

July 23, 2020

Rockhill Environmental Preservation Alliance, Inc.
703 West Market Street
Perkasie, PA 18944

Re: Response to inquiries regarding the extension of the due date from June 30, 2020 until August 14, 2020 for reporting TEM and petrographic analysis of rock samples described in the Department's April 17, 2020 letter

REPA Members:

The Pennsylvania Department of Environmental Protection (Department) on June 29, 2020 extended the deadline to August 14, 2020 for the submission of rock sample testing results as a result of its desire to ensure that a more inclusive analytic methodology would be followed. In order to fulfill this concern, also expressed by public comment, the Department had discussions with Hanson Aggregates and its consultant R.J. Lee Group leading up to the decision to extend the deadline.

As a result, the Department expects that the following methodology will be applied:

1. Samples will be prepared utilizing the method as described in CARB 435
2. All particles will be counted as fibers that meet the criteria below:
 - a. Length $\geq 0.5 \mu\text{m}$
 - b. Length to width aspect ratio $\geq 3:1$
 - c. No minimum width
3. TEM analysis will cite to EPA 600/R-93/116 as the method for TEM analysis and TEM analysis will also cite to ISO 22262 as the method for TEM analysis.
4. Fibers meeting the above criteria will be recorded as asbestos if they are shown to be chrysotile compositionally by TEM/EDS or structurally by TEM/SAED consistent with amphibole mineral.
5. Of the amphibole particles identified, they will be grouped into the asbestos category if they are consistent with the morphological description of asbestiform as described in two asbestiform counting methods.
 - a. Method 1: This counting will be done according to EPA 600/R-93/116 (Appendix A, Asbestiform (morphology), (see also ISO 22262-1 (Section 7.2.3.7.1 Morphology)).
 - b. Method 2: This counting will be done using the same sample according to the counting criteria in ISO 10312, (See Annex C, Structure Counting Criteria).

This test protocol was not a “negotiated” result. Rather, it is a requirement imposed by the Department that should result in an enhanced and more complete analysis of the samples as the counting of identified asbestos fibers will additionally be performed according to the Structure Counting Criteria as described in ISO 10312, Annex C. This Asbestos Structure Counting Criteria is more inclusive of Elongate Mineral Particles over a greater range than EPA 600/R-93/116 and/or ISO 22262.

Both counting methods (EPA 600/R-93/116 (ISO 22262) and ISO 10312) will be performed on each sample examined to allow the Department to compare the results of each counting method on each sample to assist in the characterization of the geology of the quarry.

There has been no modification of the protocol for re-sampling and testing the water samples. The requirement to use EPA 100.1 remains the same as outlined in the Department’s April 17, 2020 letter. The Department does not view this extension as an additional opportunity to respond but as an effort to avoid additional delays caused by reviews of Hanson’s submittals after the fact.

Thank you again for your inquiry.

Sincerely,



Gary A. Latsha
District Mining Manager
Bureau of District Mining Operations

cc: John J. Stefanko, Deputy Secretary
Daniel Sammarco, P.E., Director DMO
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