

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 10, 2004

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** Michael J. Merritt, DNFSB Site Representative  
**SUBJECT:** Lawrence Livermore National Laboratory (LLNL)  
Report for Week Ending December 10, 2004

**Plutonium Packaging Initiative:** During the past few months, the Board's staff and the Livermore Site Office (LSO) have discussed the need for LLNL to improve its program for packaging of nuclear materials in the Plutonium Facility. Much of the legacy material has been packaged in accordance with Department of Energy (DOE) Standard 3013, *Stabilization, Packaging, and Storage of Plutonium-Bearing Materials*, to satisfy the Board's Recommendation 94-1, *Improved Schedule for Remediation in the Defense Nuclear Facilities Complex*. However, nuclear materials designated as programmatic are not currently packaged to meet any technical standard. Some existing packaging configurations do not provide a level of protection that ensures containment of the material during abnormal conditions.

On December 3, 2004, LSO issued a letter requesting that LLNL develop and implement an upgraded program for packaging of programmatic plutonium. The primary objectives of the program are the following:

- perform annual reviews of items stored to determine whether repackaging is required;
- provide over-packs for certain large items using 10 gallon drums; and
- develop a technical basis for packaging nuclear materials in the future.

The LSO letter also requested that LLNL provide a schedule within sixty days identifying when the objectives will be met. LLNL management has agreed in principle to address the issues, but no formal commitments have been made.

**Configuration Management:** LSO is currently developing a response to the Board's letter of November 3, 2004, that requested an assessment of the existing condition of the configuration management program at LLNL as it relates to vital safety systems for LLNL's defense nuclear facilities. A response to the Board's letter is due from the National Nuclear Security Administration (NNSA) on January 3, 2005. NNSA's response is also expected to provide schedule and resource information to implement a compliant configuration management program at LLNL.

LSO has taken initial actions to identify the scope of the configuration management issues at LLNL. On November 9, 2004, LSO directed that LLNL provide information within 45 days regarding compensatory measures in place to address configuration management of safety systems and a path forward to resolve the specific configuration management issues raised by the Board. Additionally, LSO chartered a team to assess the safety systems in the Plutonium Facility using criteria based on DOE-STD-1073, *Configuration Management*, and review criteria for essential safety systems developed by the DOE Office of Independent Oversight and Performance Assurance. LSO's intent is to provide a technical assessment of the Plutonium Facility's safety systems to support the NNSA report to the Board. LSO will assess the remaining safety systems by March 2005 and provide the assessment report to LLNL with the expectation of resource-loaded corrective action plans within 60 days. These assessments and corrective action plans will be utilized to develop a resource-loaded schedule for full configuration management implementation at LLNL.