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**State of New Mexico
ENVIRONMENT DEPARTMENT**



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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

March 19, 2004

Mr. G. Pete Nanos, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, New Mexico 87545

Mr. David Gregory, Project Manager
Los Alamos Site Office
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, New Mexico 87544

**SUBJECT: NOTICE OF DEFICIENCY FOR THE COMPLETION REPORT FOR
THE VOLUNTARY CORRECTIVE ACTION AT SWMUS 0-030(L), 0-
033(A), AND 0-030(A) AND AOCs 0-004, 0-010(B), 0-033(B), AND
0-029(A,B,C)
LOS ALAMOS NATIONAL LABORATORY
EPA ID# NM0890010515
NMED TASK # LANL-03-013**



Dear Messrs. Nanos and Gregory:

The New Mexico Environment Department (NMED) has completed its review of the Department of Energy and the Los Alamos National Laboratory's (collectively, the Permittees) document titled *Completion Report for the VCA at SWMUs 0-030(a), 0-030(b)-00, and 0-033(a) and AOCs 0-029(a,b,c) and 0-010(a,b) and for the IA at SWMU 21-021-99 at Los Alamos National Laboratory*, submitted September 30, 2003 and referenced by LA-UR-03-4326 (ER2003-0445).

NMED's technical review of the document was conducted in accordance with 20.4.2.200.A(7) NMAC and 20.4.1 NMAC. NMED is providing comments at this time for the sites that are not part of the proposed land transfer parcel A-8. The sites included in the review are SWMUs 0-030(l), 0-033(a), and 0-030(a) and AOCs 0-004, 0-010(b), 0-033(b), and 0-029(a,b,c). NMED cannot agree with the requests for No Further Action (NFA) for the majority of these sites at this

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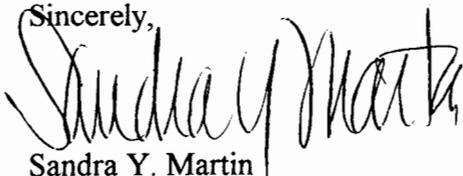
time. The work conducted by the Permittees as part of the voluntary corrective action does not meet NMED's requirements for the investigation of the subject SWMUs and AOCs. NMED is consequently issuing this Notice of Deficiency (NOD) for the completion report. NMED previously provided comments on the remaining sites in this document (AOC 0-010(a), SWMUs 0-030(b,m), and part of the SWMU 21-021) to the Permittees in a letter dated December 30, 2003. The Permittees must respond to this NOD and to the previously provided comments within thirty (30) days of receipt of this letter.

Further investigation, assessment, or remediation is needed at AOCs 0-004, 0-033(b), 0-029(b), and 0-029(c) and SWMUs 0-033(a), 0-030(l) and 0-030(a) in order for NMED to consider proceeding with the NFA request. The attachment to this letter includes NMED's specific comments for these sites and details regarding the deficiencies in the investigation and/or remediation of the subject sites.

NMED agrees with the Permittees that no action is needed at this time at AOCs 0-010(b) and 0-029(a), and SWMU 0-030(a). However, the Permittees will be required to notify NMED if any evidence of contamination at these sites is discovered during any future activities at the sites. No additional investigation is needed at this time at SWMU 0-033(a). However, a proper risk screening assessment has not been conducted for the site. NMED requires further investigation and/or remediation at the surrounding sites (AOCs 0-004 and 0-033(b) and SWMU 0-030(l)) and additional risk screening after that additional work is satisfactorily completed. The risk screening for AOCs 0-004 and 0-033(b) and SWMU 0-030(l) must include SWMU 0-033(a).

If you have any questions regarding these comments, please contact Darlene Goering of my staff at (505) 428-2548.

Sincerely,



Sandra Y. Martin

Acting Chief

Hazardous Waste Bureau

SYM:cc

cc: C. Voorhees, NMED DOE-OB
S. Yanicak, NMED DOE-OB, MS J993
L. King, EPA, 6PD-N

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T. Rust, RRES-RS, MS M992

D. McInroy, RRES-RS, MS M992

J. Vozella, DOE OLASO, MS A316

B. Ramsey, LANL, RRES-DO, MS J591

N. Quintana, LANL, RRES-ER, MS M992

File: Reading and LANL '04

Attachment

Completion Report for the VCA at SWMUs 0-030(a), 0-030(b)-00, and 0-033(a), and AOCs 0-029(a,b,c), and 0-010(a,b), and for the IA at SWMU 21-021-99

These comments are provided for SWMUs 0-030(l), 0-033(a), 0-030(a), and AOCs 0-004, 0-010(b), 0-033(b), and 0-029(a,b,c). SWMU 0-030(l) and AOCs 0-004 and 0-033(b) are part of consolidated unit 0-030(b)-00.

Comment 1

NMED cannot approve the Permittees' request for NFA for AOC 0-004 at this time because the extent of contamination at the site has not been adequately determined and the ecological risk screening assessment was biased. The highest DDT detection was at the sample location 00-04223 at the far southeast corner of the site. Mercury was also detected in the tuff at a depth of 5-6 feet at this location. Appendix F of this completion report notes that contaminants (specifically DDD, DDE, and DDT) are concentrated in the drainages, there are dirt channels at the end of the man-made drainages, and drainage into Los Alamos Canyon is evident. Consequently, NMED is concerned that contaminants may be migrating from the site or into Los Alamos Canyon.

The Permittees must either remove the area of elevated concentrations of DDE/DDT at the southeast corner of the site or conduct additional sampling to determine the extent of contamination associated with the site. Based on the risk screening conducted for the site, removal of the surface soil within the drainage channel near the edge of the mesa (in the vicinity of sample locations 00-04223 and 00-04224) appears to be the most efficient corrective action alternative for the site. The ecological risk screening excluded this location from consideration in order to enable the site to pass the screening. If the Permittees propose to conduct additional sampling instead of site remediation, then shallow soil samples (0-1 feet) must be collected down gradient of the boundaries of the site where elevated concentrations of contaminants were detected, specifically at the southeast corner of the site. After conducting the required remediation or additional investigation at the site, then it will be appropriate to conduct a risk screening assessment for the site.

Comment 2

NMED cannot approve the Permittees' request for NFA for AOC 0-033(b) at this time because the extent of contamination at the site has not been determined and the ecological risk screening assessment was biased. The 2002 VCA plan states that contamination is not expected above 2 feet or below 5 feet. However, all of the samples were collected from 1-1.5 feet. To properly investigate the site, the Permittees must collect samples between 2 and 5 feet, the depth at which the contaminants are likely to be found. The Permittees must also consider soil removal in the area of elevated concentrations of contaminants in the central

portion of the site (in the vicinity of sample locations 00-02-19623 through 00-02-19627) as a corrective action for the site. The ecological risk screening excluded the central location of this site from consideration in order to enable the site to pass the screening. After conducting the required additional investigation and/or remediation at the site, then it will be appropriate to conduct a risk screening assessment for the site.

Comment 3

NMED cannot approve the Permittees' request for NFA for SWMU 0-030(1) at this time because the extent of contamination at the site has not been determined. The two planned surface outfall samples were not collected. The 2002 VCA Plan states that these samples are necessary for determining the nature and extent of contamination. The Permittees' stated reasons for not collecting samples (the presence of welded tuff at the surface and the lack of access due to the existence of a fence) are not acceptable to NMED. Effluent discharges likely eroded the soil at the outfall, leaving tuff at the surface. Samples must be collected down gradient of the outfall to determine the extent of contamination at the site and whether contaminants have migrated into Los Alamos Canyon. After conducting the required additional investigation at the site, then it will be appropriate to conduct a risk screening assessment for the site.

Comment 4

NMED does not require further investigation of AOC 0-010(b) at this time and grants the Permittees' request for No Further Action based on NFA Criterion 2. However, if evidence of contamination or the existence of a disposal area/landfill is discovered at this site during future excavation, construction, or other activities, then NMED will require the Permittees to notify NMED and investigate the site.

Comment 5

NMED does not require further investigation of SWMU 0-033(a) at this time. It is acknowledged that the NMED's UST Bureau approved the request for NFA for the site on January 23, 1996. NMED also notes that the samples collected from this site were analyzed in LANL's mobile lab for total TPH (Method 418.1), while proper confirmatory samples should have been analyzed in an off-site analytical lab for TPH/diesel range organics (Method 8015M).

Although no additional investigation is presently needed at this site, NMED cannot concur with the NFA request for this site until a proper risk screening assessment has been conducted. The Permittees' January 6, 2003 response to NMED's Request for Supplemental Information for the 2002 VCA plan states that, "... potential ecological exposure will be addressed in detail, as appropriate, in the final VCA Report." The 1996 VCA Completion Report for this SWMU states that a "larger ecological exposure unit" will be considered once all the information is obtained from the surrounding PRSs." However, based on the

information provided in the 2003 completion report, the area around SWMU 0-033(a) was not considered in the risk screening process. NMED requires further investigation and/or remediation at the surrounding sites (refer to Comments 1, 2, and 3 for AOCs 0-004 and 0-033(b) and SWMU 0-030(I)) and additional risk screening after that additional work is satisfactorily completed. The risk screening for AOCs 0-004 and 0-033(b) and SWMU 0-030(I) must include SWMU 0-033(a). In addition, if evidence of contamination is discovered during future excavation, construction, or other activities at SWMU 0-033(a), then NMED will require the Permittees to notify NMED and investigate the site.

Comment 6

NMED does not require further investigation of AOC 0-029(a) at this time and grants the Permittees' request for NFA based on NFA Criterion 5. However, if evidence of PCBs or other contamination is discovered at this site during future excavation, construction, or other activities, then NMED will require the Permittees to notify NMED and investigate the site.

Comment 7

NMED cannot approve the Permittees' request for NFA for AOC 0-029(b) at this time because the extent of contamination at the site has not been adequately determined. According to Table C-5.0-3 in Appendix C, the samples collected during the 2002 VCA from locations 00-02-20063 through 00-02-20072 and from location 00-02-20080 were extracted outside the appropriate holding times. The accuracy and validity of this data is questionable. These samples represent the data from the entire southern and eastern portions of the site. Consequently, NMED requires the Permittees to collect additional samples from these locations. Proper QA/QC procedures, including the requirement to meet appropriate holding times, must be followed.

In addition, NMED cannot assess the data as it is currently presented. The two sample location maps in the document (Figure 4.3-2: previous investigation sample locations and Figure 4.4-2: RFI and VCA sample locations) do not match. Neither the coordinates of the AOC nor the shape of the AOC are the same on the two figures. The Permittees must provide maps with accurate sample collection locations to NMED. The Permittees must provide the coordinates of the sample locations and the structure locations (pump house and transformer). NMED cannot determine from the information presented in the report whether samples were collected in the proper locations.

After conducting the required additional investigation at the site, and after providing the required information to NMED, then it will be appropriate to conduct a risk screening assessment for the site.

Comment 8

NMED cannot approve the Permittees' request for NFA for AOC 0-029(c) at this time because the extent of contamination at the site has not been adequately determined. No samples were collected during the 2002 VCA from the northern portion of the site. NMED requires the Permittees to collect samples from this part of the site. Proper QA/QC procedures, including the requirement to meet appropriate holding times, must be followed.

In addition, NMED cannot assess the data as it is currently presented. The two sample location maps in the document (Figure 4.3-3: previous investigation sample locations and Figure 4.4-3: RFI and VCA sample locations) do not match. Neither the coordinates of the AOC nor the shape of the AOC are the same on the two figures. The transformer is not located in the same place in relation to the pump house on the two figures. In Figure 4.3-3, the transformer is located northwest of the pump house, but in Figure 4.4-3 the transformer is located south of the pump house. The Permittees must provide maps with accurate sample collection locations to NMED. The Permittees must provide the coordinates of the sample locations and the structure locations (pump house and transformer). NMED cannot determine from the information presented in the report whether samples were collected in the proper locations.

After conducting the required additional investigation at the site, and after providing the required information to NMED, then it will be appropriate to conduct a risk screening assessment for the site.

Comment 9

NMED does not require further investigation of SWMU 0-030(a) at this time and grants the Permittees' request for No Further Action based on NFA Criterion 5. However, if evidence of contamination is discovered at this site during future excavation, construction, or other activities, then NMED will require the Permittees to notify NMED and investigate the site.