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PETER MAGGIORE  
SECRETARY

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

May 17, 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  
Office of Los Alamos Site Operations  
Department of Energy  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, New Mexico 87544

**SUBJECT: REQUEST FOR SUPPLEMENTAL INFORMATION FOR THE VCA  
COMPLETION REPORT FOR PRS 3-056(c)  
LOS ALAMOS NATIONAL LABORATORY, NM0890010515  
HWB-LANL-01-020**

Dear Dr. Browne and Mr. Trollinger:

The New Mexico Environment Department (NMED) has reviewed Los Alamos National Laboratory's RCRA "Voluntary Corrective Action (VCA) Completion Report for Potential Release Site (PRS) 3-056(c)", dated September 2001 and referenced by LA-UR-01-5349 (ER2001-0657) and "Data Supplement to the September 27, 2001 Voluntary Corrective Action (VCA) Report for Potential Release Site (PRS) 3-056(c)", dated January 24, 2002 (ER2002-0005). NMED requests supplemental information as detailed in the Attachment.



5674

Dr. John C. Browne and Mr. Everett Trollinger  
May 17, 2002  
Page 2

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

Sincerely,



John R. 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 LAAO, MS A316  
J. Canepa, LANL EM/ER, MS M992  
M. Kirsch, LANL EM/ER, MS M992  
D. McInroy, LANL EM/ER, MS M992  
file: Reading and HSWA LANL TA 03

**ATTACHMENT**  
**Request for Supplemental Information**  
**VCA Completion Report for PRS 3-056(c)**

**General Comments:**

1. The human health risk screening assessment adequately addresses the risk to future site users because the SALs used by LANL are for residential exposure. The PCBs (as Arochlor-1260) meet the EPA 1 mg/kg remediation criteria. Risk to construction workers that may result from the proposed construction of cooling towers was not addressed as part of the VCA Completion Report, but the PCB levels in the portion of the site to be used for construction (the north area) are below the Arochlor-1260 soil screening level that would be generated using the NMED equations (this number would be greater than the 1 mg/kg EPA remediation goal). NMED concurs with LANL that the site does not pose unacceptable risk to human health.
2. The ecological screening risk assessment consisted of a comparison of contaminant concentrations to background and to LANL ESLs. Nickel, cobalt, and arsenic originally generated HQs above one for several receptors. However, additional sampling done by LANL and EPA in and near the area of elevated concentrations, showed much lower concentrations that did not exceed background concentrations for these metals. Therefore, NMED concurs that these three metals should be dropped from further consideration.

**No response required for the General Comments.**

**Specific Comments:**

1. **Table 1.0-1, Chronology of ER Project Activities at PRS 3-056(c), page 2:**  
**NMED Comment:** Please include the request and approval dates of contained-in determination for the waste generated at the site during the VCA activities. LANL sent a request for "no longer contained in" determination to NMED on November 21, 2000, NMED approved the request on December 6, 2000.
2. **Section 2.1 Summary of VCA Activities, page 5:**  
**LANL Statement:** "Based on January 2001 confirmatory sampling results, four areas of elevated (>1ppm) PCBs were identified."  
**NMED Comment:** Clarify the statement that PCBs were detected above 1 ppm at more than four locations at the site. Four areas with elevated PCBs were identified for further cleanup and were later excavated. Confirmatory samples were collected after the excavation.

3. **Section 2.4.3.1, Inorganic Chemical Comparison with Background Levels, page 21:**  
**LANL Statement:** "Soil and sediment samples were not differentiated during confirmatory sampling."  
**NMED Comment:** Provide the rationale for not differentiating between soil and sediment samples and state which background values were used for comparison with samples (i.e. soil). Explain the reason for using soil background values for comparison of soil and sediment samples.
4. **Table 2.4-2, Inorganic Chemicals with Concentrations or Detection Limits at or Exceeding BVs, page 23:**  
**NMED Comment:** Silver was detected in two samples above BVs as shown in Table 2.4-1. Table 2.4-2 reports only one value for silver, include the detected value for the second silver sample (Sample ID RE03-01-0016) in the table.
5. **Table 2.4-3, PRS 3-056(c) Results of RFI Inorganic Data Review, page 24:**  
**LANL Statement:** For cadmium soil samples, under column 4 (Rationale) "Retained as a COPC because detection limits in two samples were greater than the soil BV."  
**NMED Comment:** Correct the rationale for retention of cadmium as a COPC to state that it was retained because one sample value was above BV. Correct the caption for the Table; results are from a VCA not an RFI.
6. **Figure 2.4-3, page 27:**  
**NMED Comment:** Add the confirmatory sample taken at sample location 03-14337 to the Figure 2.4-3. Include concentrations of detected inorganic and organic chemicals, if any, for this sample, in the figure.
7. **Table 2.5-1, page 43:**  
**NMED Comment:** Based on NMED "Technical Background Document of Soil Screening Levels," Volume I, December 18, 2000, the SALs for cobalt and trichloroethane[1,1,1-] should be 4500 ppm and 510 ppm instead of 45000 ppm and 590 ppm respectively. Provide the source of SAL of 160 ppm used for isopropyltoluene[4-]. Please provide the reference for "Human Health Medium-Specific Screening Levels (EPA 2000, 68410) in Section 5.0."
8. **Section 2.5.1.1 (b), Human Health Screening Evaluation, page 44:**  
**LANL Statement:** "The total cancer risk is approximately 6 in 100,000, or  $6 \times 10^{-5}$ , if the anomalous detection of arsenic is included in the calculation, but only 2 in 100,000 ( $2 \times 10^{-5}$ ) if the anomalous data are excluded."  
**NMED Comment:** Clarify the discrepancy between the above statement and the statement on page 47, third paragraph; "Therefore, when more restrictive data are used,

the potential additive risk is approximately 2 in 1 million, which is below NMED's acceptable level."

9. **Section 2.5.1.2, Ecological, page 47:**

**NMED Comment:** Hazard Quotients (HQs) from comparison with LANL ESLs for PCBs indicate risk in magnitude 3-8 for avian receptors. These HQs are dismissed on the basis of the assumption used in the assessment that the site is 100% of the species range. Potentially, the use of an appropriate adjustment factor for the home range of these avian species could reduce these HQs to below one, but nothing was done as part of this assessment to demonstrate this assertion is true. This site is located in habitat for threatened and endangered species (spotted owl) for which the bird receptor species (kestrel) serve as surrogate, which lends even more importance to further investigation of these HQs. Consideration of issues such as home range size and bioavailability need to be included in the calculations and evidence should be presented to support the mitigating effects of these considerations and to demonstrate their impact on the HQ values. LANL should perform an ecological risk assessment for the site since it failed the ecological screening assessment.

10. **Table 2.5-4, Comparison of Exposure Point Concentrations with Final ESLs, page 52:**

**NMED Comment:** Based on Table 2.5-3, the final ESL for nickel and trichloroethane[1,1,1-] should be 20 ppm and 1000 ppm respectively.

11. **Appendix F, Risk Assessment Calculations:**

**NMED Comment:** The Scoping Checklist in Appendix F (page F-1) states that 4 ppm of PCBs remains in the stream channel, but no such sample results are indicated in figure 2.4-4. Clarify, if there are any additional PCB sample results from the channel that should have been included in the calculation of the exposure concentration for the ecological risk assessment. Additionally, the argument is presented in the Appendix F checklist for the ecological risk assessment that there is no potential for migration and no pathway to receptors from remaining contamination under the controls installed as part of the remediation. This argument relies on the assertion that all remaining PCB contamination is immobilized in tuff, but the sample results and appendix E text show that these results are actually in soil, so this argument is not valid. The VCA Completion Report also asserts that there is no potential for migration and no pathway to receptors due to the effectiveness of engineering controls to prevent erosion and channel runoff water. To remain effective, these controls require maintenance; this issue is not addressed in the VCA Completion Report, please provide information as to how these controls will be maintained effectively.