

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 9, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending May 9, 2003

Integrated Safety Management: LANL management is reviewing recent recommendations by a LANL team for potential improvements in institutional safe work practices (site rep weeklies 10/25/02, 3/21/03). Safe work practices are the formal mechanism that LANL uses to implement ISM into programmatic (i.e., non-facility) work.

Decommissioning Activities: In January, LANL reported that environmental sites here contain radionuclide inventories that have not been categorized per the Nuclear Safety Management Rule (10 CFR 830). LANL proposed categorizing and controlling inactive waste sites as less than Hazard Category 3 (HC-3) using methodology approved last September by DOE-EM for EM sites. Last week, the NNSA Site Office non-concurred with the LANL proposal.

This week, LANL informed NNSA that the two TA-21 General's Tanks may contain a kg of plutonium requiring categorization as HC-2 but that they are not a hazard now in their present buried configuration. These tanks were used between 1945 and the mid-1970s as liquid radioactive waste receiver tanks. They have been inactive for two decades and need to be characterized (site rep weeklies 9/20/02, 10/11/02). LANL is preparing a safety analysis for characterization activities.

Waste Operations: TA-54 is a HC-2 nuclear facility used for solid waste operations, including storing and shipping transuranic (TRU) waste to WIPP. It is currently storing about 20,000 TRU waste drum-equivalents in fabric dome storage, containing more than 0.1 MCi Pu-239 equivalent. Nearly two-thirds of this inventory is in 2,000 higher wattage drums that, last year, DOE and LANL committed to having off-site by the end of FY 04. This is the Quick-to-WIPP initiative. Progress so far has been slow – only 15 of these drums have shipped since December.

The TA-54 Radioassay and Nondestructive Testing facility (RANT) is key to the Quick-to-WIPP initiative, since it is used to load shipping containers for WIPP. NNSA has extended from June 1 to September 4 the authorization for RANT to operate as a HC-2 under a Limited Life Basis for Interim Operation (site rep weekly 2/14/03).

Last month, LANL submitted the TA-54 updated safety basis, to comply with 10 CFR 830. The analyses of the postulated accident scenarios predict high consequences for extremely low probability events, primarily because they postulate that the highest source term drums are collocated and participate in the accident. Based on the analysis, LANL proposes that TRU waste containers, container banding, domes, and dome door restraints as safety class and the lightning protection system as safety significant. LANL also proposes technical safety requirements including inventory limits (in total and by dome) intended to control and distribute the inventory. This may be an area requiring more rigor. Meanwhile, more attention on accelerating the Quick-to-WIPP initiative appears appropriate.

Chemistry and Metallurgy Research Building Replacement (CMRR) Project: The draft environmental impact statement (EIS) was distributed this week. The Notice of Availability will be published in the Federal Register next week. The comment period runs to June 30. The Final EIS and a Record of Decision are scheduled for Nov 2003 and Jan 2004, respectively.