

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 21, 2002

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending June 21, 2002

Nichols was on site last week reviewing the Unreviewed Safety Question (USQ) process.

**Lightning Protection:** The lightning protection issues previously discussed continue to warrant attention (site rep weekly 5/31/02). On the positive side, DOE has pursued with LANL having a utility pole grounding cable survey conducted at LANL nuclear facilities. The site rep understands that 25% had unsatisfactory high resistance (4 of 16 poles). This may warrant corrective action.

**Authorization Basis (AB):** Overall, DOE and LANL have a thorough AB preparation and review process, but there is room for improvement. Last week, the staff reviewed a small sampling of USQ documentation, and observed the LANL USQ training course, and found these to be excellent. In other areas, the Board staff has observed that improvements may be needed, particularly in functional classification, mapping from functional classification to controls (i.e., either engineered features or technical safety requirements), and then implementing appropriate controls. The site rep continues to pursue these areas in need of improvement.

**Plutonium Facility (TA-55):** The Fire Protection Yard Main Replacement Project is intended to replace the leaking fire water loop and improve system reliability. The project is running several weeks behind due to emergent problems, as well as AB constraints that prohibit performing too many complex activities in parallel (site rep weekly 10/19/01). Also, a polyethylene pipe section unexpectedly fractured while it was being sawed this week. LANL and the piping manufacturer are investigating. Meanwhile, the existing loop continues to occasionally leak. Last week, an approximately 1000 gal/day leak to an admin building occurred and was repaired. Overall, LANL appears to be well-managing the risks associated with the current system by maintaining fire water availability. Completing this project on a timely basis continues to warrant management attention.

**Critical Experiments Facility (TA-18):** This week, LANL authorized startup of Flattop following a successful readiness assessment. SHEBA (the fissile solution machine) is now the only one of the five critical assemblies that is not operational. Flattop has been inoperational since February 2000 due to problems with the control rod drive system. A sticking control rod issue has been resolved by mounting the drive system to the underside of the table. Previously, it sat on the floor. Also, a missing interlock has been installed and tested successfully. It prevents SCRAM reset until all control rods are fully retracted. LANL had proposed using an administrative control instead of installing the interlock (site rep weekly 2/15/02), but pursued the engineered control based on DOE feedback. The site rep understands that it took four attempts before the interlock was successfully installed: twice due to inadequacies in configuration management (i.e., as-built records) and the third time due to improper restoration of removed connections. With DOE encouragement, TA-18 has learned from this experience and improved configuration management, as well as hired system engineers, and improved document control. TA-18 continues to pursue configuration control improvements.

**Decontamination and Volume Reduction System (DVRS):** The DOE readiness assessment was to start next week but has slipped to the week of July 15<sup>th</sup> (site rep weekly 5/31/02).