

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 28, 2008

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending March 28, 2008

The staff held a teleconference on the Radioactive Liquid Waste Treatment Facility Replacement.

Plutonium Facility (TA-55): On Thursday, TA-55 had a valid glove-box over-temperature alarm during a furnace operation that resulted in a fire department response. The facility appears to have responded appropriately and is critiquing the event and the response next week.

Weapons Engineering Tritium Facility (WETF): NNSA site office personnel toured WETF this week to evaluate the effectiveness of corrective actions taken in response to the February 25th tritium mis-transfer event. NNSA determined that the revised process for controlling tritium gas transfers still lacks sufficient rigor. As a result, WETF management has restricted the facility to one operation at a time involving the gas handling system; both recent inadvertent transfers occurred during multiple concurrent operations. Management also mandated Operations Manager involvement and concurrence prior to gas transfers (site rep weeklies 2/29/08, 10/19/07).

Radioactive Liquid Waste Treatment Facility (RLWTF): RLWTF is currently operating as a hazard category 2 nuclear facility. LANL has proposed downgrading RLWTF to hazard category 3 based on administrative limits for the aggregate material-at-risk allowed in the facility, and on controls in place upstream at the Plutonium Facility that preclude an inadvertent criticality.

The RLWTF hazard categorization decision will affect the level of readiness review required to restart transuranic liquid processing when ongoing modifications are completed. Also, both the RLWTF Replacement Project and the Waste Management Risk Mitigation (i.e., tank farm) Project currently assume hazard category 2 designations but are evaluating whether a similar categorization downgrade would be justified for their efforts (site rep weekly 11/23/07).

Formality of Operations: LANL needs to execute on a number of proposed institutional initiatives to improve worker safety and the site's overall nuclear safety posture. These principally involve four areas: safety bases, integrated work management, quality assurance, and formality of operations. The last focuses on operations, engineering, maintenance, and training.

Implementation of formality of operations appears to be slipping. Last week, LANL submitted to NNSA a revised schedule and draft criteria-for-success for a two-phased implementation of formality of operations. "Core" implementation would constitute a minimum state of compliance with applicable requirements and may include interim compensatory measures that are no longer required once "mature" implementation is achieved.

While progress is being made, the detailed scope definition needed to reliably estimate costs and establish a schedule appears to still be evolving. Developing a consensus, appropriately detailed definition of scope is complicated by the facts that the scope is large; the scope covers the broad range of LANL operations and delivered services; and the resources and staffing to achieve timely implementation clearly exceed those currently available.