DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 3, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending January 3, 2003

The laboratory was closed Monday through Wednesday.

LANL Management: University of California (UC) has announced the resignation of the LANL Director and Principal Deputy Director, effective January 6th. An interim Director has been appointed.

Waste Management: NNSA has approved the limited-life Basis of Interim Operation (BIO) for the TA-54 Radioassay and Nondestructive Testing facility – RANT (site rep weekly 12/6/02). This allows RANT to package Hazard Category 2 inventories of waste for expedited shipment to WIPP during the next 6 months. NNSA estimates this will reduce TA-54 (Area G) risks nearly 30 percent.

Authorization Basis (AB): NNSA and LANL face challenges in upgrading ABs before April 2003 per the Nuclear Safety Management rule (10 CFR 830) – particularly for solid and liquid radioactive waste operations (TA-50, TA-54) and for the Plutonium Facility (TA-55). Progress has slowed since September (site rep weekly 9/13/02). The site rep understands that LANL anticipates making submittals for the TA-50 Waste Characterization, Reduction, and Repackaging Facility (WCRR), the TA-50 Radioactive Liquid Waste Treatment Facility, and the TA-54 Waste Storage & Disposal Facility (Area G) within the next few weeks.

The TA-55 AB upgrade appears problematic, and its current status is unclear. LANL made a massive submittal in April 2002 (i.e., about 6,500 pages). NNSA provided informal comments last summer, and LANL began an iteration on the Technical Safety Requirements. In September, NNSA and LANL indicated a delay was occurring to allow finishing fire suppression hydraulic analyses and to satisfy competing demands – including revisions to analyses for the Pu-238 scrap recovery line and for LANL site-wide transportation (site rep weekly 9/27/02). During the extended review process, key reviewers appear to have become unavailable. The TA-55 AB was last revised in 1996. This submittal is suppose to address a number of issues, including Board issues, that have risen in the interim.

Critical Experiments Facility (TA-18): NNSA has decided to relocate the TA-18 security category I/II activities to the Device Assembly Facility (DAF) at the Nevada Test Site (NTS). This includes four of the five critical assemblies, 2.4 MT of special nuclear material (SNM), and about 10 MT of thorium and natural and depleted uranium. The record of decision (ROD) was signed on December 5th and distributed more recently. NNSA also announced that the security category III/IV activities, including the Solution High Energy Burst Assembly (SHEBA), would be addressed in a separate ROD in 2003. The drivers for relocation are the increasingly high security costs and aging infrastructure at TA-18. Considering the alternatives, the ROD indicates that the DAF option offered the least construction risk (considering facility age, design complexity, and extent of modifications) but has potential for higher material transportation and life-cycle costs. The latter is due to the campaign mode contemplated. The site rep understands that the tentative project milestones are conceptual design (10/03); preliminary design (10/04); construction start (10/05); construction completion (4/08); move completion (2009). A few of the challenges are maintaining key criticality training and research capabilities, including key personnel, thorough this transition.