State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P. O. Drawer 26110
Santa Fe, New Mexico 87502-0110
(505) 827-2855
Fax: (505) 827-2836

GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 1, 1998

Mr. Theodore Taylor, Project Manager
Los Alamos Area Office
Department of Energy
528 35th Street
Los Alamos, New Mexico 87544

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

RE: Rejection of 0-016 VCA Report
Los Alamos National Laboratory
NM0890010515

Dear Mr. Taylor and Mr. Browne:

The RCRA Permits Management Program (RPMP) of the New Mexico Environment Department's Hazardous and Radioactive Materials (HRMB) has reviewed the VCA Report (LAUR-97-2745) for 0-016 dated September 1997 and referenced by EM/ER:97-423 and rejects the document based on items detailed in the attachment.

LANL must contact RPMP to schedule a meeting and site visit to discuss and clarify the attached comments within fifteen (15) days of the receipt of this letter. Within sixty (60) days of this meeting and site visit, LANL must resubmit this document to HRMB for review and approval.

7015

Should you have any questions regarding this letter, please contact me or Mr. John Kieling, RPMP's LANL Facility Manager, at (505) 827-1558.

Sincerely,

Stephanie Kruse
for Robert S. ("Stu") Dinwiddie, PhD, Manager
RCRA Permits Management Program
Hazardous and Radioactive Materials Bureau

RSD:kth

attachment

cc w/ attachment:

T. Baca, LANL EM, MS J591
J. Canepa, LANL EM/ER, MS M992
J. Davis, NMED SWQB
B. Garcia, NMED HRMB
K. Hill, NMED HRMB
M. Johansen, DOE LAAO, MS A316
J. Kieling, NMED HRMB
S. Kruse, NMED HRMB
M. Leavitt, NMED GWQB
H. LeDoux, DOE LAAO, MS A316
D. McInroy, LANL EM/ER, MS M992
D. Neleigh, EPA 6PD-N
J. Parker, NMED DOE OB
R. Remillard, USFS, 475 Twentieth Street, Ste. B, Los Alamos, NM 87544
J. Vozella, DOE LAAO, MS A316
S. Yanicak, NMED DOE OB, MS J993
File: HSWA LANL 1/1071/0/0-016
Track: LANL, doc date, NA, DOE/LANL, NMED HRMB/Dinwiddie, RE, file

ATTACHMENT
Rejection of 0-016 VCA Report
September 1997

General Comments:

1. The VCA Report is difficult to read: it is unclear due to the complexity of the activities and processes conducted and its poor organization. Many of the report's sections are repetitive and/or incomplete. LANL should revise this report such that it presents the activities which occurred at the potential release site (PRS) in a clear and concise manner. RPMP is open to discussing and to providing guidance on an improved, more clear format for this submittal.
2. LANL should have written this VCA Report in a manner similar to a RFI Report (ie., such that a final site decision could be made). The information collected during the VCA investigation and presented in this document do not adequately support a final decision: nature and horizontal and vertical extent of contamination are not adequately characterized.
3. LANL should present both the screening and fixed laboratory analytical results for the samples obtained for each portion of the VCA investigation. The data should be presented in a clear and concise manner such that the samples, their locations, their results and their implications can be more easily correlated and understood.
4. LANL performed the VCA by removing contaminated soils which exceeded Screening Action Levels (SALs) or Preliminary Remediation Goals (PRGs). LANL should have first determined the horizontal and vertical extent of contamination relative to background values, determined if those concentrations exceeded SALs, and then determined a risk-based clean-up level specific to the PRS. This process is more clearly defined in LANL's *RFI Report Annotated Outline*.
5. LANL performed a human health-based VCA. LANL must also consider the ecological impacts of the contaminants remaining at this PRS.
6. LANL states in Section 1.4 that "A VCA was determined to be the appropriate approach to address the time constraints placed on the LANL Environmental Restoration Project by a pending land exchange between the USDA Forest Service and a private land developer."

   RPMP questions the appropriateness of performing a VCA on sites such as this one based on criteria other than the following: potential remedy is obvious and can be readily applied, potential remedy will be a final resolution; sampling data are available that adequately identify the constituents of concern; adequate treatment, storage, and disposal capacity is available for anticipated wastes; cleanup levels are based on background concentrations, promulgated standards, or previously determined risk-based levels; estimated cost to complete the action is relatively small; and the estimated time to complete the field activities is relatively short. [no response required]

7. LANL failed to provide basic information regarding the various areas sampled. LANL should, at a minimum, provide the following information: the surficial area of the range floor, back area and drainage; the estimated volume of each of the berms; and the estimated volume of contaminated soil in the back area and range floor.

Specific Comments:

2.0 Site Characterization Before Removal

8. LANL should present, at a minimum, a summary of the analytical results of the 1991 Forest Service study within the text to support the VCA investigation and decisions.
9. LANL should include the USDA Forest Service Memorandum 7400 as a reference document for this report. Also, LANL should refrain from repeating inaccurate statements made within other reference materials. As an example, the text repeats the statement, "...because the TCLP test did not reproduce the essentially pH-neutral soil conditions at the site, the lead-contaminated soil does not constitute a release of a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)." This statement is not founded or applicable based on the following reasons:
   a. CERCLA does not utilize TCLP to determine nature and extent of contamination; CERCLA utilizes TCLP for waste characterization and disposal purposes.
   b. This site is regulated by RCRA not CERCLA.
   c. The lead-contaminated soil would be considered a source under CERCLA.

2.2 Nature and Extent of Contamination

10. The third paragraph of this section states, "Based on the results of the survey above, a correlation was established between the number of number of metal detector responses and the total lead concentration in the soil." LANL should clarify (perhaps most clearly using a table) how correlating XRF results with metal detector responses establishes a correlation between metal detector responses and total lead concentrations.
11. LANL failed to perform full suite analyses for target analyte list (TAL). LANL should have obtained and analyzed a subset of confirmatory samples to ensure adequate characterization and remediation of all metals for both human health and ecological risk.

3.1 Basis for Cleanup Levels

12. LANL inappropriately used PRGs as cleanup levels for this PRS. See General Comments.

3.2.1 Soil Washing Operations

13. LANL does not clearly describe the intended/final disposition of the fine sediment accumulations in the ponds which were "...periodically removed as needed." LANL should indicate the volume and the intended/final disposition of these recirculation pond sediments.
14. LANL indicates that TCLP analyses were conducted on several washed soil samples to ensure that the "...soils were suitable for off-site transfer." LANL should clarify the volume and the intended/final disposition of these washed soils which were transported off-site.

3.2.2 Shaker Plant Operations

15. LANL should clarify the disposition of the lead fines that were vacuumed off the crushed material which fell through the ½ inch sieve and was retained by the 3/16 inch).

3.3.1 Back Area Confirmatory Sampling

16. LANL should revise Table 3.3-1 to show the separate confirmatory sampling events that took place and how the concentrations compared to previous field screening results.

3.3.2 Range Floor Confirmatory Sampling

17. The VCA Report indicates that all 16 first-round confirmatory samples for lead were J- qualified and that 4 second-round confirmatory samples for copper were either UJ or J- qualified. Since lead and copper are contaminants of concern at this PRS, LANL should resample these areas.

3.3.3 First-Order Drainage Confirmatory Sampling

18. LANL omitted Figure 3.3.3-1 and Table 3.3.3-1 from the VCA Report. LANL should provide this figure and table in the VCA Report. The format of Table 3.3.3-1 should follow the revised RFI annotated outline.

Appendix A

19. LANL failed to provide information required in a comprehensive data set. LANL should submit a complete data set. See general comments.
20. Table A-1 does not include the request number and the text fails to provide the sample location/identification numbers; therefore, the sample

location/identification numbers cannot be correlated to the QA/QC problems presented in the text of the Appendix.

Appendix D

21. LANL fails to provide a meaningful presentation of the confirmatory sampling analytical results: a correlation between sample location/identification numbers and area being investigated cannot be made. LANL should revise this data presentation as directed in the general comments.

Appendix F

22. On page F-15, the endnote for Table F-1 states that "S = Analyzed by Method of Standard Addition." LANL should clarify what is meant by this endnote indicator.
23. LANL does not discuss the number or location of the stockpiles for which analytical results are presented; therefore, the data presented is limited in value. LANL should revise this data presentation as directed in the general comments.
24. This Appendix presents data for samples with similar descriptions. LANL should include a date of sampling or other unique identifier to distinguish between the many samples with similar location identifications in the "TCLP Analysis Comments" column.
25. LANL provides a "**" qualifier in the endnotes; however, the review was unable to identify any samples which were qualified with this flag. LANL should clarify which samples required the "**" endnote as indicated on page F-15.
26. LANL presents the waste characterization data with columns identified as "Total Analysis" and "TCLP Analysis." LANL should clarify the analytical methods for both of these columns.
27. LANL fails to provide the information necessary to determine the quality and applicability of the analytical data. LANL should provide the method detection limits for the analyses conducted.