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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 12, 2007

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**RE: NOTICE OF DISAPPROVAL FOR THE INVESTIGATION REPORT FOR
MIDDLE MORTANDAD/TEN SITE AGGREGATE, REVISION 1
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-05-016**

Dear Messrs. Gregory and McInroy:

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 the Middle Mortandad/Ten Site Aggregate, Revision 1* (IR), dated July 2007 and referenced by LA-UR-07-4716/EP2007-0379. NMED also received the document entitled *Submittal of Confirmation Sample Data from Solid Waste Management Unit 35-016(p), Middle Mortandad/Ten Site Aggregate Area*, dated September 14, 2007 and referenced by EP2007-0564. NMED has reviewed these documents and hereby issues this Notice of Disapproval (NOD).

General Comments

1. The cross-reference table indicates that the total risk for radionuclides is provided in Table 12.0-8 of the IR, but there is no such table in the IR. Table 5.3-1 summarizes the risk screening results but does not include total risk for radionuclides. Nonetheless, in the response to the June 8, 2006 NOD on July 11, 2006, the Permittees committed to providing an equivalent



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total risk for individual solid waste management units (SWMUs), areas of concern (AOCs) and consolidated units along with total dose for radionuclides. Tables 5.3-1 and F-10.0-1 do not provide equivalent total risk for radionuclides. Interpretation Sections in Appendix F for all subareas provide a risk range for equivalent total risk for radionuclides. The Permittees must provide the total equivalent risk for each site instead of a risk range, as committed to in the June 6, 2006 NOD response.

2. In addition to conducting risk evaluations at the subarea level, risk screening evaluations were also conducted for some individual sites in the original 2005 Investigation Report (the Report). The list of chemicals of potential concern (COPCs) identified for those sites in the Report are not same as COPCs identified in the IR. For the sites where no additional work was conducted, there should have been no difference in the risk screening evaluations. Explain why different risk screening evaluations are reported for these sites in the IR, or otherwise resolve the discrepancy.

3. The potential for soil contamination to affect groundwater was not adequately addressed in the risk assessment of the IR. The Permittees response to General Comment # 7 in the NOD, dated July 11, 2006, indicated that the fate and transport section would be revised to further discuss the potential for contamination to migrate to groundwater, including the information contained in the two paragraphs following this statement in the NOD response. Although the fate and transport section has been revised, and the two paragraphs in fact are included in the IR; this information is only general information and does not provide a transparent demonstration that migration of contamination from soil to groundwater is not a concern. Inclusion of a site-specific screening of the data is necessary to provide a transparent demonstration, using site data, to demonstrate that contaminant migration is not of concern.

In addition, the Permittees indicate in their response that the NMED soil screening levels (SSLs) for the protection of groundwater are based on assumptions that do not apply to the site. The NMED SSLs are intended to serve as a conservative screen to clearly rule out if the migration pathway is significant or not. Therefore, the Permittees should conduct a conservative migration-based screen, much like the health-based screen, by comparing site data to an SSL. The Permittees have the prerogative to adjust the dilution attenuation factor (DAF) to reflect site-conditions. Inclusion of such a presentation will demonstrate using site data, that the migration pathway to groundwater is not significant. This information is necessary to ensure a transparent understanding by the public and for the administrative record.

4. The IR, including Appendix F, Risk Assessment, requires a thorough quality control (QC) review to ensure that the risk results summarized in the main text for each subarea are reflective of the information in Appendix F. Numerous discrepancies were noted where residential risks were referred to as industrial or recreational risks and the risk results stated as equivalent to a threshold when in fact the results were well below the threshold. Even within Appendix F, inconsistencies were noted in the interpretation of the risks associated with each land use scenario because land use scenarios were identified incorrectly. Discrepancies also exist between the main text of the IR and Appendix F as well as within the risk interpretations included in the text and tables of Appendix F. The risk results must be summarized accurately and consistently

throughout the IR in order to support risk management decisions. Specific comments have been generated to address this concern; however, these comments do not address all discrepancies in the IR. As such, the entire document must be reviewed to ensure that all discrepancies are identified and eliminated.

Specific Comments

1. Executive Summary, Page vii:

The second paragraph on Page vii indicates a slightly elevated excess potential cancer risk at AOC 35-018(a) in the Mesa Top Subarea due to elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) located directly beneath the asphalt pavement. Without addressing the risks to potential future workers if the site were redeveloped and the pavement removed, or to utility workers in the event that utility repairs are required, the paragraph concludes that no complete pathways exist for a site worker. The paragraph must specify that there are no *current* exposure pathways for industrial workers. In addition, an explanation of how future worker exposure to site soils will be prevented and/or controlled is required.

2. Section 3.0, Scope of Activities, Page 5:

At the top of Page 5, the Permittees acknowledge that preliminary analytical results for confirmation samples collected at SWMU 35-016(p) are available but not validated and are not included in the IR. However, the report continues to present interpretations of these data and concludes that the extent of PAHs and inorganic chemicals has been defined and no additional risk issues will result. The IR should not present interpretations or draw conclusions based on these data unless the data are included in the IR. Further, the IR should indicate when the validated data will be available. This information is needed so that the preliminary conclusions presented in Section 3.0 of the IR can be verified. These same interpretations and conclusions regarding the unvalidated data are also presented in Appendix F, Section SWMU 35-016(p) on Page F-79. NMED received the additional data on September 14, 2007.

3. Table 2.0-1, Summary of SWMUs, AOCs, and Consolidated Units in the Middle Mortandad/Ten Site Aggregate, Page 87:

Two areas of concern (AOCs), (AOC 35-017 and AOC 52-003(b)) were included in the Table 2.0-1 of 2005 Report, but excluded from the Table 2.0-1 of the IR. Include these sites in Table 2.0-1 or add a footnote explaining why these sites were excluded.

4. Noncarcinogenic SSLs, Pages 171-172:

The following discrepancies were noted in the Table:

- The soil screening level (SSL) reported for fluoride is from U.S. Environmental Protection Agency (EPA) Region 6; the Permittees should have used the NMED SSL of 3670 mg/kg (residential scenario value) instead.
- Footnote "f" states that pyrene was used as a surrogate for acenaphthylene and benzo(g,h,i)perylene, but the values reported for acenaphthylene and pyrene are different.
- Denote in the table that EPA Region 6 SSLs were used for benzoic acid.

- EPA Region 6 values reported for butyl benzyl phthalate are incorrect; correct values are 240 mg/kg for both industrial and residential SSLs.
- EPA Region 6 SSLs should have been used for 4-methylphenol (i.e. residential at 310 mg/kg and industrial at 3400 mg/kg) instead of surrogate values.
- Provide a source of values reported for methyl-2-pentanone[4-] and isopropyl benzene (used as a surrogate for 4-isopropyltoluene).

Revise the Table with corrected values.

5. Table 5.3-1, Summary of Human Health Risk Screening for Site Decisions, Page 182:

Table 5.3-1 is not appropriate for use to support site decisions because the results are not organized by subarea. To expedite review and site decision-making, this table should be sorted to present the subarea first, followed by the sites within the subarea. In addition, the table contains editorial errors. For example, for sites with a "c" designation, the "c" is displayed as a copyright symbol. Reorganize the table by subarea and correct the editorial errors.

6. Appendix F, Section F-3.3, Conceptual Site Model, Page F-26

Section F-3.3 of Appendix F indicates that surface releases are likely to result in infiltration of contaminants into surface soils and, through cracks in asphalt, into backfill soils and possibly the underlying tuff. However, this section also states "the construction worker is not evaluated for the Mesa Top subarea because the exposure is assumed to be from the surface (0-1 ft)." Furthermore, this section states "if activities at the site change to include construction or other intrusive activities, EP will work with facility management to ensure workers are protected." Because the subsurface soils were not evaluated in a human health risk assessment, a formal land use control must be implemented for this area to prevent future construction worker activities. Alternatively, assess the risk to receptor populations potentially exposed to subsurface soils.

Mesa Top Subarea

7. Section 5.3, Conclusions – Mesa Top Subarea, Page 13:

The fourth paragraph of Section 5.3 indicates that a risk of 4×10^{-5} at AOC 35-018(a) does not pose a potential unacceptable risk to human health because the risk drivers (PAHs) are: 1) located beneath pavement; and 2) the PAHs are not operational releases. The paragraph does not specify whether the 4×10^{-5} risk is current or a future risk. Under current conditions it is understood that the PAHs are not available for exposure because they are located below pavement. However, the future risks may be real if the pavement was removed for redevelopment or utility repair. If the PAHs are available for exposure in the future, then the risk is real and above the 1×10^{-5} NMED threshold, making the risk unacceptable. Furthermore, a risk cannot be discounted as acceptable because the constituent source is not related to operational releases. Furthermore, the document has demonstrated that PAHs are related to site operations. As acknowledged in the second paragraph on Page 8, Section 5.0, Mesa Top Subarea, the operational history of this area may include a variety of inorganic, organic, and radiological contaminants as a result of past laboratory operations. The operational history includes oil spills which may have contributed a number of organic chemicals, including PAHs. The IR must include accurate lines of evidence to support the claim that a risk of 4×10^{-5} , which

is above the NMED threshold of 1×10^{-5} , is acceptable for future industrial receptors, should the site conditions change. This comment also applies to the bullet at the bottom of Page 46, Section 12.0, Summary of All Subareas/Aggregate.

8. Table 5.2-1, Summary of COPCs Identified for Mesa Top Subarea, Page 179:

According to Table D-2.0-5, no radiological chemicals except tritium were detected for SWMU 35-002, but Table 5.2-1 identifies cobalt-60, europium-152, plutonium-238, and tritium as COPCs. Table F-3.4-5 also identifies only tritium as a COPC. Resolve the discrepancies and revise the Table.

9. Appendix D, Section D-2.1.3, Page D-3:

Correct the typographical error. Selenium, not strontium, was included in the industrial or residential risk screening assessments.

10. Appendix D, Section D-2.2-9, Page D-7:

SWMU 35-003(a)-99: Benzo(a)anthracene (0-2 ft), 2-butanone (0-1 ft), chrysene (0-2 ft), and fluoranthene (0-1 ft) were detected in samples collected from 0-1 ft or from 0-2 ft intervals (see Table D-2.0-6) and should have been included in the evaluation of industrial risk for the site (see Table D-2.2-3). The text erroneously states that no organic chemical COPCs were detected in the 0-1 ft range so no upper confidence limits (UCLs) were calculated. Revise the text and associated tables in Appendices D and F to include these chemicals.

11. Appendix D, Section D-2.3-3, Page D-9:

SWMU 35-003(j)-99: Antimony, selenium, and silver were not detected in samples collected from 0-10 ft, but the detection values were greater than the background values (Table D-2.0-4). These metals should have been retained as COPCs and included in the residential risk screening evaluations. Revise the text and associated tables in Appendices D and F to include these metals.

12. Appendix D, Section D-2.3-3, Page D-9:

SWMU 35-014(f): Antimony, selenium, and silver were not detected in samples collected from 0-1 ft, but the detection limits were greater than the background values. These metals should have been retained as COPCs and included in the risk screening evaluations. The maximum value of 0.0267 mg/kg is reported for silver, but Table D-2.0-4 does not report any detected values. Resolve the discrepancies and revise the text or table accordingly. Revise the associated screening evaluation tables in Appendix F as well.

13. Appendix D, Section D-2.3-10, Page D-10:

SWMU 35-003(j)-99: Acenaphthene, anthracene, Aroclor-1254, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, dibenzofuran, fluoroanthene, fluorine, indeno(1,2,3-cd)pyrene, methyl-naphthalene[-2], naphthalene, phenanthrene, pyrene and TPH-DRO were detected at sampling location 35-02568 (0.5-1.5 ft.) and acetone and bis(2-ethylhexyl)phthalate were detected at location 35-02090 (0-1 ft., Table D-2.0-6). The text erroneously states that no organic chemical COPCs were detected in the 0-1 ft range so no upper confidence limits (UCLs)

were calculated (see Table D-2.3-3). Revise the text and associated tables in Appendices D and F to include these COPCs in the risk screening evaluations.

14. Appendix D, Section D-2.4.4, Page D-11:

SWMU 35-004(a): The text states that two samples were collected from tuff and analyzed for strontium-90 and tritium, Table D-2.0-5 reports tritium detected in a sample collected from tuff, but Table D-2.0-2 does not indicate that any samples collected from tuff were analyzed for strontium-90 or tritium. Resolve the discrepancy and revise the text or tables accordingly.

15. Appendix D, Section D-2.4.4, Page D-11:

SWMU 35-015(a): Antimony was not detected in any of the samples collected from 0-1 ft, but the detection limits were greater than the background values. Antimony should also have been included in the industrial screening risk evaluation for the site. Revise the Tables in Appendices D and F accordingly.

16. Table D-2.0-4, Page D-173:

SWMU 35-009(a): Clarify if samples 0435-96-0051 and 0435-96-0052 are composite samples; the table reports that samples were collected from 0-8 ft. Note that composite samples are unacceptable for site evaluations. Sampling locations 35-02035, 35-02036, 35-02037, 35-02038, 35-02221, 35-02222, 35-22942, 35-22943, 35-22959 are not depicted on Figures 5.0-4 and F-3.2-9, but are included in Table D-2.0-4. Revise the figures to depict these sampling locations.

17. Table D-2.2-1, Page D-190:

SWMU 35-003(a)-99: Antimony and silver were not detected in samples collected at 0-1 ft, but the non-detect values were greater than the background values. They were retained as COPCs (page D-5), but are not included as COPCs in Table D-2.2-1. Resolve the discrepancies and revise the tables in Appendices D and F accordingly.

18. Table D-2.2-3, Page D-192:

SWMU 35-003(a)-99: According to Table D-2.0-6, butanone[2-] was detected at 0-1 ft (at location 35-02437), fluoranthene was detected at 0-1 ft (at location 35-02437), but are not listed as COPCs in Table D-2.2-3. Chrysene and benzo(a)anthracene were detected at 0-2 ft depths at location 35-02280. Revise the table to include these chemicals as COPCs and revise associated Appendix F tables.

19. Table D-2.3-1, Page D-193:

SWMU 35-003(j)-99: Antimony, selenium and silver were not detected in samples collected from 0-10 ft, but since the non-detect values were greater than the background values, they were retained as COPCs (page D-8). These metals are not listed as COPCs in Table D-2.3-1. Revise the Table and tables in Appendix F to include them in the risk screening evaluations.

20. Table D-2.3-3, Page D-194:

SWMU 35-003(j)-99: Organic chemicals detected in samples collected from 0.5-1.5 ft at locations 35-02568 and 35-02569 should have been included in the risk evaluation for the industrial scenario. For example, acenaphthene was detected at 8.9 mg/kg at location 35-02568,

but is reported as non-detect in the table. Revise the table to include all detected chemicals in samples collected from 0.5-1.5 ft depth in industrial risk screening evaluations.

21. Table D-2.5-1, Page D-196:

SWMU 35-004(h): The Table D-2.5-1 reports 0.875 mg/kg as the maximum detected value for selenium, but Table D-2.0-4 does not report any detected values for selenium. Resolve the discrepancy and revise the appropriate tables in Appendices D and F.

22. Table D-2.6-1, Page D-197:

SWMU 35-009(a): The maximum detected values reported for most of the chemicals in Table D-2.6-1 are different from values reported in Table D-2.0-4. For example, the detection limit for antimony was 1.1 mg/kg for samples collected from 0-1 ft. Antimony was not detected in any of these samples, but the maximum detected value of 0.065 (0-1 ft) and UCL of 0.533 (0-10ft) is reported for antimony. No detected value is reported for barium for samples collected from 0-1 ft. in Table D-2.0-4, but Table D-2.6-1 lists 38.8 mg/kg as a maximum detected value. Resolve the discrepancies and revise the tables in Appendices D and F accordingly.

23. Table D-2.6-3, Page D-199:

SWMU 35-009(a): Acetone was detected in sample RE35-04-54855 at 0.112 mg/kg (0.43-1.41 ft), and should have been included in the table. Samples collected from 0.43-1.41 ft should have been included in the industrial risk scenario evaluations. The maximum detected value for Aroclor-1254, Aroclor-1260 and 4-isopropyltoluene should be 0.393 mg/kg, 1.26 mg/kg and 0.0937 mg/kg, respectively, for samples collected from 0.1 ft. Bis(2-ethylexyl)phthalate, di-n-butylphthalate, and toluene were detected in samples collected from 0.43-1.41 ft and should not have been reported as non-detects. Revise the tables in Appendices D and F accordingly.

24. Table D-2.9-1, Page D-200:

SWMU 35-014(f): The detection limits for antimony were greater than the background values; therefore, antimony should have been retained as a COPC for both residential and industrial scenario risk screening evaluations. Silver was not detected but the detection limits were greater than background values. Silver should have therefore been retained as a COPC for samples collected from 0-1 ft depth. There are no reported detected values for silver in Table D-2.0-4, but Table D-2.9-1 reports 0.0267 mg/kg as maximum detected value at 0-10 ft depth. Resolve the discrepancies and revise the tables in Appendices D and F accordingly.

25. Table D-2.10-1, Page D-201:

SWMU 35-015(a): The detection limits for antimony were greater than the background values. Antimony should have been retained as a COPC for samples collected from 0-1 ft depth. There were no detected values reported for selenium and silver in Table D-2.0-4, but maximum values are reported in Table D-2.10-1. Resolve the discrepancies and revise the tables in Appendices D and F accordingly.

26. Table D-2.11-1, Page D-203:

SWMU 35-018(a): The value of 0.04 mg/kg reported in Table D-2.11-1 for mercury is not reported in Table D-2.0-4. Resolve the discrepancy and revise the tables accordingly.

27. Table D-2.12-12, Page D-216:

Americium-241 was identified as a COPC for the Mesa Top Subarea in Table D-2.8-1 (page D-83) of the 2005 Report, but is not included in Table D-2.12-12 of the IR. Explain why americium-241 is no longer considered a COPC.

28. Table D-2.12-17, Page D-227:

Di-n-octylphthalate was identified as a COPC for the Mesa Top Subarea in Table D-2.12-1 (page D-100) of the 2005 Report, but is not included in Table D-2.12-17 of the IR. Explain why this compound is no longer considered a COPC.

29. Section F-3.4.3 Uncertainty Analysis, Page F-30:

Section F-3.3 indicates that surface releases are likely to result in infiltration of contaminants into surface soils and, through cracks in asphalt, into backfill soils and possibly the underlying tuff. However, this section also states "the construction worker is not evaluated for the Mesa Top subarea because the exposure is assumed to be from the surface (0-1 ft)." Furthermore, this section states "if activities at the site change to include construction or other intrusive activities, EP will work with facility management to ensure workers are protected." Because the subsurface soils were not evaluated in a human health risk assessment, a formal land use control must be implemented for this area to prevent future construction worker activities. Alternatively, assess the risk to receptor populations potentially exposed to subsurface soils.

30. Figure F-3.2-2, Mesa Top Area A sampling locations, page F-177:

Sampling locations 35-22922 and 35-22930 are not depicted on the Figure F-3.2-2 as stated in the text (page F-23) instead they are depicted on Figure F-3.2-9. Revise the text accordingly.

31. Figure F-3.2-6, Mesa Top Area E sampling locations, page F-181:

Sampling location 35-22958 is not depicted on the Figure F-3.2-6 as indicated in the text (page F-19). Revise the figure accordingly.

32. Figure F-3.2-14, Mesa Top Area D radionuclide COPCs detected above background values in all media, page F-189:

Detected values for uranium at sampling location 35-02089 are not depicted on the Figure F-3.2-14. Revise the figure to depict detected values for uranium.

33. Figure F-3.2-18, Mesa Top Area C organic COPCs detected in all media, page F-193:

SWMU 35-003(a)-99: Aroclor-1260 was detected in samples collected at two depths at location 35-22941 (i.e. 1.49 mg/kg at 4-5 ft, and 0.0253 mg/kg at 14-15 ft.), but is not depicted on the figure. Revise the figure to depict Aroclor-1260 concentrations.

34. Table F-3.4-4, Screening Evaluation for SWMU 35-002, Carcinogenic COPCS, page F-259:

The non-carcinogenic SSL (NMED 2006) for Aroclor-1260 is 1.12. Aroclor-1260 should also have been included in the screening evaluation of non-carcinogenic risk. For example, for

SWMU 35-009(a) Aroclor-1254 and Aroclor-1260 were appropriately included in screening evaluations for both carcinogenic and non-carcinogenic risk.

35. Table F-3.4-6, Screening Evaluation for Consolidated Unit 35-003(a)-99, Noncarcinogenic COPCS, page F-259-260:

Aroclor-1260 was retained as a COPC and should have been included in the non-carcinogenic risk evaluation. Revise the industrial risk evaluation to also include antimony, silver, Butanone[2-], fluoranthene, chrysene and benzo(a)anthracene.

36. Table F-3.4-8, Screening Evaluation for Consolidated Unit 35-003(a)-99, Radionuclide COPCS, page F-260-261:

The dose values reported in Table F-3.4-8 are different from the values reported in Table F-3.4-21 of the 2005 Report. There were no detected values for U-234, U-235, and U-238 in samples collected from 0-1 ft. (Table D-2.0-5), but UCLs are reported. The SSL value for plutonium-239 is 210, not 240 (Table 4.0.3). Resolve the discrepancies and revise the Table accordingly.

37. Table F-3.5-1, Final ESL Comparison for Mesa-Top Subarea, page F-270:

Arsenic and cadmium were included in the evaluation in the 2005 Report (Table 3.5-1), but are not included in this Report. Revise the risk evaluation and include these metals or explain why they are no longer considered contaminants.

Ten Site Slope Subarea

38. Section 6.3, Conclusions – Ten Site Slope Subarea, Page 19:

The first paragraph summarizes the risk and dose results associated with the residential land use scenario. However, the total dose range is referred to, inappropriately, as the industrial dose range. According to Appendix F, Risk Assessment, Section F.4.4.4, Interpretation, the total dose range under the residential scenario is equivalent to a total risk range of 2×10^{-5} to 1×10^{-4} . Ensure that the conclusions presented in Section 6.3 accurately reflect the information presented in Appendix F. In addition, for consistency between Appendix F and the main report text, ensure that Section 6.3 presents risk ranges from low to high rather than high to low.

39. Appendix D, Section D-3.1-8, Page D-30:

SWMU 35-004(g)-00: Plutonium-239 was detected at 0.163 pCi/g in a sample collected from 0-0.59 ft depth (location 35-35-232840, Table D-3.0-5), but the text states that it was not detected in any samples collected from 0-1 ft. Revise the text accordingly.

40. Appendix D, Section D-3.2, Page D-31:

SWMU 35-009(a): Since this SWMU is co-located in Mesa Top and Ten Site Slope subarea, and the contents of this section are the same as Section 2.6, refer to comments provided earlier under Mesa-Top Subarea for SWMU 35-009(a) and revise the text and associated tables in Appendices D and F.

41. Appendix D, Section D-3.9.2, Page D-50:

SWMU 35-016(j): Cadmium was not detected in any of the samples but the detection limits were greater than background values. Cadmium was retained as a COPC in section D-3.9.2, but is not included in Table D-3.9-1. Copper was detected at location 35-22973 (0.03-0.3 ft.), but is not retained as a COPC. Copper should have been retained as a COPC or a discussion should have been included explaining why it is not considered a COPC. Revise the text accordingly.

42. Appendix D, Section D-3.9.5, Page D-50:

SWMU 35-016(j): The text states that Pu-239 is a COPC for the site, but Table D-3.0-5 does not report any data for SWMU 35-016(j). Resolve the discrepancy and revise the text or table accordingly.

43. Appendix D, Table D-3.0-1- D-3.0-3, Page D-228-238:

Tables D-3.0-1, D-3.0-2 and D-3.0-3 do not report data collected from 0-5 ft as indicated in the captions for these tables. Delete "from 0-5 ft bgs" from the captions, since the samples included in the tables were collected from depths greater than 0-5 ft.

44. Appendix D, Table D-3.0-4, Page D-245:

SWMU 35-016(a)-00: Barium was identified as a COPC in Sections D-3.6.2 and D-3.6.3, but is not included in the Table. Revise the table to include barium results in the table.

SWMU 35-016(c)-00: Barium and cobalt were retained as COPCs in Section D-3.8.4 but are not included in the table. Revise the table to include results of barium and cobalt.

45. Appendix D, Table D-3.0-5, Page D-249-251:

Sampling locations have been assigned to the wrong sites in the Table D-3.0-5. The sampling locations listed for various sites in Table D-3.0-2 are different from those reported in Table D-3.0-5. See some of the examples given below.

SWMU 35-009(e)-00: According to Table D-3.0-2, sampling location 35-02079 is not associated with SWMU 35-009(a) as reported, but with SWMU 35-009(e).

SWMU 35-014(g)-00: Sampling locations 35-02167 and 35-02572 are not associated with SWMU 35-009(e) as reported, but with SWMU 35-014(g)-00.

SWMU 35-014(g3): Sampling locations 35-02183 and 35-02185 are not associated with SWMU 35-014(g)-00 as reported, but with SWMU 35-014(g3).

SWMU 35-016(a)-00: Sampling location 35-02080 is associated with SWMU 35-016(a)-00, not with SWMU 35-014(g3), as reported.

SWMU 35-016(b): Sampling locations 35-02549 and 35-23207 are not associated with SWMU 35-016(a)-00 as reported, but with SWMU 35-016(b).

SWMU 35-016(c)-00: Sampling locations 35-02108 and 35-02396 are not associated with SWMU 35-016(b) as reported, but with SWMU 35-016(c)-00.

SWMU 35-016(j): Sampling locations 35-02580 and 35-02572 are associated with SWMU 35-016(j).

Delete the last row from the table, as the sampling results for location 35-23291 are repeated. The last row is same as the third row from the bottom.

Correct the table so that the sampling locations are assigned to correct sites.

46. Appendix D, Table D-3.0-5, Page D-250:

SWMU 35-009(e): Americium-241 was detected at the site according to text in Section D-3.3.5, but is not included in the Table D-3.0-5. Revise the text or tables in Appendices D and F accordingly.

47. Appendix D, Table D-3.1-1, Page D-263:

SWMU 35-004(g)-00: Maximum detected values reported for copper in Table D-3.1-1 are 5.35 mg/kg (0-1 ft) and 7.48 mg/kg (0-10 ft), but Table D-3.0-4 reports no detected values at these depths. Only one detected value of copper at 12.8 mg/kg (19-20 ft) is reported. Resolve the discrepancy. Selenium should have been retained as a COPC because, although it was not detected in any of the samples, the detection limits were above background values. Revise the tables in Appendices D and F accordingly.

48. Appendix D, Table D-3.1-2, Page D-263:

SWMU 35-004(g)-00: Uranium-234 and uranium-235 were not detected at 0-1 ft. according to Table D-3.0-5, but Tables D-3.1-2 and F-4.4-6 report maximum detected values of 2.31 and 0.113 pCi/g for uranium-234 and uranium-235, respectively. Resolve the discrepancy and revise the tables accordingly.

49. Appendix D, Table D-3.3-1, Page D-266:

SWMU 35-009(e): Selenium is reported at a maximum detected value of 0.966 mg/kg in Tables D-3.3-1 and F-4.4-10, but in Table D-3.0-4 the maximum detected value is reported at 0.553 mg/kg. Resolve the discrepancy and revise the tables accordingly.

50. Appendix D, Table D-3.3-2, Page D-266:

SWMU 35-009(e): Detected values reported in Table D-3.0-5 are not the same as reported in Tables D-3.3-2 and F-4.4-12 (i.e., maximum detected value for U-234 (0-1 ft) should be 2.64 mg/kg and not 2.4 mg/kg; tritium should be 0.073 mg/kg (0-10 ft)). There also is no detected value for samples collected from 0-1 ft for U-235 according to table D-3.0-5, although a value of 0.167 is reported. Resolve the discrepancies and revise the tables accordingly.

51. Appendix D, Table D-3.6-1, Page D-272:

SWMU 35-016(a)-00: Table D-3.0-4 reports no detected values for selenium but a maximum detected value of 0.424 mg/kg is reported for selenium for samples collected from 0-1 ft is

reported in Tables D-3.6-1 and F-4.4-19. Additionally, Tables D-3.6-1 and F-4.4-20 report 4.45 mg/kg for arsenic and Table D-3.0-4 reports 4.41 mg/kg. Revise the tables appropriately.

52. Appendix D, Table D-3.6-2, Page D-272:

SWMU 35-016(b)-00: Although selenium was not detected in any of the samples although the detection limits were above the background values. Selenium was retained as a COPC in section D-3.7.1 and D-3.7.2, but is not included in Table D-3.6-2. Revise the table to include selenium.

53. Appendix D, Table D-3.9-1, Page D-277:

SWMU 35-016(j)-00: Although cadmium was not detected in any of the samples, but detection limits were greater than background values. It should have been included in the residential risk evaluation. Revise Tables D-3.9-1 and F-4.4-28 accordingly.

54. Appendix D, Table D-3.9-2, Page D-277:

SWMU 35-016(j)-00: Plutonium-239 was detected in only one sample (ID # 0435-97-0481), even though two different maximum detected values are reported in Tables D-3.9-1 and F-4.4-30, respectively. Resolve the discrepancy and revise the table accordingly.

55. Appendix D, Table D-3.10-10 & D-3.10-11, Page D-289-D291:

As the captions state, tables should report samples collected from 0-5 ft. Samples collected from 9-10 ft, 19-20 ft, and 29-30 ft have been inappropriately included in the tables. Revise the tables accordingly.

56. Appendix F, Section F-4.4.1 Screening Levels, Page F-55:

The second paragraph states that the Ten Site Slope Subarea is designated for industrial use. However, the default industrial worker exposure assumptions (8 hour work day for 225 days per year) were not considered realistic for the actual use of the subarea. Therefore, the screening evaluation used recreational scenario soil screening levels (SSLs) which are based on a 1 hour per day exposure for 200 days per year. These are reasonable assumptions for current use; however, if the site could be redeveloped for industrial use, then future industrial risks must be evaluated. Clarify why future industrial use is not a reasonable land use for this subarea. Alternatively, perform an industrial screen to determine if any site restrictions or remedial actions are necessary.

57. Appendix F, Figure F-4.2-5, Ten Site Slope Area B inorganic COPCs detected above background values in all media, page F-201:

SWMU 35-016(a)-00: Sampling location 35-02395 is depicted as a 2004/2005 sampling location, even though it is a 1996 investigation location. Barium has been identified as a COPC in sections D-3.6.2 and D-3.6.3 but is not depicted on the figure. Revise the figure accordingly.

Mortandad Slope Subarea

58. Appendix D, Section D-4.8, Page D-72:

SWMU 35-016(p): Some of the data from samples collected in 2007 were not included in the investigation report presumably because the data was not available at the time of submission of the report. The text makes no reference to this, and continues to use an incomplete data set to identify COPCs for the site. Since the data could not be submitted with the report, evaluation of the site should have been deferred until the entire data set was available.

59. Appendix D, Section D-4.8-2, Page D-73:

SWMU 35-016(p): COPCs identified for the site are not the same as chemicals reported as detected in Table D-4.0-4 (e.g., mercury, chromium, copper, lead and zinc). Resolve the discrepancy and revise the text and relevant tables in Appendices D and F.

60. Appendix D, Table D-4.0-4, Page D-318:

SWMU 35-008-00: Beryllium is reported as a COPC in tuff and sediment in Sections D-4.2.2 and D-4.2.3, but is not included in the Table D-4.0-4. Revise the table to include beryllium.

61. Appendix D, Table D-4.0-4, Page D-319:

SWMU 35-009(c): Barium is identified as a COPC in sediment in Sections D-4.3.3 and D-4.3.4, but is not included in the Table D-4.0-4. Revise the table to include barium.

62. Appendix D, Table D-4.3-1, Page D-335:

SWMU 35-009(c): According to Table D-4.0-4 antimony was not detected in any of the samples collected from 0-1 ft., even though a maximum value of 0.137 mg/kg is reported. Maximum detected values reported for cadmium, copper and lead are not the same as those reported in Tables D-4.0-4 and F-5.4-9. Resolve the discrepancies and revise the tables accordingly.

63. Appendix D, Table D-4.5-1, Page D-337:

SWMU 35-016(f): Cadmium was not reported as detected in any of the samples (see Table D-4.0-4), even though a maximum detected value of 0.117 mg/kg is reported in Tables D-4.5-1 and F-5.4-12. Resolve the discrepancies and revise the tables.

64. Appendix D, Table D-4.8-1, Page D-342:

SWMU 35-016(p): Copper, lead, mercury, and zinc are not reported as detected in Table D-4.0-4, even though they are reported as COPCs in Tables D-4.8-1. Explain why these metals are identified as COPCs with no detected values or detection limits above background values.

65. Appendix F, Section F-5.2.3, Nature and Extent, page F-75-F-76:

SWMUs 35-009(c) and 35-016(o): Americium-241, Cesium-137, Plutonium-238, and Plutonium-239 were detected at concentrations of 3.45, 9.83, 1.86, and 4.15 pCi/g, respectively at location 35-23183 (in addition to locations 35-23182 and 35-23187) and should have been included in the text. TPH-DRO was detected at sample location 35-02508 at 0-1 ft and 1-2 ft during previous investigations, even though soil was excavated from the area in 2007 and new

confirmatory samples were collected in which TPH-DRO was not detected. Data that are no longer relevant should not be included in the discussion. Table D-4.0-6 does not indicate TPH-DRO were detected in samples collected from location 35-02508. Revise the text accordingly.

66. Appendix F, Section F-5.4.1 Screening Levels, Page F-81:

The second paragraph states that the Mortandad Slope Subarea is designated for industrial use; however, the default industrial worker exposure assumptions (8 hour work day for 225 days per year) were not considered realistic for the actual use of the subarea. Therefore, the screening evaluation used the recreational scenario SSLs, which are based on a 1 hour per day exposure for 200 days per year. These are reasonable assumptions for current use; however, if the site could be redeveloped for industrial use, then future industrial risks must be evaluated. Clarify why future industrial use is not a reasonable land use for this subarea. Alternatively, perform an industrial screen to determine if any site restrictions or remedial actions are necessary.

67. Appendix F, Section F-5.2.3, Nature and Extent, page F-83:

SWMU 35-016(p): Since some of the analytical results were not available at the time of submission of the report, the interpretation of data and conclusions should have been deferred until all of the data was available. NMED has now received and reviewed the remaining data submitted on September 14, 2007 (EP2007-0564) and concurs that no changes to the conclusions and recommendations are necessary.

68. Figure F-5.4-2, Mortandad Slope Area B sampling locations, page F-208:

During the remediation activities conducted in 2007, soil was excavated from certain areas. The figure has not been updated to include locations of confirmatory samples, and samples collected from the bench in 2007. In addition, sampling locations that are no longer relevant have not been deleted. Revise the figure to provide current information on the site.

69. Figure F-5.2-5, Mortandad Slope Area A inorganic COPCs detected above background values in all media, page F-209:

SWMU 35-008-00: Zinc was detected at two locations (35-23145 & 35-23150), but is not depicted on the figure. Revise the figure to include all detected values.

70. Figure F-5.2-6, Mortandad Slope Area A radionuclide COPCs detected above background values in all media, page F-211:

Sampling locations 35-02250, 35-02453, and 35-02457, where radionuclides were detected, are not depicted on the figure. Revise the figure accordingly.

71. Figure F-5.2-7, Mortandad Slope Area B radionuclide COPCs detected above background values in all media, page F-212:

SWMU 35-009(c): Americium-241 was detected at location 35-23183, but is not depicted on the figure. Two different sampling locations are denoted with the same number (i.e., 35-23183). Locations 35-23182 and 35-23187 are from the 2004/2005 sampling event and should have been marked with a red triangle instead of a black dot. Revise the figure accordingly.

72. Figure F-5.2-9, Mortandad Slope Area B organic COPCs detected in all media, page F-214:

SWMU 35-016(o): Since soil was excavated from sampling locations 35-02043, -02254, -02255, -02508, -02091 and -02092 in 2007, the results should have been deleted from the figure. Confirmatory samples and additional samples from the bench were collected after the remediation activities were completed. The new sampling locations and results should have therefore been depicted on the figure. Revise the figure accordingly.

SWMU 35-016(p): Soil was excavated from sampling locations 35-02095, -02096, and -23188. The results should have been deleted from the figure. Confirmatory samples and additional samples from the bench were collected after the remediation activities were completed, and the new sampling locations and results should have been depicted on the figure. Revise the figure accordingly.

73. Appendix F, Table F-5.4-6, page F-299:

SWMU 35-008-00: Selenium was identified earlier as a COPC (Section D-4.2.4), but is not included in the risk evaluation. Revise the table accordingly.

74. Appendix F, Table F-5.4-12, page F-302:

SWMU 35-016(f): Selenium was identified earlier as a COPC (Section D-4.5.3), but is not included in the risk evaluation. Revise the table accordingly.

Pratt Canyon Subarea

75. Section 8.3, Conclusions-Pratt Canyon Subarea, page 31:

The third paragraph of Section 8.3 indicates that a hazard index (HI) of 0.1 is less than or equivalent to NMED's target level of 1. This sentence is in error as 0.1 is less than and not equivalent to the target HI of 1. In addition, this paragraph inappropriately states that the total dose range for a "residential user" in the Pratt Canyon Subarea is equivalent to a total risk range of 2×10^{-5} to 5×10^{-5} . This sentence should refer to the total dose range for a "recreational user" and the total risk range should be 2×10^{-8} to 1×10^{-6} (see Page F-106, Section F-6.6.4, Interpretation, second paragraph). The Permittees must ensure that the conclusions presented in Section 8.3 accurately reflect the information presented in Appendix F, Risk Assessment.

76. Appendix D, Section D-5.2-3, Page D-87:

Antimony, cadmium, and nickel were retained as COPCs because the detection limits were greater than the background values, but antimony is not included in any of the risk evaluations, nickel and cadmium nor are included in industrial or recreational risk evaluations. Samples collected from 0-10 ft depth range are used for residential risk evaluations not for industrial or recreational risk as stated in the text. Revise the risk evaluations to include antimony, cadmium, and nickel. In the first paragraph it is stated that UCLs were calculated for industrial and residential risk evaluations, but in the second paragraph industrial, recreational and residential risks are mentioned. It is not clear if UCLs were also calculated for recreational risk evaluations. The Permittees must revise the text to clarify their use of UCLs.

77. Appendix D, Table D-5.0-3, Page D-383:

SWMU 35-003(d)-00: The results of additional samples collected in 2007 at locations 35-24402 and 35-24405 are not included in the Table D-5.0-3. Clarify if the results were omitted because there were no detections in the samples collected from the same locations, or if the results were excluded from Table D-5.0-6 by mistake.

78. Appendix D, Table D-5.0-4, Page D-385-D-388:

SWMU 35-003(d)-00: Aluminum, arsenic, barium, lead, nickel, strontium and vanadium were either detected or had detection limits above background values, and are discussed in Section D-5.1-2; they are not included in the Table D-5.0-4. The Permittees must revise the text or table to make them consistent.

SWMU 35-009(d): Aluminum, arsenic, barium, beryllium, magnesium, nickel, silver, strontium and vanadium were either detected or had detection limits above background values, and are discussed in Section D-5.2.2, they are not included in the Table D-5.0-4. The Permittees must revise the text or table to make them consistent.

SWMU 35-016(k)-00: Lead is retained as a COPC but is not included in the table. Revise the table to include lead in the table.

79. Appendix D, Table D-5.0-5, Page D-389-D-391:

SWMU 35-009(d): Cesium-137, plutonium-238 and tritium were retained as COPCs, but the data for SWMU 35-009(d) are not included in the table. Some of the data reported for SWMU 35-003(e), are associated with SWMU 35-009(d) according to table D-5.0-2. Five samples collected from location 35-02012 are associated with SWMU 35-003(d), and not SWMU 35-009(d), at least according to Table D-5.0-2. Make appropriate revisions to the table.

SWMU 35-016(m): Uranium-234 was retained as a COPC, but is not included in the table. Resolve this discrepancy and revise the table accordingly.

80. Appendix D, Table D-5.1-1, Page D-397:

SWMU 35-003(d)-00: Aluminum, barium, and nickel were not retained as COPCs in Section D-5.1-4, but are included in the Tables D-5.1.1 and F-6.4-4. Resolve the discrepancies and revise the tables accordingly.

81. Appendix D, Table D-5.1-2, Page D-398:

SWMU 35-003(d)-00: Maximum detected values for cobalt-60 and strontium-90 are 0.151 and 52.4 pCi/g, respectively (location ID# MO-00032), not 0.108 and 42.8 pCi/g as reported. Revise the table accordingly.

82. Appendix D, Table D-5.2-1, Page D-399:

SWMU 35-009(d): Antimony should have been retained as a COPC and included in the risk evaluations. Revise tables D-5.2-1 and F-6.4-7 accordingly.

83. Appendix D, Table D-5.3-1, Page D-400:

SWMU 35-016(k)-00: Maximum detected values reported for antimony, chromium, and selenium are not the same values as reported in Table D-5.0-4. Revise Tables D-5.3-1, F-6.4-10 and F-6.4-11 accordingly.

84. Appendix F, Section F-6.4.1 Screening Levels, Page F-103:

The second paragraph states that the Pratt Canyon Subarea is designated for industrial use; however, the default industrial worker exposure assumptions (8 hour work day for 225 days per year) were not considered realistic for the actual use of the subarea. Therefore, the screening evaluation used the recreational scenario SSLs, which are based on a 1 hour per day exposure for 200 days per year. These are reasonable assumptions for current use; however, if the site could be redeveloped for industrial use, future industrial risks must be evaluated. Clarify why future industrial use is not a reasonable land use for this subarea. Alternatively, perform an industrial screen to determine if any site restrictions or remedial actions are necessary. Revise the IR to address this issue.

85. Figure F-6.2-2, Index Map of Pratt Canyon Area A Sampling Locations, page F-216:

SWMU 35-016(k)-00: Additional samples were collected in 2007, but the figure has not been updated to depict 2007 sampling locations. Revise all related figures for the Pratt Canyon Subarea to include 2007 sampling locations.

Ten Site Canyon Subarea

86. Section 9.3, Conclusions-Ten Site Canyon Subarea, page 36:

The second paragraph summarizes the residential risks, however, the conclusions do not agree with the results presented on Page F-123 of Appendix F (Risk Assessment), Section F-7.4.4 (Interpretation), first paragraph. The text states that the range of total excess cancer risks for this site is 5×10^{-9} to 4×10^{-7} (equivalent to the NMED target level of 1×10^{-5}) when in fact, the risks are well below the NMED target level of 1×10^{-5} . In addition, this paragraph inappropriately states that the total dose range for a "recreational user" is equivalent to a total risk range of 5×10^{-5} to 4×10^{-6} . This sentence should refer to the total dose range for a "residential user". It should be noted that Appendix F, Section F-7.4.4, Page F-123 also lists this same error; the term "recreational user" in the first paragraph should be replaced with "residential user". Ensure that the conclusions presented in Section 9.3 accurately reflect the information presented in Appendix F. In addition, for consistency between Appendix F and the main report text, ensure that risk ranges are presented from low to high rather than from high to low.

87. Appendix D, Table D-6.0-4, Page D-431:

SWMU 35-010(a)-99: Aluminum and barium were retained as COPCs in Section D-6.1.3, but are not included in the Table D-6.0-4. Revise the table accordingly.

88. Appendix D, Table D-6.1-1, Page D-434:

SWMU 35-010(a)-99: Maximum detected values reported for chromium, lead, and nickel are not the same values reported in Table D-6.0-4. Resolve the discrepancy and revise the table accordingly. Also revise risk screening evaluation Tables F-7.4-7 and F-7.4-8 accordingly.

89. Appendix F, Section F-7.4.1 Screening Levels, Page F-120:

The second paragraph states that the Ten Site Canyon Subarea is designated for industrial use; however, the default industrial worker exposure assumptions (8 hour work day for 225 days per year) were not considered realistic for the actual use of the subarea. Therefore, the screening evaluation used the recreational scenario SSLs, which are based on a 1 hour per day exposure for 200 days per year. These are reasonable assumptions for current use; however, if the site could be redeveloped for industrial use, future industrial risks must be evaluated. Clarify why future industrial use is not a reasonable land use for this subarea. Alternatively, perform an industrial screen to determine if any site restrictions or remedial actions are necessary.

East Ten Site Slope Subarea

90. Section 10.3, Conclusions-East Ten Site Slope Subarea, page 41:

The second paragraph presents a summary of the residential risks; however, the presentation does not agree with the results listed in Appendix F (Risk Assessment). The main text discussion states that the total dose range for a residential user is equivalent to a total risk range of 1×10^{-4} to 5×10^{-6} . However, Appendix F (see Section F.8.4.4 (Interpretation), second paragraph, Page F-146) indicates that this total risk range is associated with an industrial exposure. The residential total dose range should be equivalent to 2×10^{-7} to 5×10^{-4} which is stated on Page F-146, Section F-8.4.4, first paragraph. However, Section F-8.4.4 later identifies 2×10^{-7} to 5×10^{-4} as the industrial total risk range. Revise Section 10.3 and Appendix F, Section F-8.4.4 to address these issues.

91. Appendix D, Section D-7.4-4, Page D-118:

SWMU 05-005(a)-00: Cesium-137 was detected at 0.425 mg/kg (sample RE05-04-54777, Table D-7.0-5), it is not identified as a COPC, nor is any explanation provided as to why it is not considered a COPC. Revise the IR to include cesium-137 as a COPC.

92. Appendix D, Table D-7.0-1, Page D-455:

AOC 05-001(c): Two additional samples were collected (6.2-6.7 and 7.0-7.5 ft) at location 05-22894 (page F-137), but are not included in the table. It is not clear if there were no detected concentrations at these depths or the results were left out from Table D-7.0-4 by mistake. Resolve the discrepancies and revise the table accordingly.

93. Appendix D, Table D-7.0-2, Page D-458:

Additional data collected in 2007 for SWMU 05-001(a)-99 and AOC 05-001(c) has not been added to the table. Revise the table to include additional data.

94. Appendix D, Table D-7.0-4, Page D-471:

SWMU 05-001(a)-99: Cadmium and thallium were retained as COPCs in Section D-7.2.3, but are not included in the Table D-7.0-4. Nickel and chromium were detected at 493 mg/kg and 71.1 mg/kg (Figure F-8.2-7) at location 05-02056 (19-20 ft), but are not included in the table. Revise Table D-7.0-4 accordingly.

SWMU 05-005(a)-00: Maximum detected values reported in Table D-7.4-1 for barium, mercury and selenium do not agree with values reported in Table D-7.0-4. Since aluminum was retained as a COPC, it must be included in the table. Revise the table accordingly.

SWMU 52-002(a): The Table D-7.0-4 does not include any data for samples collected from 0-1 ft and does not report any detected values for selenium, but Table D-7.5-1 reports 0.881 mg/kg as maximum detected selenium value in samples collected from both 0-1 and 0-10 ft. Resolve the discrepancies and revise the appropriate tables in appendices D and F.

95. Appendix D, Table D-7.0-5, Page D-480:

SWMU 05-005(a)-00: The maximum value of 0.507 pCi/g reported for americium-241 in Table D-7.4-2 does not agree with the maximum value reported in Table D-7.0-5.

SWMU 52-002(a): The maximum value of 0.506 pCi/g reported for cesium-137 in Table D-7.5-2 does not agree with the maximum value reported in Table D-7.0-5.

SWMU 52-003(a): The maximum detected values reported for plutonium-238, -239, and uranium-238 in Table D-7.6-1 are not the same as the maximum values reported in Table D-7.0-5. The maximum values reported for Pu-238, Pu-239 and U-238 should be 0.428, 0.018, and 2.46, and not 0.0277, 0.4281 and 0.182, respectively as reported.

SWMU 63-001(b): The maximum detected value reported for U-235 in Table D-7.9-2 does not agree with values reported in Table D-7.0-5. There is no detected value reported for U-235 in samples collected from 0-10 ft depth.

Resolve the above mentioned discrepancies and revise the appropriate tables in appendices D and F.

96. Appendix D, Table D-7.0-6, Page D-485:

SWMU 05-001(a)-99: Incomplete data are reported for SWMU 05-001(a)-99. Results for only one sample (RE05-04-54762), with detected values for bis(2-ethylhexyl) phthalate and trichlorofluoromethane, are reported in the Table D-7.0-6. However, Sections D-7.2.8 and D-7.2.9 identify many other organic chemicals as COPCs in soil, fill and tuff. Provide the results for all of the data from analyses of all soil, fill and tuff samples collected at SWMU 05-001(a)-99.

SWMU 05-005(a)-00: The maximum detected value for trichlorofluoromethane is reported as 0.0042 mg/kg (0-10 ft) in Table D-7.0-6, and as 0.003 in Table D-7.4-3. Resolve the discrepancy and revise the table accordingly.

97. Appendix F, Table F-8.4-4, Page F-336:

SWMU 04-001-99: Pyrene was retained as a COPC in Appendix D (page D-111 and Table D-7.1-3), but was not included in risk screening evaluation. Revise the table to include pyrene.

98. Appendix F, Table F-8.4-10, Page F-338:

AOC 05-001(c): Aluminum and zinc were not retained as COPCs in Appendix D (page D-115 and Table D-7.3-1), but are included in the risk screening evaluation. Resolve the discrepancy and revise the table or text accordingly.

Sigma Mesa Subarea

99. Section 11.3, Conclusions-Sigma Mesa Subarea, page 46:

The first paragraph provides a summary of the residential risk results; however, the information does not agree with the results presented in Appendix F, Risk Assessment. Section 11.3 states that the total dose for an industrial user is equivalent to a total risk of 1×10^{-4} when it should be referring to a residential user. The same error is observed in Appendix F (see Section F.9.4.4, Interpretation, first paragraph, Page F-161), where the total dose for a residential user is referred to as the total dose for an industrial user. Revise Section 11.3 and Appendix F, Section F.9.4.4 to eliminate these errors.

100. Section D-8.3.3, Inorganic COPC Summary at SWMU 60-005(a), Page D-135:

Antimony was not detected; the detection limits were greater than the background values in several samples and was therefore retained as a COPC in Section 8.3.1. Antimony should be included in the evaluations of risk for the site. Revise the text and Table D-8.3-1 to include antimony.

101. Appendix D, Table D-8.0-5, Page D-520:

SWMU 60-005(a): The maximum reported value for tritium is 2.688621 and not 0.623037 pCi/g according to Table D-8.0-5. Revise the appropriate tables in appendices D and F to report correct value for tritium.

102. Appendix D, Table D-8.1-1, Page D-523:

SWMU 60-004(c): According to Table D-8.0-5, europium-152 was detected at 0.484 pCi/g (location 60-01200, 1.00-1.50 ft.) and was retained as a COPC (page D-133), but is not included in the table. Revise the Table to include europium-152.

103. Appendix D, Table D-8.2-2, Page D-523:

SWMU 60-004(e): According to Table D-8.0-6, maximum values for Aroclor-1254 and Aroclor-1260 (0-1 ft.) are 0.013 and 0.0066 respectively, not 0.005 and 0.0059 mg/kg, respectively. Revise the Table to reflect correct values for Aroclor-1254 and Aroclor-1260.

Messrs. Gregory and McInroy
December 12, 2007
Page 21

The Permittees must address all comments and submit a revised IR by January 14, 2007. As part of the response, the Permittees must include a table that details where all revisions have been made to the IR 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 of the IR that includes all changes and edits to the IR (electronic copy) with the response to this NOD.

Please contact Neelam Dhawan of my staff at (505) 476-6040 should you have any questions.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
K. Roberts, NMED HWB
S. Yanicak, NMED DOE OB, MS J993
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File: LANL, Middle Mortandad/Ten Site Aggregate Area (TA-4, -5, -35, -52, -60, -63), 2007