

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 4, 2010

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending June 4, 2010

Radioactive and Hazardous Waste Management: On June 3, 2010, the Livermore Site Office (LSO) issued the safety evaluation report approving the annual update to the safety basis for the Waste Storage Facilities. The Laboratory submitted the annual update to LSO on November 6, 2009. LSO determined that the annual update complied with Change Notice 3 of Department of Energy (DOE) Standard 3009, *Preparation Guide for US DOE Nonreactor Nuclear Facility Documented Safety Analyses*.

Overall, no changes were made to the set of credited structures, systems, and components—there are no events requiring safety class controls and the safety significant controls remain as the approved transuranic waste containers, the storage facility structures, and the partition between B696R and B696S. The Specific Administrative Controls remain the same with the exception of the deletion of the 36 hour time limit associated with storage of transuranic waste in the yard. Of note, the justification for the partition was relocated from the B695 Segment safety basis to the annual update in support of the ongoing effort to recategorize that facility to radiological status. LSO issued a single condition of approval that drives the alignment of the safety basis toward DOE Standard 5506, *Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities*. Specifically, LSO requested that the next annual update include a better discussion of the selection of controls used for moderate and high hazard events in the hazards analysis table in accordance with the risk ranking text contained in Standard 5506. LSO further requested implementation of the annual update within 120 days.

Tritium Facility: Last month, the Laboratory completed an Independent Verification Review (IVR) of selected changes to the Technical Safety Requirements (TSR) for the facility. This effort represented the first use of the newly developed institutional procedure for performance of IVRs (AB-009) and the second IVR performed by the Laboratory (see weekly report dated December 11, 2009). AB-009 provides for three types of IVRs: (1) comprehensive initial review, (2) periodic re-verification, and (3) safety basis changes. The IVR performed for the Tritium Facility exercised the checklist approach for minor changes to the TSR, which is included under the third type.

The minor TSR changes examined included those associated with the last annual update and the compensatory actions associated with the justification for continued operations (see weekly report dated March 5, 2010). The IVR found the implementation of the changes to be satisfactory; however, two of the four review areas contained findings. Specifically, the findings were: (1) an observation that the physical configurations of the anchorages for the Tritium Process Station and Tritium Science Station gloveboxes do not appear to match the latest seismic calculations and (2) the conditions under which the Associate Program Leader (APL) or Deputy APL reviews and approves flow paths and boundaries under “deliberate operations” were not clear. The report further noted that the anchorage issue did not appear to jeopardize the safety function, but required further evaluation.