

RED LANL G/P/01
TA-50



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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

June 25, 2001

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, MS A100
Los Alamos, NM 87545

Mr. David A. Gurule, Area Manager
Los Alamos Area Office
Department of Energy
528 35th Street, MS A316
Los Alamos, NM 87544

**SUBJECT: REQUEST FOR SUPPLEMENTAL INFORMATION
TA-50 PART B PERMIT APPLICATION
DECEMBER 2000, REVISION 2.0
LOS ALAMOS NATIONAL LABORATORY EPA ID# NM0890010515
HWB-LANL-99-048**

Dear Dr. Browne and Mr. Gurule:

The Hazardous Waste Bureau (HWB) of the New Mexico Environment Department (NMED) has reviewed for technical adequacy the above-referenced Application, as required under 20.4.2.201.3 NMAC.

After reviewing the Application, HWB requests additional information. The information that must be addressed is described in Attachment A.

The requested information must be submitted to HWB within forty-five days of receipt of this Request for Supplemental Information. Failure to respond within this time period will result in issuance of a Notice of Deficiency.



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Dr. Browne and Mr. Gurule
June 25, 2001
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If you have any questions or need additional information please contact me at 505-428-2542.

Sincerely,

A handwritten signature in black ink that reads "Carl Will". The signature is written in a cursive, flowing style.

Carl Will
LANL Permits Project Leader

attachment

cc: S. Jetter, NMED HWB
P. Allen, NMED HWB
A. Ortiz, NMED OGC
D. Neleigh, EPA 6PD-N
J. Ellvinger, LANL ESH-19, MS K490
G. Bacigalupa, LANL ESH-19, MS K490
G. Turner, DOE LAAO, MS A316

file: Reading and LANL red file

**ATTACHMENT A
REQUEST FOR SUPPLEMENTAL INFORMATION
TECHNICAL ADEQUACY REVIEW**

**RCRA PERMIT APPLICATION
TA-50 PART B, DECEMBER, 2000, REVISION 2.0**

**LOS ALAMOS NATIONAL LABORATORY
EPA ID NO. NM0890010515**

June 25, 2001

1. Revise the Application to include Attachment A, Facility Description, and Attachment G, Container Management, in the Application Section 2.0, Unit Designs, Facility Operations, and Procedures to Prevent Hazards, rather than as Attachments to the Application. [270.14(b)(1)]
2. Page 2-3, TA-50-114 Container Storage Area (CSA): The description of the storage locker configuration states "The CSA is divided into two separate lockers by a metal wall, and has a grated floor above a recessed area on which the waste containers are placed." It is not clear whether the secondary containment portion, i.e. the recessed floor, is also separated by the wall, thereby preventing the mixing of incompatible wastes. Revise the Application to specify either that secondary containment is separated or, if the secondary containment is not separated, that incompatible wastes will not be stored above it. [264.175, 270.15]
3. P. 2-5, section 2.1.5, lines 4 and 5: Replace the term "solids" and "solid waste" with "wastes that do not contain free liquids" or another term describing non-liquid wastes. Because the term "solid waste" has a particular meaning under RCRA, and includes liquid wastes, use a different term in the Application to describe non-liquid waste in order to avoid confusion. Include a definition of "residual free liquids." [264.175, 270.15]
4. P. 2-5, sec. 2.1.5: Revise to correct inconsistency in the language describing where liquid waste will be stored. The third sentence states that all rooms except TA-50-1, Room 59, will store waste containing residual free liquid. The following sentence states that TA-50-37, Room 118, will store only solid waste. See also comment 51 below. [264.175, 270.15]
5. P. 2-7, sec. 2.1.11: Include a citation to 40 CFR § 264.178 for closure requirements.
6. P. 2-7, sec. 2.2: Use a consistent term throughout for the WCRRF or TA-50-69 or specify at the beginning of the section that the two are the same.
7. P. 2-9, Table 2-1; p. F-16, sec. F.2.1; and p. G-16, sec. G.4.1.4: Based on NMED calculations from room dimensions provided in the Application at page 2-2, TA-50-37, Room 118, does not have a design capacity of 18,000 gallons or 327 55-gallon drums as stated in the Application at pages 2-9, F-16, and G-16. Please provide a diagram of the drum storage layout including aisle spacing and calculations for determining storage capacity. [270.15]

8. P. 4-1, ¶ 2: Replace the SWMU definition with the following definition that NMED will include in the Permit: "Any discernible unit or area at which solid waste has been placed at any time, and from which the Secretary determines there may be a risk of a release of hazardous constituents, irrespective of whether the unit or area was intended for the management of solid or hazardous waste. Placement of solid waste includes one-time and accidental events that were not remediated, as well as any unit or area at which solid waste has been routinely and systematically placed." [264.101, 270.14(d)]
9. P. 4-3, sec. 4.1.4, and p. 4-5, sec. 4.3.1, ¶ 3: Replace the past tense with the present tense for releases to Mortandad Canyon and analyses of the releases. Releases of contaminants are ongoing. For the effluent and for the canyon, include a summary table with Contaminants of Potential Concern (COPC's), including radioactive COPC's, perchlorate, and nitrates, with ranges of concentrations above background levels as established in Ryti et al., "Inorganic and Radionuclide Background Data for Soils, Canyon Sediments, and Bandelier Tuff at Los Alamos National Laboratory," September 22, 1998. [264.31, 264.101, 264.111, 270.14(d)]
10. P. 4-5, sec. 4.3.1, ¶ 2: Include information about other waste lines removed and an explanation of why chemical contaminants were not analyzed for at the time of decommissioning. [264.101, 270.14(d)]
11. P. 4-5, sec. 4.3.1, ¶ 3: Include more specific information about releases to Upper Ten Site Canyon, including dates of releases, control and remedial activities undertaken to address releases, and a summary table of the COPC's and their ranges of contamination above background levels. [264.101, 270.14(d)]
12. P. 4-5, sec. 4.3.1, ¶ 3: Include more specific information on the airborne releases from stack emissions and their resulting contamination, including whether or not releases are ongoing, the frequency of releases, area potentially affected by releases, control and remedial activities undertaken to address releases, whether releases are permitted and, if so, a reference to the permit and permit emission limitations, a summary table of the COPC's and their ranges of concentrations above background levels. [264.101, 270.14(d)]
13. P. 4-6, sec. 4.3.1, ¶ 4: Include a summary table with COPC's and ranges of concentrations above background levels for MDA C. The terms "low-level" and "above background," though technically accurate, are misleading. Clarify the term "in and near its perimeter." Detections at depth are not near the perimeter. For example, tritium was detected at 23,300,000 pci/L of soil moisture at 60 feet below ground surface. [264.101, 270.14(d)]
14. P. 4-6, sec. 4.3.2: Delete "potential" and "if any." There are known releases from SWMU's at TA-50. Delete the reference to the RFI Workplan for Operable Unit 1148, which consists of TA's 51 and 54. Update the Application to include a summary of sampling results and other information obtained since the 1990 SWMU Report and 1992 RFI Workplan. The

1990 Report section on releases from MDA C states only that "above background levels of radioactivity were found adjacent to the site." [264.101, 270.14(d)]

15. P. 4-6, sec. 4.3.3: Include a schedule for investigation and remediation of releases from all SWMU's. The fact that SWMU's are "located in areas where waste historically has been and currently is managed" does not affect the requirement to investigate and remediate the SWMU's under 40 CFR § 264.101. [264.101, 270.14(d)]

16. P. 4-6, sec. 4.3.3: Address releases from operating units. Include a schedule for determination of risk from releases from operating units, including those described at page 4-3, section 4.1.4, and for corrective action for unacceptable risks. [264.31, 264.101, 264.111, 270.14(d)]

Attachment A, Facility Description

17. P. A-5, sec. A.1.6.1, ¶ 2: Address surface runoff to Ten-Site and Mortandad Canyons. [264.31, 264.101, 264.111, 270.14(b)(8), 270.14(d)]

18. P. A-6, sec. A.2.1.1: For hazardous waste management units that are not existing units, submit a demonstration of compliance with seismic standards that meets the requirements of 270.14(b)(11)(ii)(A) and (B). [264.18(a), 270.14(b)(11)(ii)]

19. P. A-7, sec. A.3: The Application must address groundwater monitoring requirements for all units at TA-50, including MDA C and all other SWMU's. Groundwater monitoring requirements under 40 CFR § 264.91 through § 264.100 apply to land disposal units where hazardous waste was placed C after July 26, 1982. Specify in this section the last date of disposal for MDA C and any other land disposal units at TA-50. If 40 CFR § 264.91 through § 264.100 are not applicable, groundwater monitoring may be required at SWMU's under 40 CFR § 264.101 and must be addressed in the Application. The vertical extent of contamination has not been determined at MDA C, and high levels of contamination have been detected at the the deepest sampling points in several boreholes submitted to NMED. If MDA C is not a "regulated unit" under 40 CFR § 264.90(a)(2), include an explanation of why groundwater monitoring is not necessary under 40 CFR § 264.101 to determine if releases from MDA C have reached groundwater, or include a schedule for monitoring groundwater potentially affected by releases from MDA C or other SWMU's at TA-50. [264 Subpart F, 264.101, 270.14(d)]

20. P. A-7, sec. A.3: Contaminants have reached groundwater from the TA-50 RWTF effluent. Include a groundwater monitoring program to assess impacts to groundwater from the RWTF or other off-site releases from TA-50. [264.101, 270.14(d)]

21. P. A-8, sec. A.4: Correct the discrepancy between this Section and Section A.5 titled Security. In Section A.4 the main access gate is described as "...the open northern gate." In Section A.5, this gate is described as "... closed and locked unless authorized access is necessary." [264.14, 270.14(b)(4)]

22. P. A-9, sec. A.5: Revise the Application to clarify the discussion of access gates. The Application mentions three entry gates but discusses only two. Based on site visits, NMED is not aware of an access gate on Pecos Drive that is closed and locked. [264.14, 270.14(b)(4)]

Attachment B, Waste Analysis Plan

23. P. B-1, ¶ 1: To clarify why waste analysis requirements for TA-50 are addressed in the General Permit, include the following or an equivalent statement here: "The only waste management operation at TA-50 authorized under this Permit is container storage. Waste analysis requirements for container storage units at the LANL Facility are described in the facility-wide Waste Analysis Plan in Appendix B of the Los Alamos National Laboratory General Part B Application." [264.13, 270.14(b)(3)]

Attachment F, Closure Plan

Closure Plan General Comments

24. Include in the Closure Plan procedures to comply with all requirements of 40 CFR § 264.112(b) at partial and final closure, including removal or decontamination of all hazardous waste residues from all sources. The necessary elements of 40 CFR § 264.112(b) have not been addressed. For example, detailed descriptions of procedures for removing contaminated soils, criteria for determining extent of contamination, and a detailed description of how closure will satisfy performance standards for all releases from all sources must be included. [264.112, 270.14(b)(13)]

25. P. F-2, sec. F.1.1 and throughout: Replace "may be decontaminated, reclaimed or recycled, or disposed of, as appropriate" with "will either be sampled and determined to be below applicable standards or will be removed or decontaminated to meet applicable standards." Revise the Application throughout to state that at closure of container storage areas hazardous waste and hazardous waste residues will be removed or decontaminated. [264.178, 270.14(b)(13)]

Closure Plan Specific Comments

26. P. F-1, ¶ 3: Replace "meet the closure requirements" with "are intended to meet the closure requirements."

27. P. F-1, ¶ 3: Include a citation to 40 CFR § 264.178. [270.14(b)(13)]

28. P. F-1, ¶ 4: Insert after "Closure will include" "removal or decontamination of all hazardous waste residues and contaminated structures, soil, and groundwater." [264.112, 264.178, 270.14(b)(13)]

29. P. F-1, ¶ 4: Delete "through normal RCRA-regulated container storage operations." Contamination from all sources must be investigated and remediated at closure. [264.112, 264.178, 270.14(b)(13)]
30. P. F-2, sec. F.1: Include a citation to 40 CFR § 264.178. [270.14(b)(13)]
31. P. F-2, sec. F.1.1: Revise the second bullet to include post-closure escape to groundwater. [264.111, 264.112, 270.14(b)(13)]
32. P. F-2, sec. F.1.1, bullet 3: Include "and closure" after "container management." [264.111, 270.14(b)(13)]
33. P. F-2 and F-3, sec. F.1.1 and F.1.2: Address investigation and remediation at closure of contamination from all TA-50 units, not only container storage units, for example from SWMU's or from air emissions. [264.111, 264.112, 270.14(b)(13)]
34. P. F-2, sec. F.1.1: Replace "all equipment . . . recycled, or disposed of" with "removal or decontamination of hazardous waste and hazardous waste residues has been completed in accordance with this Closure Plan, closure performance standards, and the requirements of 40 CFR Subpart G and § 264.178." [264.112, 264.113, 264.178, 270.14(b)(13)]
35. P. F-2, sec. F.1.1: Include a provision for submittal of a Closure Report within 60 days after completion of closure activities and approval of the Report by NMED.
36. P. F-3, sec. F.1.2: Replace "the unit and related equipment . . . as appropriate" with "hazardous waste and hazardous waste residues have been removed or decontaminated." [264.112, 264.113, 264.178, 270.14(b)(13)]
37. P. F-3, sec. F.1.3: Replace "dismantling" with "removing." [264.178, 270.14(b)(13)]
38. P. F-3, sec. F.1.3: Replace "treatment, removal, or disposal" with "removal or decontamination." [264.178, 270.14(b)(13)]
39. P. F-3, sec. F.1.3, line 9: Insert "storage," before "treatment."
40. P. F-5, sec. F.1.8 and Table F-1: Include a time period of 60 days after completion of closure activities for submittal of the Closure Report.
41. P. F-6, sec. F.1.9: Either identify units at TA-50 subject to post-closure care or delete this section. Post-closure care requirements do not apply to container storage units. [264.117, 264.118, 264.178]
42. P. F-6, sec. F.1.10, item 3: Replace "Decontamination, recycling, removal, and/or disposal" with "Decontamination or removal." [264.112, 264.178, 270.14(b)(13)]

43. P. F-7, sec. F.1.10, item 6: Delete "from the unit (if applicable)." [264.112, 264.178, 270.14(b)(13)]
44. P. F-7 sec. F.1.10, ¶ 4, last sentence: Replace "hazardous and radioactive" with "hazardous and/or radioactive."
45. P. F-8, sec. F.1.10, ¶ 6: "...soil samples will be collected from areas showing evidence of contamination..." In addition, include sampling of areas of potential contamination and areas of deteriorated or failed containment system. [264.112, 264.178, 270.14(b)(13)]
46. P. F-8, sec. F.1.11: Delete the sampling and analytical procedures. Replace with a new sec. F.1.11 providing for submittal for NMED approval of an updated Sampling Plan at least 90 days prior to implementation of partial or final closure to determine levels of contamination at the unit from all sources to demonstrate attainment of closure and other applicable standards, including 40 CFR § 112(b)(4) and (5), using methods in accordance with HWB and EPA guidance. [264.112, 264.178, 270.14(b)(13)]
47. P. F-14, sec. F.1.13: Add language regarding the collection of analytical evidence. As part of the decontamination verification process, collection of analytical samples will be required. Wipe samples or other sampling methods, for example radioactive materials sampling or sand blasting and sampling of the residue, shall be collected from floors, walls, sumps and areas with records or evidence of a release. [264.112, 264.178, 270.14(b)(13)]
48. P. F-15, ¶ 2: Delete items 3, 4, and 5 of the decontamination criteria. Replace with the following: 1) For surfaces such as container storage area floors and walls, submit proposed cleanup standards. 2) For soils, use HWB soil screening, ecological risk, or risk assessment methods as appropriate to calculate cleanup levels as established by NMED or applicable law. 3) For groundwater, use the lower of New Mexico Water Quality Control Commission regulations or Maximum Contaminant Levels under the Safe Drinking Water Act. Do not include technical or administrative control measures. Hazardous waste and residues must be removed or decontaminated at closure. [264.112, 264.178, 270.14(b)(13)]
49. P. F-16, sec. F.2.2; p. F-16, sec. F.3.2; p. F-17, sec. F.4.2; p. F-18, sec. F.5.2: Replace with "At final or partial closure all hazardous waste and residues will be removed or decontaminated in accordance with the requirements of 40 CFR 264 Subpart G and § 264.178, this Closure Plan, and the updated Sampling Plan." [264.112, 264.178, 270.14(b)(13)]
50. P. F-20, last paragraph: The application states that "Records review and visual inspection of the soils along the margins of the WCRRF Outdoor CSA will be used to identify areas where soil contamination from RCRA-regulated waste management activities could have occurred." Insert language providing for collection of samples from the soil surrounding the CSA and in likely accumulation areas (along drainages) in order to confirm the presence or absence of hazardous constituents. [264.112, 264.178, 270.14(b)(13)]

51. Tables F-2 through F-7: Delete. Address in the updated Sampling Plan submitted at the time of partial or final closure required under Comment No. 46 above.

Attachment G, Container Management

52. P. G-2, sec. G.1.2.2 and P. G-5 sec. G.2: Discuss loading and unloading (L/UL) operations. Because the L/UL areas do not have a containment system, discuss how prevention and clean up of accidental spills are handled. For example, does L/UL operations occur during precipitation events, are temporary berms used, and is spill control equipment present during L/UL events? [270.14(b)(8)(i)]

53. P. G-5, sec. G.1.4: Describe the secondary containment pallet and other devices in order to demonstrate the secondary containment capacity of these devices. [264.175, 270.15]

54. P. G-7, sec. G.2.2, ¶ 2: Delete the paragraph beginning "Because the moisture content is insufficient . . ." The protection of groundwater from container storage areas is dependant on prevention of releases, not on geologic conditions serving as a barrier. High levels of contaminants have been detected at the deepest sampling points submitted to NMED. Depths to perched zones of groundwater are unknown under TA-50. [264.31, 264 Subpart I, 270.14(b)(8), 270.15]

55. P. G-14 through G-18, sec. G.4: For all rooms requiring secondary containment specify the containment capacity and container storage capacity in order to demonstrate sufficient capacities of the containment system. In addition, include the calculations that demonstrate the capacity of the secondary containment systems. [264.175, 270.15]

56. P. G-16, sec. G.4.1.1: The information provided conflicts with what is stated in Chapter 2 of the application. Chapter 2 states that only solid waste (i.e. non liquid bearing) is stored in TA-50-1 Room 59 and TA-50-37 Room 118. Attachment G.4, states that TA-50-37 Room 112 is designated to store solid waste only and that Room 118 may store waste with residual liquids. Please correct this discrepancy. [264.175, 270.15]

57. P. G-15, sec. G.4.1.1; p. G-16, sec. G.4.1.4; p. G-16, sec. G.4.2; p. G-18, Sec. G.4.5: Replace "solid waste" with "waste not containing free liquids" or an equivalent. [264.175, 270.15]

58. P. G-16, sec. G.4.1.4: The secondary containment system does not have 10 percent capacity of the design capacity of 18,000 gallons. [264.175, 270.15]

59. P. G-16, sec. G.4.3: Provide dimensions and calculations for the secondary containment system. Also, provide a description of the secondary containment that demonstrates that it is liquid tight. [264.175, 270.15]

-Attachment A
TA-50 RSI
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Attachment H, Authorized Waste

60. Update the Part A to include all hazardous waste management units being permitted and to delete all units not being permitted. See the RSI for the General Part A and Part B Permit Application dated June 25, 2001. [270.13]