Dear Mr. Goodale,

Thank you for your inquiry regarding potential cumulative impacts from noise from the proposed portable processing plant operating simultaneously with all other mobile equipment present at the project site. The issue was raised during the DEC site inspection that occurred on July 15, 2021. Please find below an assessment.

A list of the simultaneously operating noise sources at the proposed mine site is as follows.

1. Front-end loader = 82.8 dB(A) Caterpillar 988F
2. Portable rock drill = 98.0 dB(A) Tam Rock 120 or equivalent
3. OTR flat-bed truck in operation = 71.2 dB(A)
4. Diamond wire saw w/portable generator = 84.0 dB(A)
5. Lokotrak Portable Impact Crusher with Two Loaders = 84.7 dB(A)

Combined sound level at the source = 98.5 dB(A)

Sound levels from multiple sources are not added arithmetically because they are reported on a logarithmic scale. Sound levels are added logarithmically to calculate the combined sound level. For approximation purposes, two sounds with the same sound level intensity (and frequency spectrum) will increase the overall sound pressure by approximately 3 dB. Combining noise sources where one sound level intensity is less than another will cause an overall increase of some value less than 3 dB. Once the difference between two sound levels is 10 dB or more the lower intensity sound adds little to nothing to the overall sound level (NYSDEC, 2001).

The potential impact from increased sound levels at the receptor is measured by comparing existing ambient sound levels with projected sound levels from the proposed operation (NYSDEC, 2000). The results are summarized as follows.

- Combined sound level at the source = 98.5 dB(A)
• Attenuation by distance = 21.1 dB(A) (Nearest receptor is located at a minimum distance 570+/−)

• Attenuation by topography and barriers = 24 dB(A)

Projected sound level at the receptor from the project site = 53.4 dB(A)*

*To keep the assessment conservative attenuation of sound due to atmospheric absorption and vegetation were not considered.

• Existing Ambient sound level = 58.0 dB(A)*

  * Recall Section 4.2.1.1 where the actual ambient sound level is ~60 dB(A) generated primarily by traffic on NY Route 28.

• Projected sound level at the receptor resulting from the proposed project site = 53.2 dB(A) or no change.

Projected increase in sound level at the receptor when all equipment mine is operating simultaneously is 0 dB(A).

In summary, operating the portable processing plant and two additional loaders adds between 0 and 0.2 dBA to the projected noise levels emanating from the site in this highly conservative model. The portable plant would actually be operated from the lowest point in the floor due to operational considerations. That area is further from the nearest receptor than is modeled and lower in elevation where distance and barrier attenuation would be greater. Operation of a portable plant, if it occurs at all, will be occasional and intermittent due to inherent limitations regarding properties of granite, cost and end-use market. The resultant cumulative noise impact of simultaneous equipment operations, including the portable plant is zero.

Please feel free to contact me with questions. Thank you very much.

Sincerely,

David A. Shank, PG
Strategic Mining Solutions, LLC

ec. Chris Lucidi, NYSDEC Mined Land Reclamation
    Terri Tyoe, NYSDEC Division of Permits
    Andrew Abbott, NYSDEC Mined Land Reclamation
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    Tom Sunderlin, Applicant/Owner