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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

July 29, 2019

Doug Hintze, Manager  
Environmental Management  
Los Alamos Field Office  
P.O. Box 1663 MS-M984  
Los Alamos, NM 87545

**RE: ANNUAL PERIODIC MONITORING REPORT FOR THE GENERAL SURVEILLANCE  
MONITORING GROUP  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID#NM0890010515  
HWB-LANL-18-063**

Dear Mr. Hintze:

The New Mexico Environment Department (NMED) has received the United States Department of Energy's (DOE's) *Annual Periodic Monitoring Report for the General Surveillance Monitoring Group* (Report), dated November 2018 and referenced by EM2018-0065. The Report was received on November 29, 2018.

NMED has reviewed the Report and provided comments to DOE on February 22, 2019 via email. DOE responded to comments on July 7, 2019. NMED's response to DOE's Response is attached with this letter. The 2016 Consent Order requires that "All data collected during each monitoring and sampling event in the reporting period should be included in the [periodic monitoring] reports." DOE must report all exceedances in the periodic monitoring reports (see NMED's Response for specific comments in the attachment). DOE must address NMED's responses to DOE's Response in the upcoming General Surveillance Periodic Monitoring Report, which is due by November 30, 2019.

Mr. Hintze  
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If you have any questions regarding this correspondence, please contact Neelam Dhawan at 505-476-6042.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

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File: 2019 LANL, TA-05 Annual PMR for General Surveillance Monitoring Group

**NMED Response to N3B's Response to NMED Comments on the Annual Periodic Monitoring  
Report for the General Surveillance Monitoring Group  
Dated November 2018**

**INTRODUCTION**

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. The U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office responses follow each NMED comment. NMED responses follow DOE Responses.

**SPECIFIC COMMENTS**

**NMED Comment**

**5.2.1 Surface Water (Base Flow), page 11** – *analytical results from several base flow samples indicate screening level exceedances that are not identified in the Report. Screening levels were exceeded at the following locations:*

1. *Mortandad at Rio Grande – for the October 10, 2017 sample, unfiltered aluminum was detected at 1380 µg/L, which exceeds the hardness-based NMWQCC aquatic life standard for acute exposure of 1,010 µg/L (based on 80 mg/L hardness). For the October 10, 2017 sample, filtered copper was detected at 13.3 µg/L, which exceeds the NMWQCC aquatic life standard for acute and chronic exposure of 11 µg/L and 7 µg/L, respectively (based on 80 mg/L hardness).*

**DOE Response**

1. The Environmental Information Management System was missing an assigned hardness value for Mortandad at Rio Grande; therefore the results were not correctly calculated and left out of the report. The exceedances will be reported in the upcoming General Surveillance Periodic Monitoring Report (PMR), which will be submitted November 30, 2019.  
Additionally, since this location is effluent from the White Rock Waste Water Treatment Plant, the samples are more indicative of urban runoff than of legacy base flow conditions. This will be noted in the above-mentioned upcoming General Surveillance PMR.

**NMED Response**

1. Per the Consent Order, "All data collected during each monitoring and sampling event in the reporting period should be included in the [periodic monitoring] reports." DOE must include the missing data and report exceedances in the next submittal.

**NMED Comment**

2. *Sandia below Wetlands – for the November 28, 2017 sample, total PCBs were detected at 0.00184 µg/L, which exceeds the NMWQCC aquatic life human health standard of 0.00064 µg/L.*

**DOE Response**

2. Sandia below Wetlands was sampled on August 8, 2017, as part of the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP). Sandia below Wetlands was sampled on November 28, 2017, as part of the Sandia Wetlands performance monitoring. The total polychlorinated biphenyl (PCB) exceedance for this sampling event can be found in the “2017 Sandia Wetland Performance Report,” Table D-2.1-1, Analytical Exceedances in surface water at gauging stations E121, E122, and E123 (LANL 2018, 603022).

**NMED Response**

2. The Consent Order specifies that “[the Report] should provide a comparison of the results to the applicable screening levels.” In the upcoming submittal, DOE must indicate that the August 8, 2017 sample at Sandia below Wetlands exceeds the applicable standard.

**NMED Comment**

3. *Sandia right fork at Pwr Plant – for the November 28, 2017 sample, total PCBs were detected at 0.00192 µg/L, which exceeds the NMWQCC aquatic life human health standard of 0.00064 µg/L.*

**DOE Response**

3. Sandia right fork at Pwr Plant was sampled on August 8, 2017, as part of the IFGMP. Sandia right fork at Pwr Plant was sampled on November 28, 2017, as part of the Sandia Wetlands performance monitoring. The total PCB exceedance for this sampling event can be found in the “2017 Sandia Wetland Performance Report,” Table D-2.1-1, Analytical Exceedances in surface water at gauging stations E121, E122, and E123 (LANL 2018, 603022).

**NMED Response**

3. The Consent Order specifies that “[the Report] should provide a comparison of the results to the applicable screening levels.” DOE must revise the Report to indicate the August 8, 2017 sample at Sandia right fork at Pwr Plant exceeds the applicable standard.

**NMED Comment**

**5.2.2 Groundwater, page 11** – analytical results from several groundwater samples indicate screening level exceedances that are not identified in the Report. Screening levels were exceeded at the following locations

1. Spring 1 – for the October 10, 2017 sample, Aroclor-1242 was detected at 0.183 µg/L, which exceeds NMED’s tap water cancer screening level of 0.079 µg/L.

**DOE Response**

1. Per the Consent Order, parameters are compared to a source-level-1 screening level where available. Source level 1 includes the New Mexico Groundwater Standard (NM GW STD) and the U.S. Environmental Protection Agency (EPA) maximum contaminant level (MCL).  
If no source-level-1 screening value has been determined, then a source-level-2 screening value is used. Source level 2 includes NMED soil screening levels (SSLs) per Table A-1, Tap Water, Cancer, and Table A-1, Tap Water, Noncancer.  
Aroclor-1242 has a NM GW STD source-level-1 screening value of 1 µg/L; therefore, results are compared to this value as per the Consent Order.

**NMED Response**

1. Response noted.

**NMED Comment**

2. LAO-3a – for the June 18, 2018 sample, molybdenum was detected at 122 µg/L, which exceeds NMED’s tap water noncancer screening level of 98.7 µg/L.

**DOE Response**

2. Per the Consent Order, parameters are compared to a source-level-1 screening level where available. Source level 1 includes NM GW STD and the EPA MCL values.  
If no source-level-1 screening value has been determined, then a source-level-2 screening value is used. Source level 2 includes NMED SSLs per Table A-1, Tap Water, Cancer, and Table A-1, Tap Water, Noncancer.  
Molybdenum has a NM GW STD source-level-1 value of 1000 µg/L; therefore, results are compared to this value as per the Consent Order.

**NMED Response**

2. Response noted.

**NMED Comment**

**Table 2.0-1, page 17** – the table indicates that alluvial well LLAO-4 was sampled on 6/19/2018. However, the Report does not include analytical results for this sampling event.

**DOE Response**

This was an oversight. These results will be reported in the upcoming General Surveillance PMR. Also, a note will be made in the upcoming General Surveillance PMR to alert readers of this error and where to find the data.

**NMED Response**

Per the Consent Order, "All data collected during each monitoring and sampling event in the reporting period should be included in the [periodic monitoring] reports." DOE must revise the Report to include the missing data.

**NMED Comment**

**Table 4.4-1 General Surveillance Monitoring Group PME Observations and Deviations, page 20** – regional well R-10 screens 1 and 2 have not been sampled for two consecutive sampling events due to mechanical issues. The Report should include a discussion of the status of R-10 S1 and S2 and any attempts made by DOE to correct the mechanical issues.

**DOE Response**

The sampling system was removed in 2017 to replace the pump and motor, reconfigure the lower water level inlet tubing, and to inspect the condition of sampling system components. The sampling system was reinstalled and the performance was tested. There were no detectable leaks in the packer, access port valve, pump shroud, or PVC tubes during testing. R-10 screen 1 and screen 2 were sampled on November 14, 2018. These results will be reported in the upcoming General Surveillance PMR along with the maintenance history described above.

**NMED Response**

Response noted.

**REFERENCES**

LANL (Los Alamos National Laboratory), April 2018. "2017 Sandia Wetland Performance Report," Los Alamos National Laboratory document LA-UR-18-23194, Los Alamos, New Mexico. (LANL 2018, 603022)