

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 14, 2008

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending November 14, 2008

Transuranic Waste Operations: This week, LANL completed shipment of the last of the approximately 235 drums identified in the initial high-activity drum campaign, completing an important step in reducing hazards at Area G (Board letter 1/18/07). Approximately 90 additional above-ground high-activity drums remain in Area G that either exceed the WCRR repackaging facility material-at-risk limit or are cemented sludge drums that require an appropriate method of sampling prior to shipment. LANL plans to perform facility upgrades at WCRR in 2009, in particular, installation of fire suppression in the waste processing glovebox, and associated safety basis upgrades to support processing the waste drums that contain higher material-at-risk. In addition, LANL is working to develop a sampling plan and technique for the cemented drums.

Plutonium Facility: This week, a criticality safety infraction was declared when an item containing roughly 2900g of material was discovered in a vault location with a criticality safety limit of 2500g. This item was shelved in January 2007 and the direct cause of the infraction could not be determined. However, this event did highlight an opportunity to improve the robustness of vault operating procedures. Currently, an operator is required to perform a hand calculation to ensure that an item will comply with the criticality safety limits of its intended vault location prior to shelving. To reduce the probability of human error causing criticality safety infractions, the relevant vault procedure will be revised to require independent verification of the calculation and criticality safety limit compliance.

Next week, the Plutonium Facility will begin a nominal outage period that will continue through December. Unlike last year's outage, on-going programmatic work in the Plutonium Facility will not be suspended. Although the demand to perform programmatic operations during the outage period is expected to be low, a full stand-down was deemed not to be required based on the assertion that concurrent programmatic work would not impact the ability to accomplish outage objectives. These objectives include: • implementing upgrades to the facility control system, • replacing credited HEPA filters, • labeling equipment associated with the ventilation and instrument air systems, • performing system walkdowns to support technical baseline reconstitution, and • establishing a warehouse in the basement for controlled staging of safety class and safety significant equipment and components.

A key lesson learned from last year's facility outage was to complete detailed planning, scheduling and resource-loading well in advance of the outage itself. While high-level outage objectives have been defined, detailed planning and scheduling is still under development with the outage set to begin next Monday. In an effort to ensure timely and effective outage preparation in the future, the Facility Operations Director intends to create a permanent position for a dedicated outage manager.

Chemistry and Metallurgy Research Building Replacement (CMRR): Two recent events at the CMRR Radiological Laboratory, Utility, and Office Building (RLUOB) construction site have prompted LANL management to pause RLUOB construction. One event involved the tipping of a manned boom lift and the other involved a collision between heavy equipment and a forklift. In response, the CMRR project is pairing LANL supervisors with subcontractor supervisors in the field to improve oversight. Management also intends to communicate these lessons learned across the lab.