of the design of safety-class fire protection and ventilation systems in the Plutonium Facility;
- Significant configuration management deficiencies related to vital safety systems;
- A procurement process for safety-class equipment that does not fully meet 10CFR830;
- Ineffective programs for issues management and ensuring corrective actions are appropriately closed;
- Problems with the unreviewed safety question processes and procedures;
- Ineffective quality assurance program;
- Lack of clearly defined requirements in some work instructions; and
- Various issues relating to the implementation of Integrated Safety Management.

Plutonium Facility Safety Priorities: LSO and LLNL are negotiating near-term compensatory measures to address current safety issues relating to the Plutonium Facility (see weekly report dated December 24, 2004). In a January 6, 2005, letter LSO rejected LLNL's proposed compensatory measures cited in LLNL's December 20, 2004, plan of action. In its response, LSO provided dozens of comments and questions about the plan and challenged the safety benefits provided by implementing the plan. LSO has directed LLNL to prepare a plan that "is more risk-based" and that ensures that the compensatory measures proposed are directly related to the safety deficiencies. LSO also indicated that necessary actions to establish effective configuration management of vital safety systems need to be completed in a much shorter period of time than the 6-9 years that is proposed in the plan. LLNL is expected to issue a revised plan of action in mid-January.

NNSA Oversight: NNSA's Chief of Defense Nuclear Safety (CDNS) conducted a review of safety issues at LLNL on January 12, 2005. The CDNS received briefings on a number of current safety issues including configuration management of vital safety systems and corrective actions required to address findings from the OA inspection. The CDNS and his staff also conducted walk-down reviews of several nuclear facilities including the Plutonium Facility. The CDNS staff members continued the facility reviews on January 13, 2005.