

TA-010



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 428-2500
Fax (505) 428-2567
www.nmenv.state.nm.us



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

MEMORANDUM

TO: Gedi Cibas, Management Analyst, OOTS

THROUGH: John E. Kieling, Manager, Permits Management Program, HWB *JK*
David Cobrain, Santa Fe Program Manager, HWB

FROM: John Young, LANL Corrective Action Project Leader, HWB *JY*

SUBJECT: **HAZARDOUS WASTE BUREAU COMMENTS ON THE
PREDECISIONAL DRAFT ENVIRONMENTAL ASSESSMENT FOR THE
PROPOSED CONSOLIDATION OF CERTAIN EXPERIMENTATION
ACTIVITIES AT THE TWO-MILE MESA COMPLEX, LOS ALAMOS
NATIONAL LABORATORY, LOS ALAMOS, NEW MEXICO
NMED FILE: 1768 ER**

DATE: September 16, 2003

The Hazardous Waste Bureau has the following comments regarding the August 14, 2003 "Predecisional Draft Environmental Assessment for the Proposed Consolidation of Certain Experimentation Activities at the Two-Mile Mesa Complex, Los Alamos National Laboratory, Los Alamos, New Mexico" and referenced by DOE/EA-1447.

General Comments:

1. The Department of Energy (DOE) and the University of California (UC) must prior to construction of the proposed consolidated Two-Mile Mesa Complex and decontamination and demolition activities at the current Dynamic Experimentation (DX) Divisions structures, close any Resource Conservation and Recovery Act (RCRA) affected interim status and/or permitted units following proper procedures and regulations including but not limited to, public participation and permit modification requirements. DOE and UC should provide a map(s) illustrating the locations of all interim status and/or permitted units impacted or potentially impacted by the proposed



- construction and decontamination and demolition (D&D) activities.
2. Prior to construction of the new Two-Mile Mesa Complex and D&D activities at the current DX Division structures, DOE and UC must investigate and remediate any impacted solid waste management units (SWMUs) and areas of concern (AOCs) potentially impacted by D&D activities following proper procedures and regulatory requirements. DOE and UC should provide a map(s) illustrating the locations of all SWMUs and AOCs impacted or potentially impacted by the proposed construction and D&D activities.
 3. DOE and UC should discuss in detail the changes (if any) in waste generation (e.g., volumes of low-level and mixed low-level and hazardous wastes). In addition, discuss the physical state(s) (e.g., liquid, solid, air) of each waste stream and the expected percentage of each; volumes, list the constituents/radionuclides expected to be present in the various waste streams; and identify expected concentrations and activities in each waste stream. Include how the generated waste(s) are/were characterized, stored and disposed. DOE and UC should include assumptions and calculations for all estimates. It is difficult for the public and other stakeholders to scrutinize DOE and UC recommendations without this information.
 4. DOE and UC should discuss in detail the expected impacts to air emissions. Emission volume changes, constituents and associated concentrations and activities should be discussed in detail. DOE and UC should include assumptions and calculations for all estimates. It is difficult for the public and other stakeholders to scrutinize DOE and UC conclusions regarding environmental impacts without this information.
 5. DOE and UC should provide a list of all facility operating permits that will/may require or need to be obtained (e.g., Clean Water Act, Clean Air Act, New Mexico Water Quality Control Commission, RCRA) as a result of the proposed consolidation and construction, the timetable for such modifications/additions and include the changes/modifications that are anticipated.
 6. DOE and UC should clarify if the proposed site, located at TA-6, is suitable due to hazard radii associated with firing sites located throughout the high explosives corridor (bounded on the north and south by Pajarito Road and New Mexico State Route 4). Also, clarify if access to the proposed site, at TA-6, would be hindered or limited by firing site activities.
 7. Once slated for D&D activities, DOE and UC should identify buildings such as magazines, solvent storage, storage, firing sites/points and other buildings that may have

managed waste as solid waste management units and be placed on the facilities RCRA operating permit (Hazardous and Solid Waste Amendments [HSWA] module).

8. DOE and UC should provide the assumptions used to calculate and the calculations used to estimate the quantities of waste generated during construction and D&D activities for each site. DOE and UC should also describe how the waste generated during these activities will be characterized.

Section Specific Comments:

9. Section 2.1.1: Construction, page 16; Footnote 4 indicates that the definition of a solid waste management unit does not include “passive leakage or one-time spills from production areas and units in which wastes have not been managed (e.g., product storage areas).”
10. Section 2.1.1: Construction; DOE and UC dismiss seismic conditions at the proposed locations by stating that “[no] buildings would be constructed over known faults or within 50 feet (ft) 915 meters [m]) of known seismic fault lines.” Although this may be true as depicted on Figure 6 (page 48), traces of north-south trending faults with 10 feet of displacement are identified in Pajarito Canyon directly south of the proposed office buildings, the Shock and Detonation Physics Building, the Collaborative Energetics Research Laboratory, the Electronic Diagnostic Facility, the High Bay Laboratory, and the Characterization of Highly Energetic Materials building as well as Contained Firing Facility (along the trace of another identified fault) and support structures. As indicted in the text (page 49), the UC Seismic Hazards Program recommends “siting new facilities over the trace of a potentially active fault should be avoided” and therefore other locations should be considered for the proposed building. If hazardous waste treatment, storage or disposal is planned to occur at the proposed Two-Mile Mesa Complex, DOE and UC must follow 40 CFR 264.18 requirements for seismic considerations.
11. Section 3.2.7.1: Water Quality-Affected Environment; DOE and UC should identify which contaminants (e.g., metals, high explosives and radionclides) and the concentrations and activities have been identified in surface and groundwater in the areas affected by the proposed construction and D&D activities. A labeled map should be provided illustrating the locations of the contaminant detections.
12. Section 3.2.7.1 Water Quality-Affected Environment; DOE and UC should discuss in more detail the known extent and possibility of perched groundwater beneath proposed Two-Mile Mesa Complex. Include discussions of known contamination. For example, corrective action activities at TA-16 have identified contaminants in groundwater

- samples and tuff 100 to 150 feet below the mesa top. In addition, springs, discharging from the Bandelier Tuff have been impacted by DOE and UC operations and activities.
13. Section 3.2.8.2 Human Health-Proposed Action; DOE and UC describe copper as being “nontoxic” when in fact copper does exhibit noncarcinogenic toxicological affects according to the United States Environmental Protection Agency and the Agency for Toxic Substances and Disease Registry. DOE and UC should correct this oversight and check the remaining document for similar errors.
 14. Section 3.2.9.1 Environmental Restoration-Affected Environment; Table 8 lists various SWMUs and AOCs. At this time only sites C-06-006, C-06-016 and C-06-020 have been given a no further action determination. The remaining SWMUs and AOCs have not been determined suitable for no further action at this time and may require additional investigation and remediation by the New Mexico Environment Department.
 15. Section 3.2.12.1 Biological Resources-Affected Environment; DOE and UC should provide a list of all threatened and endangered species and a map(s) illustrating the sensitive habitats for both flora and fauna within the potentially impacted areas.
 16. Section 3.2.12.1 Biological Resources-Affected Environment; DOE and UC should discuss the loss of habitat due to the new construction. DOE and UC should also cite information (if available) regarding current facility operational impacts (e.g., air emissions, contaminated soils/sediments from firing sites, and waste water discharges) on the overall ecological health (e.g., affected terrestrial and aquatic receptors; impacts to species populations, diversity, mutagenic affects, etc.) of the system. If no specific ecological information is available regarding current DX Division operations, DOE and UC should identify the impacts from the current/historic releases prior construction of a proposed Two-Mile Mesa Complex.
 17. Section 3.2.13.1 Floodplains and Wetlands; DOE and UC should calculate the volume of additional runoff created and delivered to the canyons as a result of construction activities and new structures (including parking lots). The potentially increased runoff may impact any wetland areas down gradient of the storm water discharge and may also increase erosion of contaminated sediments in the affected canyon systems, SWMUs and/or AOCs. DOE and UC should implement and maintain management practices that reduce/eliminate contaminant migration due to increased runoff.
 18. It is impossible for the public and other stakeholders to adequately scrutinize DOE and LANL conclusions regarding possible environmental impacts without this information.

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19. Section 3.6.2: Groundwater; indicates “most aquifers underlying LANL and the vicinity, except for perched groundwater bodies, are considered Class II aquifers (i.e., those used or potentially available for drinking water or other beneficial use.” NMED strongly disagrees with the statement, all groundwater or subsurface water potentially used for water supply (single household, municipal, etc.) having less than 10,000 ppm total dissolved solids may potential be used for “drinking water or other beneficial use.” Beneficial use would include springs emanating from groundwater bearing intervals that wildlife/other receptors may utilize. The text should be updated to state that other groundwater bearing zones, in addition to the regional aquifer, are capable of water supply. In addition, DOE and LANL have demonstrated an interconnection between the surface water and regional aquifer systems as indicated by LANL Facility derived contaminants found in the regional aquifer (e.g., perchlorate, nitrate, tritium, etc.).

File: LANL TA-6, TA-8, TA-9, TA-14, TA-15, TA-22, TA-36, TA-39, TA40 and TA-69
[DOE/EA-1447]