

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 2, 2005

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** Jonathan Plaue, Acting DNFSB Site Representative  
**SUBJECT:** Report for Week Ending September 2, 2005

**Activity Summary:** Michael Merritt was on leave for the week. Jonathan Plaue was on site to provide support to the DNFSB site office.

**Plutonium Facility Resumption Status:** Documentation is ongoing for the recently completed readiness assessment for the Plutonium Facility. At this time, the LLNL team report is expected the week of September 5, followed approximately a week later by the Livermore Site Office (LSO) team report. Key pre-start findings identified by the LLNL and LSO teams are likely to include issues associated with document control and implementation of the *NMTP Conduct of Operations Manual*, such as formalization of management walk-downs and completion of "Level-of-Use" determinations for operating procedures.

**Nuclear Materials Management:** A December 3, 2004, letter from LSO requested LLNL develop a technical basis for nuclear material packaging (see weekly report dated December 10, 2004). Since that time, the Board has issued Recommendation 2005-1 *Nuclear Material Packaging*. One of the key Baseline Assumptions in DOE's recently submitted Implementation Plan for 2005-1 asserts that ongoing repackaging programs at the sites are to continue. Once the 2005-1 requirements have been issued, the sites will then have to conform. In response to these requests, LLNL has initiated limited development of a packaging technical basis (e.g., drop testing of Department of Transportation drums), along with some improved packaging requirements. These requirements are expected to include the prohibition of slip-lid type cans as a primary container, as well as increased calcination temperatures for oxide materials. The new requirements are anticipated to be included in an update to the Facility Safety Plan (FSP). Issuance of the updated FSP will be an important element of resuming activities that have the potential for generating nuclear material items for storage. For example, assuming a successful standup of limited operations and funding availability, LLNL is considering requesting approval for resumption of certain nuclear material stabilization and packaging activities. Completion of these activities could significantly reduce potential sources of risk to the facility workers.

**Heavy Element Facility Deactivation:** Approximately 100 nuclear material items (totaling 0.03 Am-241 equivalent curies) and five glovebox enclosures remain for deactivation and removal from the facility. These remaining items are expected to be dispositioned as waste, and verbal agreements have been established for some of the enclosures (see weekly report dated June 3, 2005). The overall risk reduction project was expected to be complete by the end of the fiscal year, but may be delayed about a month. The only anticipated challenge remaining, which has contributed to this delay, is the removal a shielded "Slug Line" enclosure previously used for americium and curium isotope work. Controls are being developed for the separation of this unit from an adjacent unit in a difficult area to access. As the project approaches completion, staffing is decreasing, however it appears appropriate actions are being taken to document the historical knowledge of the facility (e.g., spill maps and lists of personnel familiar with operations). This information will be used as a baseline by the LLNL Space Action Team, which will perform its own evaluation and eventually complete the facility demolition.