

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 21, 2003

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending March 21, 2003

Leary (OE), Rosen, and Tontodonato were here this week reviewing nuclear material stabilization.

**Recommendations 94-1/00-1:** Since 1995, LANL has stabilized about 59 % of its 94-1 excess and programmatic inventory and achieved significant risk reduction. About 4,850 items remain to be stabilized and packaged or disposed as waste (site rep weekly 5/3/02). During the last 2 years, LANL has developed and nearly finalized a comprehensive, resource-loaded plan to stabilize the remaining items by late 2010, based on level out-year funding with escalation (about \$11M per yr). The staff has not seen details of this plan, which is expected to be complete in a couple of months; however, it appears that LANL is already executing to it and making better progress on both repackaging programmatic material and stabilizing and/or discarding excess material. Progress is also apparent in development of a STD-3013 outer can welder and in design of equipment for large vessel clean-out. The latter is to be installed in the Chemistry and Metallurgical Research Building (CMR), Wing 9.

There may also be opportunities for acceleration. Some higher-risk materials, based on isotopic content, will not be stabilized until the 2007-2010 period, due to delays in equipment design, installation, and startup for the high exposure line. This line's glovebox shells are already in place. The delay appears mainly due to priorities assigned last year to meet the level out-year budget. LANL intends to work some of these materials in the existing lines as the opportunity arises, such as before the TA-55 annual inventory and line clean-out each December. LANL has also begun to systematically sort and package the lower-risk residues for disposal at WIPP. LANL should be in a better position to improve processes and accelerate the schedule after gaining more experience in both direct discard of lower-risk items and use of existing lines to address the higher-risk materials.

**Integrated Safety Management:** Close attention continues to be warranted on personnel following safety requirements (i.e., formality of operations), on adequate work planning to meet requirements, and on improving on-floor supervision with emphasis on safety requirements when appropriate (site rep weeklies 10/18/02, 11/15/02, 1/10/03). Institutionally, LANL has taken positive steps at the group level to improve supervision. The site rep also understands that the LANL team reviewing safe work practices institutionally has identified needed improvements in requirements, but that most of the benefit is likely to come from better implementation. This may apply not only to programmatic work, but also facility, maintenance, and construction activities. Facility work is controlled through a different process than that being reviewed by the LANL team but may benefit from the same recommendations. Much could be gained by a few well-planned initiatives to ensure personnel understand and comply with safety requirements, including maybe simplifying some requirements to achieve this end. The staff is planning a review week after next of LANL work planning, performance, and feedback that will examine this area.

**Nuclear Materials Management:** More attention may be warranted to characterizing the 34 questionable drums of excess uranium in TA-18, as well as processing TA-18's excess uranium solutions (SHEBA fuel). Plans exist but appear to need better coordination. The operation to convert the excess uranium solutions to salt is being displaced from CMR Wing 9 to make room for the large vessel clean out operation discussed above. Currently, it appears it will be restarted in a couple of months in Wing 5 at limited throughput and then moved to Wing 3 toward the end of the fiscal year. In the last week, LANL has identified resources that should help keep this on track.