

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 9, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending July 9, 2004

Waste Operations: LANL solid waste operations (TA-54 Area G) suspended receipt of on-site waste last Wednesday when it was discovered that the total above-ground transuranic (TRU) waste inventory was about 56 % higher than expected and about 7 % higher than in the new approved safety basis, which is still to be implemented. The discovery was made when LANL started up a real-time inventory tracking system developed to ensure compliance with the new safety basis. To permit resumption, NNSA has approved a safety basis change to increase the inventory limit. NNSA continues to emphasize the importance of achieving the Area G risk reduction from the Quick-to-WIPP program. As reported last week, no LANL WIPP shipments are scheduled until Jan 2005, and the Quick-to-WIPP program is now not expected to be completed until Sep 2005. LANL does intend to take advantage of earlier shipment opportunities that may arise if there are delays at other sites.

Training: NNSA is assessing training at NNSA sites, including LANL, in response to a Board letter (7/9/03). The NNSA team has finished reviewing documentation implementing LANL nuclear facility training programs and has concluded that LANL could not demonstrate that a formal process is in place to ensure personnel meet minimum qualification requirements in the applicable DOE Order (5480.20A). NNSA has requested LANL provide a resource-loaded corrective action plan within 60 days. The assessment focused on facility-specific program descriptions and implementing documents. The review identified several systemic issues such as facility programs that are in place are expert-based rather than standards-based; LANL has not documented justification for concluding that some DOE training requirements are not applicable; Training Implementation Matrices are out-of-date; and programmatic weaknesses exist in instructor qualification, continuing training, and training and qualification for facility support personnel. The findings resonate with previous LANL assessments (site rep weekly 1/23/04). NNSA is starting performance-based assessments this month. Sufficient data appears available now to identify priority training improvements that could enhance safety.

Vital Safety Systems (VSS): LANL Audits and Assessments recently reported their findings from evaluating operation and maintenance of about one-third of the VSS at LANL, distributed among 8 LANL nuclear facilities. They found that an institutional plan to implement relevant requirements in the DOE Facility Safety order (O 420.1A) was not submitted to NNSA, as required; many VSS have inaccurate drawings; about half the corrective actions from previous assessments (e.g., 00-2 Phase IIs) are overdue, on average by hundreds of days; and lack of budget and low priority resulted in the VSS program not meeting expectations. LANL is walking down VSS and redlining drawings. LANL is also preparing an implementation plan for DOE O 420.1A as a result of a Board letter (1/27/04). If it is resource-loaded, this plan could provide a framework for addressing these important issues.

Weapons Engineering Tritium Facility (WETF): Many of the findings during the recent NNSA Operational Readiness Review (ORR) at WETF are institutional in nature (site rep weekly 5/7/04). About one-third of the post-start findings involve training and are related to issues discussed above. Several other findings involve configuration management, the master equipment list, system design descriptions, and the maintenance implementation plan, related to VSS issues discussed above. The most challenging pre-start finding involves the adequacy of information for verifying and validating operability of safety systems based on functional and acceptance testing requirements in applicable codes and standards. This finding is probably also applicable to other LANL nuclear facilities.