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August 14, 2023

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

**RE: REVIEW:
2021-2022 ANNUAL LONG-TERM MONITORING STATUS REPORT (JULY 2021 THROUGH JUNE 2022) 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-22-048**

Dear Arturo Duran:

The New Mexico Environment Department (NMED) has received the United States Department of Energy's (The Permittee) *2021-2022 Annual Long-Term Monitoring Status Report (July 2021 through June 2022) 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 29, 2022, and referenced by EM2022-0506.

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 2021 - June 2022).

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 Report states 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. A second crack was observed in the third quarter monitoring of the ET cover. This crack is located in the southern boundary of the cover near survey point 46. The surface crack was estimated at 1/2 in. wide and possibly 1/2 in. to 1 in. deep at its largest depth. The

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second crack is now closed due to soil infiltration at the surface. During the fourth quarter inspection, neither crack was reported to have widened and the ET cover design engineer did make repair recommendations with work designated to begin after the start of summer monsoon season.

The Permittee has completed the initial five years (20 quarters) of monitoring. The Permittee suggests continuing monitoring until settlement completely stabilizes and furthermore, 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 (March or April), and the fall (September or October). Inspections will continue following significant precipitations events (i.e., a precipitation event that exceeds 1 inch in any given hour (the 100-year, 1-hour design storm event is 2.17in/hr. Differential settlement data must be provided in the annual Long-Term Monitoring Status Report.

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). 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. The Report was also requested in NMED's October 19, 2021, Review letter of the *2020-2021 Annual Long-Term Monitoring Status Report (July 2020 through June 2021) for the Los Alamos County Airport Landfill Cover System Replacement, Solid Waste Management Units 73-001(a,d) in Technical Area 73*. The PRR was agreed to by NMED and DOE in a meeting on November 15, 2021. The PRR was also discussed during an Aggregate Area meeting on February 22, 2023. It was also noted, that until the PRR was received, NMED could not complete the review of the County Airport Long-Term Monitoring Report. The submittal of the PRR satisfies the required request.

The PRR stated that the general performance of the ET cover system has functioned as planned and in conformance with the LTMP. The PRR also reported that the tension crack has been repaired and has not shown signs of redeveloping. For these reasons, DOE has requested the reduce the inspection from quarterly to a semiannual basis for the ET cover, stormwater controls, fencing, retaining walls, vegetation, and the disposal area cover system.

NMED agrees that the ET cover has functioned as planned and concurs that quarterly inspections can be reduced to semiannual inspections, with a Report submitted annually. NMED recommends that the next proposed monitoring schedule change occurs no sooner than July 30, 2027. NMED will also require that DOE submits another performance of the Remedy after 10 years (40 quarters) of monitoring of the Los Alamos County Airport Landfill Cover Replacement in Technical Area 73. The next annual report, documenting monitoring and inspection results, must be submitted no later than **July 30, 2023**, and annually by July 30th thereafter.

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

Sincerely,

**Rick
Shean**

Rick Shean

Director, NMED RPD

Designated Agency Manager, LANL CO

Hazardous Waste Bureau

Digitally signed by
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File: 2023 LANL, TA-73, Review 2021-2022 Long-Term Monitoring Plan for Los Alamos Airport Landfill
SWMUs 73-001(a,d)
LANL-22-048

