

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 10, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: T. D. Burns Jr. and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending June 10, 2005

The Board and a staff team were here this week reviewing LANL nuclear activities.

Waste Operations: LANL has shifted responsibility for nuclear waste operations to the associate director who is already responsible for critical assembly, plutonium, and tritium operations. This consolidates most of the responsibilities at that management-level for nuclear operations and processes – particularly, from the point of waste generation through the point of waste disposition. On-site transportation, and LANSCE are still in different directorates; these are the exceptions. Potential disadvantages include possibly more challenging span of control and possibly fewer institutional “checks and balances” between the waste generation and disposition points. Potential advantages include increased rigor and operational experience applied to waste operations and possibly more focused planning and support for overall LANL nuclear infrastructure.

Radioactive Liquid Waste Treatment Facility (RLWTF): LANL has developed a corrective action plan in response to its investigation into the March high-airborne contamination event at the RLWTF (site rep weekly 5/6/05); it includes both facility and institutional actions. Key facility elements are: resumption of non-routine radiological work after a management walk-down and approval that adequate controls are in place; a similar management verification for elevated-risk routine work; and establishment of a Facility Operations Safety Committee (FOSC) that will execute a due diligence process for explicitly defining and authorizing work and ensuring adequate controls are in place.

During the next few months, RLWTF faces four major challenges: (1) improving work control based on lessons learned; (2) receiving and treating TA-55 transuranic acid waste in a room with degraded systems – Room 60, as well as treating waste already in the RLWTF acid receipt tank; (3) switching over to new transfer lines from TA-55; and (4) replacing the leaking caustic waste receipt tank and thereby providing TA-55 about a year of operating grace while Room 60 is upgraded. LANL is emphasizing the role of the expert-based FOSC to ensure these activities are conducted safely.

Integrated Safety Management (ISM): Besides the facility-specific actions discussed above, LANL has identified institutional actions in response to the March high-airborne contamination event. These actions are to be completed by September 30th. Some of the key actions include:

- improving the stop work process to accommodate a broader range of situations - the goal is to simplify and incentivize stop work actions as a key element of the ISM program
- performing additional reviews of work practices, including peer-to-peer review for immediate work control improvements and broader recommendations for work control tools and training
- improving integrated work management based on last year’s resumption reviews and other lessons learned – including addressing special work permits and clarifying control hierarchy and importance of conservative hazard assessment and assumptions in work planning
- increasing subject matter expert (SME) involvement in work planning, as well as ensuring appropriate assignment of experienced supervisors, SMEs, and workers to higher-risk jobs
- implementing more consistent radcon practices, and improving compliance with the occupational radiation protection rule (10 CFR 835)