DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 17, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: T. D. Burns Jr. and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending June 17, 2005

Hadjian was on site for a workshop supporting the LANL seismic hazard analysis update.

Waste Operations: This week, NNSA approved a set of interim compensatory measures for waste characterization operations (site rep weekly, 5/20/05). At issue were characterization activities employing conveyers that place waste drums above their maximum certified drop height. Specific compensatory measures include material-at-risk limits, railings on the sides of the conveyers, and sand bags beneath the conveyers to limit potential drops to less than four feet.

This approval is positive from an overall risk-reduction standpoint, since it will allow shipments of TRU waste to continue to WIPP without delay; these shipments are LANL's principal mechanism for reducing risks associated with the lab's highest consequence nuclear accident postulated in approved safety analyses.

Authorization Basis (AB): While there have been some improvements made in the last year, LANL nuclear facilities are still operating with aging safety bases. For example, the safety bases for the Chemistry and Metallurgy Research Building (CMR), the Plutonium Facility (TA-55), and the Radioactive Liquid Waste Treatment Facility are 6, 8, and 9 years old, respectively. Other factors, besides age, also contribute to uncertainty about the state of safety bases for LANL nuclear facilities, such as: weak document control, extensive use of conditions of approval (COAs) in federal correspondence (ref: Board ltr 1 /31/05), and varying approaches to verifying COA implementation.

The NNSA Site Office with Service Center support has assembled the relevant correspondence between January 2004 and March 2005 in an attempt to verify COA implementation for this period and to develop a useful database. This NNSA team has determined that NNSA issued about 800 COAs during this 15 months. Furthermore, the team is finding that many COAs are not actionable as written and need to be translated into operational terms; this is becoming a sizeable effort that could have been avoided if there was closer coordination between those responsible for safety basis and operations. The NNSA team hopes to achieve verification of these COAs by end of September.

Readiness Verification: Programmatic pressure is beginning to result in some compromises in operational readiness reviews (ORRs) and readiness assessments (RAs). LANL completed the management self-assessment (MSA) last week and the ORR this week for the TA-55 safeguarded trailer pad. The NNSA ORR may start Friday and finish next Tuesday. While this is a low complexity activity, the MSA report indicates that the state of the operation when LANL ORR began was not commensurate with expectations set in the applicable DOE standard (STD-3006). For example, procedures were still draft, operator training was incomplete, disposition of some non-conformances in the pad were open, an AB change needed to be approved, and a fire protection exception remains open. These should not be difficult issues to resolve, but it appears that the verification process is being used more as an assist than an assessment, counter to the intent of the DOE startup order (Order 425.1C). Hopefully, the upcoming ORR on the TA-55-185 shed for mixed oxide fuel containers and the upcoming RAs for the TA-55 Pu-238 scrap recovery line and the TA-18 critical assembly restart will be more deliberate.