

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 16, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending August 16, 2002

The site rep was off site Monday through Thursday.

Plutonium Facility (TA-55): TA-55 began tying in the new fire water main on two sides of PF-4 last weekend and expects to complete these tie-ins today. While substantial progress has been made to date, the fire water main replacement project is experiencing increased cost and delay. Without changes, it is now expected to be completed after the site services contract shifts to a new contractor on October 1st. The site rep understands that a transition plan is being developed. It appears that the remaining work may be accomplished on an extended schedule, possibly with a transition management team, or it may be reduced in scope, resulting in an improved but less capable replacement system than originally intended.

Radiochemistry Laboratory (TA-48): Last week, DOE approved a new TA-48 authorization basis (AB) for a 2 year interim period. It consists of a Basis for Interim Operation (BIO), Technical Safety Requirements (TSRs), and the DOE approval letter. It identifies several safety-significant systems (e.g., gloveboxes, containers, hot cell shielding, fire barriers, flammable gas inerting), several safety-related administrative programs, and one limiting condition for operation, which is to keep the actinide inventory less than about one-fifth the Hazard Category 3 (HC-3) upper limit.

TA-48 is 46 years old. It does not meet current requirements, particularly for fire protection and seismic; therefore, DOE requested cost-benefit analyses for upgrades. TA-48 also uses hazardous materials, such as perchloric acid, natural gas, and propane, that are administratively controlled. During the next 2 years, LANL is pursuing reducing the radiological inventory and downgrading TA-48 from HC-3 to a radiological facility. Options being considered include relocating actinide research operations to a HC-2 facility: either the Chemistry and Metallurgical Research Facility (CMR) or the Radioactive Materials, Research, Operations and Demonstration Facility (TA-50-37).

Readiness Assessments: DOE and LANL are making needed improvements to their process for readiness assessments (RAs) and operational readiness reviews (ORRs). The process now is more expert-based than standards-based. Requirements are captured in the DOE startup/restart order (DOE O425.1B), a DOE-Albuquerque supplementary directive issued in March 2001, and LANL operational notices referencing DOE requirements, issued in August 2000 and January 2002.

Weaknesses in the DOE/LANL process (as well as absence of key individuals) may have contributed to LANL recently performing an evolution in a HC-2 facility before DOE validated that the controls were in place (site rep weekly 7/12/02). Also, some uncertainty exists on when and how DOE and LANL will validate the phased implementation of new TSRs approved as part of the AB upgrade effort. This appears to have delayed ORRs for startup of a new addition to the Weapons Engineering Tritium Facility (WETF). Other nuclear facilities here are expected to have upgraded ABs approved during the next 8 months, and they can all be expected to face similar issues. Better coordination in developing TSR implementation plans might help. LANL has prepared draft institutional procedures on the RA process. DOE and LANL expect to finalize these procedures by September 30th.