

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 25, 2008

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director

FROM: B. Broderick and C. H. Keilers, Jr.

SUBJECT: Los Alamos Report for Week Ending January 25, 2008

Environmental and Waste Operations: LANL continues to develop the project execution plan (PEP) for disciplined operations in the Environmental Protection Directorate. In a letter dated Dec. 20th, 2007, LANL projected submitting the PEP, detailed cost estimates, and an evaluation of the similar-purpose 2005 improvement plan by Jan 14th. The PEP and its effective execution are key elements in LANL resolving issues in environmental and waste operations (e.g., Area G, RLWTF) such as ineffective implementation of integrated safety management and incomplete implementation of nuclear facility safety bases (site rep weeklies 1/11/08, 1/4/08, 11/30/07, 11/9/07).

Transuranic Waste Operations: LANL has declared a technical safety requirement violation in Area G, based on having a number of unvented legacy waste boxes that date from the 1980s. The Area G safety basis requires transuranic waste containers to be vented to prevent flammable gas buildup.

Radioactive Liquid Waste Treatment Facility (RLWTF): LANL is still targeting completing upgrades and resuming RLWTF transuranic waste treatment in March. Before resumption, LANL plans to improve conduct of operations, maintenance, and engineering for the transuranic waste treatment systems, including reconstituting the technical baseline, and to verify implementation during the LANL readiness assessment. The model for these activities is the process LANL used for RANT and WCRR last year before those facilities began the high-activity drum campaign. Separately, LANL is strengthening its case for a hazard category 3 designation, including considering controls for upstream waste generators. These are positive steps (site rep weeklies 1/4/08, 12/14/07, 11/23/07).

Waste Characterization, Reduction, and Repackaging Facility (WCRR): The WCRR glovebox does not have automatic fire suppression as required by DOE directives (DOE Order 420.1B, DOE Standard 1066). An equivalency based on compensatory measures is currently in place to support the on-going processing campaign, but is limited to operations involving waste up to 300 PE-Ci combustible equivalent. In November, LANL submitted an engineering study of potential upgrades to provide compliant automatic fire suppression to allow future processing in excess of the current limit.

The study evaluated options including gaseous systems, water-based systems, and glovebox inertion. Water-based systems were identified as the most desirable. A system using standard sprinklers was evaluated, but not selected due to concerns about discharged water breaching glovebox confinement and the resulting contamination in the event of failure. The study recommended a water mist system due to considerations involving suppression capability, effluent management and cost effectiveness. This week, the NNSA site office returned the study to the contractor without action because it had not been reviewed and approved by the appropriate Authority Having Jurisdiction prior to submission.

Chemistry and Metallurgy Research Building (CMR): CMR continues to work to resolve air compressor problems that affect the safety-significant ventilation and safety-class fire suppression systems (site rep weekly 1/4/08). During the week of Jan 11th, the facility secured from continuously manning the operations center, based on having personnel on-call via pager who can respond quickly.