

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 11, 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 August 11, 2006

Plutonium Facility Safety Basis Implementation Plan: In early July, LLNL initiated the safety basis implementation plan to transition operation of the Plutonium Facility to a safety basis compliant with 10 CFR Part 830, *Nuclear Safety Management*. The implementation plan was approved by the Livermore Site Office (LSO) on June 20, 2006. LLNL's goal is to safely transition to the newly approved Documented Safety Analysis (DSA) and Technical Safety Requirements (TSRs) as soon as possible while minimizing impact to programmatic mission. Pre-defined groups of structures, systems, and components (SSCs) and safety management programs (SMPs) will be implemented according to the phased schedule contained in the implementation plan. Currently, SSCs and SMPs contained in "Group A" are undergoing revisions as required by the DSA. The Group A SSCs include the criticality alarm system, glovebox nitrogen system, and the glovebox argon system. None of these systems are required to be physically modified, but Surveillance Requirements Procedures and Administrative Controls Procedures do require revisions to meet the DSA requirements. The four SMPs included in Group A are criticality safety, radiation protection, unreviewed safety question, and occurrence reporting. Group A activities are scheduled to be complete by September 26, 2006. Subsequent groups of controls are scheduled to be implemented through September 2007.

Plutonium Facility Technical Safety Requirements (TSRs): LSO has approved a temporary deviation from the Plutonium Facility TSRs. The deviation was requested by LLNL in late July in order to replace the Increment 1 room ventilation system (RVS) exhaust fans. The fans are near the end of their design life and are being replaced with new fans meeting the same specifications. Normally, if two RVS fans were not operable, the facility would enter a limiting condition of operation (LCO) that requires the increment to be placed in maintenance mode within 72 hours. The conditions of the LSO approval contained in a safety basis amendment allow an extension of the LCO time limit up to 14 days for each fan, during which time, compensatory measures will be in place. The compensatory measures are intended to minimize the hazards for which the RVS provides a mitigation. Specifically, the compensatory measures prohibit any activities involving dispersible material and activities involving welding or hot work. Although not specifically stated in the LLNL request or the LSO approval, the TSR deviation will allow the facility to support the accomplishment of several important programs without disruption.

Legacy Item Disposition: This week, LSO approved the LLNL Readiness Plan (i.e., Plan of Action) to disposition a legacy item referred to as Object-77. Disposition of the item presents potential hazards not routinely encountered during Plutonium Facility operations. Documents finalized this week to support the activity include work permits, special procedures, and an Operational Safety Plan for the work station to be used. The readiness assessment (RA) is scheduled to begin next week. As part of the RA, the activity will be demonstrated using integrated dry runs that are intended to validate procedural adequacy, operator proficiency, and equipment operability.