

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 25, 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 25, 2005

Environmental Impact Statement - Record of Decision: This week, the Administrator of the National Nuclear Security Administration signed a Record of Decision (ROD) for the *Final Site-wide Environmental Impact Statement for Continued Operation of LLNL and Supplemental Stockpile Stewardship and Management Programmatic Environmental Impact Statement*. The EIS analyzed potential environmental impacts of three alternatives. The alternatives were no action (continued ongoing operations), the proposed action (continued operations plus new facilities and new operations), and reduced operations. The ROD selected the proposed action alternative.

This action includes new programs that could increase the quantity of nuclear material in some LLNL nuclear facilities. Specifically, the proposed action would increase the administrative limits in the Plutonium Facility to 1,400 kilograms from the existing 700 kilograms of plutonium (fuel-grade equivalent). Additionally, the proposed action would increase the plutonium material-at-risk limit from 20 kilograms to 40 kilograms of fuel-grade equivalent plutonium in each of two rooms in the Plutonium Facility. According to the EIS, the room limit increase is necessary to meet future Stockpile Stewardship Programs such as the casting of plutonium parts.

The decision also allows increases the Tritium Facility administrative limit for tritium operations. The facility administrative limit for material-at-risk can be increased from 30 to 35 grams of tritium and the limit for material-at-risk for a single work station would be increased from 3.5 to 30 grams of tritium. According to the EIS, the increases are needed to support future planned Stockpile Stewardship Program activities such as the high-energy density physics target fill and the Test Readiness Program.

Other nuclear activities included in the decision are direct shipment of transuranic waste from the Superblock and increased highly enriched uranium (HEU) administrative limits for the Radiography Facility from 25 to 50 kilograms. NNSA is proposing to develop the capability to load transuranic waste into pipe over-packs in the Superblock. The pipe over-packs would allow up to 80 plutonium-equivalent curies per drum and up to 200 fissile-grams equivalent. The increase in HEU in the Radiography Facility is needed to support Stockpile Stewardship Program activities.