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HswA CANL 4/1129/35



Date: June 24, 1999
 Refer to: EM/ER:99-158

(K)

Mr. James Bearzi
 NMED-HRMB
 P.O. Box 26110
 Santa Fe, NM 87502

**SUBJECT: RESPONSE TO RSI FOR THE RFI REPORT FOR PRSs
 35-003(a, b, c, and n)**

Dear Mr. Bearzi:

Enclosed is the Los Alamos National Laboratory Environmental Restoration (ER) Project's response to your Request for Supplemental Information (RSI) for the Resource Conservation and Recovery Act Facility Investigation (RFI) Report for Potential Release Site (PRSs) 35-003(a, b, c, and n)(LA-UR-98-3825 and EM/ER:98-395). All of these PRSs are listed on Table A of the Hazardous and Solid Waste Amendments Module of the Laboratory's Hazardous Waste Facility Permit. The RSI was received at the ER Project Office on May 28, 1999.

If you have any questions or concerns please feel free to call Dave McInroy at (505) 667-0819 or Joe Mose at (505) 667-5808.

Sincerely,

Julie A. Canepa, Program Manager
 LANL/ER Project

Sincerely,

Theodore J. Taylor, Program Manager
 DOE/LAAO

JC/TT/VR/dm



TC

Mr. James Bearzi
EM/ER:99-158

-2-

June 24, 1999

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**RESPONSE TO REQUEST FOR SUPPLEMENTAL INFORMATION (RSI)
FOR RFI REPORT FOR POTENTIAL RELEASE SITES (PRS) 35-003(a, b, c, n)**

This document responds to a letter regarding "Request for Supplemental Information for 35-003(a,b,c,n) RFI report" dated May 17, 1999, from the New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) to the Los Alamos National Laboratory (LANL) Environmental Restoration (ER) Project. To facilitate review of this response, NMED's comments are included verbatim below. The comments are divided into general and specific categories as presented in the letter. LANL's responses follow each NMED comment. For clarification, the September 1998 RFI report for PRSs 35-003(a, b, c, and n), which is the subject of this RSI, is referred to in this document as "the RFI report".

NMED General Comment:

1. The RFI did not follow the EPA-approved work plan. "RFI Work Plan for Operable Unit 1129" (LANL 1992, ER ID 07666): none of the sample locations in this investigation are compatible with the proposed sample locations in the work plan.

LANL did not sample the former Phase Separator Pit (PSP) as was planned in the Work Plan. LANL should explain why sampling was not performed at the PSP.

LANL Response:

To aid in the response to this comment, please refer to Appendix G of the RFI report and its attachments (September, 1998). A SAP for PRSs 35-003(a, b, c, and n) was submitted to the EPA in the "RFI Work Plan for Operable Unit (OU)1129" (LANL 1992, 07666). In the OU1129 Work Plan SAP the assumption is that the physical structures had been removed from the site and the site had been backfilled; with this assumption, sampling was proposed to be done by drilling boreholes at three locations. These locations were to be selected using a random number generator from a 20- by 20-ft grid pattern. At each borehole, samples were to be collected from the surface and from the last interval (a maximum depth of 30 ft). Also using a random number-generator, an additional two intermediate-depth intervals were to be selected for sampling. Given the assumption in the work plan that the structures had been removed and the site restored, the surface interval and the two intermediate interval samples were to have been collected from clean fill. The SAP for SWMUs 35-003(a, b, c, and n) was noted to be deficient during the Environmental Protection Agency (EPA) review of the work plan [The specific comment, deficiency no. 9, is found in an attachment to Appendix G of the RFI report, a copy of the EPA notice of deficiency (NOD)]. The EPA NOD states in part, "Boreholes should be located based on best judgment rather than randomly from a grid. If the pit and tanks were removed in 1991, it should have been determined at that time whether there was any leakage. If this removal has not been conducted then boreholes should be placed next to the pits where the connection with the inflow and outflow lines occurs. Additional boreholes may be required for the pit. Can the pit be inspected for leaks?"

The Laboratory's final response to the NOD was sent to EPA on September 30, 1993 (also found as an attachment to appendix G of the RFI report). At that time, a delay of transmittal of the formal SAP was requested so that the RFI could be performed during decommissioning of the structures associated with these PRSs allowing pits and tanks to be inspected and samples to be collected directly beneath the structures.

A Voluntary Corrective Action (VCA) Plan (Enclosure 1) that describes sampling and cleanup activities that could potentially be done during decommissioning activities was developed and submitted to DOE in March of 1996 (LANL 1996, 53733). The VCA plan was transmitted to NMED-HRMB on April 4, 1996 (Transmittal letter EM/ER: 96-173). This VCA plan included a SAP for collection of RFI data during decommissioning. The DOE ER Program Manager granted approval for implementing this SAP on March 28, 1996 (VCA checklist authorization form, EM/ER: 96-134, attached to Appendix G of the RFI report). The sampling proposed in the VCA plan is more appropriate to the characterization of the site than the three randomly-located boreholes proposed in the OU 1129 work plan. Coordination of sampling and cleanup activities with decommissioning activities was done. It allowed for first-hand inspections of the structures for integrity as well as the collection of media immediately below the structures of interest, including the phase separator pit (PSP), rather than by random selection. The response to Comment No. 2 (below) provides additional details on the sampling strategy described in the VCA plan.

NMED General Comment:

2. The RFI emphasized the East side of Phase Separator Pit. Please explain why no samples were collected from the West side of the PSP.

LANL Response:

In their NOD the EPA stated that "...If removal has not been conducted then boreholes should be placed next to the pits where the connection with the inflow and outflow lines occurs. Additional boreholes may be required for the pit. Can the pit be inspected for leaks?"

The sampling strategy in the VCA plan explains that the selection of the sampling locations was to be biased towards areas with evidence of liquid releases (staining in the bedding material, breaches in the Phase separator pit (PSP) or tanks, or high gross radioactivity) discovered during decommissioning activities. In the PSP area, an additional sampling bias was proposed for the locations of the sumps and the drain trench because these structures represent low points in the PSP floor where any incidental releases might be expected to be found. The floor of the PSP sloped to the east and emptied into a gutter drain that extended the length of the floor along the east wall of the pit (Please refer to Figures 2.2-2 and 2.2-3 of the RFI report). The gutter drain, which collected any spills in the pit, sloped to the north and discharged into a sump located at the northeast corner of the pit. The floor of the pit was approximately 12 ft below ground-level except at the northeast corner. In that corner, a deeper pit (about 9 ft by 12 ft) housed the caustic treatment tank, the floor of which was about 22 ft below ground level (Figure 2.2-3 of the RFI report). A sump in the northeast corner of the caustic treatment tank pit drained the caustic treatment pit area. The proposed sample medium was the fine-grained bedding material or underlying tuff. Fundamental to the conceptual model for the site is that a release from the PSP or the tanks would have infiltrated the materials beneath the structures and would have been retained in sufficient concentrations as to provide evidence of a release. Samples were collected at the east side of the PSP, the area that was most likely to have contaminants if these releases had occurred.

NMED Specific Comment:

3. Section 2.2.1 Site Description: Please clarify which of the following descriptions most accurately reflect site conditions:

Page 2-2 (2nd paragraph) states. "PRSs 35-003(a,b, and c) are the former sites of three underground **stainless steel** holding tanks, structure **Nos. TA-35-4, -5, and -6**,... Each of these holding tanks was about 5 ft in diameter and 9 ft tall, with a **1,300-gal.** Capacity."

Page 3-76 (4th paragraph) of the OU 1129 RFI Work Plan) states, "The phase separator pit (TA-35-3: SWMU No.35-003[n]) and three **600-gal.** concrete storage vaults (TA-35-4,-5,-6; SWMU No. 35-003 [a,b, and c],....".

Page 7-35 (last paragraph) of the OU 1129 RFI Work Plan) states. "This site consists of the phase separator pit (SWMU No. 35-003[n]) and three **600 gal.** reinforced-concrete underground storage tanks (USTs) (SWMU Nos. 35-003a,b, and c)."

LANL Response:

The description presented in the RFI report is the most accurate because it is based on actual observations and inspections during decommissioning activities in 1996. The decommissioning activities revealed three stainless steel tanks (with 1,300-gal. capacity each). The information presented in the work plan is incorrect.