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MC

FILE LANL HSWA 2/1085/12 -14 -67

Date: October 15, 1996
 Refer to: EM/ER:96-539

Mr. Benito Garcia
 NMED-HRMB
 P.O. Box 26110
 Santa Fe, NM 87502

SUBJECT: RESPONSE TO THE NOD FOR TAs -12, -14, and -67, FOR RFI REPORT (FORMER OPERABLE UNIT 1085)

Dear Mr. Garcia:

Enclosed are two copies of the Los Alamos National Laboratory's response to the New Mexico Environment Department's Notice of Deficiency (NOD) concerning the Technical Areas 12, 14, and 67 Resource Conservation and Recovery Act Facility Investigation Report. A certification form signed by the appropriate officials is also enclosed. The enclosed response repeats each comment from the NOD for convenience in reviewing.

Please contact Gene Gould at (505) 667-0402 or Everett Trollinger at (505) 667-5801 if you have any questions regarding the response to the NOD.

Sincerely,

Jorg Jansen, Program Manager
 LANL/VER Project

Sincerely,

Theodore J. Taylor, Program Manager
 DOE/LAAO

JJ/TT/el

Enclosures: Response to NOD for TAs -12, -14, and -67 RFI Report
 Certification



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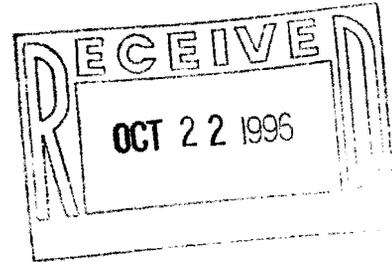
Mr. Benito Garcia
EM/ER:96-539

-2-

October 15, 1996

Cy (w/ encs.):

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EM/ER File (CT #C137), MS M992
RPF, MS M707



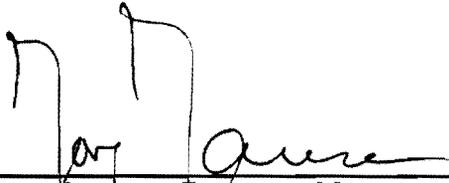
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CERTIFICATION

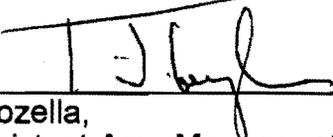
I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Document Title: Response to the NOD for TAs -12, -14, and -67, RFI Report (Former OU 1085)

Name:  Date: 10-11-96
Jorg Jansen, Program Manager
Environmental Restoration Project
Los Alamos National Laboratory

or

Tom Baca, Program Director
Environmental Management
Los Alamos National Laboratory

Name:  Date: 10/15/96
Joseph Vozella,
Acting Assistant Area Manager of
Environment Projects
Environment, Safety, and Health Branch
DOE-Los Alamos Area Office

or

Theodore J. Taylor
Program Manager
Environment Restoration Program
DOE-Los Alamos Area Office

**LOS ALAMOS NATIONAL LABORATORY RESPONSE TO NOD FROM NEW MEXICO
ENVIRONMENT DEPARTMENT DATED AUGUST 16, 1996:
RCRA FACILITY INVESTIGATION REPORT FOR TECHNICAL AREAS 12, 14, AND 67,
LOS ALAMOS NATIONAL LABORATORY (NM0890010516)**

STATEMENTS

Sites Where No Further Action (NFA) Appears Appropriate (5)

Based upon the information provided, EPA tentatively agrees with the NFA proposals for the following sites:

PRS 14-002(f), PRS 14-007, PRS 14-002(c), PRS 14-002(d), PRS 14-002(e)

DISCUSSION:

Agree.

Sites Where It Is Appropriate Not To Add To LANL RCRA/HSWA Permit (14)

Based upon the information provided, EPA tentatively agrees the following sites are not potential SWMUs and do not need to be added to LANL RCRA/HSWA Permit:

*AOC C-12-001, AOC C-12-002, AOC C-12-003, AOC C-12-005, AOC C-14-001, AOC C-14-002,
AOC C-14-008, AOC C-14-004, AOC C-14-005, AOC C-14-006, AOC C-14-007, AOC C-14-009,
PRS 14-004(c), Central Area Drainage*

DISCUSSION:

Agree.

Sites Where NFA Does Not Appear Appropriate (5)

Because these proposed sites are still active, NFA does not appear to be appropriate:

PRS 14-001(a), PRS 14-001(b), PRS 14-001(c), PRS 14-001(d), PRS 14-001(e)

DISCUSSION:

Agree. These sites will be classified as deferred until decommissioning.

Sites Where Additional Information Is Needed (7)

Additional information or further investigation is required for the following sites:

*PRS 12-004(a), PRS 12-004(b), PRS 14-002(b), PRS 14-006, AOC C-12-004, AOC C-14-003,
Firing Pad Drainage*

DISCUSSION:

See Site-Specific Comments (below).

Sites Where VCA is Proposed or Being Undertaken (7)

Further information will need to be provided on these sites prior to a decision being finalized:

PRS 12-001(a), PRS 12-001(b), PRS 14-001(f), PRS 14-002(a), PRS 14-009, PRS 14-010, PRS 14-003

DISCUSSION:

- PRS 12-001(a). A VCA was conducted during the summer of 1996. A VCA plan was submitted to DOE on June 5, 1996 and copied to the regulators. A VCA report was submitted to DOE in September 1996. Upon DOE concurrence, the VCA report will be submitted to the regulators for approval.
- PRS 12-001(b). A VCA is currently scheduled for May 1997. A VCA plan and report will be submitted to DOE and ultimately to the regulators.
- PRS 14-001(f). A VCA was conducted during the summer of 1996. A VCA plan was submitted to DOE on April 18, 1996 and copied to the regulators. A VCA report was submitted to DOE in September 1996. Upon DOE concurrence, the VCA report will be submitted to the regulators for review.
- PRS 14-002(a). A VCA is currently scheduled for the fall of 1996. A VCA plan will be submitted to DOE and ultimately to the regulators.
- PRS 14-009. This PRS is currently scheduled for runoff control activities in January 1997, and a VCA in December 1998. A VCA plan and report will be submitted to DOE and ultimately to the regulators.
- PRS 14-010. A VCA is currently scheduled for the fall of 1996. A VCA plan will be submitted to DOE and ultimately to the regulators.
- PRS 14-003. A VCA is currently scheduled for November 1996. A VCA plan and report will be submitted to DOE and ultimately to the regulators.

Sites Where Deferred Action Is Proposed (4)

Deferred action is proposed as these sites are still active:

PRS 14-001(g), PRS 14-005, PRS 14-004(a), PRS 14-004(b)

DISCUSSION:

Agree.

GENERAL COMMENTS

1. *RFI Reports should present all the analytical data (those which are above LANL UTL which is used as the basis for decision making).*

DISCUSSION:

Data used to make decisions for sites not proposed for VCA are presented in the RFI report (see Page v of the RFI report, which lists the tables in Chapter 5, e.g., Table 5.8.5-1 "Inorganics with Concentrations

Greater Than Background UTL for PRS 12-004(a)," etc.). In accordance with LANL ER Project Consistency Team Memo EM/ER:96-PCT-014 dated August 19, 1996, all specific results, conclusions, and recommendations for sites proposed for VCA will be presented in VCA reports. (See previous response for proposed dates for the VCA plan/report submittals.)

2. *Sites which are listed on the HSWA permit, and for which LANL is proposing a VCA should still have all the analytical results submitted. The VCA report may function as the equivalent of the RFI Report, provided all the sampling and analytical data is provided in the VCA. Otherwise, LANL needs to provide the RFI data in the RFI Report.*

DISCUSSION:

In accordance with LANL ER Project Consistency Team Memo EM/ER:96-PCT-014, dated August 19, 1996, all specific results, conclusions, and recommendations for sites proposed for VCA will be presented in VCA reports. The specific results referred to in the sentence above include the analytical data.

SITE-SPECIFIC COMMENTS

AOC C-12-004

1. *Section 5.6.5 (Background Comparisons), Page 5-13: The Report states that no inorganic compounds were analyzed for at this site. Unless "process knowledge" or specific waste characterization analytical data preclude analyses for inorganics, additional soil analytical data should be required.*

DISCUSSION:

Section 5.1.1 (Page 5-1-6) and Section 5.1.3.1 (Page 5-1-7) of the approved RFI work plan state that C-12-004 is the barrel holder that held drums of fuel oil for the generator building (the "site") and that the fuel could have leaked and contaminated the ground at the site. Accordingly, Section 5.1.6.3 (Page 5-1-15) states that soil samples will be collected at the site, and Table 5-4 from the approved work plan lists semi-volatile organics as the only analyses to be conducted on soil at this site. Because the barrel holder is still visible at the site, it can be verified that the only potential contaminants from the area of the barrel holder would be fuel oil derived organics. Due to process knowledge, LANL asserts that inorganics do not need to be analyzed for at this site.

PRS 12-004(a)

2. *Section 5.8.4 Field Investigation, Page 5-19: Recent radiological surveys showed that (sic) no readings greater than site-specific background. However, the result differs drastically from 1993 survey, which gave readings of approximately 10 times background. Why are the results so inconsistent? Can LANL justify the results of the recent survey? Please explain the variations in the two surveys.*

DISCUSSION:

As stated in Section 5.2.3.1 (Page 5-2-2) of the approved work plan and paraphrased in Page 5-19 of the RFI report, "During a screening radiation survey conducted on April 23, 1993, a Geiger-Muller thin window probe gave readings of approximately 10 times background on a cardboard box in side the shelter..." (emphasis added). Because the cardboard box is no longer present inside the shelter, no readings above site-specific background were obtained during the 1995 field season.

PRS 12-004(b)

3. *Section 5.9.4.3, Page 5-25: Both samples were taken next to the aluminum pipe instead of in the pipe as specified in the Work Plan. Given that the site has no documented history, there is no knowledge of the depth of the pipe, and no knowledge of site activities, LANL shall explain the reason why they did not sample inside the pipe?*

DISCUSSION:

The approved work plan is internally inconsistent. Section 5.2.6.3 (Page 5-2-10) of the text states that one sample at 6 in. and one at the soil-tuff interface would be collected. Table 5-6 (Page 5-2-12) states that "soil in pipe" is to be sampled. In the field, the soil inside the pipe was screened for elevated radiation, and none was detected. The decision was made to sample outside the pipe, because this was the only way to sample at the soil-tuff interface. In addition, sampling outside the pipe determines whether a release has occurred, and sampling at the soil-tuff interface determines whether any mobilization of contaminants has occurred.

PRS 14-002(b)

4. *Page 5.13.3, Page 5-30: The site, as described in the Work Plan, was contaminated with uranium, lead and copper as well as explosives. That might explain why the pedestal was constructed of reinforced concrete which was 2 ft. thick with a steel plate top and an 8-ft high earthen berm.*

Interviews alone are not sufficient documentation to make an NFA determination. Site history and interviews can be used to guide an investigation or confirm other evidence, but are not sufficient by themselves. LANL's investigation does not meet NFA Criteria 1.

DISCUSSION:

As stated in the approved work plan (Section 5.3.2, Page 5-3-4), "The open chamber/firing pedestal was removed in March, 1952 (LANL 1993, 21-0077). As described in the RFI report (Page 5-30), the site of this open chamber/firing pedestal cannot now be determined. Onsite discussions and a visual inspection with a former employee at TA-14 indicated that PRS 14-002(b) was located in the area of a current road. Additional discussions with a contractor who removed the open chamber/firing pedestal revealed that the area is now a fire road. Soil and debris from the former location have been removed, mounded next to Building TA-14-43, and covered with asphalt. A detailed site walk and visual inspection by the field team, along with a radiological survey and a HE spot test in this area, were all negative. The area cannot now be located, and thus properly meets NFA Criterion 1: "The site cannot be located or has been found not to exist, is a duplicate PRS, or is located within and therefore investigated as part of another PRS." (EM/ER:95-PCT-015)

PRS 14-001(a-e)

5. *Section 5.18, Page 5-35: Due to the fact that those PRSs are still associated with active firing sites and continue to be used, NFA will not be considered until decommissioning.*

DISCUSSION:

Agree.

PRS 14-006

6. *Section 5.22.71., Page 5-46: It states, "No inorganics were detected above background UTLs and below SALs." However, Table 5.22.5-1 listed 7 inorganics with concentrations greater than background UTL. Please explain the results.*

DISCUSSION:

The sentence contains a typographical error. The sentence should read: "No other inorganics were detected above background UTLs and below SALs."

7. *Table 5.22.7-3, Page 5-49: the maximum normalized thallium concentration was calculated wrong. The value should be 0.5574 instead of 0.4928, therefore, the total should be 1.5530 instead of 1.4884.*

DISCUSSION:

LANL agrees that the normalized concentration for thallium was calculated incorrectly by dividing the incorrect sample concentration by the SAL. The incorrect sample value used was 3.0 rather than 3.4, which resulted in the wrong normalized concentration calculation. The error does not affect the MCE because the maximum sample (0214-95-0103) and the maximum sum of the normalized concentrations for this sample (1.2) remain the same and no other sample had a maximum sum greater than 1.0. The COPCs retained by the MCE also do not change.

8. *Equation 1, page C-4: LANL used this equation to calculate the Preliminary Remediation Goals (PRG) for PRS 14-006 COPCs. However, the default value for Target Cancer Risk (TR) in the equation is 1×10^{-6} , as given in the Risk Assessment Guidance for Superfund (RAGS) Part B (EPA 1991, 1994). Please explain why LANL used 1×10^{-4} instead. LANL needs to recalculate the results using a TR of 1×10^{-4} .*

DISCUSSION:

The TR value of 1×10^{-4} presented in Appendix C, Page C-4, Equation 1 is a typographical error and should be replaced with 1×10^{-6} . The PRG calculated for the carcinogenic COPC (2,4,6-trinitrotoluene) for PRS 14-006 was calculated correctly according to a cancer risk of 10^{-6} as presented in RAGS Part B (EPA 1991). The PRG for 2,4,6-trinitrotoluene at this cancer risk level is 191 mg/kg. In addition, the carcinogenic COPC (RDX) for the Central Drainage Area had a calculated PRG of 52 mg/kg at a cancer risk of 10^{-6} . LANL believes that the last line of Comment 8 of the NOD (above) contains a typographical error. LANL believes that the intent of the NOD is to have the calculation performed at 1×10^{-6} , which was correctly done in the RFI report.

9. *Table C-1, Page C-6: Under the row for lead in the table, it states "See Section 4.1.1 for lead discussion." However, Section 4.1.1 does not exist. LANL shall provide the missing section or an explanation for why it is missing.*

DISCUSSION:

This is a typographical error. Replace "4.1.1" with "3.2.1." Section 3.2.1 of Appendix C can be found on Page C-2.

AOC C-14-003

10. *Section 5.23.7.1, page 5-53: The Report states that HMX was **estimated** (emphasized) at a concentration below its SAL of 3300 mg/kg. Please list the resulting concentration for HMX if the concentration exceeds background UTL and explain why the information was missing in the report.*

DISCUSSION:

There is no background UTL for organic chemicals. The reported concentration of HMX was presented in Section 5.23.6, Page 5-53 of the report as 0.29 mg/kg. This value is qualified as estimated (J) because it was below the EQL and, therefore, cannot be accurately quantified.

Firing Pad Drainage

11. *Sections 5.34.5 (Background Comparisons); Pages 5-89 and 5-91: Copper, lead, mercury and zinc were detected at concentrations above background, but below their respective SALs. Unless site-specific circumstances preclude the possibility of the lead leaching below 6 inches, LANL shall perform TCLP tests for lead.*

DISCUSSION:

TCLP (40 CFR Pt. 261, Appendix II) is defined as a waste characterization test. Therefore, it is not appropriate to use TCLP for site characterization. Section 5.34.1 contains a typographical error. Replace the word "leached" in the last sentence with "migrated." Further, as speculated in this section, potential contaminants embedded in the concrete blocks could have migrated into the drainage gully. In accordance with the approved work plan, four soil samples were collected from 0-6 in. in the drainage. These biased samples represent the vertical and horizontal source terms for any potentially migrating contaminants. Because no metals were detected above SALs (using the aggressive SW-846 total leach procedure) from the potential source areas, there is no reason to pursue migration of metals that are present below SALs.