



CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 30, 2023

Arturo Duran,  
Designated Agency Manager  
Environmental Management  
Los Alamos Field Office  
1200 Trinity Drive, Suite 400  
Los Alamos, NM 87544

**RE: REVIEW:  
2022-2023 ANNUAL LONG-TERM MONITORING STATUS REPORT (JULY 2022 THROUGH JUNE 2023) FOR THE LOS ALAMOS COUNTY AIRPORT LANDFILL COVER SYSTEM REPLACEMENT, SOLID WASTE MANAGEMENT UNITS 73-001(a,d) IN TECHNICAL AREA 73  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID#NM0890010515  
HWB-LANL-23-049**

Dear Mr. Duran:

The New Mexico Environment Department (NMED) has received the United States Department of Energy's (The Permittee) *2022-2023 Annual Long-Term Monitoring Status Report (July 2022 through June 2023) for the Los Alamos County Airport Landfill Cover System Replacement, Solid Waste Management Units 73-001(a,d) in Technical Area 73* dated and received July 28, 2023, and referenced by EM2023-0423.

In accordance with the approved Long-Term Monitoring Plan, the Permittee submitted a monitoring report for the Los Alamos County Airport Landfill Replacement Cover System that describes the monitoring and inspection results from the previous four quarters (July 2022 - June 2023).

NMED has reviewed the Report and notes that no methane was detected in the semiannual methane monitoring. The Report states that the evapotranspiration (ET) cover system is currently in good condition and functioning as designed. NMED also notes that the surface crack observed in the last quarter of inspection in June 2020 was filled with loose soil from around the surrounding area. The crack was first seen in March 2018 but was not visible in the subsequent inspections. The 2021-2022 Report stated short sections of the surface crack reopened over a length of approximately 50 feet near survey points 34 and 39 in the first quarter inspection. This crack was also observed in the first quarter of this report. The crack was repaired and did not reappear in the final three-quarters of this Report. A second crack was observed in the third quarter of the 2021-2022 monitoring of the ET cover. This crack

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is located in the southern boundary of the cover near survey point 46. The surface crack was estimated at 0.5 inches (in.) wide and possibly 0.5in. to 1 in. deep at its largest depth. The second crack is now closed due to soil infiltration at the surface. According to the memo in this report, dated September 7, 2022, the southern crack was apparently due to the termination of the geomembrane from underneath the riprap in the adjacent lined channel. The crack on top of the geomembrane extended down from the surface a fraction of an inch and did not actually continue into the cover itself.

The Permittee has completed the initial five years (20 quarters) of monitoring. According to the 2017 *Long-Term Monitoring Plan, Los Alamos County Airport Landfill Cover Replacement, Solid Waste Management Units 73-001(a,d) (LTMP)*, after the initial five years of monitoring a Performance of the Remedy Report (PRR) must be submitted to NMED along with a monitoring plan going forward. On June 27, 2023, NMED received DOE's *Request to Reduce Frequency of Monitoring for the Los Alamos County Airport Landfill Cover System, Solid Waste Management Units 73-001(a,d) in Technical Area 73* (as referenced by N3B-2023-0192).

The Permittee suggests continuing monitoring until settlement completely stabilizes and the Permittee states that continued measurements of the water balance of the cover system should continue to provide defensible data for the continued use of ET covers for closures of sites in the Los Alamos, NM area. Due to the slowing of the cover settlement, the Permittee has requested to reduce the quarterly inspections to semiannual inspections, in the spring and the fall. Inspections will continue following significant precipitation events.

**NMED Comment:**

DOE stated in the Long-Term Monitoring Checklist, Quarter 4 "The north water-balance instrument station was inspected, and data were downloaded. Upon data review, probe #3 for moisture content is recording only temperature, not water content. Troubleshooting the probe was unsuccessful, and the probe may need to be taken offline or replaced." NMED recommends that the north water-balance instrument station be repaired or replaced, as soon as possible, to ensure that the ET cover is being monitored on both the north and south side.

In the August 14, 2023 NMED Review letter for the *2021-2022 Annual Long-Term Monitoring Status Report (July 2021 through June 2022) for the Los Alamos County Airport Landfill Placement Cover System, Solid Waste Management Units 73-001(a,d)*, NMED agreed that the ET cover has functioned as planned and agreed that the quarterly inspections could be reduced to semiannual inspections, with a Report submitted annually.

NMED also recommended that the next proposed monitoring change occur no sooner than July 2027 and required that DOE submit another Performance of the Remedy after 10 years (40 quarters) of monitoring of the Los Alamos County Landfill Cover Replacement in Technical Area 73.

The next annual report, documenting monitoring and inspection results, must be submitted no later than **July 30, 2024**, and annually by July 30<sup>th</sup> thereafter. The next annual report must address replacing the northern water balance instrument station to ensure that the ET cover is operating as designed.

Arturo Duran

Page 2

If you have any questions or comments regarding this letter, please contact Mitchell Schatz at (505) 690-5910.

Sincerely,

**Rick Shean**

Digitally signed by Rick  
Shean  
Date: 2023.10.30  
12:18:21 -06'00'

Rick Shean  
Designated Agency Manager  
Director, Resource Protection Division

cc:

N. Dhawan, NMED  
S. Briley, NMED HWB  
M. Schatz, NMED HWB  
L. King, EPA Region 6  
T. Thomson, N3B  
C. Rodriguez, EM-LA  
D. Diehl, N3B  
H. Shen, EM-LA  
[n3brecords@em-la.doe.gov](mailto:n3brecords@em-la.doe.gov)  
[epc-correspondence@lanl.gov](mailto:epc-correspondence@lanl.gov)  
[emla.docs@em.doe.gov](mailto:emla.docs@em.doe.gov)

File: 2023 LANL, TA-73, Review 2022-2023 Long-Term Monitoring Plan for Los Alamos Airport Landfill  
SWMUs 73-001(a,d)  
LANL-23-049

