DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 2, 2011

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending December 2, 2011

Management: On December 1, 2011, Penrose "Parney" C. Albright assumed the position of Laboratory Director.

Hardened Engineering Test Building: In a letter dated November 30, 2011, contractor management notified the Livermore Site Office (LSO) of their readiness to convene the federal readiness assessment (RA) for Shaker operations. The contractor's RA report identified pre-start issues associated with: (1) lack of detail in the startup plan concerning management oversight performed during non-fissile material operations and (2) a work permit that inadequately addressed the tasks, hazards, and controls for the operation, inspection, and maintenance of the Shaker. The contractor revised both of these documents. The post-start issues included: (1) an inconsistency regarding the personal protective equipment required for electrical flash hazards between the *Environment, Safety and Health* manual and the *NMTP Conduct of Operations* manual and (2) inadequate evaluation of the applicability of lock-out/tag-out processes. The contractor revised the manual and the work permit for these issues. The federal RA is scheduled to begin next Tuesday.

Plutonium Facility: This week, program personnel developed a work permit to continue recovery of a contaminated leak testing chamber. The chamber was contaminated on November 22, 2011, during a failed leak test of a welded DOE-STD-3013 inner container and resulted in a continuous air monitor alarm. Personnel were wearing respiratory protection at the time of the release, as required by the governing operational safety plan. The contractor reported this event as a management concern (NA--LSO-LLNL-LLNL-2011-0062). The room and laser enclosure were successfully decontaminated and work is planned for next week to disassemble the vacuum chamber, relocate it to a fume hood, and attempt decontamination. Program personnel are also investigating the failure of the laser weld, with the current theory that accumulation of soot in the HEPA filter serving the laser enclosure may have sufficiently perturbed the pressure differential between enclosure and the glovebox from acceptable levels. The contractor plans to test weld a number of cold containers to ensure resolution of the issue.

On November 28, 2011, the contractor submitted to LSO a request for an amendment to the safety basis. The amendment will formalize a previous exception to a Limiting Condition of Operation (LCO) for the required differential pressure on a particular workstation used for laser welding sealed sources (see weekly report dated May 27, 2011). This workstation has a large transfer door that opens to a normally uncontaminated volume. The required pressure differential cannot be maintained when this transfer door is open. The amendment proposed limiting the applicability of the LCO for this workstation to the condition when the transfer door is closed. In addition, the amendment proposed a new credited key element for the radiation protection program—verifying that this workstation is uncontaminated prior to opening the transfer door.