

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 28, 2006

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Michael J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory (LLNL)
Report for Week Ending April 28, 2006

DNFSB Staff Site Activity: Staff member W. Von Holle was at LLNL attending meetings of the Enhanced Surveillance Campaign 2006 Annual Review.

Plutonium Facility Annual Evacuation Drill: The Plutonium Facility is required to conduct a criticality accident response drill or exercise every year (see weekly report dated March 17, 2006). This week, the facility satisfied its annual evacuation exercise requirement as part of a site-wide earthquake response integrated exercise. The Plutonium Facility has not routinely participated in earthquake drills and exercises in the past. The requirements of American National Standards Institute / American Nuclear Society (ANSI/ANS) 8.23, *Nuclear Criticality Accident Emergency Planning and Response*, were satisfied during the exercise by using the same evacuation practices that are used for a criticality accident. The evacuation and personnel accountability procedures were implemented in a satisfactory manner.

Nuclear Material Inspection and Packaging: On April 19, 2006, the Livermore Site Office (LSO) authorized LLNL to inspect and repackage 34 containers of nuclear material stored in the Plutonium Facility. The 34 items do not currently have ES&H labels that provide the Fissile Material Handlers (FMHs) with information necessary to determine whether criticality safety limits can be met for the receiving workstation. In the absence of the ES&H label, the internal packaging configuration is uncertain and the presence of beryllium, plastic, or other moderating or reflecting materials can not be determined. Some container opening and material inspection began this week using work stations that have undergone the resumption process to confirm operability (see weekly report dated November 4, 2005).

Hardened Engineering Test Building Activity: A radiation measurement activity was conducted in the Hardened Engineering Test Building, Building 334 again this week (see weekly report dated April 21, 2006). The FMHs and Hazard Controls Technician performed the handling activity in a manner consistent with actions required of Plutonium Facility personnel.

Plutonium Facility Readiness Assessment: This week LLNL completed its readiness assessment (RA) report to return to normal operations. LLNL has defined normal operations as those activities that were approved and authorized prior to the stand-down of the facility on January 15, 2005. No pre-start findings were identified by the RA team. LSO has not yet completed its oversight report of the RA.

Enhanced Surveillance Campaign: This week LLNL hosted the Enhanced Surveillance Campaign 2006 Annual Review. During the meeting sessions, technical presentations were provided by LLNL and Los Alamos National Laboratory scientist and engineers on a wide range of topics including surveillance technologies, plutonium aging studies, pit lifetime projections and corrosion studies.