[DOE LETTERHEAD]

February 3, 1997

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W.
Suite 700
Washington, D.C. 20004

Dear Mr. Conway:

Members of the Defense Nuclear Facilities Safety Board (DNFSB) staff conducted a review of the Lawrence Livermore National Laboratory (LLNL) Plutonium Facility on August 12-14, 1996, to assess LLNL's progress in correcting previously identified deficiencies in its nuclear criticality safety program. In a letter dated October 25, 1996, you recognized the significant efforts the Department has put forth to address identified deficiencies with one exception: a conduct of operations deficiency related to criticality safety limits. The purpose of this letter is to inform you of actions being taken by the Department and the LLNL to rectify this situation.

Prior to your October 25, 1996, letter, the Oakland Operations Office (OAK) staff began taking action to address this deficiency and its associated causal factors. Three causal factors were identified: the use of two different Materials Control & Accountability (MC&A) computer software systems to track the amounts and locations of fissile material in the two increments of the facility; failure of fissile materials handlers to note a discrepancy between the two systems and take appropriate action; and, an inadequate self-assessment process for detecting problems in the facility's safety programs. Each of these causal factors is being assessed, and action will be taken to prevent recurrence.

On October 4, 1996, in a letter to LLNL, OAK formally requested a corrective action plan for addressing deficiencies in the use of the two MC&A computer systems in maintaining criticality safety related mass limits in the facility. In response, LLNL facility management established a team to review the current configuration of this two-computer-software-system and evaluate recommended improvements. The corrective action plan is due to OAK by the end of January 1997.

The Department shares the concern expressed in your letter that fissile material handlers failed to note a discrepancy in the recorded versus actual mass of fissile material in one of the rooms. In discussions with LLNL management, OAK has suggested the need for additional training for fissile material handlers and their supervisors. As a result of OAK's suggestion, the Plutonium Facility Training Implementation Matrix is being revised to require additional training for fissile material handlers and their supervisors. This training will focus on individual and supervisory responsibilities in meeting all requirements found in the facility's Technical Safety Requirements.

On October 3, 1996, in a letter to LLNL management, OAK expressed concern over the

inadequacy of the self-assessment program in the Plutonium Facility. As a result, LLNL has initiated an extensive assessment process to identify all the Safety Analysis Report (SAR) accident assumptions, validate that they are met, and cross reference them to procedures and practices. In addition, as part of the annual SAR update process, several of the SAR accident scenarios are being rewritten to better reflect current facility operations.

I appreciate the review and assure you that the issue raised by your staff has been carefully considered. As I am sure you are aware, the Laboratory recently hired a senior level criticality safety engineer who has been granted sufficient authority to be a strong advocate for criticality safety awareness and agent of positive change. In addition, Laboratory management is allocating resources to address all causal factors for the incident cited by your staff, and OAK will oversee implementation of MC&A computer system modifications, procedural changes, training enhancements, and other worthy initiatives aimed at strengthening the Laboratory's nuclear criticality safety program.

Sincerely,

Victor Stello, Jr.
Principal Deputy Assistant Secretary for Safety and Quality
Defense Programs

cc:
Mark Whitaker, S-3.1