

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 2, 2004

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending July 2, 2004

**Waste Operations:** In November 2003, the NNSA Site Office approved with comment the upgraded safety basis for the TA-54 transuranic solid waste operations. Safety analyses of the postulated accident scenarios predict high consequences for several low probability events. LANL has limited available engineered controls; however, NNSA believes that shipping ~2,000 drums with the highest, most dispersible inventory would reduce risks by, at least, 70%. This is the Quick-to-WIPP Program. NNSA imposed a Safety Basis requirement that this program be completed by September 2004, although it has been acknowledged for several months now that this date is not supportable.

It now appears that the Quick-to-WIPP Program may not be completed until a year later – September 2005 – due to two factors: (1) LANL suspended WIPP shipments last October as a result of a finding during a Carlsbad Field Office annual audit, and while LANL has formally addressed the issues raised, the multi-agency process to approve resumption of shipments is not yet complete; (2) Last week, DOE corporately decided that Rocky Flats and Idaho shipments have priority over those from the other sites, including LANL. LANL had expected to resume WIPP shipments in the July-August time-frame, but it now looks like January 2005. LANL resumed full characterization this week and intends to have a backlog ready to go when shipments resume (site rep weeklies 10/3/03, 12/5/03, 2/2/04).

**Plutonium Facility (TA-55):** One of the more important safety basis admin controls for Pu-238 operations is ensuring that the material inventory within each unit operation stays below that assumed in the accident analyses (i.e., the material-at-risk assumption). The Pu-238 operations staff have begun verifying glovebox inventories every two weeks. During such a verification on June 15<sup>th</sup>, they determined that the inventory in one glovebox exceeded the material-at-risk limit by 10 % and corrected the discrepancy within an hour. Based on this event, TA-55 is considering further improvements in the material-at-risk controls proposed in the safety basis upgrade, now under review.

**Critical Experiments Facility (TA-18):** In May, LANL conducted a 3-day management self-assessment (MSA) of TA-18 operations (site rep weekly 5/7/04). The MSA report discusses the strong sense of pride, ownership, and accountability at TA-18, but mentions that personnel are concerned about: high levels of stress and anxiety, increasing programmatic pressure, and programmatic schedules and security requirements sometimes being prioritized over safety.

The MSA team made several recommendations including developing formal plans for program continuity that will maintain mission capability; developing a staffing plan that realistically establishes a path forward for TA-18 personnel; addressing the high level of distraction that is causing less management focus on day-to-day operational issues; addressing several training needs including formal job task analyses for key operations managers and in-depth training for all operators on safety basis accidents and controls; fully implementing new LANL-wide work control measures; and improving relationships with oversight organizations. The report includes a summary of the corrective actions planned; however, it appears that more ought to be done based on the team's findings (e.g., staffing analysis, training, management walk-around) and that ownership of the corrective actions ought to be assigned at the responsible division level or above. The site rep believes that, while many TA-18 management systems are working, the report validates concerns expressed in the Board's May 21<sup>st</sup> letter.