

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 18, 2003

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending July 18, 2003

Shuffler was on site this week providing site rep assistance and observed plutonium and tritium processing, analytical chemistry, critical assemblies inspection, and solid/liquid waste operations.

**Plutonium Facility (TA-55):** The NNSA readiness assessment (RA) for the new Pu-238 scrap recovery line is scheduled to begin the week of August 4<sup>th</sup>. The LANL RA is in the report writing phase. The team expects to conduct a management out-brief and issue their report on or about July 29<sup>th</sup>. LANL considers that there has been only one RA – the one starting last week, and that last July's RA was never completed. While preliminary findings have not been disseminated, LANL seems confident that they will be ready for the NNSA RA the week of August 4<sup>th</sup>.

**Waste Operations:** DOE and LANL progress on the Quick-to-WIPP initiative is slow but improving – 51 of the 2,000 drums in this inventory have been shipped this FY, along with about 830 other drums. DOE and LANL expect to accelerate the pace. LANL was making about one WIPP shipment per week in March, went to two per week in May, and expects to go to three per week next month. For comparison, LANL only made two WIPP shipments in FY 02. Quick-to-WIPP shipments take longer to prepare, because of a shipping container evacuate and backfill requirement. Off-gassing can extend the process. They are also not full shipments, because of shipping certificate limits. However, the target 2,000 drums (8 % of the accessible inventory by number) warrant priority because they contain about two-thirds of the accessible source term. This is a significant risk reduction.

**Weapons Engineering Tritium Facility (WETF):** NNSA and LANL are assigning higher priority to addressing thermal-margin questions on WETF tritium storage containers, considered to be Safety Class. It remains to be seen whether overall thermal margin can be increased above that assumed in safety analyses by simply replacing the gaskets. The site rep believes lightning protection questions also need to be addressed to support new TSR implementation (site rep weeklies 6/6/03, 6/20/03).

WETF has been verifying and validating new surveillance procedures, required to implement the new TSRs approved in April 2002. Last month, WETF proposed TSR changes to address issues raised during the November 2002 LANL Operational Readiness Review (ORR) and in more recent LANL reviews. The changes were intended to address the potential for different interpretations. WETF proceeded at risk and incorporated these changes into surveillance procedures. Based on NNSA/LANL feedback, WETF resubmitted the TSR changes this week, focused just on TSR implementation, and is currently revising procedures again. The site rep believes that this appears to be a case where expectations between operations and safety basis management (both NNSA and LANL) have not been clearly set, agreed upon, and communicated. The net result is likely delay in full implementation of enhanced safety controls in the new TSRs – effectively delaying nuclear safety improvements.

**Chemistry and Metallurgical Research Building (CMR):** CMR reported this week a Technical Safety Requirement (TSR) violation from personnel not tracking all special nuclear material items within the material-at-risk (MAR) inventory system, a safety basis control. Personnel recognized an accumulation of small items that were each sub-accountable under the material control and accountability system, a safeguards control, and were not being tracked as MAR. CMR is rectifying the situation, including inventorying sub-accountable items. MAR limits were not exceeded.