

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 22, 2005

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** Michael J. Merritt, DNFSB Site Representative  
**SUBJECT:** Lawrence Livermore National Laboratory  
Report for Week Ending July 22, 2005

**Plutonium Facility Occurrence:** On July 18, 2005, LLNL reported a deficiency in the implementation of the Plutonium Facility Technical Safety Requirements (TSRs) relative to the fire protection program (ORPS report OAK-LLNL-LLNL-2005-0056). During the recent Management Self-Assessment (MSA), LLNL confirmed that deficiencies exist in the maintenance and testing of fire protection equipment to meet National Fire Protection Association (NFPA) requirements. LLNL has not yet prepared a recovery plan for the fire protection program. However, activities are underway to correct deficiencies related to the testing and inspection of specific fire suppression equipment. It is likely that test procedures under development will require the facility to enter maintenance mode for several days in order to accomplish the required NFPA testing and inspection.

**Unreviewed Safety Question Process:** On July 19, 2005, the Livermore Site Office (LSO) provided additional guidance to LLNL for implementing the unreviewed safety question (USQ) process. The LLNL Environment, Safety and Health Manual, Document 51.3 defines the current process. LSO's concern is that the current procedure allows LLNL to perform a unreviewed safety question determination (USQD) and evaluation of safety (EOS) in parallel for Potential Inadequacy in Safety Analysis (PISA) issues. LSO states that completion of the USQD prior to the completion of the EOS is necessary in order to determine if LSO approval is required for removal of any operational restrictions for USQDs that were determined to be positive. The current LSO procedure does not explicitly require that the USQD be completed first.

In its letter, LSO defines its expectation that when a PISA is identified, the required steps from 10CFR830.203 (g) (3) & (4) shall be completed in the order specified. LSO refers to the USQ guide (DOE G 424.1-1) as requiring this approach. The supporting logic is that the information contained in the USQD not only supports the EOS, but also supports the retention or removal of any operational restrictions that were put in place as a result of the PISA. LSO also directs LLNL to revise its current procedure during the next revision to reflect the changes and submit this revision to LSO for approval in March 2006.

**Plutonium Facility Resumption Status:** The MSA for resumption of "reduced activity" in the Plutonium Facility is essentially complete. All of the TSR management programs have been reviewed and reports have been completed. The MSA draft report identifies a total of 163 findings. The findings are currently being evaluated to determine if they are pre-start, post-start, observation, or a prerequisite to remove compensatory measures. Issues with maintenance and testing of the fire protection system continue to be the controlling path to a declaration of readiness to proceed to the readiness assessment. Currently, the commencement of the readiness assessment process is expected the week of August 8, 2005.