

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 13, 2007

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: M. J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory (LLNL)
Report for Week Ending July 13, 2007

Plutonium Facility Evaluation of Safety (EOS): On July 3, 2007, the Livermore Site Office (LSO) provided LLNL with its review of an EOS related to a firewater tank in the Plutonium Facility. On March 26, 2007, LLNL management declared a positive unreviewed safety question (USQ) to LSO in response to a potential inadequacy of the documented safety analysis (PISA) regarding a discrepant as-found condition in the Plutonium Facility. The USQ and PISA were reported because insufficient evidence (calculations) existed to ensure that the 7500 gallon fire water tank could meet the functional requirements described in the current Safety Analysis Report (SAR). The fire suppression system functional requirements were redefined in the new Documented Safety Analysis (DSA) and Technical Safety Requirements (TSRs) to better describe the performance that is expected. The fire suppression system requirements in the DSA were recently implemented as part of the transition of requirements from the SAR to the DSA (see weekly report dated June 29, 2007).

In its letter, LSO agrees with the LLNL conclusions in the EOS and concludes that the controls that are currently in place are adequate for continued safe operations. The justification to support this conclusion was based on frequency and consequences of a fire in the basement, redundant firewater sources, low combustible loading in the basement, and TSR restrictions for combustible storage around the flexible connections for the Room Ventilation System and Glovebox Exhaust System. Based on the currently available documentation, the conclusions seem reasonable.

LSO Senior Nuclear Safety Advisor: In early March, NNSA re-posted the job announcement to fill a Senior Nuclear Safety Advisor vacancy at LSO. The position was originally posted in May 2006, and re-posted in July and October. The posting closed on March 30, 2007. Since that time, LSO has interviewed candidates and selected a person to fill the position. Recently, the candidate accepted the offer and is expected to report for duty in September. The role of the incumbent will be to provide expert technical counsel to the LSO Manager on matters such as criticality safety, safety analyses and documentation, and systems engineering. The incumbent will also be expected to provide oversight of nuclear operations at LLNL nuclear facilities to ensure that the operations are carried out safely and in accordance with established procedures.

Radiography Facility Operations: Operations were performed in the Radiography Facility this week. The operation involved radiography of a plutonium pit. Deficiencies were noted in the areas of work permit development and radiological controls implementation. The deficiencies were similar to those identified last week in the Hardened Engineering Test Building (see weekly report dated July 6, 2007).