DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 2, 2012

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending March 2, 2012

Staff members T. Cutler, E. Elliott and J. Pasko were onsite this week to observe an NNSA-Headquarters review of the LANL criticality safety program.

Transuranic Waste Operations: This week, RANT shipping facility management declared a Technical Safety Requirement (TSR) violation based on a failure to comply with the Vehicle Access Control specific administrative control (SAC). This SAC credits the control of vehicle access features, such as gates and bollards to reduce the probability of vehicle impacts and subsequent fuel pool fires that could impinge on transuranic waste.

Last Friday, a LASO Facility Representative arrived at the RANT shipping facility and discovered a vehicle access gate open and unmanned. The Facility Representative alerted facility management and the gate was closed, the RANT facility yard was inspected for unauthorized vehicles (none were present), and the RANT operations crew was briefed on the need to maintain control of vehicle access features. RANT shipping facility procedures address gate control when transuranic waste is being moved into or out of the facility or yard, but not all vehicle access gate openings are procedurally controlled. In this case, a vehicle access gate was opened to allow the passage of a forklift and operators forgot to restore the gate to a closed position.

Material Disposal Area-B (MDA-B): Early this week, LANL completed removal of all material at risk that was excavated from MDA-B in Technical Area-21. MDA-B is a six-acre legacy waste disposal area that was used to bury radiological and chemical waste in the late-1940s and is close to public areas. Removal of this legacy waste represents a significant achievement in reducing the hazards at Technical Area-21.

Transuranic Waste Operations – Safety Basis: On Thursday, the site office approved the Area-G Basis for Interim Operations (BIO) and TSRs that were submitted in January 2012. This safety basis was developed and approved in accordance with 10 CFR 830 and represents the first major revision to the Area-G safety basis since 2003. The site office identified the following three conditions of approval: 1) elevate the current requirement for overburden (currently an element of a safety management program) to a specific administrative control or design feature; 2) elevate the requirement to use non-sparking tools as a control for certain deflagration accident scenarios and; 3) analyze hazards associated with acetylene, derive appropriate controls, and incorporate these controls into the BIO and TSRs. All of the conditions of approval are due in 90 days.

As part of the next annual update for Area-G, the site office requested that LANL re-evaluate hazard and accident analyses without taking specific risk reduction credit for safety management programs (with the exception of the criticality safety program). In addition, the site office directed that the accident analysis dose consequences be re-calculated using atmospheric modeling that does not use plume meander. The site office approval letter directs the laboratory to submit an implementation plan for the new safety basis within 30 days that reflects full TSR implementation at Area-G within 6 months.