DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2006

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: M. J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory (LLNL) Report for Week Ending October 6, 2006

Configuration Management: On October 4, 2006, LLNL provided the Livermore Site Office (LSO) with an updated status of commitments to implement configuration management of vital safety systems in Nuclear Materials Technology Program (NMTP) nuclear facilities. This briefing summarized the current path forward that was formally communicated to LSO in a letter dated August 30, 2006. According to LLNL, the configuration management schedule has been re-baselined to realistically reflect the level of effort required to place procedures and drawings into the Enterprise Configuration Management System (ECMS). LLNL has implemented staffing changes including a new manager for configuration management who also manages quality assurance. New procedures have been developed to prepare and track procedures and control red-line drawings. Plutonium Facility system design descriptions (SDDs) have been drafted and are pending final approval. Red-line drawings have been captured electronically and will eventually be formally updated. The current schedule focuses on the Plutonium Facility followed by the other NMTP facilities. The overall effort to fully implement configuration management in all NMTP facilities, including updating drawings is expected to be complete within six years.

Nuclear Material Inspection and Packaging: A package containing plutonium metal items was recently opened and inspected as part of a campaign to characterize legacy material (see weekly report dated June 23, 2006). When the container was opened, the fissile material handlers observed a significant amount of oxidation of the plutonium metal. Since the work station being used was in a Standard Criticality Control Condition (SCCC) that has specific limits on the quantity of oxide allowed, the fissile material handlers correctly responded by stopping the work, securing the room, and reporting the incident. A recovery plan meeting was held shortly afterwards. The Criticality Safety Section (CSS) engineer reviewed the situation and established a recovery plan that required a technical evaluation, changing the SCCC, cleaning the metal and separating it from the oxide, and properly storing the component parts. The item was confirmed to be in a safe condition. Since the item in question was identified as being part of a legacy item inspection program, the CSS evaluation was conservative and appropriate. The CSS engineer provided an evaluation to the facility manager concluding that the event was not a "non-compliance" with the criticality safety controls. The process for evaluating and reporting such instances may require further review since the oxide quantity was not measured and compared to the existing SCCC limit prior to concluding that a "non-compliance" did not exist.

Plutonium Facility Authorization Agreement: On September 25, 2006, LLNL entered into an updated Authorization Agreement with LSO for the operation of the Plutonium Facility. The updated agreement defines the key conditions and specific commitments for safely conducting operations in the facility. The agreement will remain in effect until September 30, 2008.

LLNL Management Contract: On July 14, 2006, the National Nuclear Security Administration (NNSA) released the final Request for Proposal (RFP) for the competitive selection of a management and operating contractor for LLNL. This week, the offers and proposal deadline was extended from October 12 to October 27, 2006. The planned contract award date is in the February-March 2007 timeframe.