



DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-24-BF085-2-1

Received

January 4, 2024

Mr. Rick Shean
Designated Agency Manager
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

JAN 4 2024

NMED Hazardous Waste Bureau

Subject: Submittal of the Response to the Review, 2023 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area, Dated November 21, 2023

Dear Mr. Shean:

Enclosed please find two hard copies with electronic files of the "Response to the Review, 2023 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area, Dated November 21, 2023." After the New Mexico Environment Department (NMED) approves the attached responses, a revised document will be submitted with changes incorporated.

If you have any questions, please contact Michael O. Erickson at (505) 309-1349 (michael.erickson@em-la.doe.gov) or Susan Wacaster at (505) 709-8704 (susan.wacaster@em.doe.gov).

Sincerely,

Digitally signed by
Brian G. Harcek
Date: 2024.01.03
16:02:01 -07'00'

Arturo Q. Duran For
Compliance and Permitting Manager
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Enclosure(s):

1. Two hard copies with electronic files:
Response to the Review, 2023 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area, Dated November 21, 2023 (EM2023-0860)

cc (letter and enclosure[s] emailed):

Laurie King, EPA Region 6, Dallas, TX
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
Steve Yanicak, NMED-DOE-OB
Jason Herman, NMED-GWQB
Neelam Dhawan, NMED-HWB
Ricardo Maestas, NMED-HWB
Michael Petersen, NMED-HWB
Kylian Robinson, NMED-HWB
Jeannette Hyatt, LANL
Stephen Hoffman, NA-LA
Felicia Aguilar, N3B
William Alexander, N3B
Robert Edwards III, N3B
Michael Erickson, N3B
Cheryl Fountain, N3B
Dana Lindsay, N3B
Christian Maupin, N3B
Vince Rodriguez, N3B
Clark Short, N3B
Bradley Smith, N3B
Jeffrey Stevens, N3B
Troy Thomson, N3B
John Evans, EM-LA
Sarah Eli Gilbertson, EM-LA
Brian Harcek, EM-LA
Thomas McCrory, EM-LA
Kenneth Ocker, EM-LA
Kent Rich, EM-LA
Joseph Ritchey, EM-LA
Cheryl Rodriguez, EM-LA
Hai Shen, EM-LA
Susan Wacaster, EM-LA
emla.docs@em.doe.gov
n3brecords@em-la.doe.gov
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**Response to the Review, 2023 Annual Long-Term Monitoring and Maintenance Report for the
Corrective Measures Implementation at Former 260 Outfall Area,
Dated November 21, 2023**

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.

COMMENTS

NMED Comment

1. *Low-Level Tritium results were not provided for the monitoring locations Burning Ground Spring and Martin Spring, following the requirements of the Long-Term Monitoring and Maintenance Plan. Provide the Low-Level Tritium data when the analysis is received or provide a response stating the deviation.*

DOE Response

1. Groundwater samples were collected for low-level tritium analysis at Burning Ground Spring on March 18, 2023, and at Martin Spring on March 13, 2023. A regular groundwater sample was collected from Burning Ground Spring; and both a regular and field duplicate groundwater sample were collected at Martin Spring. The samples were sent to ARS Aleut Analytical, LLC (ALEUT), formerly called American Radiation Services, Inc. (ARSL), in Port Allen, Louisiana, for analysis.

ALEUT is the only laboratory accredited by the DOE Consolidated Audit Program–Accreditation Program for use by the DOE community to perform low-level tritium analyses. The demand for accredited low-level tritium analyses has caused delays in low-level tritium analysis.

Low-level tritium results for the March 2023 sampling events at Martin Spring and Burning Ground Spring were uploaded into Intellus on October 16, 2023, and November 16, 2023, respectively.

Therefore, low-level tritium results were not available for inclusion in the “2023 Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area” (LTMM report) submitted September 29, 2023 (N3B 2023, 702917). Because the report will be revised to address NMEDs additional comments, the low-level tritium results will be included in the 2023 LTMM report, Revision 1. Additionally, low-level tritium results for Burning Ground Spring and Martin Spring are included on CD as Attachment 1 to this response for reference.

NMED Comment

2. *The analytical results for ¹⁵N/¹⁸O Isotopes in Nitrate were not provided for monitoring locations Burning Ground Spring, Bulldog Spring, and Martin Spring, following the requirements of the Long-Term Monitoring and Maintenance Plan. Provide the ¹⁵N/¹⁸O results or provide a response stating the deviation.*

DOE Response

2. Groundwater samples were collected from Burning Ground Spring, Bulldog Spring, and Martin Spring for nitrogen-15/oxygen-18 ($^{15}\text{N}/^{18}\text{O}$) isotopes in nitrate analysis. This analytical suite includes nitrogen-15/nitrogen-14 ratio and oxygen-18/oxygen-16 ratio from nitrate. These samples were sent to the Environmental Sciences Division at Los Alamos National Laboratory (LANL or the Laboratory) for analysis. The Laboratory has a nitrogen and oxygen isotope backlog, and has not analyzed the samples. It is anticipated that the samples will be analyzed beginning in January 2024. The isotope analysis takes approximately 6 to 7 wk to complete, and results are estimated to be available in Intellus in February 2024.

If available, the nitrogen-15/nitrogen-14 ratio and oxygen-18/oxygen-16 ratio from nitrate results will be included in the 2024 LTMM report. Additionally, NMED will be notified when results are received.

NMED Comment

3. *The analytical results were not provided for the semiannual sampling collected on March 20, 2023 at monitoring location CdV-16-611937. The comment provided on Table 2.1-1, Long-Term Monitoring and Maintenance Plan Sampling Program Field Parameters, states that a prioritized suite [was] collected because of limited available water. Provide the analytical results for the semiannual sampling collected on March 20, 2023 or provide a response stating the deviation.*

DOE Response

3. Analytical results were provided for the semiannual sampling event at CdV-16-611937 collected on March 20, 2023, in Appendix B. Results can be found in rows 2333 through 2488.

The comment on location CdV-16-611937 in Table 2.1-1 is an error, as no deviation from the planned sampling occurred.

The report will be revised to correct the CdV-16-611937 March 20, 2023, sampling event. The comment on Table 2.1-1 will be updated to "None," and Table 2.3-1 will be revised to remove the sampling event from the deviations table.

NMED Comment

4. *There is inconsistency between Table 2.1-1, Long-Term Monitoring and Maintenance Plan Sampling Program Field Parameters, and Table 2.2-5, RDX Concentrations in Groundwater, Surface Water, and Springs, for the sampling location Water at Beta on the August 17, 2022 sampling date. Table 2.1-1 states that the sample collection was canceled because the area was inaccessible due to a downed tree in the road and Table 2.2-5 states that the sample collection was canceled because the site was dry. Correct the inconsistency. NMED notes that due diligence to correct the cause of the deviation must occur during the sampling period, when possible, to prioritize the collection of samples required by the Long-Term Monitoring and Maintenance Plan.*

DOE Response

4. The comment on Table 2.1-1 for sampling location Water at Beta on August 17, 2022, was an error, and the comment will be revised to "Canceled: site was dry."

NMED Comment

5. *There is inconsistency between Table 2.1-1, Long-Term Monitoring and Maintenance Plan Sampling Program Field Parameters, and Table 2.2-5, RDX Concentrations in Groundwater, Surface Water, and Springs, for the sampling location SWSC Spring on the March 28, 2023 sampling date. Table 2.1-1 states that the sample collection was canceled because the site was dry and Table 2.2-5 states that the sample collection was canceled because the site was frozen. Correct the inconsistency. NMED notes that due diligence to correct the cause of the deviation must occur during the sampling period, when possible, to prioritize the collection of samples required by the Long-Term Monitoring and Maintenance Plan.*

DOE Response

5. The comment on Table 2.1-1 for sampling location Sanitary Wastewater Systems Consolidation (SWSC) Spring on March 18, 2023, was an error, and the comment will be revised to “Canceled: site was frozen.”

NMED Comment

6. *Appendix A, Field Forms Associated with Sample Collection, include monitoring wells that are not associated with this Report. Additionally, the field notes provided should be organized by date to facilitate easier review.*

DOE Response

6. Field forms not associated with the sample collection will be removed. The fieldwork is organized by watershed, media type, and alphabetically by location; however, to accommodate NMED’s request, this will be reorganized by date in the revision.

REFERENCE

N3B (Newport News Nuclear BWXT-Los Alamos, LLC), September 2023. “2023 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area,” Newport News Nuclear BWXT-Los Alamos, LLC, document EM2023-0581, Los Alamos, New Mexico. (N3B 2023, 702917)

Attachment 1

*Low-Level Tritium Results for
Burning Ground Spring and Martin Spring
(on CD included with this document)*

N3B RECORDS

Media Information Page

This is a placeholder page for a record that cannot be uploaded or would lose meaning or content if uploaded. The record can be requested through regdocs@em-la.doe.gov

Document Date:

1/4/2024

EM ID number:

703029-01

Document Title:

Attachment 1

Submittal of the Response to the Review, 2023 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area, Dated November 21, 2023

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Media type and quantity:

1 CD

Software and version required to read media:

Adobe Acrobat 9.0

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Files are too numerous and large to upload.