



IRM-RMMSO
Official Correspondence Form

Name:	U1101801	
Title:	Notice of Disapproval Investigation Report Potrillo and Fence Canyons Aggregate Area	
Date Received:	9/26/2011	
Addressee Name:	Michael Graham, ADEP	
Originator:	John E. Kieling, LASO	
Action Item Description:	Respond to comments and submit revised report.	
Action Due Date:	10/21/2011	
Responsible for Action:	Search <u>Graham, Michael J</u>	
Responsible Office:	ADEP	
Distribution:	<div>Michael Graham</div> <div>Charles McMillan</div> <div>Isaac RichardsonIII</div> <div>Richard Marquez</div> <div>Paul Henry</div> <div>James Cantwell</div> <div>Deborah K. Woitte</div> <div>William Alexander</div> <div>Phoebe K. Suina</div> <div>Anthony R. Grieggs</div> <div>Tina Sandoval</div> <div>Scotty Jones</div>	

U1101801



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Acting Deputy Secretary

EP2011-5442

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 21, 2011

George J. Rael, Assistant Manager
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**RE: NOTICE OF DISAPPROVAL
INVESTIGATION REPORT
POTRILLO AND FENCE CANYONS AGGREGATE AREA
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-11-043**

Dear Messrs. Rael and Graham:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security, LLC (LANS) (collectively, the Permittees) *Investigation Report for Potrillo and Fence Canyons Aggregate Area* (IR), dated May 2011 and referenced by LA-UR-11-2608/EP2011-0164. NMED hereby issues this notice of disapproval with the following comments.

General Comments:

1. Dioxins and furans were detected at several sites at Technical Area (TA) -15 and TA-36. As directed by NMED in the Direction to Modify letter issued for Potrillo and Fence Canyons (April 14, 2011), the Permittees must evaluate the need for additional sampling

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for dioxins and furans in Potrillo and Fence Canyons. Dioxins and furans were not included in the previous investigations conducted at Potrillo and Fence Canyons.

2. For each solid waste management unit (SWMU) and area of concern (AOC) included in the IR, tables are provided that report concentrations of inorganic chemicals detected above background values (BVs), detected organic chemicals, and radionuclides detected or detected above BVs/fallout values (FVs). The BVs are different for each media type (e.g., soil, tuff, sediment) and in general tuff BVs tend to be lower than the soil/fill BVs. While discussing the nature and extent of contamination, the Permittees consider the vertical extent of contamination defined if concentrations decrease with depth at a particular location regardless of whether these values are above or below the media specific BVs. This determination is not always apparent from the manner that the data is presented in the tables.

For example at SWMU 15-002, aluminum was detected above the tuff BV at 11,800 mg/kg at location 15-613671 (6-7 ft) but was not detected above the soil BV in two samples collected from shallower depths (0-1- ft and 3-4 ft). Table 6.2-2 only provides the concentration for the tuff sample because it was detected above the BV; the shallower samples are denoted by a dash which gives the appearance of concentrations increasing with depth. The text states that the vertical extent is defined at this location because the concentrations in shallower samples were greater than the concentrations detected in the deeper samples. This information is not included in the table. Instead the reviewer is directed to compiled data in Appendix G to find detected concentrations for soil samples that were detected below BVs. The data files provided in Appendix G are 56 spreadsheets labeled by event numbers rather than SWMU or AOC numbers. The IR includes 27 SWMUS/AOCs. The reviewer would have to go through all individual files to find a particular data point. It makes the data review process excessively time consuming. The Permittees must provide tables in the same format as the summary tables that include all detected concentrations whether above or below the BVs/FVs. These tables may be submitted only in an electronic format and included in an appendix along with other analytical data.

Specific Comments:

1. Section 5.0, Data Review Methodology, page 15:

Permittees Statement: For dioxins/furans, if the site data consist exclusively of the hepta- and octa- congeners, then the presence of these congeners does not reflect a release of dioxins and furans from the site. EPA's exposure and human health reassessment of 2,3,7,8-TCDD (tetrachlorodibenzodioxin) (http://www.epa.gov/ncea/pdfs/dioxin/nas-review/pdfs/part1_vol2/dioxin_pt1_vol2_ch03_dec2003.pdf) indicates these congeners predominate in rural and urban background soil. EPA further states that concentrations of the hepta- and octa- congeners are generally higher than the tetra-, penta-, and hexacongeners in background soil. The lack of other detected congeners,

particularly the penta- and tetracongeners, indicates that a release associated with site activities has not occurred and the observed results are indicative of background conditions. Therefore, no additional sampling and analysis for dioxins/furans are warranted.

NMED Comment: NMED acknowledges EPA study, but generalized regional background levels have not been deemed appropriate for use to eliminate a contaminant as potentially site related, rather NMED has always required facilities to collect site-specific data. However, additional sampling may not be required if there is a lack of site history to indicate a source for dioxins/furans and there are a minimal number of detections, where all detections are below risk-based levels.

The Permittees must collect some background samples to verify their conclusion that these detections are attributable to background. There is no background data to evaluate the magnitude of the detections, thus the dioxins and furans must be treated as contaminants of potential concern.

2. Section 6.3.4.1, Soil, Rock, and Sediment Sampling, page 26:

Permittees Statement: The landfill boundary was defined and excavated in accordance with the approved work plan (LANL 2009, 106657.8; NMED 2009, 106677). When excavated, the actual boundaries of MDA [Material Disposal Area] N were approximately 170 ft long \times 50 ft \times 4 to 5 ft deep.

NMED Comment: During 2010 investigations, the buried waste at solid waste management unit (SWMU) 15-007(a), was found in an area that was wider and shorter than the area anticipated in the work plan. To collect appropriate data, the proposed sampling locations were modified based on the actual dimensions of the landfill. However, the Permittees did not revise the associated figures to depict the actual landfill boundary so that the modified sampling locations could be evaluated. The manner in which the current figures depict sampling locations indicates that the extent of contamination is not defined for the site. All associated figures must be revised to indicate the actual limits of excavation.

3. Section 6.7.4.4, Spatial Distribution of Contamination, page 47:

Permittees Statement: Contaminant distributions were evaluated primarily to determine the spatial distribution of contaminants, what contaminants have been dispersed, and whether they are migrating off-site. Vertical distribution is not considered for samples collected in drainages downgradient of the site in sediment catchment areas where vertical mixing may occur.

NMED Comment: The meaning of this statement is not clear. Since the objective of the investigation was not to determine the full nature and extent of contamination but to evaluate the general spatial distribution of the contaminants and whether contaminants

were migrating off site, the vertical extent of contamination must be considered when site investigations are conducted in the future.

4. Section 6.7.4.4, Spatial Distribution of Contamination, Inorganic Chemicals, pages 47-51:

- A total of 159 samples (97 soil, 50 tuff, and 12 sediment) were analyzed for inorganic chemicals. Table 6.7-2 reports analytical results for inorganic chemicals detected above background values at SWMU 15-004(f). Analytical data for samples collected from locations 15-613385, 15-613386, 15-613387, 15-613388, and 15-613389 were included in the Table 6.7-2, but was not included in the discussion of spatial distribution of contamination. Revise the discussion in the text to include all data.
- The Permittees state that barium, cadmium, mercury, potassium, and sodium concentrations decreased with depth at location 15-02182. However, Table 6.7-1 indicates that a sample was collected from only one depth (1.5-2 ft) at location 15-02182. Resolve the discrepancy and revise the text accordingly.
- In addition to the locations mentioned in the text, selenium concentrations also increased with depth at locations 15-613384, 15-613386, 15-613387, 15-613388, and 15-613389 and remained the same at location 15-613385 (*See* Table 6.7-2). Revise the text accordingly.
- Zinc concentrations decreased with depth at location 15-02246, not 15-02264. Correct the typographical error.

5. Section 6.7.4.4, Spatial Distribution of Contamination, Radionuclides, pages 51-52:

- A total of 141 samples (79 soil, 50 tuff, and 12 sediment) were analyzed for isotopic uranium. Table 6.7-4 reports analytical results for radionuclides detected or detected above background/fallout values at SWMU 15-004(f). Analytical data for samples collected from locations 15-613385, 15-613386, 15-613387, 15-613388, and 15-613389 in the drainage were not included in the discussion of spatial distribution of contamination. Revise the discussion to include all data.
- According to the text, 18 samples from 18 locations were analyzed for gamma-emitting radionuclides. Table 6.7-1 also indicates that 18 samples were analyzed by gamma spectroscopy. However, Table 6.7-4 indicates that only two samples from two locations were analyzed for cesium-137. In addition, the text states that cesium-137 activities decreased with depth and downgradient in Potrillo Canyon Reach PO-1. Since samples were collected only from one depth it would not be possible for the Permittees to determine that cesium-137 activity decreased with depth. Resolve the discrepancies and revise the text accordingly.

6. Section 6.8.1, Site Description and Operational History, page 54:

The text states that SWMU 15-008(a) consists of two small surface disposal areas located on the edge of Potrillo Canyon directly south of SWMU 15-004(f). Figure 6.8-1 indicates that one surface disposal area is located directly south and one is located east of SWMU 15-004(f). Resolve the discrepancy and revise the IR accordingly.

7. Section 6.8.2, Relationship to Other SWMUs and AOCs, page 55:

Permittees Statement: SWMU 15-008(a) is located south of the three inactive firing points (D, E, and F) of SWMU 15-004(f) and northwest of AOCs 15-008(f) and 36-004(3).

NMED Comment: SWMU 15-008(a) is located northwest of AOCs 15-008(f) and 36-004(e), not 36-004(3). Correct the typographical error.

8. Section 6.8.4.3, Soil, Rock, and Sediment Sampling Analytical Results, page 56:

Plates 7, 8, and 9 depict the spatial distribution of inorganic chemicals, organic chemicals, and radionuclides detected or detected above background/fallout values, respectively. The inset in the plates, showing details of SWMU 15-008(a), incorrectly depicts location of Firing Point F as Firing Point D (*See* Figure 6.7-1). Revise Plates 6, 7, and 8 to correctly label Firing Point F in the inset.

9. Section 6.8.4.4, Nature and Extent of Contamination, Inorganic Chemicals, page 59:

At SWMU 15-008(a), perchlorate concentrations increased with depth in samples collected from locations 15-613409, 15-613412, and 15-613414, rather than decreased as stated in the text. At these locations, perchlorate was not detected in soil samples (0-1 ft), but was detected in tuff samples collected from either 1-2 ft or 2-3 ft (*See* Table 6.8-2). Revise the text accordingly.

10. Section 6.9.4.4, Nature and Extent of Contamination, Inorganic Chemicals, page 64:

At AOC 15-005(b), perchlorate concentrations increased with depth in samples collected from location 15-613253, not decreased as stated in the text. Perchlorate was not detected in the sample collected from 0-1 ft, but was detected in the sample collected from 4-5 ft (*See* Table 6.9-2) indicating the concentration increased with depth. Revise the text accordingly.

11. Section 6.11.2, Relationship to Other SWMUs and AOCs, page 66:

AOC C-36-006(e) is located southeast of AOC 15-008(f), not AOC C-36-006 as stated. Correct the typographical error.

12. Section 6.11.4.4, Spatial Distribution of Contamination, Inorganic Chemicals, page 69:

Permittees Statement: Selenium has a high frequency (90%) of nondetects in the Potrillo and Fence canyons investigations data set, and DLs for these samples are above the BV, making it difficult to evaluate the sources, concentrations, and distribution of

selenium. Average selenium concentrations in fine facies sediment are above the BV in all reaches. Although these averages are affected by the high frequency of nondetects and elevated DLs, the spatial pattern of selenium does not indicate a release (LANL 2010, 111507).

NMED Comment: The detection limits (DLs) for selenium in samples collected from Potrillo and Fence Canyons are above the background values. The Permittees did not provide any explanation for the elevated detection limits (DLs) for selenium. The Permittees must retain selenium as a COPC for inclusion in risk assessments. The above statement is repeated several times throughout the document and this comment is applicable to all such statements.

13. Section 6.11.4.4, Spatial Distribution of Contamination, Radionuclides, page 70:

Permittees Statement: Uranium-234 activities in the drainage downgradient of AOC 15-008(f); however, uranium-234 was detected above the sediment BV at 3.61 pCi/g at location 15-61363 at the bottom of the drainage.

NMED Comment: The above statement is not correct. The Permittees may have intended to state "Uranium-234 activities in the drainage decreased downgradient of AOC 15-008(f); however, uranium-234 was detected above the sediment BV at 3.61 pCi/g at location 15-61363 at the bottom of the drainage." Revise the text to clarify the spatial distribution of uranium-234.

14. Section 6.11.4.4, Spatial Distribution of Contamination, Summary of Contaminant Distribution, page 71:

Permittees Statement: Concentrations of detected inorganic chemicals and organic chemicals decreased in the drainages downgradient of AOC 15-008(f) and were not detected or not detected above BVs in samples collected from the bottom of the drainage below the site.

NMED Comment: Selenium was detected above the BV at location 15-613263, which is located at the bottom of the drainage. Similarly, benzoic acid and toluene were detected at location 15-613262, which is also located at the bottom of the drainage. Revise the statement accordingly.

15. Section 6.12.4.4, Nature and Extent of Contamination, pages 74-76:

The samples were inadvertently collected from below the ground surface instead of below the structures and drainlines. The approved investigation work plan required samples to be collected below the structures and drainlines. The Permittees appropriately did not include the analytical results for those samples in the IR. However, the Permittees used historical data and the analytical results of samples collected in the drainage to discuss the nature and extent of contamination at SWMU 15-009(e). Statements are made repeatedly throughout this section that vertical and lateral extent of several chemicals is defined, which are misleading because of the incomplete data set used to make these

determinations. The discussion on nature and extent of contamination is premature when the complete data set is not available. NMED has not reviewed this section. The Permittees must revise the IR and delete the discussion on nature and extent and include it in the upcoming Phase II investigation report when sampling is complete at the site.

16. Section 6.13.4.4, Nature and Extent of Contamination, pages 79-81:

At SWMU 15-010(a), the investigation work plan assumed that the septic tank had been previously filled with sand and left in place. However, during the 2010 investigations the septic tank was not found and it was concluded that it had been previously removed. Areas of disturbed soil and tuff also indicated that the tank had been removed between 1995 and 2010. During Phase II RCRA Facility Investigation, conducted in 1997, tuff samples were collected from a depth interval of 8-9.5 ft below ground surface (bgs). The data from 1997 investigation indicated the presence of organic chemicals and also inorganic chemicals above BVs. However, during 2010 investigations, instead of collecting tuff samples from deeper intervals to define the vertical extent of contamination, the Permittees collected only fill samples from depth intervals of 4-5 ft, 6-7 ft, 7-8 ft, and 9-9.5 ft with the exception of one tuff sample collected from a depth of 7-8 ft at location 15-613431. The fill samples were most likely collected from imported backfill that is not representative of the site soils or tuff. The Permittees must collect two additional samples from each proposed location from depth intervals greater than the previous sampling depth of 8-9.5 ft bgs, to define the vertical extent of contamination. All samples must be analyzed for the suite proposed in the approved work plan.

It is not clear from the text whether the Permittees were able to locate the outfall area. The approved work plan proposed sampling beneath the inlet drainlines and in the outfall area. Apparently samples were not collected from beneath the locations of former drainlines or outfall area. The Permittees must determine the location and depth of former inlet drainlines and collect samples from locations beneath the former drainlines and from outfall area as proposed in the approved work plan. All samples must be tested for the analytical suite proposed in the work plan. Revise the IR accordingly.

17. Section 6.14.4.4, Nature and Extent of Contamination, pages 83-84:

As part of defining the lateral extent of contamination at AOC C-15-004, the Permittees used data obtained from SWMU 15-009(e), located southeast of the site. Figure 6.12-1 indicates that samples collected in the drainage for SWMU 15-009(e) were collected from locations that are upgradient of the pathway where contaminants would have likely migrated from AOC C-15-004. The Permittees must clarify which sampling locations at SWMU 15-009(e) were considered appropriate to define the lateral extent for AOC C-15-004 and reevaluate whether the lateral extent of contamination is defined for AOC C-15-004 or additional sampling is necessary. Revise the IR accordingly.

18. Section 6.15.4.4, Nature and Extent of Contamination, Inorganic Chemicals, page 87:

Permittees Statement: Barium was detected above the tuff BV (46 mg/kg) in five samples at five locations. The maximum concentration of 129 mg/kg was detected above BV at location 15-613302 from 2–3 ft bgs. Barium concentrations decreased with depth at these locations because the concentrations in the shallower samples were below the soil BV but above the concentrations in the deeper tuff samples (see section 5.0 and Appendix G) and increased to the south and downgradient at location 15-613300. The vertical extent of barium is defined, but the lateral extent is not defined.

NMED Comment: Barium concentrations decreased to the south, rather than increased as stated at AOC C-15-005. Barium was detected at concentrations of 129 mg/kg and 113 mg/kg at locations 15-613302 and 15-613303, respectively. Barium was detected at a downgradient location 15-613300 at 89.5 mg/kg. Revise the text accordingly.

19. Section 6.15.4.4, Nature and Extent of Contamination, Organic Chemicals, page 89:

Permittees Statement: Fluoranthene concentrations decreased with depth at location 15-613301, were below EQL at locations 15-613298 and 15-613303, and decreased to the south and downgradient at location 15-613303.

NMED Comment: The downgradient location from sample locations 15-613298 and 15-613303 is 15-613300, not 15-613303. Revise the text accordingly.

20. Section 7.2.4.4, Spatial Distribution of Contamination, Organic Chemicals, page 98:

At SWMU 36-001, the maximum concentrations for several dioxin and furan congeners were detected at location 36-613727 (5 ft-6.5 ft bgs). However, for several of these congeners, concentrations (although lower than the samples collected from the 5 ft-6.5 ft depth interval) increased in samples collected from 13.5 ft-15 ft bgs as compared to samples collected from 10 ft-11.5 ft bgs at these sampling locations, indicating an increasing trend. In addition, all the samples were collected from the fill material. The Permittees were not able to implement the proposed remediation activities at the site because of cited potential health and safety risks. Instead additional characterization of the site was conducted during 2010 investigations. The Permittees proposed to excavate the disposal trenches, and dispose of the removed waste. As proposed in the work plan, the Permittees must collect samples from two depths (0-1 ft and 4-5 ft) beneath the bottom of the excavation and include dioxin and furan analysis in the analytical suite to define the vertical extent of contamination.

21. Section 7.3.4.4, Nature and Extent of Contamination, pages 101-102:

The samples were inadvertently collected from below the ground surface instead of below the structures and drainlines. The approved investigation work plan required samples to be collected below the structures and drainlines. The Permittees appropriately did not include the analytical results for those samples in the IR. However, the Permittees used analytical results from samples collected at or below the outfall to discuss the nature and

extent of contamination at SWMU 36-003(b). The text repeatedly states that the vertical and lateral extent is defined for several chemicals, which is incorrect because incomplete data set was used to make these determinations. The discussion on the nature and extent of contamination is premature without the complete data set. NMED has not reviewed this section. The discussion on nature and extent must be postponed until sampling is complete at the site.

22. Section 7.4.4.4, Spatial Distribution of Contamination, Organic Chemicals, page 105:

The text states that “[a]s discussed in section 5.0, the presence of only hepta- and octa-congeners indicates a release has not occurred. Therefore, no additional sampling and analysis for dioxins and furans are warranted at this site.” However, Table 7.4-3 indicates that in addition to hepta- and octa- congeners, hexa- congeners were also detected at AOC 36-004(a). Resolve the discrepancy and revise the text accordingly.

23. Section 7.4.5.4, Nature and Extent of Contamination, Organic Chemicals, page 110:

The text states that “As discussed in section 5.0, the presence of only hepta- and octa-congeners indicates a release has not occurred. Therefore, no additional sampling and analysis for dioxins and furans are warranted at this site.” However, Table 7.5-3 indicates that in addition to hepta- and octa- congeners, tetra-, penta-, and hexa-congeners were also detected at SWMU 36-006. Resolve the discrepancy and revise the text accordingly.

24. Section 7.6.4.4, Nature and Extent of Contamination, Inorganic Chemicals, page 113:

AOC 36-004(b), selenium was detected at 1.1 mg/kg at location 15-613267 at the bottom of the drainage, not 15-613263. Revise the text accordingly.

25. Section 7.7.4.4, Nature and Extent of Contamination, Organic Chemicals, page 118:

The text states that “As discussed in section 5.0, the presence of only hepta- and octa-congeners indicates a release has not occurred. Therefore, no additional sampling and analysis for dioxins and furans are warranted at this site.” However, Table 7.7-3 indicates that in addition to hepta- and octa- congeners, hexachlorodibenzodioxins were also detected at AOC 36-004(c). Resolve the discrepancy and revise the text accordingly.

26. Section 7.8.4.4, Spatial Distribution of Contamination, Radionuclides, page 124:

Cesium-137 was detected in five samples at four locations (*See* Figure 7.8-4). Table 7.8-4 did not report results for sediment samples collected at locations 15-613503 and 15-613504. Revise Table 7.8-4 to include samples collected from locations 15-613503 and 15-613504.

27. Section 7.10.4, Site Contamination, page 127:

Permittees Statement: During the 2010 implementation of the approved work plan, cultural resource issues were raised by Laboratory archaeologists, causing work activities to be suspended. The Laboratory was aware of cultural resources located at SWMU 36-

005; however, additional archaeological sites were discovered during a site visit by Laboratory archaeologists (English 2010, 111797). It was determined that full clearance by the State Historical Preservation Office to collect samples (and remove debris) may not be possible, and the review process to reach this determination would extend beyond due date of the investigation report. An alternate sampling approach was proposed that included three transects across the slope downgradient of the site. This alternative sampling approach was successfully implemented (see section 7.10.4-1 and deviations in Appendix B).

NMED Comment: The Permittees were not able to conduct sampling in accordance with the approved work plan because of cultural resource issues and the time constraints to meet the due date for submittal of the IR. The discussion on nature and extent of contamination, based on alternate sampling, concluded that the vertical extent of several inorganic and organic chemicals is not defined and additional sampling was recommended. However, the Permittees did not propose to obtain clearance from the State Historical Preservation Office to collect samples from sampling locations proposed in the approved IWP, to complete the nature and extent determination at SWMU 36-005. The screening level data obtained during Phase I and Phase II RCRA Facility Investigations indicated that inorganic, organic chemicals and radionuclides were present in samples collected from locations that could not be sampled during 2010 investigations. In the approved IWP, 54 samples were proposed to be collected from previously sampled locations and also new locations that were selected based on the detection of various contaminants. The Permittee must obtain appropriate clearance and collect samples from locations proposed in the approved IWP to complete characterization of the site.

28. Section 7.12.4.3, Soil, Rock, and Sediment Sampling Analytical Results, Radionuclides, page 133:

Ten samples (eight soil and two sediment) were analyzed for isotopic uranium and gamma-emitting radionuclides at AOC C-36-006(e), not nine (*See* Table 7.12-1). Revise the text accordingly.

29. Appendix B, B-5.1, Surface and Subsurface Sampling Methods, page B-3:

The Permittees have not provided sufficient detail of sampling methods for NMED to evaluate whether appropriate methods were used to collect samples for volatile organic compounds (VOCs) analysis. Table B-1.0-1, indicates that sample material was transferred from the auger bucket to a stainless steel bowl before the various required sample containers were filled. Transferring the sample material to a bowl before containerizing samples likely resulted in loss of VOCs, if present.

As required by the section IX.A of the Consent Order, the Permittees must describe the methods in sufficient detail that were used to collect samples for VOCs. The methods used to collect the samples from the sampling device, the procedures used to transfer the samples to sampling containers, the types of sample containers used, how the sample containers were filled to eliminate headspace, and the method of storage for the sample

containers must be described in detail. Methods used to collect samples for different media such as soil, sediment, and tuff, must be described separately. The Permittees must describe every step of sample collection so NMED can determine whether the VOC data presented in the IR is defensible. Similar comments have been provided for Upper and Lower Sandia Canyon documents.

30. Appendix B, B-11.0, Deviations from the Work Plan, Bullet 5, page B-9:

Permittees Statement: The approved investigation work plan required four samples to be collected from two depths at two locations along the tank inlet drainline at SWMU 15-009(e). All six samples were inadvertently collected from 0–1 ft bgs and 3–4 ft bgs, not below the drainline.

NMED Comment: All four samples were inadvertently collected from 0-1 ft and 3-4 ft below ground surface instead of from locations beneath the drainline, not six as stated. Correct the typographical error.

31. Appendix B, Table B-11.0-1, page B-34:

At AOC C-36-006(e), samples collected from location 15-613313 were not analyzed for cyanide and perchlorate, rather than VOCs and pesticides as stated in the text (*See* Section B-11.0). Revise the table to indicate that additional samples will be collected during Phase II investigation for cyanide and perchlorate analyses to rectify this omission.

32. Appendix C, C-1.0, Introduction, page C-1:

Permittees Statement: Areas of contamination were approved for the investigation and remediation of Solid Waste Management Units (SWMUs) 15-007(a), 15-008(a), 36-001, and 36-006 within Technical Area 15 (TA-15) and TA-36 (LANL 2010, 110838) and granted for SMWUs 15-007(a), 36-001, and 36-006 (NMED 2010, 110953).

NMED Comment: The Permittees' requested approval for five areas of contamination (i.e., SWMUs 15-007(a), 15-008(a), 15-010(a), 36-001, and 36-006) for remediation and investigation actions at Potrillo and Fence Canyon aggregate area on September 29, 2010. On October 7, 2010, NMED approved area of contamination designation for only three of the five sites (i.e., SWMUs 15-007(a), 36-001, and 36-006). An area of contamination designation was not approved for SWMU 15-008(a). Resolve the discrepancy and clarify whether wastes were staged at SWMU 15-008(a) after NMED disapproved the area of contamination designation.

The Permittees must respond to these comments and submit a revised report no later than **October 21, 2011**. As part of the response letter that accompanies the revised Report, the Permittees must include a table that details where all revisions have been made to the Report and that cross-references NMED's numbered comments. All submittals (including maps and tables) must be in the form of two paper copies and one electronic copy in accordance with Section XI.A of the Order. In addition, the Permittees must submit a redline-strikeout version that includes all changes and edits to the Report (electronic copy) with the response to this NOD.

Messrs. Rael and Graham
September 21, 2011
Page 12

Please contact Neelam Dhawan of my staff at (505) 476-6042 should you have any questions.

Sincerely,



John E. Kielling
Acting Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
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File: LANL, Potrillo and Fence Canyons IR, 2011, LANL 11-043

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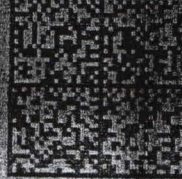
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