

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 15, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Michael J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory
Report for Week Ending April 15, 2005

DNFSB Staff Site Activity: Staff members D. Kupferer, J. Malen, C. Martin, and W. Von Holle were at LLNL attending meetings with National Nuclear Security Administration, LLNL, Los Alamos National Laboratory, and Pantex personnel. The meetings were to review support for Pantex operations in the areas of test data applicability to weapons response evaluations and electrostatic discharge testing and analysis.

Heavy Element Facility Milestone: LLNL recently completed removal of sufficient inventory of radioactive material from the Heavy Element Facility to allow it to be re-categorized as a Radiological Facility. This risk reduction milestone indicates the risk posed by the facility to the public and workers has been reduced. LLNL and Livermore Site Office (LSO) evaluations determined that the facility inventory of radioactive materials is below the threshold for a Hazard Category 3 facility per DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports*. Reaching this milestone by April 10, 2005, relieves LLNL of the requirement to prepare a Documented Safety Analysis. The facility was previously granted a schedule extension for meeting the requirements contained in Title 10, Part 830 of the Code of Federal Regulations (10CFR830), *Nuclear Safety Management*.

In order to complete this risk reduction project in a timely manner, LLNL and LSO will need to maintain a high priority for the remaining work. Specifically, LLNL will need to continue the removal and disposal of radioactive items, the decontamination of gloveboxes, and the removal of radiologically contaminated ventilation systems. All of these activities will require disciplined radiological work practices to prevent the spread of contamination and possible worker exposures.

Plutonium Facility Administrative Control Programs (ACPs): Many of the ACPs in the Plutonium Facility have been previously declared as Technical Safety Requirement (TSR) violations (see weekly report dated March 4, 2005). LLNL recently completed assessments of the remaining ACPs required by the Plutonium Facility TSRs. These ACPs had not been previously assessed and include the emergency preparedness program, criticality safety, fire protection, measurement and test equipment program, qualification and training, audit program, and implementation of Safety Analysis Report assumptions. In general, the ACPs were characterized by LLNL as being "healthy." However, the assessments were done at a high level and may not accurately represent the detailed implementation of all aspects of the ACPs. Additionally, programs such as emergency preparedness rely on site-wide programs and infrastructure that were not reviewed as part of this assessment.

Building 431 Occurrence: On April 12, 2005, LLNL discovered that the radiological inventory of Building 431 required that the building be classified as a Radiological Facility, but was incorrectly classified as a General Industry Facility (ORPS report OAK-LLNL-LLNL-2005-0031). A large quantity of depleted uranium exists in the facility, but the uranium is encased in concrete and was used as radiation shielding.