

January 9, 2024

*Via Email and First-Class Mail*  
Mr. Richard Tallman, P.E.  
Pottsville District Mining Office  
Pennsylvania Department of Environmental Protection  
5 West Laurel Boulevard  
Pottsville, PA 17901

**Re: Heidelberg Materials Northeast LLC Letter dated August 17, 2023  
Rock Hill Quarry  
East Rockhill Township  
Bucks County, Pennsylvania**

Dear Mr. Tallman:

On behalf of Rockhill Environmental Preservation Alliance, Inc. (REPA), kindly accept the attached comments from Erskine Environmental Consulting, Inc. (EEC) regarding the "proprietary methods" used by the R.J. Lee Group (RJLG) to analyze rock and air data at the Rockhill quarry site. EEC has commented on RJLG's methodology as far back as the initial site investigation, and also within reviews of air sampling data. However, it appears that there may still be some questions, or perhaps some lack of awareness, related to the asbestos test methodologies that have been applied to both bulk (rock, soil and aggregate) and air samples at the Rockhill site. Therefore, EEC has prepared this document with key issues for those who may be unfamiliar with the subject, or have not had the opportunity to read through the extensive discussions found within numerous EEC memoranda and comments submitted by mining operators and RJLG. As EEC concludes, considering that RJLG used a non-standardized test method to modify or replace the ISO 10312 method, the results of the bulk and air samples at the Rockhill site are not valid, the results cannot be shown to meet the three required components of a test method: precision, accuracy, and reproducibility. Therefore, DEP cannot rely on this data.

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Thank you for your attention to this matter.

Very truly yours,



Mark L. Freed, Esquire  
For CURTIN & HEEFNER LLP

cc: The Honorable Josh Shapiro, Governor of Pennsylvania  
The Honorable Jessica Shirley, Interim Acting Secretary, PADEP  
The Honorable Brian Fitzpatrick, U.S. Representative PA-01  
The Honorable Steven Santarsiero, 10th Senatorial District  
The Honorable Jarrett Coleman, 16th Senatorial District  
The Honorable Craig Staats, PA's 145th Legislative District  
The Honorable Diane Ellis-Marseglia, Chair, Bucks County Board of Commissioners  
The Honorable Robert Harvie, Jr., Vice Chair, Bucks County Board of Commissioners  
The Honorable Gene DiGirolamo, Bucks County Board of Commissioners  
Steven Baluh, P.E  
Marianne Morano, East Rockhill Township Manager  
Megan Banis-Clemens, Pennridge School District, School Board Member  
Todd Hippauf, Quakertown Community School District, School Board Member  
Amiee Bollinger PADEP  
Erika Furlong, PADEP  
Craig Lambeth, PADEP  
Patrick Patterson, PADEP  
James Rebarchak, PADEP  
Daniel Sammarco, PADEP  
Sachin Shankar, PADEP  
Gary Latsha, PADEP  
Doug White, PADEP  
Michael Kutney, PADEP  
John Stefanko, PADEP  
David Thomas, PADEP  
Randy Shustack, PADEP  
Ross Klock, PADEP  
Darren Henry, PADEP  
Jillian Gallagher, PADEP  
Ashley Davis, PADEP  
Neil Shader, PADEP  
Daniel Koury, PADEP  
Andrew J. Gutshall, P.G.  
Michael Vereb  
Thomas M. Duncan, Esq.  
David A. Assalone, Esq.

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Stephanie Berardi  
Lisa Strobridge  
REPA

# ***Erskine Environmental Consulting***

*Geologic Investigations Naturally Occurring Asbestos*

## **Technical Memorandum**

January 7, 2024

**Subject:** Proprietary Methods: Discussion

It has come to the attention of Erskine Environmental Consulting, Inc. (EEC) that there may be some questions, or perhaps some lack of awareness, of an issue pertaining to asbestos test methodologies that have been applied to both bulk (rock, soil and aggregate) and air samples at the Rockhill site. The questions pertain to what appears to be “proprietary methods” used by the R.J. Lee Group (RJLG) to analyze rock and air data at the Rockhill quarry site.

EEC has commented on the methodology as far back as the initial site investigation, and also within reviews of air sampling data. EEC has been asked to summarize the key issues for those who may be unfamiliar with the subject, or have not had the opportunity to read through the extensive discussions found within numerous EEC memoranda and comments submitted by mining operators and RJLG.

To help simplify this complex technical issue, this summary is presented in a question/answer format. For details and a more precise and technical treatment, please refer to EEC’s technical memoranda that has been submitted over the course of this project.

Q: What is meant by a “proprietary method”?

A: The term “proprietary” is defined as “used, made, or marketed by one having the exclusive legal right”. A “proprietary method” is defined as “a method classified as an alternative system, or a component thereof, held under a patent, trademark, or copyright”.

Q: Is there evidence that RJLG has been using a proprietary method to modify or replace the DEP mandated ISO 10312 method for air samples, as well as the EPA required methods for bulk samples?

A: Yes. A brief summary of the history regarding this issue is provided below.

- Early in the project during the geological investigation, EEC noticed some irregularities within the testing reports of both RJLG and the previous lab, EMSL. In particular, it appeared that both labs were not reporting fibers as asbestos following the protocol specified in the EPA test method for bulk samples. EEC suspected that both laboratories were under-reporting the concentration of asbestos by applying criteria that are not specified in the test method.
- EEC called for RJLG and EMSL to provide their Standardized Operating Procedure (SOP) to allow DEP and others to verify that the analyses were conducted in conformance with the required test methods. RJLG’s response was that they did not have an SOP, and relies on their experience. EMSL stated that the methodology used is “subjective”.

- EEC pointed out that RJLG published, in an EPA study of test methods at the Sparta, New Jersey mine site, a procedure where fibers that are normally required for reporting as asbestos would be eliminated from the fiber count, which essentially decreased the asbestos concentration as should be reported. EPA's study concluded that the RJLG methodology understated the calculated risk by as much as 5 times. EEC, once again, called for RJLG to submit their procedures and method for review.
- RJLG then admitted that they are using an alternative method, but stated that it is proprietary, and would not release the method. Therefore, the methodologies applied to the samples at the Rockhill site are unknown.

Q: What is the key issue regarding the alternative and proprietary methods?

A: Based on the review of air sampling data, it appears that RJLG methodology results in the avoidance of reporting fibers as asbestos based on an opinion that they did not originally crystallize in the "asbestiform habit". In some cases, fibers that are required to be identified as asbestos are identified only as "amphibole structures". As a result, RJLG's results under-report or eliminates the reporting of asbestos at the site where it has been shown to be present.

Q: What is the basis for eliminating fibers that are perceived to have formed, originally, in a non-asbestiform habit?

A: Apparently, RJLG's methods do not report fibers as asbestos when the fiber was presumed to be formed by cleaving along planes of weakness in the amphibole structure, even when the fiber may be of the same composition (actinolite, in this case), and have same length, width, and aspect ratio as a fiber presumed to have originally formed in the fibrous habit.

Q: If the two morphological habits of actinolite fibers are virtually identical once liberated to the air, do they have different toxicities when inhaled?

A: NIOSH reviewed toxicological studies, and concluded that the data does not support a determination that fibers formed by cleaving have a lower toxicity. It stands to reason that an actinolite fiber of each origin would be equally toxic, and is not a function of how the mineral originally crystallized.

Q: Is there a test method that can differentiate one from another?

A: NIOSH stated that there are no test methods that can differentiate fibers on the basis of morphology or habit. This is well known within the laboratory community.

Q: Does the ISO 10312 method, which has been mandated by the DEP, allow for this differentiation?

A: No. In fact, the method expressly states that it cannot make this differentiation, and therefore, the laboratory shall not make this differentiation.

Q: Are there other procedures in the RJLG proprietary method that may exclude fibers from being counted as asbestos, or eliminated entirely?

A: This is not known. RJLG refuses to submit their method for review, and there are no independent analyses that can verify RJLG's results.

Q: Is it acceptable for a laboratory to modify, or replace, a standardized test method, such as ISO 10312, using another in-house method?

A: No. Standardized test methods that are required by regulation or specified for use must be followed in accordance with the procedures and reporting requirements contained in that method.

Q: What is a standardized test method?

A: Test methods must be validated through a quality assurance process that involves the analysis of carefully prepared test samples by analysts within a lab and by other labs. Once it is shown that all labs will achieve the same results, the method can be validated. Once validated, it can be approved to be used or required for its intended purpose, and then it may become a standard. The ISO 10312 method is considered a validated and standardized test method. This is why the DEP required that it be applied at the Rockhill site. This is why modification of the method negates its validity.

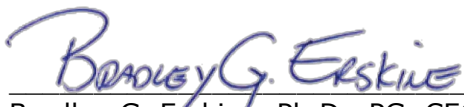
Q: Does this mean that the results of the bulk and air samples at the Rockhill site are not valid?

A: Yes. Considering that RJLG used a non-standardized test method to modify or replace the ISO 10312 method, which they have indicated, the results cannot be shown to meet the three required components of a test method: precision, accuracy, and reproducibility. Therefore, DEP cannot rely on this data.

Q: What can be done to rectify this problem?

A: EEC has repeatedly recommended that DEP hire their own third-party consultant to collect and analyze all samples at the site, paid for by the operator. This will assure that the work is being accomplished as required by DEP, and will eliminate the conflict of interest that commonly arises when the owner or operator, who has a financial stake in the outcome, is monitoring their own project. Another way is for RJLG to release their methodology for review. In the meantime, the samples collected by the operator and the data provided by RJLG cannot be relied upon.

Please contact me if you have any questions.



Bradley G. Erskine, Ph.D., PG, CEG, CHG, CAC  
Erskine Environmental Consulting