DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 11, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending October 11, 2002

Recommendations 94-1/2000-1: LANL has placed the unsheltered containers on cradles intended to prevent their motion during an earthquake.

Radioactive Liquid Waste Treatment Facility (RLWTF): On Tuesday, DOE provided LANL comments on the proposed new RLWTF authorization basis (AB). Since 1963, the TA-50 RLWTF has collected, treated, and disposed of LANL radioactive and other liquid wastes. LANL anticipates a line item for a replacement facility in FY 06 and decommissioning the current facility tentatively in 2010. The facility currently operates as a Hazard Category 3 (HC-3). DOE and LANL are taking less credit for segmentation in the new AB and are pursuing HC-2.

LANL proposed no safety class systems, based on low predicted consequences to the public from the bounding accident – a seismic induced fire (i.e., about 10% of the evaluation guidelines). As safety significant, LANL recommended the fire suppression system, the transuranic waste tanks/piping, and the transuranic caustic storage tank vents. The facility's safety posture depends on generator facilities not exceeding limits, and LANL discussed a source term limit (120 Ci alpha) as a Technical Safety Requirement (TSR). DOE considers the AB needs improvements before it can be approved, particularly in controlling the inventory, analyzing the aircraft crash accident and fire suppression effectiveness, and evaluating seismic and other natural phenomena hazards against Performance Category 2 requirements. LANL is working on the resubmittal.

Authorization Basis (AB): The DOE site office AB team has assigned highest priority to achieving safety bases that are compliant with the DOE Nuclear Safety Management Rule (10 CFR 830) by April 2003, but resources are limited. Consequently, several other activities with AB implications are being affected: such as the LANL facility management realignment, the TA-21 radioactive tank characterization, and the TA-50 RLW tank upgrades (see site rep weeklies 9/6/02, 9/20/02, and 8/30/02, respectively).

The facility management realignment is motivated by real needs, but key questions exist on execution: particularly on the chain of command and the roles and responsibilities for the AB and for AB-designated safety systems. The TA-21 tank characterization begins to address a legacy waste issue that has persisted for decades. The TA-50 tank upgrades address lessons learned during the Cerro Grande fire, when the RLWTF had to be continuously manned. Similar impacts for other emergent operational or programmatic issues may occur between now and April 2003.

Chemistry and Metallurgical Research Building Replacement Project (CMRR): Geotechnical /seismic investigation fieldwork could begin October 21st, pending receipt of permits. The investigation focuses on a primary and two alternate locations. The scope includes 2 deep and 4 shallow seismic characterization borings (~600' and 150' deep, respectively), and 45 geotechnical characterization borings (50'-100' deep). Most of the latter are arranged in a 100' by 100' grid pattern over the primary location. Existing boring data is also used, which includes one deep boring. LANL intends that this effort address all the potential design data needs. The staff is reviewing the plan.