DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 12, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending July 12, 2002

The site rep was at Pantex part of this week, discussing laboratory support for Pantex operations.

Authorization Basis (AB): Both DOE and LANL need to improve integration between operations and AB activities, as well as tracking AB issues to closure. This is a recurring issue. Recent examples are as follows:

- LANL conducted a special operation in the hazard category 2 Radiography Facility (TA-8-23) after DOE approved related AB changes but before DOE validated that the AB controls were in place. DOE validation is a standing requirement, typically reiterated in DOE AB approval memos to LANL.

- LANL was two days late submitting a Weapons Engineering Tritium Facility (WETF) transportation plan required by the DOE Safety Evaluation Report (SER). The plan involves installing vehicle barriers and speed limit signs, and referencing the applicable Laboratory Implementing Requirement (LIR). It appears that DOE considers this a violation of SER conditions of approval equivalent to Technical Safety Requirements (TSRs).

- DOE approval of the TA-18 material relocation project AB was contingent on DOE also approving related seismic analyses. LANL has completed the analyses, but to the site rep's knowledge, DOE has not yet taken action on these analyses (site rep weekly 3/8/02).

Plutonium Facility (TA-55): The LANL Readiness Assessment (RA) for the Pu-238 Scrap Recovery Line started Wednesday and continues into next week. DOE and LANL expect their RA teams to identify safety issues beyond those associated with operations. The site rep now understands that further procedure changes are anticipated as a result of the step-by-step walk-downs by the LANL RA team. This raises questions on the extent of pre-RA procedure validation.

This week, the site rep reviewed some of the current procedures. It is challenging to determine if all the AB controls are incorporated and to assure that they will be retained in future revisions. The controls are not yet captured in Technical Safety Requirements (TSRs). Some procedure steps implementing AB requirements are indicated as such, but not all. There is no apparent mapping (e.g., a linking database) between each AB requirement and the implementing procedure step(s).

Several AB controls are embedded in the Master Equipment List (MEL) maintenance schedule. This includes the Safety Class controls that resin is covered with solution, checked weekly, and that the resin is within its 5-year operational life, checked semiannually. The site rep has found no dose limits imposed on the resin. Under some conditions, it appears that a Pu238-loaded resin column without flow might dry out in less than a week. DOE and LANL are relying on the auto-elution system to prevent dry-out but consider it to be defense in depth. The MEL also requires the facility to report a non-conformance if the schedules cannot be met. The site rep believes that a non-conformance report may not generate the visibility and response that potentially violating a Safety Class control should warrant.