

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 26, 2005

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending August 26, 2005

**Waste Operations:** Last Friday (8/19), the TA-50 Waste Characterization, Reduction, and Repackaging Facility (WCRRF) suspended its glovebox operation due to an employee concern that an air-operated tool in use could pressurize the glovebox and cause a release to the room; LANL has also found that the vacuum on this box is marginal, even with the air tool disconnected, and is working toward resolution. WCRRF repackages transuranic waste drums to support the Quick-to-WIPP program, which is key to LANL long-term risk reduction (site rep weekly 8/5/05); it's in heavy use because of the high fraction of legacy drums found with prohibited items during real-time radiography. The suspension illustrates a key challenge for NNSA contractors, which is to appropriately address the entire risk spectrum of potential upsets from low to high consequence.

**Weapons Engineering Tritium Facility (WETF):** Last Wednesday (8/17), LANL line management suspended WETF programmatic operations, as reported last week. On Thursday (8/25), LANL line management documented the concerns and their resolution and authorized resumption. Lack of annual safety basis updates and a major change in the LANL unreviewed safety question (USQ) process last September contributed to confusion (site rep weekly 3/18/05); the technical safety requirements (TSRs) and the safety basis for WETF are 2 and 3 years old, respectively. Also contributing is the fact that many USQs involve modifications and only address the end-state but not the interim states that may actually be higher risk; this is an institutional issue. LANL is performing a back-look on WETF USQs.

Lessons learned from this event include the need for clear formal communication when suspending and resuming nuclear operations, particularly what management-level suspended operations, what specifically were the problems causing suspension, what will be the criteria for resumption, and what level of readiness review will be required to verify that the originating problems were corrected.

**Plutonium Facility (TA-55):** On Thursday, TA-55 had a criticality safety limit violation involving a 2 % exceedance of fissile material passing through a glovebox; the problem was found and reported by those involved, which is positive. Line management has suspended TA-55 and TA-18 special nuclear material movements and is implementing a corrective action plan with clear resumption criteria.

**NNSA Oversight:** Safety oversight by the NNSA Site Office (LASO) is increasingly hampered by several factors, including an imbalance of experience and authority within LASO management and the lack of a formal concurrence process that would provide LASO management a balanced perspective and unity-of-purpose before decisions are made. These are longstanding issues (e.g., site rep weeklies 3/29/02, 8/23/02), but their safety significance is increasing at this time of transition. Recent symptoms include the premature declaration of readiness for the TA-55 pad ORR and the two ORR pre-start findings on federal oversight (site rep weekly 7/8/05); these findings indicated a lack of a demonstrable oversight program for the pad and a lack of active counterbalance between program and operations or other safety personnel. Events since then indicate the problems persist, resulting in a loss of focus.

Another limiting factor is inadequate field presence; for example, the number of deployed, qualified facility reps (7) has dropped by about a third in the last year and is now about a third of that projected to be required in the most recent LASO facility rep staffing analysis (20 - see site rep weekly 1/7/05). Experienced federal management, adequate experienced staff, focused attention, and balanced perspective all appear to be key through contract transition, and they all warrant attention.