

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 2, 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 2, 2006

**Plutonium Facility Safety Basis Implementation Plan:** In late May, LLNL submitted an implementation plan to the Livermore Site Office (LSO) to transition facility operations to a safety basis compliant with 10 CFR Part 830, *Nuclear Safety Management*. The objective of the plan 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. In addition to the DSA and TSR requirements, the upgraded safety controls will include conditions of approval (COAs) as specified in the LSO Safety Evaluation Report (see weekly report dated April 14, 2006). Since the new or modified controls cannot be implemented immediately, a phased implementation approach is being applied.

The implementation of the safety basis controls will be managed as a formal project and coordinated by a full-time project management team. The project manager developed the plan that includes resource requirements and a baseline schedule. The project schedule includes the transition or establishment of approximately 200 safety controls. Many of the existing controls in effect under the current Safety Analysis Report will not be changed and will continue under the new safety basis. Existing Limiting Conditions for Operations (LCOs) for safety-related structures, systems, and components (SSCs) will also be required by the new safety basis. In some cases, the surveillance requirements for the SSCs will not change. However, there are several new LCOs and surveillance requirements for safety-related SSCs.

Implementation of the new safety basis will require the development of new procedures, revisions to existing procedures, training, facility modifications, engineering studies, and equipment procurement. The plan calls for implementation in logical control sets based on the relationship of the controls to a particular facility safety system or safety management program. Once the project team is satisfied that the control set is adequately implemented, the Facility Manager will verify correct implementation. The plan also proposes methods for LSO to oversee the implementation process. After completion of all activities in the plan, LLNL expects to demonstrate that full compliance with the DSA, TSRs, and COAs has been achieved. Twelve safety enhancements to facility SSCs (described in DSA section 3.3.2.3.1) are not included in the plan since the enhancements will require additional analysis and funding. These items will be tracked on an existing master schedule.

LSO is in the process of completing its review of the submitted implementation plan. Initiation of the plan will not commence until LSO concurrence is obtained. The plan also assumes that the safety basis modifications associated with plan implementation will be categorically excluded from the unreviewed safety question (USQ) process. LSO agreement for the USQ categorical exclusion will be implicit with plan concurrence. Once the plan is finalized, the first set of controls is expected to be implemented in approximately three months, and the final set of controls implemented in approximately 15 months.