

TA 54

State of New Mexico  
**ENVIRONMENT DEPARTMENT**



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**MEMORANDUM**

**TO:** Gedi Cibas, Management Analysts, OOTS

**FROM:** John Kieling, Manager, Permits Management Program, HWB

**SUBJECT: REVIEW OF THE PREDECISIONAL DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED CORRECTIVE MEASURES AT MATERIAL DISPOSAL H WITHIN TECHNICAL AREA 54 AT LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NEW MEXICO NMED FILE NO.: 1864ER**

**DATE:** April 7, 2004

Hazardous Waste Bureau (HWB) comments regarding the Department of Energy (DOE) Document entitled "*Predecisional Draft Environmental Assessment for Proposed Corrective Measures at Material Disposal Area H within Technical Area 54 at Los Alamos National Laboratory, Los Alamos, New Mexico (DOE/EA-1464)*" dated March 22, 2004.

The Report analyzed the environmental consequences from a "No Action Alternative" as well as five alternatives proposed in the "*Corrective Measures Study Report for MDA H, SWMU 54-004, at TA-54*" referenced by LA-UR-03-3354 and ER2003-0121, on waste management, surface and groundwater resources, climatology air quality, geology, human health, transportation and utilities, noise, environmental justice, and socioeconomics. HWBs comments follow:

1. DOE should address ecological impacts as they are of concern and were not addressed in the Environmental Assessment (EA).
2. The EA does not mention that the estimates of the volumes and types of waste inventory at Material Disposal Area (MDA) H are at best, approximate, that many unknowns exist regarding the disposal history at the site. The discussions of the excavation alternative should account for the unknowns as some unexpected waste could be encountered.
3. Section 2.1, Site Description and Characteristics of MDA H, Page 13: The influence of fractures in the subsurface on contaminant migration was not considered in assessing the potential future impacts posed by releases of contamination to surface and subsurface. Fate and transport discussions must consider all mechanisms of contaminant transport at this site.



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4. Section 3.3, Water Resources (Surface and Ground), Page 48: The report makes a statement "Under the existing moisture content, water within the unsaturated rock on Mesita del Buey would not be expected to recharge into the regional aquifer for thousands of years, if at all." The statement seems premature since groundwater investigation at MDA H was deferred until the groundwater investigation for TA-54 could be conducted. In addition, during investigations at MDA L during 1994 and 1995 (roughly 4,500 feet east), the DOE and University of California discovered and reported to the HWB perched groundwater beneath Mesita del Buey at depths of 508 and 592 feet. Also, tritium has been reported at R-22, a regional well downstream of MDA H.
5. Section 5.4, Excavation Corrective Measure Options (4 and 5), Page 79: The report identifies three potential accidents, fire involving pyrophoric uranium hydride, ignition of HE, and inhalation of uranium oxide dust. DOE should discuss health and safety implications regarding lithium hydride that was also disposed of at MDA H and may react upon exposure to air.