

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 10, 2009

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending July 10, 2009

Radioactive and Hazardous Waste Management: On July 7, 2009, the Livermore Site Office (LSO) issued a Safety Evaluation Report (SER) for the B695 Segment of the Decontamination and Waste Treatment Facility. The SER supports the annual update to the documented safety analysis and technical safety requirements. This annual update incorporated Department of Energy (DOE) Standard 1186, *Specific Administrative Controls* and Change Notice 3 to DOE Standard 3009, *Preparation Guide for US Department of Energy Nonreactor Nuclear Facility Documented Safety Analyses*. The annual update was originally submitted to LSO in September 2008 and was resubmitted in February 2009 following comment resolution and delay associated with the December 2008 glovebox over-pressurization incident. The annual update retains the existing three safety significant controls (approved transuranic waste drums, the performance category 2 structure, and the segmentation partition with the Waste Storage Facilities) and adds six specific administrative controls involving material-at-risk limits, waste container handling, and combustible loading. LSO also imposed two conditions of approval, both of which originated as compensatory and corrective actions identified through the laboratory's internal evaluations of the over-pressurization incident. First, all waste processing activities are required to utilize a work control process consistent with the revised institutional requirement for a task-based process. Second, a revised hazards analysis table is required to be submitted for LSO review and approval within 120 days. This second action will be critical to ensuring that the full range of operations is appropriately covered in the safety basis; particularly those under the small-scale treatment and reactive waste processing topics which were found by the Laboratory Evaluation Board (LEB) to be inadequately described.

Implementation of the updated safety basis is required in 120 days. The LEB also recommended rigorous, near-term independent verification of the safety basis controls. While the laboratory has an existing implementation procedure for technical safety requirements, consideration should be given to utilizing the content of the DOE *Guide for Performance of Independent Verification Reviews of Safety Basis Controls*. A draft version of this guide was issued in March 2009 for pilot testing. The guide contains detail beyond the laboratory's current procedure, as well as suggested implementation review criteria.

Livermore Site Office: The Superblock Operations Team recently submitted a summary report to management on its activities for the first quarter of calendar year 2009. The team provided the status of significant initiatives in Superblock, summarized the sole occurrence, and reported completion of 132 assessments (of 484 total for the entire LSO) during the quarter. The procedure that requires these quarterly reports and guides their content is anticipated to be revised in order to reflect changes in the oversight process that have occurred since 2006. This also represents an opportunity to ensure that these reports analyze operational awareness information in a meaningful manner and best meet management's objectives.