

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

DOUGLAS R. ANSEL
Interim Director



NORTH CAROLINA
Environmental Quality

May 30, 2023

Certified Mail
Return Receipt Requested
7019 1120 0001 4878 5392

Ms. J. Monique Parker
Senior Vice President, Safety, Environmental & Health
Piedmont Lithium Carolinas, Inc.
42 E Catawba Street
Belmont, NC 28012

RE: Carolina Lithium Project Mine - Corrected
Gaston County
Catawba River Basin

Dear Ms. Parker:

We have reviewed the application your company submitted for the referenced mine site. In order for this office to complete its review of the referenced project in accordance with N.C.G.S. §74-50 and §74-51 of the Mining Act of 1971, please provide the additional or revised information in accordance with the following comments:

In your response dated April 2023 in Appendix G you describe that the Above-Ground Waste Rock Pile will be constructed as documented in Appendix D.5 in the initial application dated August 2021.

1. At this time, representatives from the Division of Water Resources have recommended to DEMLR that a liner be required under the pile to protect water quality, and representatives from the Division of Waste Management have concurred that it would be most protective to employ a composite liner system.

Based on the above, the Division of Energy, Mineral, and Land Resources (DEMLR), per N.C.G.S. §74-51(f), is requiring an engineered liner under the Above-Ground Waste Rock Pile.

Please provide sealed documentation demonstrating that an Above-Ground Waste Rock Pile liner system will be utilized, including technical details, drawings, engineer specifications, and maintenance planned.

Though not required, as mentioned above, the Division of Waste Management recommends the applicant use a correctly designed composite liner. If the applicant chooses to use an engineered liner other than a composite liner system, supply documentation that demonstrates the selected system meets or exceeds the protection that a composite liner system affords to the environment.



North Carolina Department of Environmental Quality | Division of Energy, Mineral and Land Resources
512 North Salisbury Street | 1612 Mail Service Center | Raleigh, North Carolina 27699-1612
919.707.9200

If the applicant chooses to use a naturally occurring material, such as clay, include with the above documentation how the applicant plans to maintain the liners moisture content and integrity during the construction of the pile.

If the applicant needs assistance in ensuring the liner is correctly designed to meet best practices in North Carolina according to NC DWM, please contact Ed Mussler of DWM, 919-707-8281.

The above represents a new information request. The clock on supplying the information that DEMLR has requested has been reset to 180 days.

2. In Appendix G of the response dated April 2023 you propose a monitoring plan (5.2.2) where only depth and pH will be tested monthly. Please provide additional details as to what other testing will be done on a monthly basis (i.e., Radiological, Total Dissolved Metals, Microbiology, Nutrients, Wet Chemistry, Bacteria, Specific Conductivity and Total Petroleum Hydrocarbons) and why monthly testing will be sufficient instead of utilizing a continuous monitoring system.
3. In Appendix G of the response dated April 2023 you propose a mitigation plan (5.2.3) where testing for aluminum and vanadium will be conducted only if pH values are consistently outside of the expected range (~7.5 to 8.5, with consideration of baseline monitoring). Please provide additional details on how the potential leaching of arsenic will be monitored during this time period.
4. If pH values are consistently outside of the expected range (~7.5 to 8.5, with consideration of baseline monitoring), please provide additional details as to how you propose to mitigate any long-term potential adverse effects. Please clarify the monitoring and testing, in addition to pH, that will be conducted on the proposed newly designed and constructed surface pond before water is discharged to surface waters.
5. Please clarify if Appendix G of the response dated April 2023 will only apply to the Above-Ground Waste Rock Pile or if it will also apply to the in-Pit waste rock disposal and the groundwater monitoring well network as a whole.
6. Please clarify if the hydrogeological expert referenced in 5.2.3 will be a professional geologist licensed in North Carolina.
7. Please provide details including depth of well, screen interval, pumping rate, etc. for all of the wells shown on Appendix J of the December 17, 2021, response, or Appendix A of the June 21, 2022. Please clarify which wells will be utilized for the monitoring in 5.2.1 of Appendix G of the most recent submission. A sample reporting form GW-59 can be used for reference.
8. Please provide a tabular document library to outline the most recent submissions for each piece of the application (Mine Maps, Groundwater Study and Mitigation Plan, Blast Plan, etc.) to clarify which pieces of the application have been updated.
9. Please address the following issues that the Mooresville Regional Office (MRO) has identified with the E&SC Plan. Please contact Joseph Hoy of the MRO for guidance (704) 235-2133.
 - A. Please clarify the discharge from Culvert C-19 (Sheet 02CO-D001), which originates from within the LOD. It appears to bypass the basin and discharge potentially sediment-laden waters directly off-site.
 - B. Please provide additional details on the Temporary Diversions located East and West of Stream Crossing #2, which appear to bypass the nearby basins, discharging potentially sediment-laden waters directly off-site.

- C. Skimmer sizes and manufacturer-specific calculations were asked for in MRO Comments. Skimmer sizes are provided; however, calculations do not appear to have been provided. Please provide manufacturer-specific calculation. Also, please explain the reason for using skimmer sizes significantly greater than the orifice sizes, for example, an 8-inch skimmer with a 1-inch orifice.
 - D. Please provide additional details on the construction sequence related to the Whiteside Road Tunnel. It is not clear that the current construction sequence will ensure that the drainage area to the north will flow to the downgradient basin.
 - E. Please clarify the potential stream impacts for the proposed utilities (e.g., FM, S, P, G, and Conveyor System) on the Western Disposal Area, as follows:
 - i. Sheet 02CO-D002: This sheet shows the conveyor system being installed across the stream on the Northeast side of Basin SK-20. Will any support piers for the proposed conveyor system be installed within the stream buffer or will the proposed conveyor system be installed so that any supports are located outside of the stream buffer? If support piers are needed within the stream buffer, these areas need to be shown on the plans with measures around the support piers. How will access be obtained to install support piers if in the stream buffer? If the support piers will be installed outside of the stream buffer, please provide a note on the plans stating that support piers will not be located within the stream buffer. The Limits of Disturbance (LOD) legend will need to be adjusted as necessary to show access and/or proposed disturbed areas within the LOD.
 - ii. Sheet 02CO-D003: This sheet shows the Force Main (FM), Sewer (S), Electrical (E) and Gas (G) being installed across the stream on the Northeast side of Basin SK-20. How will these proposed utilities be installed across the stream? If these proposed utilities will be installed by jack & bore method, the bore pits should be shown upstream of the stream buffer. Please provide note on the plans to indicate the proposed utilities will be installed by a trenchless method. The Limits of Disturbance (LOD) legend will need to be adjusted as necessary to show access and/or proposed disturbed areas for utility line installation within the LOD. Please ensure adequate measures (e.g., silt fence, etc.) are provided below the LOD for the utility line installations.
 - iii. Sheet 02CO-D003: What will happen with the utilities that were installed in the prior sheets noted above? If the lines are installed in an encasement pipe (e.g., for jack & bore), clarify how will this be abandoned.
10. The letters in the April 27, 2023, submittal, under Appendix C – Attachment 2, “PLCI letter to Two Rivers Utilities (April 11, 2023) Two River Utilities Response (April 26, 2023),” show the company and the sewer authority are working in good faith to establish a working relationship. The letters do not meet the requirement to “Submit copies of agreements between PLCI and publicly owned sewer operations concerning the liquid waste being discharged into the sewer system.” as required by the January 14, 2021 Additional Information Request.

This issue has not been resolved and remains open. The clock on this issue has been reset to 180 days, per item 1 of this letter. Please note, this office may request additional information not included in this letter, as the mining application review progresses. Be advised that our review cannot be completed until all of the items listed above have been fully addressed.

Ms. Parker

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In order to complete the processing of your application, please forward two (2) copies of the requested information to my attention at the following address:

Division of Energy, Mineral and Land Resources
Department of Environmental Quality
1612 Mail Service Center
Raleigh, NC 27699-1612

If hand delivering or delivering by shipping company (e.g., FedEx, UPS), please deliver to our physical address:

Division of Energy, Mineral, and Land Resources
Department of Environmental Quality
512 N. Salisbury Street, 5th Floor
Raleigh, NC 27604

As required by 15A NCAC 5B.0113, you are hereby advised that you have 180 days from the date of your receipt of this letter to submit all of the requested information. If you are unable to meet this deadline and wish to request additional time, you must submit information, in writing, to the Director clearly indicating why the deadline cannot be met and request that an extension of time be granted. If an extension of time is not granted, a decision will be made to grant or deny the mining permit based upon the information currently in the Department's files at the end of the 180-day period.

Though the preceding statement cites the maximum time limit for your response, we encourage you to provide the additional information requested by this letter as soon as possible. Your prompt response will help us to complete the processing of your application sooner.

Please contact me at (919) 707-9220 if you have any questions.

Sincerely,

David Miller, PE
State Mining Engineer

Enclosures: GW-59 – Groundwater Quality Monitoring Compliance Report Form

cc: Mr. Zahid Khan, Mooresville Regional Engineer