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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 3, 2002

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, New Mexico 87545

Mr. Everett Trollinger, Project Manager
Department of Energy
Office of Los Alamos Site Operations
528 35th Street, Mail Stop A316
Los Alamos, New Mexico 87544

SUBJECT: REQUEST FOR SUPPLEMENTAL INFORMATION FOR THE RFI REPORT FOR SWMU 00-030(g)
LOS ALAMOS NATIONAL LABORATORY, NM0890010515
HWB-LANL-01-003

Dear Dr. Browne and Mr. Trollinger:

The New Mexico Environment Department (NMED) has reviewed Los Alamos National Laboratory's (LANL's) "RCRA Facility Investigation (RFI) Report for solid waste management unit (SWMU) 00-030(g) ", dated February 2001 and referenced by LA-UR-00-5378 (ER2000-0647). NMED requests supplemental information as detailed in the Attachment.

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LANL should respond to the supplemental information request within thirty (30) ealendar days of the receipt of this letter. If you have any questions, please contact Neelam Dhawan at (505) 428-2540.

Sincerely,

John Young
LANL Corrective Action Project Leader
Permits Management Program

JRY:nmd

Attachment

cc w/ attachment:
N. Dhawan, NMED HWB ✓
J. Davis, NMED SWQB
J. Parker, NMED DOE OB
S. Yanicak, NMED DOE OB, MS J993
L. King, EPA 6PD-N
J. Vozella, DOE OLASO, MS A316
M. Kirsch, LANL RRES/ER, MS M992
D. McInroy. LANL RRES/ER, MS M992
W. Neff, LANL RRES/ER, MS M992
B. Ramsey, LANL RRES/ER, DO J591
file: Reading and HSWA LANL TA 00-030(g), (Old Catholic Church)

ATTACHMENT
REQUEST FOR SUPPLEMENTAL INFORMATION
RFI REPORT FOR PRS 00-030(g)

General Comments:

1. Although the County of Los Alamos has designated the eanyon portion of the solid waste management unit (SWMU) 00-030(g), as a "Seenie Open Lands District', at present, New Mexico Environment Department (NMED) has no means to ensure that the eurrent designation will be maintained in the future and should therefore not be relied upon to ensure land use.
2. Los Alamos National Laboratory (LANL) should revise the human health risk assessment for the child recreational scenario. To be consistent, LANL should conduct an 'Extended Backyard' scenario risk assessment for this SWMU, using the child exposure parameters (such as time spent outdoors. dust ingestion, etc.) that were utilized for the Extended Backyard scenario in the risk assessment conducted for the south fork of the Acid Canyon. Parameters related to site and contamination characteristics can remain equal to the values currently given in the Report.
3. The ecological risk assessment for this SWMU should be revised using upper confidence limits (UCLs) calculated with the correct statistical approach. For contaminants, which continue to generate hazard quotients (HQs) substantially above one, area use factors inay be incorporated in the exposure calculations for those receptors with home ranges larger than the contaminated area.

Specific Comments:

4. **Table 2.3-6, SWMU 0-030(g), Frequency of Detected Inorganie Chemicals in Samples Collected by the Laboratory from the Mesa Top and Drainage Channel, page 36:**
   NMED Comment: Correet the Table: The type of environmental media reported for mesa top samples is incorrect, out of 23 samples analyzed for mesa top, 21 were tuff and 2 were soil/fill samples (see Table 3, page 9, of SWMU 00-030(g) Revised Status Report, December 1998, EM/ER:98-484). Detection limits for antimony were above baekground values for 16 samples not 7 samples. Additionally, according to Table 3, page 10, of SWMU 00-030(g) Revised Status Report (December 1998), mercury was analyzed for 31 tuff and 2 soil/tuff samples but the Table 2.3-6 reports only 23 mesa top samples for mercury.

5. **Table 2.3-20, SWMU 0-030(g), Frequency of Detected Organic Chemicals in Samples Collected by the Laboratory from the Mesa Top and Drainage Cbannel, page 65:**
   NMED Comment: Provide the rationale for using a range of values for estimated quantitation limits and their significance to data evaluation of organic chemicals.

6. **Table 2.3-22, SWMU 0-030(g), Frequency of Detected Organic Chemicals in Sediment Samples Collected by the Laboratory and NMED/DOE OB from the Stream Channel in Acid Canyon, page 66:**
NMED Comment: See eomment #. 5

7. **Section 2.3.5.1, Nature and Extent of Contamination, page 75:**
LANL Statement: "The source of 4,4'-DDT and its metabolites may be the result of aerial spraying by the U.S. Forest Serviee in 1963 for the purpose of controlling spruee budworms."
NMED Comment: Note that 4,4'-DDT, 4,4'-DDD, 4,4'-DDE were detected in the samples taken from the septic tank (e.g. AAA 1904, AAA 1907), hence, the septic tank cannot be discounted as the source of contamination in the drainage ehannel.

8. **Section 2.3.5.1, Nature and Extent of Contamination, page 76:**
LANL Statement: "All of the Acid Canyon data will be presentcd and discussed in the evaluation of sediment and surface water in Aeid Canyon in a report to be prepared by the Canyons Focus Area."
NMED Comment: Data from thc RFI investigation indicates that there is contamination up gradient and down gradient of SWMU 00-030(g) in the Acid Canyon. It is likely that over the years, some of thc contamination from SWMU 00-030(g) has migratcd and contributed to the contamination found in Acid Canyon. NMED will need to rcview the report that will be prepared by Canyons Focus Area for Acid Canyon before concurring with any no further action recommendation for SWMU 00-030(g).

9. **Section 2.4.2.1(b), Screening Evaluation, page 80:**
LANL Statement: "The maximum concentration of each COPC was comparcd with the SAL for radionuclides; the SALs for Class A, B1, and B2 carcinogens; 10 times the SAL for Class C carcinogens; or one-tenth of SAL for noncarcinogens when there are more than two noncarcinogenic COPCs."
NMED Comment: All carcinogens should be comparcd to thc NMED soil screening action levels (SALs), Class C carcinogens should not be singled out for an arbitrary comparison to ten times the SAL. Revise the statement.

10. **Table 2.4-3, SWMU 0-030(g), Comparison of Noncarcinogenic Mesa Top COPCs to SALs, page 82:**
NMED Comment: Lead should not have been included in the table. The screening action level (SAL) for lead is not calculatcd in the samc manner as other non-carcinogens. It is not appropriate to usc 40 ppm as the 0.1 SAL since thc SAL of 400 ppm for lead is based on blood lcad levels. Lead should be evaluatcd separately as done on page 85. Revisc the tablc.

11. **Table 2.4-4, SWMU 0-030(g), Comparison of Noncarcinogenic Drainage Channel COPCs to SALs, page 82:**
NMED Comment: See comment number 7. 10

12. **Table 2.4-5, SWMU 0-030(g), Comparison of Mesa Top radionuclide COPCs to SALs, page 83:**
NMED Comment: Correct the table, the depth reported for sample AAA1909 is incorrect, it should be 3-8 ft not 36-96 ft.

13. **Section 2.4.2.2(b), Ecological Screening-Screening Evaluation, page 93:**
LANL Statement: " The chemicals that appear in bold in Table 2.4-8 were identified as COPECs at SWMU 00-030(g) because their HQs were greater than 0.3."
NMED Comment: Modify the Table, none of the chemicals with hazard quotients (HQs) greater than 0.3 appear in bold in Table 2.4-8.

14. **Section 2.4.2.2(c), Ecological Screening-Uncertainty Analysis, page 95:**
NMED Comment: The HQs generated during initial screening are greater than one for most of the chemicals of potential ecological concern (COPECs), but are dismissed based on the assumption that the HQs were developed conservatively. The sereening level eeological risk assessment does use conservative assumptions that result in conservative HQs, but COPECs cannot be discounted based on this assumption. If the initial screening evaluation results in HQs of greater than one, then HQs should be developed using site-specific parameters such as area use factors and bioavailability. Bioavailablity should only be considered when information is available on the speciation and bioavailablity of the contaminants found at the site. NMED disagrees with LANL that arsenic with HQ of 13.2 for vagrant shrew and 6.8 for deer mouse is not a COPEC. Although HQs for cobalt, silver, thallium, and zinc were greater than one, they were also dismissed as potential COPECs. Additionally, Aroclor-1260, 4,4-DDE, 4,4-DDT, endrin ketone with respective HQs of 3.8, 10, 24.3 and 6.7 were not retained as COPECs. LANL should perform a site-specific eeological risk assessment.

15. **Appendix E, page E-21**
LANL Statement: "In most cases, the assumption of both normality and lognormality was rejected at a 95% level of statistical confidence, which is likely the result of a significant number of non detected values in each data set. Rather than using a nonparametric approach that employs the median value to determine 95% UCLs, normal (SW-846 Chapter Nine 1986) and lognormal (Land H method, Gilbert 1987, 55619) 95% UCLs were calculated for each constituent of concern."
NMED Comment: Mean values using the 95% UCL of the mean were calculated based on both lognormal and normal distributions even though the data sets did not pass the test for either distribution. LANL utilized the higher of the two estimates of the mean, unless they both exceeded the max value; then the max value was used. If the data do not fit either a normal or lognormal distribution then those distributions are not appropriate for calculating a statistical estimate of the mean for these contaminants. LANL should use either a nonparametric method such as a bootstrap method or the maximum value.

16. **Appendix F, RESRAD Parameters, page F-12**
NMED Comment: For both radionuclides (using RESRAD) and chemicals (using ingestion, inhalation etc. risk model equations), the total grams of soil ingested over the six year scenario is 120 grams. In the Acid Canyon Extended Backyard scenario the total soil ingested over the six year scenario is 85.68 grams. The radionuelide analysis is presented as annual risk under both thc adult and child scenario; risk from exposure over the time frame of the scenario (6 years for child; 30 years for adult) is not presented. Therefore the risk associated with maximum level of each radionuclides should be calculated for the adult and required extended backyard scenarios.