

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 14, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending June 14, 2002

Chlorine Dioxide Event: The site rep understands that LANL issued the investigation report this week, five months after the event (site rep weeklies 1/11/02, 5/10/02).

Recommendation 2000-2: DOE/LANL Phase II assessments have identified weaknesses in the LANL program for inspection, testing, and maintenance for fire protection systems (site rep weekly 5/3/02). While present conditions do not constitute an imminent hazard, DOE and LANL have begun to move quickly to understand and correct these weaknesses in advance of issuance of the final assessment reports. In particular, LANL has begun a review of inspection, testing, and maintenance procedures for fire detection, alarm, and suppression systems, and on May 30th, issued a path forward to further investigate and correct deficiencies during the next few months. Overall, the site rep has been impressed with the speed and frankness in addressing these emergent issues.

Annual Emergency Exercise: The annual emergency response exercise occurred last Wednesday, focused on the Weapons Engineering Tritium Facility (WETF). The scenario simulated a fire, tritium release, and several highly exposed, injured personnel. The site rep understands that overall the exercise went well and that opportunities for improvements were identified, including: communications, simulation, incident command post timeliness, and resource allocation and commitment to the exercise (e.g., police, fire department, radiation protection personnel).

Critical Experiments Facility (TA-18): On May 28th, LANL management authorized restart of the Planet critical assembly. Planet has been shutdown longer than 5 months for control system upgrades (site rep weeklies 1/11/02, 5/10/02). LANL conducted a management self-assessment and a readiness assessment (RA) before startup authorization. Pre-start conditions addressed include updating and verifying as-built control system drawings and completing TSR surveillance requirements for calibration of SCRAM settings and nuclear instrumentation. Post-start conditions to be addressed include updating the Planet system design description and crew qualification training material. Based on the Planet upgrade experience, LANL identified needs to improve documentation of changes during the design and development stages for new projects, as well as the qualification records for personnel performing design, quality, and verification functions.

Waste Management: As part of Cerro Grande fire rehabilitation, DOE and LANL are pursuing several risk reduction activities in the waste management areas. For example, TA-54 has a large, distributed transuranic (TRU) waste inventory, intended for WIPP. DOE and LANL have estimated that about 2,000 drums of high wattage waste constitute about 60% of the accessible (i.e., above-ground) and potentially dispersible source-term. DOE is pursuing an approach to accelerate shipment of the high wattage drums; considering a plan to accelerate shipment of the remaining TRU waste inventories; and evaluating a proposal to build a fire-rated industrial building for TRU waste storage – the High Activity Waste Storage Facility. In the radioactive liquid waste area (TA-50 - hazard category 3), the Cerro Grande rehabilitation efforts include a membrane process unit, pump house, influent storage (an additional 300,000 gallons), and ventilation upgrades. DOE and LANL have made recent improvements in program liaison, coordination, and strategic planning of these activities, which should increase the chances of success.