DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 2, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending May 2, 2003

LANL Management: DOE has decided to compete the LANL contract, now held by University of California, when it expires in Sep 2005. In testimony, NNSA has stated that the failures at LANL are real but are also the failures of a few, and that the vast majority of LANL personnel continue to perform in an exceptional manner. NNSA also stated that it is difficult to see how any organization could have done more to deal with that problem than the University of California has since Dec 2002.

During this same period, the site rep has seen positive LANL initiatives to improve nuclear safety. This includes establishment of a Nuclear Safety Executive Board to increase senior management visibility to emergent nuclear safety issues, as well as startup of an operational mentoring program to provide guidance and training to LANL management at multiple levels in critical nuclear safety elements, formality of operations, and work control.

Weapons Engineering Tritium Facility (WETF): The WETF safety strategy depends on tritium storage containers, considered to be Safety Class. The safety basis assumes the containers are capable of withstanding 120 C. A year ago, NNSA advised LANL to pursue higher temperature seals on these containers (i.e., 250 C) to increase thermal margin. This was based on DNFSB staff input and lack of any apparent reason not to pursue high temperature seals. Last week, WETF provided NNSA a review on why higher temperature seals should not be mandated for all the containers. WETF stated that these are secondary containers; they have other components (e.g., a pressure gage) that would likely fail at temperatures less than 250 C; and the higher temperature seals are harder to use and have higher leakage incidence than polymer seals. The component temperature limits mentioned are inconsistent with those in a LANL March 2000 container study. NNSA is evaluating this information, as well as LANL progress in increasing the WETF inventory that is in improved containers (e.g., rated at 120 C).

Pantex Support: The site rep attended the Standing Management Team (SMT) meeting at Pantex Thursday to determine the status of laboratory support for Pantex operations. The SMT includes experienced federal, laboratory, and Pantex contractor personnel and has been responsible for defining and managing requirements for integrated safety improvements for Pantex nuclear weapon processes (i.e., SS-21, IWAP). While not always effective in the past, the SMT has emerged as a vehicle for NNSA to manage, leverage, and prioritize multiple-contractor resources and thereby achieve timely resolution of issues and timely implementation of safety improvements.

Under the NNSA re-engineering, it appears that NNSA is now on a path to reduce the federal role in the SMT and to reduce the SMT's integration function. This may be problematic for several reasons: (1) Contractors would be expected to determine and assign priorities among themselves within the bounds of their own contracts. This could result in each contractor firmly advocating a course that most efficiently meets his own contract; however, that course may not be most efficient for the overall NNSA complex or in the best interest of timely implementation of safety improvements. (2) It's unlikely federal management could evaluate and referee such situations on a timely basis without continuous active technical engagement by federal staff. Lack of such engagement could slow down timely implementation of safety improvements. (3) The SMT has added visibility to emergent issues on individual projects and appropriately asked if they apply to other projects. Reduced emphasis on integration would likely reduce pressure for individual projects to benefit from such lessons learned.