

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 9, 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 June 9, 2006

Configuration Management: The Livermore Site Office (LSO) has requested that LLNL update the status of commitments to implement configuration management of vital safety systems in LLNL nuclear facilities. In its May 26, 2006 letter, LSO directs LLNL to provide a formal status on progress made to date in implementing the configuration management activities in Nuclear Materials Technology Program (NMTP) facilities. A letter to the Board from the Administrator of the National Nuclear Security Administration, dated October 26, 2005, provided a resource loaded schedule for implementing a configuration management program for vital safety systems at LLNL's defense nuclear facilities. Based on changes in resource allocation and the coincident implementation of both the configuration management program and the new documented safety analysis (DSA) for the Plutonium Facility, NMTP management committed to re-baselining the schedule. The new schedule is expected to be integrated with the DSA implementation plan (see weekly report dated June 2, 2006) that is presently under review by LSO.

LLNL management is currently revising the configuration management plan and is expected to reply to the LSO letter on June 12, 2006. Initial indications are that some changes in strategy will be necessary to achieve efficient implementation of the configuration management program. Reliance on the Enterprise Configuration Management System (ECMS) to maintain system drawings and system design descriptions is expected to continue. However, configuration management of procedures may be accomplished using systems that are better suited for procedure control.

Nuclear Criticality Safety Training: LLNL has requested LSO approval to conduct nuclear criticality safety training in the Plutonium Facility. The training will include sub-critical multiplication experiments using pre-existing LLNL uranium parts. The parts were previously used for nuclear criticality experiments and cross-section measurements and subsequently modified for use in criticality safety training. The priority is to establish the level of training needed to qualify criticality safety engineers to DOE-STD-1135-99, *Guidance for Nuclear Criticality Safety Engineer Training and Qualification*. Training courses are expected to begin in July with four courses to be completed by the end of fiscal year 2006.

In preparation to begin the training, LLNL has submitted a safety basis amendment that addresses the 14 key criteria required by DOE-STD-3009, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Reports*. Facility physical preparations are nearing completion and an Operational Safety Plan (OSP) has been developed to conduct the training. The OSP is currently in final review and has established appropriate safety controls for the activity. The Plutonium Facility manager can authorize students to handle nuclear material, if the student has completed the required radiological training. A senior certified Fissile Material Handler will be responsible for ensuring the OSP requirements are satisfied during the students participation in conducting the sub-critical experiments.