

**Response to the Notice of Disapproval for the
Phase II Investigation Work Plan for Upper Mortandad Canyon Aggregate Area,
Los Alamos National Laboratory, EPA ID No: NM0890010515, HWB-LANL-10-092,
Dated April 1, 2011**

INTRODUCTION

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. Los Alamos National Laboratory's (LANL's or the Laboratory's) responses follow each NMED comment. This response contains data on radioactive materials, including source, special nuclear, and byproduct material. Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to NMED in accordance with U.S. Department of Energy policy.

NMED Comment

1. Section 4.1.6.3, Proposed Sampling at SWMU 03-049(b)-00, page 13:

The Permittees propose to collect samples only at location MO-605029 to define the vertical extent of polychlorinated biphenyl (PCB) contamination. PCBs were only detected in the deepest sample (8-9 ft) at location MO-605025 indicating that the vertical extent of PCBs is not defined at this location. Even though the Upper Mortandad Canyon Aggregate Area Investigation Report, Revision 1, April 2010 (Report) concluded that the vertical and lateral extent of PCBs was not defined (See page I-62), the IWP does not include the collection of any additional samples to define the lateral extent of PCBs. PCB analysis must be added to the analytical suite for the samples proposed to be collected at location MO-605025 to define the vertical extent at this location, and to the analytical suite for samples proposed to be collected at location 49b-1 to define the lateral extent of PCB contamination at Solid Waste Management Unit (SWMU) 03-049(b)-00.

LANL Response

1. The text in section 4.1.6.2 has been revised to indicate the vertical extent of polychlorinated biphenyls (PCBs) is not defined at location MO-605025, and the lateral extent of PCBs is not defined downgradient of the site. The text in section 4.1.6.3 has been revised to include PCB analysis at locations MO-605025, 49b-1, and 49b-2. Table 4.1-6 has been revised to include the additional PCB analysis. An additional sampling depth has also been added to locations MO-605025, 49b-1, and 49b-2 in Table 4.1-6.

NMED Comment

2. Section 4.1.7.3, Proposed Sampling and Soil Removal at SWMU 03-049(e), page 14:

The section heading indicates that the Permittees intend to remove soil from SWMU 03-049(e). However, neither the text nor Figure 4.1-10 provides information on the area where soils will be removed and the anticipated depth of excavation. During previous investigations, samples were collected from 0-0.5 ft, 0.5-1.5 ft, and 1.0-2.0 ft. To define the vertical extent of inorganic chemicals, the Permittees propose to collect samples from greater depths (3-4 ft and 6-7 ft) at nine previously sampled locations. It is not clear if the proposed sampling depths are relative to the ground surface or the bottom of excavation. Without information on the proposed depth and extent of excavation,

NMED cannot evaluate the proposed sampling locations and depths. Revise the IWP to provide this information on the proposed soil removal area and justification for the proposed sampling locations and depths.

LANL Response

2. The heading of section 4.1.7.3 is incorrect. No soil removal is proposed at Solid Waste Management Unit (SWMU) 03-049(e). The heading of section 4.1.7.3 has been revised to "Proposed Sampling at SWMU 03-049(e)." All proposed sampling depths are below ground surface (bgs).

NMED Comment

3. Section 4.1.9.2, Previous Investigations, pages 16-17:

According to Figure 4.1-16, location MO-604994 is north of locations MO-604990 and MO-604991, not south as reported.

LANL Response

3. The text in section 4.1.9.2 has been revised to state the concentrations of chromium decreased to the north from locations MO-604990 and MO-604991 to location MO-604994.

NMED Comment

4. Section 4.4.1.3, Proposed Sampling at AOC 48-001, page 23:

Sampling location MO-604942 is located near the southwest corner of building 48-1, not the southeast corner as reported.

LANL Response

4. The text in section 4.4.1.3 has been revised to state the previously sampled location MO-604942 is located near the southwest corner of building 48-1.

NMED Comment

5. Section 4.4.2.1, Site Description and Operational History, page 23:

According to Figure 4.4-2, SWMU 48-002(a) is located south and southeast of building 48-1, not southwest as reported.

LANL Response

5. The text in section 4.4.2.1 has been revised to state the former container storage area at SWMU 48-002(a) is located at the south end of building 48-1.

NMED Comment

6. Section 4.4.6.3, Proposed Sampling at SWMU 48-007(c), page 28:

The vertical extent of chromium contamination is not defined at SWMU 48-007(c). In addition to locations MO-605163 and MO-605164, the concentrations of chromium increased at location MO-605165. However, chromium analyses are not proposed for samples to be collected at location MO-605165. Add chromium analysis for samples to be collected at location MO-605165 to define the vertical extent of chromium contamination at this location.

LANL Response

6. The chromium data at location MO-605165 was reevaluated as part of the work plan. The concentration in the deepest sample (11.2 mg/kg) at location MO-605165 is less than the maximum tuff (Qbt 2,3,4) background concentration (13 mg/kg). Therefore, the vertical extent of chromium is defined and additional sampling for chromium at location MO-605165 is not warranted. No revision to the work plan is necessary.

NMED Comment

7. Section 4.5.1.3, Proposed Sampling at Consolidated Unit 50-004(a)-00, page 32:

- a. *The text states that shallow subsurface samples will be collected at 26 previously sampled locations, extending the depth at these locations to define the vertical extent of radionuclides and inorganic chemicals. However, Table 4.5-1 indicates only 19 locations where additional samples are proposed to be collected. Resolve this discrepancy.*
- b. *Table 6.8-2 of the Report indicates that barium concentrations increased with depth at locations 50-03018, 50-03020, 50-03021, 50-03022, 50-03025, 50-03032, 50-03038, MO-605458, MO-605473, and MO-605626. The Permittees propose to collect samples from location MO-605473, but did not include barium analyses for samples to be collected at this location. Include barium in the analytical suite for samples to be collected at location MO-605473.*
- c. *Cobalt was detected in the deepest samples at locations MO-605458 and MO-605473, indicating that the vertical extent is not defined at these locations. Cobalt analyses are proposed for samples to be collected from location MO-605473 (4.17 mg/kg), but not from location MO-605458 (6.95 mg/kg). Include cobalt in the analytical suite for samples to be collected at location MO-605458 to define the vertical extent.*
- d. *Copper was detected in the deepest samples at locations 50-03038, MO-605458, and MO-605473. The IWP includes collection of samples from deeper depths at all three locations, but did not include copper analyses for samples that will be collected from location MO-605458. Add copper to the analytical suite for the samples to be collected from location MO-605458.*
- e. *Table 4.5-1 indicates that samples are proposed to be collected from location MO-605468 from two depths (14-15 ft and 24-25 ft). However, the table does not indicate what analyses will be conducted on these samples. Revise Table 4.5-1 to provide information on proposed analyses for these samples.*

LANL Response

7. a. The text of section 4.5.1.3 has been revised to clarify the numbers and relationships of proposed sampling locations. Sampling is proposed at 18 locations to define the vertical extent. However, because some of these locations are collocated or near other sampling locations, the data will also be used to evaluate vertical extent at the collocated or nearby locations. The use of collocated samples for vertical extent is discussed in the second paragraph of section 4.5.1.3. Table 4.5-1 has been revised to indicate sampling at 18 locations rather than 19 locations (see response 7e).
- b. Table 4.5-1 (footnote g) has been revised to include analysis of barium for proposed samples at location MO-605473.
- c. Table 4.5-1 (footnote e) has been revised to include analysis of cobalt for proposed samples at location MO-605458.
- d. Table 4.5-1 (footnote e) has been revised to include analysis of copper for proposed samples at location MO-605458.
- e. Location MO-605468 was incorrectly identified for proposed sampling in Table 4.5-1. All detected inorganic chemicals, organic chemicals, and radionuclides at that location decreased with depth. Therefore, the vertical extent is defined at location MO-605468. Table 4.5-1 has been revised to delete location MO-605468. Location MO-605468 has also been removed from the list of proposed locations in section 4.5.1.3. Figure 4.5-1 has been revised to show location MO-605468 as an existing sampling location rather than a proposed sampling location.

NMED Comment

8. Section 4.5.3.2, Previous Investigations, page 35-36:

- a. *The text states that the vertical extent of perchlorate is not defined at location MO-605084. However, Table 6.11-2 of the Report indicates that the vertical extent of perchlorate is defined at location MO-605084, but is not defined at location MO-605087. Resolve this discrepancy. Propose to collect additional samples at this location, or provide justification for not collecting them.*
- b. *The text states that the vertical extent of americium-241, cesium-137, plutonium-238, strontium-90, tritium, and uranium-235/236 is not defined at SWMU 50-006(d). Section 9.1 (Additional Field Characterization Activities) of the Report concluded that the vertical extent was also not defined for cobalt-60, plutonium-239/240, thorium-232, and uranium-234. However, analyses of cobalt-60, isotopic uranium, and isotopic plutonium are included in Table 4.5-3 (Proposed Sampling at SWMU 50-006(d)), but thorium-232 is not included. Resolve this discrepancy between the text and table, or provide justification for not including thorium-232 in the analytical suite.*

LANL Response

8. a. The text in section 4.5.3.2 incorrectly stated that the vertical extent of perchlorate is not defined at location MO-605084. Perchlorate was not detected in the deepest sample (6.5–7.5 ft bgs) at that location. Therefore, the vertical extent of perchlorate is defined at location MO-605084. However, at location MO-605087 the concentrations of perchlorate increased with depth and the vertical extent is not defined. The text in section 4.5.3.2 has been revised to indicate that vertical extent of

perchlorate is not defined at location MO-605087, not location MO-605084, as indicated in the Phase II Investigation Work Plan. Table 4.5-3 has also been revised to remove the analysis of perchlorate at location MO-605084 and to add analysis of perchlorate for location MO-605087 at depths of 8–9 ft bgs and 12–13 ft bgs.

- b. The vertical extent of thorium-232 is not defined at locations 50-06002, 50-06019, and 50-06026. These 1993 Resource Conservation and Recovery Act facility investigation (RFI) locations are located in Effluent Canyon and Mortandad Canyon. Section 4.5.3.2 has been revised to explain that the area encompassing these locations is included in reaches E-1E of Effluent Canyon and M-2W of Mortandad Canyon, which have been investigated separately (LANL 2006, 094161). Thorium-232 was not detected above background value in sediment in either of these reaches (LANL 2006, 094161, Table 6.2-3), and was not identified as a chemical of potential concern in either reach (LANL 2006, 094161, Table 8.2-3). The Mortandad Canyon investigation report stated, on the basis of multiple years of sediment and water sampling data, Effluent Canyon reach E-1E has been a primary source of radionuclide contamination in Mortandad Canyon, but that the concentrations of radionuclides have generally declined substantially with time (LANL 2006, 094161, p. 136). The Canyons investigation report also found the human health risk from contamination to be below the target level, although there is a potential for an excess radiological dose due mainly to cesium-137 in reach E-1E under a trail user scenario. This potential dose is mitigated by the fact that there is no developed trail in the contaminated area of the reach and the canyon is closed to recreational use, and no remedial action was recommended (LANL 2006, 094161, p. 137). Because Effluent Canyon and Mortandad Canyon have been investigated, no additional sampling and analysis for thorium-232 in the canyon is necessary. Figure 4.5-4 has been revised to show reaches E-1W, E-1E, and M-2W in Effluent Canyon and Mortandad Canyon.

NMED Comment

9. Section 4.5.3.3, Proposed Sampling and Soil Removal at SWMU 50-006(d), page 35:

- a. *The section heading indicates that the Permittees intend to remove soil from the SWMU 50-006(d). However, neither the text nor Figure 4.5-4 provides information on location where soil removal is proposed or the anticipated depth of the excavation (See Comment 3). Without information on the anticipated dimensions of the excavation, NMED cannot evaluate if the proposed sampling locations and depths will be adequate to define the nature and extent of contamination. Revise the IWP to provide information on the proposed excavation and justification for the proposed sampling locations and depths.*
- b. *The vertical extent of americium-241 is not defined at locations MO-605088, 50-06007 and 50-06024 (See Table 6.11-4 of the Report). The Permittees propose to collect additional samples only at location MO-605088 to define the vertical extent of americium-241 contamination. Additional samples at the other two locations are required to define the vertical extent of contamination. In addition, americium-241 was detected at concentrations above background/fallout values (BV/FV) at locations 50-06000, 50-06001, 50-06006, 50-06013, 50-06025, 50-06026 in surface samples; samples were not collected from greater depths to define the vertical extent. Propose additional sampling to define the vertical extent of americium-241 at these locations, or provide justification for not proposing to collect additional samples at these locations.*

- c. *The concentrations of cesium-137 increased with depth at locations 50-06002, 50-06007, 50-06012, 50-06016, 50-06018, 50-06022, 50-06023, 50-06024, MO-605085, and MO-605088. In addition, samples collected from locations 50-06000, 50-06001, 50-06003, 50-06006, 50-06010, 50-06011, 50-06025, and 50-06026 (where samples were collected from only one depth) contained concentrations of cesium-137 several orders of magnitude higher than the BV/FVs. The highest concentration of cesium-137 (373.11 mg/kg) was detected in the deepest sample collected (3.0 ft-4.0 ft) at location 50-06022. The IWP includes collection of additional samples only at locations MO-605085 and MO-605088 to define the vertical extent. Propose the collection of additional samples at all these locations to define the vertical extent of contamination, or provide justification for not proposing to collect additional samples at these locations.*
- d. *The Report concluded that the vertical extent of cobalt-60 was not defined at SWMU 50-006(d). Propose analysis of additional samples for cobalt-60, or provide a justification for not collecting samples to define vertical extent of cobalt-60.*
- e. *Plutonium-238 was detected at several locations where either only surface samples were collected or concentrations increased with depth. However, the Permittees propose to collect additional samples only from two locations MO-605085 and MO-605088. For example, concentration increased with depth at locations 50-06007, 50-06021, 50-06022, and 50-06024, but no additional sampling is proposed. Review the data presented in the Report and propose to collect additional samples at locations where concentrations increased with depth or where samples were collected from one depth and concentrations were above BV/FVs.*
- f. *Plutonium-239/240 was detected at several locations where either only surface samples were collected or concentrations increased with depth. However, the Permittees propose to collect additional samples only from two locations MO-605085 and MO-605088. Plutonium-239/240 concentrations also increased with depth at location 50-06024 and concentrations were above BV/FVs at locations 50-06025 and 50-06026 (samples collected from only one depth). Review the data presented in the Report and propose to collect additional samples at locations where concentrations increased with depth or where samples were collected only from one depth and concentrations were above BV/FVs.*
- g. *Strontium-90 concentrations increased with depth at several locations in the drainage but no additional sampling to define the vertical extent is proposed. For example, concentrations increased with depth at 50-06015, 50-06018, 50-06022, and 50-06023, but no additional sampling is proposed to define the vertical extent of contamination. Review the data presented in the Report and propose to collect additional samples at locations where concentrations increased with depth or where samples were collected only from one depth and concentrations were above BV/FVs.*
- h. *Tritium concentrations increased with depth at several locations. In addition to sampling proposed at locations MO-605084, MO-605085, MO-605088, and MO-605506, propose to collect additional samples at locations 50-06013, 50-06016, and 50-06018 to define the vertical extent of tritium at these locations.*

LANL Response

9. a. The heading of section 4.5.3.3 is incorrect. No soil removal is proposed at SWMU 50-006(d). The heading of section 4.5.3.3 has been revised to "Proposed Sampling at SWMU 50-006(d)."
- b-h. With the exception of locations MO-605085 and MO-605088, all of the locations are 1993 RFI samples located in Effluent Canyon or Mortandad Canyon. Section 4.5.3.2 has been revised to explain that the area encompassing the identified sampling locations is included in reaches E-1E of Effluent Canyon and M-2W of Mortandad Canyon, which have been investigated separately (LANL 2006, 094161). The Mortandad Canyon investigation report stated, on the basis of multiple years of sediment and water sampling data, that Effluent Canyon reach E-1E has been a primary source of radionuclide contamination in Mortandad Canyon, but that the concentrations of radionuclides have generally declined substantially with time (LANL 2006, 094161, p. 136). That investigation report also found the risk from contamination to be below the target level, although there is a potential for an excess radiological dose due mainly to cesium-137 in reach E-1E under a trail user scenario. This potential dose is mitigated by the fact that there is no developed trail in the contaminated area of the reach and the canyon is closed to recreational use, and no remedial action was recommended (LANL 2006, 094161, p. 137). Because Effluent Canyon and Mortandad Canyon have been investigated, no additional sampling and analysis is necessary. Figure 4.5-4 has been revised to show reaches E-1W, E-1E, and M-2W in Effluent Canyon and Mortandad Canyon.

The Mortandad Canyon investigation, however, did not analyze samples for nitrate or perchlorate. Because the extent of these contaminants was not defined in the Upper Mortandad Canyon Aggregate Area investigation report, samples from location MO-605085 will be collected and analyzed for nitrate and perchlorate only. The text in section 4.5.3.3 has been revised to state that samples will be collected and analyzed for nitrate and perchlorate at location 6d-1 because those analytes were not addressed in the Mortandad Canyon investigation report. Table 4.5-3 has been revised to include only nitrate and perchlorate analyses at existing location MO-605085 (to determine vertical extent) and at new location 6d-1, downgradient of MO-605085 (to determine lateral extent). Lateral extent for all of the other contaminants, including chromium, copper, and mercury, is determined by samples collected for the Mortandad Canyon investigation.

NMED Comment

10. Appendix B, Section B-2.0, IDW, page B-1:

Module VIII of the Laboratory Hazardous Waste Facility Permit is no longer in effect. Update the text to provide the correct reference to effective Hazardous Waste Facility Permit.

LANL Response

10. The text of the third paragraph of section B-2.0 has been revised to state that the Laboratory's Hazardous Waste Minimization Report is updated annually as a requirement of the Laboratory's Hazardous Waste Facility Permit. Reference to Module VIII has been removed.

REFERENCE

LANL (Los Alamos National Laboratory), October 2006. "Mortandad Canyon Investigation Report," Los Alamos National Laboratory document LA-UR-06-6752, Los Alamos, New Mexico. (LANL 2006, 094161)

**Cross-Reference of NMED NOD Comments and Revisions to the
Upper Mortandad Canyon Aggregate Area Phase II Investigation Work Plan**

| NMED NOD Comment No. | Summary of NOD Comment | Section(s)/Page(s) in Original Report | Section(s)/Page(s) in Revised Report | Nature of Revision |
|-------------------------|---|---------------------------------------|--|--|
| General Comments | | | | |
| 1 | Add polychlorinated biphenyl (PCB) analysis to the analytical suite for samples proposed at location MO-605025 to define the vertical extent at that location, and to the samples at location 49b-1 to define the lateral extend of PCBs. | Section 4.1.6.3, p. 13 | Sections 4.1.6.2, 4.1.6.3, Table 4.1-6 | PCB analysis has been added to samples at locations MO-605025, 49b-1, and 49b-2. |
| 2 | Revise the investigation work plan (IWP)to provide information on proposed soil removal area and justification for proposed sampling locations and depths. | Section 4.1.7.3, p. 14 | Section 4.1.7.3 | Section heading is incorrect. No soil removal is proposed at this site. Revised heading: "Proposed Sampling at SWMU 03-049(e)" |
| 3 | Revise text to state that location MO-604994 is north of locations MO-604990 and MO-604991 as shown in Figure 4.1-16. | Section 4.1.9.2, pp. 16–17 | Section 4.1.9.2 | Revised text to state concentrations of chromium decreased to the north. |
| 4 | Revise text to state that location MO-604942 is near the southwest corner of building 48-1, not the southeast corner. | Section 4.4.1.3, p. 23 | Section 4.4.1.3 | Revised text to state location MO-604942 is near the southwest corner of building 48-1. |
| 5 | Revise text to state that Solid Waste Management Unit (SWMU) 48-002(a) is located south and southeast of building 48-1, not southwest as reported. | Section 4.4.2.1, p. 23 | Section 4.4.2.1 | Revised text to state the former container storage area at SWMU 48-002(a) was located at the south end of building 48-1. |
| 6 | Add chromium analysis for samples to be collected at location MO-605165 to define vertical extent. | Section 4.4.6.3, p. 28 | n/a* | No revision necessary. The concentration of chromium is less than maximum tuff background concentration. |
| 7a | Resolve apparent discrepancy between stated number of locations in section 4.5.1.3 and list of proposed sampling locations in Table 4.5-1 | Section 4.5.1.3, p. 32 Table 4.5-1 | Section 4.5.1.3 Table 4.5-1 | Revised text and table to present the 18 locations where samples are proposed to be collected. |
| 7b | Include barium in analytical suite for samples to be collected at location MO-605473. | Section 4.5.1.3, p. 32 Table 4.5-1 | Table 4.5-1 | Footnote "g" revised to include barium at location MO-605473. |

| NMED NOD Comment No. | Summary of NOD Comment | Section(s)/Page(s) in Original Report | Section(s)/Page(s) in Revised Report | Nature of Revision |
|----------------------|--|---------------------------------------|--|--|
| 7c | Include cobalt in analytical suite for samples to be collected at location MO-605458. | Section 4.5.1.3, p. 32 Table 4.5-1 | Table 4.5-1 | Footnote "e" revised to include cobalt at location MO-605458. |
| 7d | Include copper in analytical suite for samples to be collected at location MO-605458. | Section 4.5.1.3, p. 32 Table 4.5-1 | Table 4.5-1 | Footnote "e" revised to include copper at location MO-605458. |
| 7e | Revise Table 4.5-1 to provide information on proposed analyses for samples at location MO-605468. | Section 4.5.1.3, p. 32 Table 4.5-1 | Table 4.5-1 Figure 4.5-1 | Deleted location MO-605468 from table (no proposed sampling because extent is defined at that location). Revised figure to remove proposed sampling location symbol. |
| 8a | Resolve discrepancy of whether vertical extent of perchlorate is defined at locations MO-605084 and MO-605087, propose sampling or provide justification for not sampling. | Section 4.5.3.2, pp. 35-36 | Sections 4.5.3.2, 4.5.3.3, Table 4.5-3 | Deleted location MO-605084 from text of 5th paragraph, section 4.5.3.2, added location MO-605087. Added location MO-605087 to text of 1st paragraph section 4.5.3.3. Deleted perchlorate analysis for location MO-605084 in Table 4.5-3. Added location MO-605087 to Table 4.5-3 (2 sampling depths, perchlorate analysis only). |
| 8b | Resolve discrepancy of whether vertical extent of thorium-232 is defined. Include thorium-232 in proposed analytical suite or provide justification for not including. | Section 4.5.3.2, pp. 35-36 | Section 4.5.3.2 Figure 4.5-4 | The 1993 Resource Conservation and Recovery Act facility investigation (RFI) locations where thorium-232 was detected are below the toe of the slope in the bottom of Effluent Canyon and are beyond the scope of this investigation. These locations are included in reaches E-1E of Effluent Canyon and M-2W of Mortandad Canyon, which have been investigated separately. No additional sampling and analysis for thorium-232 is necessary. |

| NMED NOD Comment No. | Summary of NOD Comment | Section(s)/Page(s) in Original Report | Section(s)/Page(s) in Revised Report | Nature of Revision |
|----------------------|---|---------------------------------------|---|--|
| 9a | Revise IWP to provide information on proposed excavation and justification for proposed sampling locations and depths. | Section 4.5.3.3, p. 35 | Section 4.5.3.3 | Section heading is incorrect. No soil removal is proposed at this site. Revised heading: "Proposed Sampling at SWMU 50-006(d)" |
| 9b | Propose additional sampling to define vertical extent of americium-241 at locations 50-06000, 50-06001, 50-06006, 50-06013, 50-06025, and 50-06026, or provide justification for not sampling. | Section 4.5.3.3, p. 35 | Sections 4.5.3.2, 4.5.3.3 Figure 4.5-4 | All of the locations noted by the New Mexico Environment Department (NMED) are below the toe of the slope in Effluent Canyon or Mortandad Canyon, and are beyond the scope of this investigation. The area encompassing the sampling locations is included in reaches E-1E of Effluent Canyon and M-2W of Mortandad Canyon, which have been investigated separately. Sections 4.5.3.2 and 4.5.3.3 have been revised to include this discussion. Figure 4.5-4 has been revised to show reaches E-1W, E-1E, and M-2W in Effluent and Mortandad Canyons. No additional sampling for radionuclides in Effluent and Mortandad Canyons is necessary. Sampling for nitrate and perchlorate has been added to location 6d-1. |
| 9c | Propose additional sampling to define vertical extent of cesium-137 at locations 50-06000, 50-06001, 50-06002, 50-06003, 50-06006, 50-06007, 50-06010, 50-06011, 50-06012, 50-06016, 50-06018, 50-06022, 50-06023, 50 06024, 50-06025, and 50-06026, or provide justification for not sampling. | Section 4.5.3.3, p. 35 | | |
| 9d | Propose additional sampling to define vertical extent of cobalt-60. | Section 4.5.3.3, p. 35 | | |
| 9e | Propose additional sampling to define vertical extent of plutonium-238 at locations where concentrations increased with depth or only one depth was sampled. | Section 4.5.3.3, p. 35 | | |
| 9f | Propose additional sampling to define vertical extent of plutonium-239/240 at locations where concentrations increased with depth or only one depth was sampled. | Section 4.5.3.3, p. 35 | | |
| 9g | Propose additional sampling to define vertical extent of strontium-90 where concentrations increased with depth or only one depth was sampled. | Section 4.5.3.3, p. 35 | | |
| 9h | Propose additional sampling to define vertical extent of tritium at locations 50-06013, 50-06016, and 50-06018. | Section 4.5.3.3, p. 35 | | |
| 10 | Update text to provide correct reference to effective Hazardous Waste Facility Permit. | Appendix B, Section B-2.0, p. B-1 | Appendix B, Section B-2.0, p. B-1 | Revised text to use correct reference. Removed Module VIII. |

*n/a = Not applicable.