DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Michael J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory (LLNL)
Report for Week Ending November 4, 2005

Plutonium Facility Resumption: This week, the first limited resumption activity began. This particular activity involved the assembly of encapsulated plutonium parts in a fume hood. During the initial steps of the assembly procedure, an anomaly was identified that prevented one of the parts from being removed from its storage fixture. The material handler identified the problem and correctly stopped work. Subsequent to discussions between the responsible individual, the program leader, and hazard controls, a decision was made to discontinue the assembly and return the items to storage. Prior to returning the items to storage, the anomaly was corrected within the controls established by the Operational Safety Plan (OSP) for the workstation. The actions taken were appropriate and conservative. The activity will recommence on a schedule defined by the program needs.

The preparations to begin this activity demonstrated the process to be used for all limited resumption activities. The process was defined in a September 20, 2005 memorandum, *Process for Standing-Up Workstations to Limited Operations*. Generally, the resumption of a workstation is proceeded by verification of work station operability (e.g. equipment and interlocks), review of procedures and training, and a conduct of operations checklist review. The operability assessment includes inspection of containment boundaries, survey instruments, HEPA filters, and other physical controls established by the OSP. The checks also verify that the workstation has been flushed with the required fill gas (for gloveboxes), equipment calibrations are current, and that housekeeping requirements have been met. The conduct of operations checklist requires the personnel involved in the activity to review the specific safety controls established for the work covered by the OSP, as well as, the general requirements to meet the *Nuclear Materials Technology Program Conduct of Operations Manual* (e.g operator aids and equipment labeling). Facility management reviews the checklists documenting the completed actions and then performs a walk-down prior to authorizing the activity to begin.

Once a specific activity is authorized, the workstation will begin a trial period of operation during which facility management will observe work to ensure compliance with established controls and procedures. The trial period will last for 30 days, at which point the Facility Manager is required to determine if additional workstation checks are required. During the trial period, the Associate Program Leader is required to be present at pre-briefs and observe the activity for a minimum of two hours a day for a period of five days. When all of the requirements have been met and the trial period is complete, the Facility Manager will release the workstation for limited operations.

Several other workstations are expected to resume operations in the coming weeks, following the same workstation resumption process. Most of these activities will be conducted in gloveboxes rather than a fume hood as utilized in the initial resumption activity. The resumption process to startup a glovebox is more complicated than for a fume hood. Facility management has established a prioritized sequence for resuming activities for each limited operations workstation. The prioritization is based on the needs defined by the program groups.