DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 28, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending March 28, 2003

Authorization Basis (AB): As of this week, NNSA considers that 13 out of the 18 LANL nuclear facilities have AB's compliant with the Nuclear Safety Management rule (10 CFR 830). NNSA has provided formal comments to LANL on proposed ABs for the remaining five. Of these, the site rep believes that the AB for TA-54 (Area G) appears to face the most challenges. NNSA considers the current TA-55 AB to be compliant and will finish review of a major revision to it after April 10th.

Plutonium Facility (TA-55): PF-4 had an unanticipated one-minute loss of ventilation yesterday, interrupting operations for about an hour. It appears that a construction worker may have inadvertently secured cooling water to one of the new instrument air compressors. The compressor self-monitors cooling water pressure and shut down. It is unclear why the backup compressor did not start up. There were no radiological consequences from this event.

Decommissioning Activities: The beryllium reflector from Omega West Reactor was shipped to TA-54 this week and placed in an underground shaft. Transportation and disposal went smoothly and were completed within the 24 hour period specified in the AB. This shipment removes the principal remaining source term from Omega West – specifically, the activation products bound within the reflector and associated framework. The reflector had contact radiation levels up to 5,000 R/hr when it was removed from the reactor in January (site rep weekly 1/24/03).

Nuclear Materials: Site rep weekly 2/14/03 discussed 8 poorly characterized drums in TA-41 containing either tritium (5), plutonium (1), or hazardous chemicals (2). TA-41 is located in Los Alamos Canyon. This week, LANL shipped the drum thought to contain the highest inventory to a facility where it can be safely dispositioned (LANL estimate: 14,000 curies tritium). LANL has adequate controls in place for the remaining drums. Plans for their disposition continue.

Radiochemistry Laboratory (TA-48): While progress is being made, TA-48 faces challenges operating within its Hazard Category 3 authorization basis (site rep weekly 2/7/03). Earlier this month, TA-48 received an irradiated target shipment before notifying NNSA and before allowing NNSA to complete a required inventory verification. Also, last Wednesday, a natural gas valve was left open near the hot cells, leading to a facility evacuation. Because of the hazard, the natural gas system is considered safety-significant in the AB, but formal operating procedures and controls are lacking. The facility first recognize the AB implications of this event late this week.

Weapons Engineering Tritium Facility (WETF): The WETF safety strategy is highly dependent on the tritium storage containers, considered Safety Class. Last April, NNSA required WETF to place 65% of its inventory in improved containers by April 2003. NNSA and LANL still have not reached closure on use of improved tritium storage containers with higher temperature rated seals.

Timing also remains open for the DOE Operations Readiness Review (ORR) covering Building 450 startup and new AB implementation (site rep weekly 12/20/02). The site rep understands that the LANL ORR report is also still not finalized, nearly 4 months after that ORR. The issues are well known, and LANL appears to have a reasonable plan to implement the AB and prepare for the ORR.