



**VIA EMAIL ONLY**

April 10, 2024

Mr. Richard Tallman, P.E.  
Pottsville District Mining Office  
Pennsylvania Department of Environmental Protection  
5 West Laurel Boulevard  
Pottsville, PA 17901

**Re     Response to Rockhill Environmental Preservation Alliance Letter (January 9, 2024)**  
**Rock Hill Quarry**  
**East Rockhill Township**  
**Bucks County, Pennsylvania**

Dear Mr. Tallman,

Heidelberg Materials Northeast LLC (“Heidelberg”) provides this response to the January 9, 2024 letter submitted by the Rockhill Environmental Preservation Alliance (“REPA”), which includes a technical memorandum prepared by Dr. Bradley Erskine of Erskine Environmental Consulting (“EEC”). REPA and EEC attempt to rebut the clear conclusions presented by Heidelberg in its August 17, 2023 letter regarding its investigation and analysis of data collected at the Rock Hill Quarry (“Quarry”).

Heidelberg offers the following key points to reiterate its August 17, 2023 letter, as well as its January 23, 2024 response to the Bucks County Commissioners:

- Heidelberg’s consultant R.J. Lee Group (“R.J. Lee”) has analyzed and presented data as required by the analytical methods required by DEP; and,
- Heidelberg performed five (5) rounds of background sampling and four (4) rounds of Activity-Based Sampling (“ABS”), and collected a total of 95 samples from eight (8) perimeter air monitoring stations. Only four (4) amphibole structures were identified – none of which were determined to be of the asbestiform variety. Even, if for argument’s sake, you assume that the results were asbestiform-amphibole, at no point would the concentration of any sample exceed (or even come close to) DEP’s screening threshold of 0.01 fibers/cc.

All of this leads to the primary conclusion regarding the potential presence of naturally occurring asbestos (“NOA”), which is that the Quarry can be operated safely in regards to the environment and the local community. These conclusions are not new or surprising. Each round of sampling has consistently demonstrated the following:

1. The Quarry operations generate minimal emissions;

2. Air samples collected at the Quarry perimeter over the last few years through background and simulated operations have contained little “asbestos,” and none of the regulated asbestiform variety; and
3. Emissions are very unlikely to migrate to and beyond the Quarry perimeter and present any unreasonable risk to off-site residents or the local community.

REPA and EEC have had many opportunities to address these conclusions. Instead, they choose to confuse the analysis with obscure criticism – this time by posing as a “question and answer” exercise.

At this point in the analysis of the Quarry, a point-by-point rebuttal will needlessly continue this back-and-forth between Heidelberg, REPA, and EEC, not to mention that all of these points have previously been made by Heidelberg, some on several occasions. As an alternative, Heidelberg offers the following key conclusions from the data collected over the past several years:

**1. Heidelberg’s consultant R.J. Lee is highly qualified to analyze the asbestos samples from the Quarry.**

Heidelberg’s consultant R.J. Lee is highly qualified and accredited to perform all required analysis of asbestos samples. R.J. Lee has previously provided an in-depth description of its analysis and rebuttal of REPA and EEC’s claims. See R.J. Lee Letter to DEP (Oct. 29, 2021).<sup>1</sup> R.J. Lee maintains its standing offer to provide a laboratory tour to DEP to address any questions.

Despite this, REPA and EEC state that DEP should hire a third-party consultant to collect and analyze samples to avoid any apparent conflict. That REPA and EEC would question the integrity of Heidelberg and R.J. Lee reflects on their tendency towards hyperbolic and *ad hominem* attacks. Regardless, there is no conflict; R.J. Lee analyzes the data per the method required by DEP. Nothing else influences their review.

**2. Incorporating modifications into the analytical method does not invalidate the analysis of the sampling results.**

Incorporating modifications to the ISO-10312 method does not invalidate the analysis of the samples. In fact, DEP requested that Heidelberg use the analytical method as modified by EPA’s OSWER Directive #9200.0-68 – i.e., EPA’s “Framework for Investigating Asbestos-Contaminated Superfund Sites.” (“Framework”). See, e.g., DEP’s Letter to Heidelberg (June 21, 2023). EPA itself also recommends a modification of the method in its Framework guidance document. See Framework (2021), at 36.

REPA and EEC’s continued insistence that modifications are inappropriate indicate either that they intend to purposefully confuse the analysis of Heidelberg’s samples or that they are not familiar with EPA’s use of the method.

**3. The analytical method required by DEP does not prohibit R.J. Lee from distinguishing between asbestiform and non-asbestiform structures.**

ISO-10312 does not prohibit the ultimate distinction of asbestiform-amphibole and non-asbestiform amphibole structures. Similar to the above-statement on modifications, REPA and EEC’s continued

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<sup>1</sup> Available at [Attachment A-RJLG Memorandum-C-C.pdf \(state.pa.us\)](#).

insistence that ISO 10312 prohibits any distinction of the asbestos structures as part of the analysis indicates either that they intend to confuse the issue or that they are not familiar with the method.

As Heidelberg and R.J. Lee have explained on multiple occasions, while the method states that “[it] cannot discriminate between individual fibers of asbestos and elongate fragments (cleavage fragments and acicular particles) from non-asbestos analogues of the same amphibole mineral,” it does not *prohibit* additional interpretation of the data – and in fact anticipates it. ISO 10312:2019, at 1. The method clearly states:

**Imposition of specific structure counting criteria generally requires that some interpretation, partially based on uncertain health effects information, be made of each asbestos structure found. It is not the intention of this document to make any interpretations based on health effects, and it is intended that a clear separation shall be made between recording of structure counting data, and later interpretation of those data.**

Id. at Annex C, C.1 at 34 (emphasis added).

R.J. Lee counts all structures required by PADEP and then provides an additional data point on its laboratory reports, which is whether any of the counted structures possess characteristics of an asbestiform morphology. This is also consistent with EPA’s own practice at asbestos Superfund Sites:

**52) What are some of the methods for analyzing and measuring asbestos concentrations in air?**

Since the toxicity of asbestos appears to be related to fiber size, analytical methods focus on providing information on these parameters, as well as total number of fibers and mineral type. The number and size distribution of fibers is determined via direct microscopic examination. **Measuring asbestos content in air samples and in bulk materials that could become airborne involves both quantification of fibers and determination of mineral content of the fibers to identify whether they are asbestiform.**

See BoRit Superfund Site Question and Answer (Mar. 21, 2018), at 120 (emphasis added).<sup>2</sup>

As Heidelberg has explained on several occasions, this additional interpretation has a clear utility, as asbestiform structures are those that are regulated and have clear toxicological importance.

**4. There is no regulatory consensus or determination that non-asbestiform structures are toxic like the asbestiform variety.**

There is no regulatory consensus that non-asbestiform structures are toxic like the asbestiform variety. REPA and EEC’s statement to the contrary is a blatant misrepresentation. In the National Institute for Occupation Safety and Health (“NIOSH”) “Asbestos Fibers and Other Elongate Mineral Particles: State of the Science and Roadmap for Research” guidance document (“Roadmap”), NIOSH expressly states the opposite. See Roadmap, at 33. NIOSH’s initial guidance in 1990 defined “asbestos” to include elongate mineral particles. However, it expressly reversed that decision in the Roadmap, citing the “uncertainty” regarding the adverse health effects of elongate mineral particles:

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<sup>2</sup> Available at [BORIT FREQUENTLY ASKED QUESTIONS \(epa.gov\)](https://www.epa.gov/borit-frequently-asked-questions)

As described in the preceding sections, uncertainty remains concerning the adverse health effects that may be caused by nonasbestiform EMPs encompassed by NIOSH since 1990 in the REL [*recommended exposure limit*] for asbestos.

Roadmap, at 33.

NIOSH goes on to recognize the confusion caused by closely associating asbestos fibers and elongate mineral particles:

NIOSH recognizes that its descriptions of the REL since 1990 have created confusion and caused many to infer that the additional covered minerals were included by NIOSH in its definition of “asbestos.” NIOSH wishes to make clear that such nonasbestiform minerals are not “asbestos” or “asbestos minerals.” NIOSH also wishes to minimize any potential future confusion by no longer referring to particles from the nonasbestiform analogs of the asbestos minerals as “asbestos fibers.”

Id.

NIOSH’s statements are consistent with OSHA, which has stated:

OSHA does not believe that potential asbestos contamination of nonasbestos minerals, including nonasbestiform ATA [*anthophyllite, tremolite, and actinolite*], is sufficient reason to include such nonasbestiform minerals in the asbestos standard.

57 Fed. Reg. 24310 (June 8, 1992).

And further “that virtually no other participant endorses the NIOSH [previous] study as a basis for regulation.” Id. at 24322.

REPA and EEC’s continued desire to confuse this discussion of risk and health effects in the face of clear regulatory commentary to the contrary is irresponsible.

**5. EPA recommends Activity-Based Sampling as an effective means to assess risk from asbestos emissions, if any.**

Ambient air sampling at the perimeter of the Quarry is an effective means of evaluating risk to off-site receptors and the community. EPA expressly acknowledges this in its Framework guidance. See Framework, Section 2.1 at 6. Per EPA, the relationship between any asbestos detected in soil and, if disturbed, in the air is complex and dependent on many factors. Thus, it is difficult (if not impossible) to draw any direct correlation between the presence of asbestos in soil and aggregate at the Quarry and asbestos emissions at the Quarry perimeter that may result from operations.

This is why EPA recommends ABS to measure potential asbestos exposure. See id., at *iii* and Section 2.5 at 10. As described above, Heidelberg proposed to sample during a series of simulated operations, which

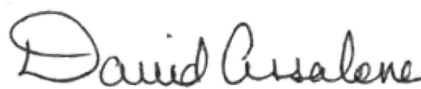
PADEP approved.<sup>3</sup> Heidelberg then performed four (4) rounds of ABS per its approved plan, each under the direct supervision of PADEP Mining and Air Quality personnel, to measure the potential for asbestos emissions generated during simulated Quarry operations. These activities included vehicle and equipment movement, site maintenance activities, stockpile movement, and the 500-ton aggregate removal. Each subsequent event increased the intensity of the simulated operation so that Heidelberg could individually analyze each activity and determine which, if any, might generate asbestos emissions. All activities were performed during very dry conditions, as determined by the on-site weather station, to conservatively simulate conditions most likely to generate dust. Fifty-five (55) total samples were collected during the ABS events – only three (3) amphibole structures were identified, and none were determined to be an asbestiform amphibole. For each ABS event - even, if for argument's sake, you assume that the results were asbestiform-amphibole, at no point would the concentration of any sample exceed (or even come close to) DEP's screening threshold of 0.01 fibers/cc.

Put simply, the data unequivocally demonstrates that Quarry operations authorized under its mining permit can be performed safely and will not result in an unacceptable risk of off-site exposure to asbestos associated with quarrying activities.<sup>4</sup> As has been made clear by their prior submittals, REPA and EEC's purpose is not to objectively review the data but rather to permanently close the Quarry. Heidelberg remains committed to working with PADEP to collect, analyze, and report data at the Quarry to allow for the removal of the Cessation Order.

Regards,



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<sup>3</sup> See Heidelberg Letter to DEP (Feb 1, 2022); DEP Approval Letter to Heidelberg (Feb. 28, 2022), available at [2022-02-01 Rock Hill 7974SM1 Revised Limited Activity Sampling Plan Transmittal.pdf \(state.pa.us\)](#) and [SCAN1808.pdf \(state.pa.us\)](#).

<sup>4</sup> Heidelberg acknowledges that some Quarry operations and activities may require additional permit(s) and approvals by DEP before they can be implemented.

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