

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 8, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending March 8, 2002

Boyd, Contardi, Hunt, Kasdorf, Leary, Malen, Plaue, and Wong were on site this week reviewing operations, 94-1 progress, inactive nuclear material storage, and the new scrap recovery line.

Plutonium Handling Facility (TA-55): The staff reviewed startup preparations for the Pu-238 scrap recovery line (site rep weekly 12/28/01). Startup is scheduled for August. The staff found the project team technically very competent, and the project proceeding in a deliberate manner. The staff raised questions on the formality of the safety basis controls, project management, and operator training, as well as on the technical basis of certain design features credited in the safety basis.

Recommendations 94-1 /2000-1: LANL discussed with the staff a new draft stabilization and packaging baseline sent to DOE last week. By the draft, LANL would qualify workers during the next 2 years, process most materials between 2004 and 2008, and complete processing in 2009. After rampup (2004), the processing schedule appears aggressive. Key assumptions are not yet documented.

LANL also indicated that safe, secure vault storage on site is near capacity and needs to be carefully managed and improved on to support current operations. Shipments off site are limited by restrictions on shipping containers and receiver sites. On-site storage demands will likely increase to support future missions and other needs. For example, DOE tasked LANL in December 2001 to identify and establish storage in FY 02 for about 350 sealed Pu-239 neutron sources that may prove difficult to disposition. Progress on 94-1 (e.g., Pu stabilization and packaging, residue disposition) would permit more efficient storage and free up vault space. Therefore, DOE and LANL would likely benefit from both a safety and a mission perspective if 94-1 objectives were vigorously pursued.

Critical Experiments Facility (TA-18): During the review of inactive TA-18 materials, LANL discussed with the staff about 30 poorly characterized drums of predominantly uranium and about 2 dozen potentially embrittled plastic containers of excess uranium solutions. Accelerated characterization and disposition of these materials appears warranted.

Also this week, the readiness assessment for the special nuclear material (SNM) relocation project was completed. A large inventory of SNM was relocated Thursday. DOE approved the project's safety basis, subject to review and approval of the seismic analysis and installation of any seismic anchorage or supports required on or before March 29th. During a tour, the staff observed anchorage embeds already being installed. The staff will review the seismic analysis when it is available.

Conduct of Operations: Properly preparing and validating procedures and then performing procedures as written are key elements of conduct of operations, which LANL has committed to implement in FY 02 (site rep weekly 8/31/01). The LANL Director has set an expectation that the quality of LANL operations match the quality of its science and technology. Last week, the staff observed programmatic personnel in a facility not performing a procedure as written. The responsible group is now pursuing validation of its procedures prior to their next performance. It may be worthwhile for other groups to consider verifying that their procedures can be and are being performed as written, as part of implementing conduct of operations into programmatic work.