

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 14, 2001

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending September 14, 2001

**Security:** This week, LANL implemented heightened security measures, which remain in effect.

**Chemistry and Metallurgy Research Building (CMR):** On Tuesday, CMR personnel reported elevated airborne monitoring results from one fixed head sampler, indicating an unanticipated airborne release into one room. The results were about 22 percent higher than the limit for continuous occupancy (i.e., 40 DAC-hours for a weekly sample). The facility is investigating the cause, and its followup actions appear to have been appropriate. No other contamination was found in subsequent surveys.

**Work Controls:** In response to a DOE request last week, LANL is limiting skill-of-the-craft (SOC) work to maintenance activities within the current LANL approved work control process and has submitted a plan for expanding use of the SOC approach within facilities by mid-FY02. Key elements of the plan include: completing development of worker qualification checklists; improving the Laboratory Implementation Requirement (LIR); piloting the expanded SOC approach at one facility (DX); incorporating lessons learned into the checklist and LIR; training facility management and supervisors; and verifying implementation during periodic management self-assessments.

While this plan appears to be well-structured, there have been many DOE occurrences involving jobs mis-categorized as "routine" and started as skill-of-the-craft without an adequate hazard analysis, leading to a facility upset. It would appear that expanded use of the SOC approach, if pursued, needs to be carefully considered and implemented at the individual facility and activity levels to avoid conditions conducive to initiating an accident.

**Plutonium Handling and Storage Facility (TA-55):** Last Friday, the DOE-AL Manager approved starting the construction phase (CD-3) of the Fire Protection Yard Main Replacement Project. The objective is to replace the existing safety significant system with a more reliable one that meets current codes and would remain operational after current design basis accidents (site rep weekly 8/31/01). Long-lead procurement (e.g., for piping) is underway; however, DOE has not yet authorized LANL to proceed, pending DOE review of relevant hazard analyses and performance of a readiness assessment on construction activities. Key milestones are completing construction of pump houses and tanks by mid-May 2002 and of underground piping by mid-July 2002.

**Recommendation 2000-2:** Board Recommendation 2000-2 addresses configuration management of vital safety systems. The DOE implementation plan includes commitments to develop a plan for a comprehensive fire safety review and to perform Phase II assessments of selected vital safety systems, including fire protection systems. Several DOE sites, including LANL, are pursuing completion of phase II fire protection assessments as part of the comprehensive review, which would be an efficient use of resources. This week, the DOE EH-led team performing the comprehensive reviews conducted a scoping visit and initial assessment at LANL. The full review is scheduled for October 15-26, with a final report expected in mid-November. Within the next few weeks, the team is expected to identify the specific facilities and systems that they will evaluate.