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TA 36

2/1130/36

Date: November 14, 1997
Refer to: EM/ER:97-474

ENTERED

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

SUBJECT: RESPONSE TO REQUEST FOR SUPPLEMENTAL INFORMATION AND ADDITIONAL WORK FOR TA-36

Dear Mr. Garcia:

The Environmental Restoration Project received your letter dated September 11, 1997, in which you approved a request for extension for supplemental information and additional work for Technical Area 36. In your letter, you indicated that a response should be received from the Los Alamos National Laboratory no later than November 15, 1997. Enclosed please find our response to your request.

Should you have any questions, please contact Gene Gould at (505) 667-0402 or Mike Gilgosch at (505) 667-5794.

Sincerely,

Julie A. Canepa, Program Manager
LANL/ER Project

Sincerely,

Theodore J. Taylor, Program Manager
DOE/LAAO

TC

LANL
2 / 1130 / 36

JC/TT/gmn

Enclosure: Response to Request for Supplemental Information for RFI Report for TA-36

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EM/ER File (CT# C324), MS M992
EM/ER File, MS M992

REQUEST FOR SUPPLEMENTAL INFORMATION
AND ADDITIONAL SAMPLING RESPONSE
TECHNICAL AREA 36
NOVEMBER 15, 1997

The following is LANL's response to NMED's request for supplemental information and additional work, dated July 21, 1997. According to the cover letter accompanying the request, NMED's comments refer to LANL's Response to EPA's Notice of Deficiency (NOD) for Technical Area 36, dated February 27, 1996. The referenced NOD was issued by EPA in November 1995 following their review of RFI Report for Potential Release Sites 36-003(a-b), 36-005, and C36-003, dated September 1995.

Date	Action
September 1995	RFI report submitted to EPA
November 1995	NOD from EPA to LANL
February 27, 1996	LANL response to EPA NOD
July 21, 1996	NMED requests added information on LANL's response to EPA's NOD
November 15, 1997	This document

Based on the comments received by LANL, it appears that NMED did not review LANL's Response to EPA's NOD as stated in NMED's cover letter. Rather, NMED's request refers to the RFI Report before it was modified by LANL's response to EPA. This response addresses NMED's comments and, where pertinent, discusses EPA's NOD and LANL's response and subsequent actions that have transpired since the submittal of the RFI Report.

GENERAL COMMENT

General Comment 1: *LANL shall ensure that seals have been emplaced such that flow into and out of all inactive septic tank PRSs has been eliminated. Each inactive septic tank should be removed or, at a minimum, be backfilled with a solid, non-porous material (such as Flowcrete). However, any action other than removal of the tank and associated lines may not be considered in the future as a final disposition of the PRS.*

LANL Response

LANL has taken action to ensure that flow into and out of septic tanks at PRSs 36-003(a) and 36-003(b) has been eliminated. The tank contents were removed and the interiors pressure washed. Subsequently, the tanks were filled with Flowcrete which effectively sealed the inlet and outlet lines. PRSs 36-003(a) and 36-003(b) were filled with Flowcrete on September 20, 1995 and September 23, 1996, respectively. These remedial actions are documented in the Expedited Cleanup Completion Report for PRS 36-003(a), January 1996, and the Voluntary Corrective Action Completion Report for PRS 36-003(b), September 1996.

SPECIFIC COMMENTS

Specific Comment 1: *36-003(a): LANL must indicate if the Expedited Cleanup (EC) Plan dated June 1996 has been implemented, and if so, LANL must submit the EC Completion Report.*

LANL Response

The Expedited Cleanup (EC) Plan was completed and submitted to EPA Region 6 in June 1995 (NMED's comment erroneously identifies the date of the plan as June 1996). The remedial activities were conducted during July and August 1995. The EC Completion Report was submitted to DOE in January 1996. A copy of the final report has been included as Attachment 1.

Specific Comment 2: *36-003(b):*

a. *The Administrative Authority recommends that LANL perform an Interim Action to remove contaminated liquid and sludge from the interior of this PRS.*

LANL Response

A Voluntary Corrective Action (VCA) Plan was written and approved by DOE in early September, 1996. The contaminated liquid and sludge in the septic tank at PRS 36-003(b) were removed, the tank pressure washed, and the rinse water vacuum pumped on September 19, 1996 as part of the VCA. The tank was subsequently filled with Flowcrete to ensure that there would be no introduction of materials in the future. The VCA Completion Report detailing the results of the VCA activities was submitted to NMED on October 7, 1996.

b. *Sample locations indicated on Figure 1-8 appear to be inappropriately located (i.e., approximately 50 feet west of the outfall drainage area). LANL must resample immediately below the outfall.*

LANL Response

LANL revised the figure and submitted it under the Response to EPA NOD for RFI Report, PRSs 36-003(a), 36-003(b), 36-005, and C-36-003, February, 27, 1996. The original figure incorrectly indicated the location of the outfall. Changes were made to the figure to correctly show the position of the outfall pipe and the respective sample locations. Historical research (e.g., review of engineering drawings, personnel interviews), geomorphic surveys (review of aerial photographs, 2 ft contours maps, and site tours) and geophysical surveys [electromagnetic (EM) survey] were conducted at the site in order to locate the outfall before sample locations were selected. The results of the EM survey identified an area that was interpreted as a utility line in the location that historical research indicated as the probable area of the outfall. The approximated end of the pipe (as determined by the EM survey) was believed accurate to within a few feet of the outfall. Using the results of the geomorphic survey, the landforms and surface processes were studied to identify the probable migration pathway of potential contaminants from the outfall. Samples were collected from the identified drainage pathway. Samples were collected from the surface soil (0-6 in.) along the drainage pathway approximately 30-40 ft below the outfall to determine potential contaminant migration from the outfall. During the preparation of this response, it was noted that the analytical results were not accurately presented at certain sample locations in the figure submitted February 27, 1996. Corrections have now been made to the revised figure. The revised figure is included in this response as Attachment 2.

c. *LANL must indicate the distance from this PRS to be wetland indicated in Section 4.2.3.4, page 4-11.*

LANL Response

Section 4.2.3.4 Ecotoxicological Screening Assessment of the RFI Report, made a general statement regarding wetlands. The statement implies that wetlands are located near to and downgradient from the PRS. However, a representative from LANL's Ecology Group (ESH-20), indicated that during 1992 to 1995, ESH-20 of LANL conducted wetland surveys within LANL

boundaries to identify wetlands not shown in the National Wetlands Inventory. No wetlands were identified in Potrillo Canyon which is the canyon into which PRS 36-003(b) discharged. Based on this survey and the National Wetland Inventory, the nearest wetland to PRS 36-003(b) is located at the confluence of Potrillo Canyon and Water Canyon, approximately 4.9 miles southeast and down-canyon from the site. The National Wetland Inventory map generated by FIMAD has been included as Attachment 3.

d. *As part of its response to this request for supplemental information, LANL shall provide any analytical results pertaining to the drainageway extending from the PRS outfall to the wetland.*

LANL Response

Analytical results collected by the Environmental Restoration Project and pertaining to the drainageway extending from the PRS outfall to the nearest wetland (approximately 4.9 miles southeast of the site) are limited to 16 sample locations. Four sample locations are associated with the outfall/drainage pathway at PRS36-003(b), four sample locations are associated with Surface Disposal Area at PRS 36-006, and the remaining eight samples are associated with sediment samples up-canyon and down-canyon from the Lower Slobbovia Firing Site. The sample locations are shown on the map in Attachment 3 and the analytical results are provided in Attachment 4 .

Specific Comment 3: *36-005: LANL must perform additional characterization activities (Phase II) based on Phase I sampling results. The Phase II Sampling and Analysis Plan (SAP) presented in the RFI Report is inadequate. A few of the deficiencies noted are as follows: inadequate sampling depths, inappropriate (onsite) analytical laboratory proposed, exclusion of a Phase II sampling location map, etc. LANL must revise and resubmit the Phase II SAP for this potential release site (PRS).*

LANL Response

The deficiencies outlined by NMED pertain to the Phase II SAP presented in the RFI Report dated September 1995, and not to the SAP submitted in response to EPA's NOD, dated February 1996. Response to those deficiencies outlined by NMED of the Phase II SAP are discussed below. Included in this response is a chronology of the communications and actions as they relate to PRS 36-005 which have taken place since the submittal of the RFI Report.

- **LANL believes sampling within the weathered tuff is adequate to determine if subsurface contamination is present. Had solvents penetrated into the subsurface, samples collected from this compact material would have reported detectable concentrations of solvents bound to soil surfaces.**

- **The use of the on-site laboratory would only have been utilized, as stated in the sample and analysis plan, if a facility with adequate QA/QC documentation and procedures was available. This did not materialize and therefore only off-site laboratories were used.**

- **A Phase II sampling location map was presented in Appendix B of the RFI Report as Figure B-1.**

EPA Region 6 reviewed the proposed Phase II Sampling Plan for 36-005 presented in the RFI Report for PRSs 36-003(a), 36-003(b), 36-005 and C36-003, September 1995. EPA submitted an NOD on the Report to LANL in November 1995 which indicated only limited sampling was likely required at PRS 36-005 because the VOC levels detected during the initial Phase I sampling were very low (0.02 to 0.5 mg/kg) and no other COPCs were identified by the screening assessment. Had the concentrations of VOCs detected been above screening action levels (SALs), an extensive

Phase II sampling effort to define the nature and extent of the contamination would have been imperative. However, in light of EPA's comment and the trace concentrations reported, LANL reconsidered the approach presented in the RFI report. A more appropriate strategy was developed which included a continuation of the Phase I sampling effort to determine if subsurface VOC contamination was present , followed by a Phase II effort should subsurface contamination indicate the need for additional surveying. As part of LANL's response (dated February 1996), to the EPA NOD the sampling plan was revised to reflect a continuation of the Phase I sampling, followed by Phase II sampling if necessary. The continuation of the Phase I sampling at PRS 36-005 was conducted in March 1997 in accordance with the plan submitted to the EPA. The continuation of Phase I sampling involved the collection of subsurface samples at selected locations where the maximum concentrations of the VOCs reported in the RFI Report were found. Samples were collected at each location at or below the soil/tuff interface (12 to 22 inches). An additional deeper sample (39 - 40 inches) was collected at one location because of an elevated Photo Ionization Detector (PID) reading measured in the field. The analytical results for these samples showed only one low concentration of acetone (0.003 mg/kg), which is a common laboratory contaminant. No other VOCs were detected in the samples. Because the results of the additional Phase I sampling showed that subsurface contamination is not present, LANL does not believe it is necessary to resubmit a revised Phase II sampling plan. The results of the additional Phase I sampling and the recommendation for no further action at the site are presented in an Addendum to the RFI Report for PRS 36-005, now in preparation. Depending on LANL's ER budget and prioritization of this PRS, the addendum will likely be submitted in FY 98.

Specific Comment 4: *C-36-003:*

a. *LANL must retain the polyaromatic hydrocarbons (PAHs) which failed the screening assessment as contaminants of potential concern. Elevated concentrations of PAHs identified in sample AAB1913 exceed concentrations anticipated from asphalted areas such as parking lots or roofing materials and are indicative of contaminants directly related to Laboratory processes.*

LANL Response

Available information (RFI workplan, personnel interviews, and engineering drawings) indicates that no Laboratory activities could be a source of the reported PAHs. Current and past operations at Building TA- 36-1 includes administrative offices, and a small machine shop, which did not discharge through PRS C-36-003, and a photo-processing laboratory. There is no evidence that these operations discharged PAHs. LANL intends to continue to research current and historical site operations to determine if other Laboratory activities could potentially be the sources of the PAHs. Additional information will be incorporated into the Phase II SAP (see specific response to specific comment 4b).

The outfall area receives runoff from the tar and gravel roof of Building TA 36-1, as well as the asphalt parking area behind the building. LANL believes that these areas are the sources of the PAHs detected in the soil samples in the drainage. The PRS is situated on a steeply sloping canyon wall, the surface of which has small ledges likely composed of boulders over which a thick vegetative mat of pine needles, vines, etc. have accumulated. These ledges could potentially trap debris, including pieces of asphalt transported by runoff from the asphalt parking area. This situation would account for the relatively high levels of PAHs detected in sample AAB 1913 and the lower PAH concentrations in the samples collected above and below this sample location (AAB 1911, 1912, and 1914).

b. *The Phase II SAP presented in the RFI Report is inadequate. A few of the deficiencies noted are as follows: inadequate sampling depths, inappropriate use of PCB field screening kit, lack of proper analyses (metals, volatile organic compounds and polychlorinated biphenyls), etc. LANL must revised and resubmit the Phase II SAP for this PRS.*

LANL Response

A revised Phase II Sampling and Analysis Plan for PRS C-36-003 that includes analysis for volatile organic compounds (VOCs), polychlorinated biphenyl's (PCBs), and metals will be submitted to NMED. Depending on LANL's ER budget and prioritization of this PRS, the Phase II SAP will be submitted in FY 98. Additional sampling for SVOCs will be incorporated in the revised sampling plan to further define the nature and extent of the PAHs.

c. *LANL shall ensure that all Phase II sampling locations are clearly identified and enumerated on the sample location map included in the Phase II SAP.*

LANL Response

As part of the revised Phase II Sampling and Analysis Plan for PRS C-36-003, a sample location map that clearly identifies the proposed sample locations will be included.

ATTACHMENT 1