

August 8, 2013

R. J. Burnside & Associates Ltd.

3 Ronell Cr.
Collingwood, Ontario
L9Y 4J6

Attn: Mr. Ron Kerr

RE: Peer review of Cedarhurst Quarries and Crushing Ltd. Sibthorpe Pit
Acoustic Assessment Report prepared by F. H. Theakston Enviro. Control.

Aeroustics Engineering Ltd. (Aeroustics) was retained by R.J. Burnside to conduct a follow-up peer review of the information provided by Theakston Environmental (Theakston) in response to Aeroustics' previous reviews¹.

AEL received an updated, unsigned report entitled "Revised Acoustic Assessment Report – Sibthorpe Pit" dated June 18, 2013 (the Report), including Appendices A-F and a response to peer review letter dated June 19, 2013.

The purpose of our peer review is to provide our opinion if the report satisfactorily addresses the environmental noise impact issues. The purpose of a noise study is to demonstrate the feasibility of the proposed operation to comply with the applicable noise guidelines.

Based on all the data provided, Aeroustics has the following concerns:

1. The Mitigation Measures outlined in Section 7 of the Report provides an improvement in providing requirements to be included in the Operational Plan. This list should serve as a reference for requirements to be added to the Operational Plan and therefore should be a fully comprehensive summary of the requirements. The items discussed further in this letter should be addressed to ensure that this list is comprehensive.
2. Aeroustics accepts that if the owner and planner can confirm that there is sufficient top soil and buffer zone/space for a berm with the appropriate slope, then the proposed 10 m perimeter berm is adequate for acoustical shielding. As the berm is indicated to taper into the 5 m berms along the north and south property lines, please indicate where this tapering was modelled to occur, and account for this when confirming that the berm is practicable.
3. The restriction on the number of loaders has been clarified, but may need to be revised based on the chosen location of the sources (see item #5).

¹ Aeroustics letters titled "Peer Review of Cedarhurst Quarries and Crushing Ltd. Sibthorpe Pit" dated May 1, 2012, November 2, 2012 and May 7, 2013

4. The report text was changed to allow for simultaneous extraction of both pits with two separate active faces (with the allowance for a crusher and a screener or two screeners simultaneously). The report should address worst case scenarios where a crusher and screener (and associated loaders) are operating in two different locations. This simultaneous extraction has not been modeled adequately. For example, is there a restriction on the number of loaders allowed to operate on the Teedon property while the 6 loaders are operating on the Sibthorpe property? Does this simultaneous extraction on both properties have other implications with the licensing process?
5. There does not appear to be a restriction in the noise report on the minimum setback distance of the loaders from the working face, only the crushing plant.

The loaders in the figures appear to be placed haphazardly in each phase, and may not represent the worst case location. Most of the loaders are placed very close to the working face, but there is no restriction for this in Section 7. The loaders should be modeled in a worst case location for each phase, and if a minimum distance to the working face is required, this should be included in the Operational Plans / Section 7 list. For example, particular attention should be paid to POR 4 for various loader locations in Worst Case 1.

6. Assuming the items listed in Section 7 are included in the Operational Plan, this issue is considered resolved.
7. Is there a restriction on the crushing plant's a minimum setback distance from the working face during Phase 1 and Phase 2? If yes, this should be included in the Operational Plans / Section 7 list. If not, this should be confirmed by moving the location of the crushing plant source (S1) shown on the figures to represent the worst-case location in each case.
8. The attached Operational Plans in the report is not current. The Operational Plans need to be updated.
9. The hours of operation mentioned in the Report shall be included as a requirement in the Operational Plans / Section 7 list. If processing (crushing and screening) operations occur between 6:00 am and 7:00 am, the levels would exceed the nighttime sound level limits.
10. POR 19 and 20 are classified as Class 2 Areas in the report text, so the daytime limit should be the 50 dBA exclusion limit, not the lower road traffic ambient prediction. However, if these receptors are more representative of a Class 3 Area, the text should be amended to reflect this. Perhaps a site visit should be conducted to determine if the road traffic noise from Highway 93 is a prevailing noise source at these receptors.
11. The Operational Plans indicate a "maximum of 5 lifts with a maximum lift height of 10 m (based on type of equipment that may be used to carry out extraction)". What type of loaders will be used which can reach this lift height? The assumption of a 10 m lift height is not a conservative choice for modeling if the lifts will actually be lower. If the lift height of 10 m is a minimum height requirement (as well as a maximum), this should be included as a required mitigation measure. If this is not possible, the model should be run with more conservative lift heights, since there is a strong correlation between property line berm height requirements and the lift height of the working face.



12. The operations during Phase 3 extraction 150 m from the east property boundary are unclear. Is it permitted to operate a screening plant (170 m west of the east property boundary with no crushing operations) even with the loaders operating at the east extraction limit? Is there a possibility that the crusher will never be used within 150 m of the property? This would remove the requirement for a 10 m high berm. Recommendation #4 in Section 7 does not seem to correspond to these conditions, but the text implies otherwise.
13. In item #6 of the Section 7 list, is a screening plant also allowed to operate in conjunction with the 3 loaders and crushing operations? This was not modeled in Worst Case 5 and Worst Case 6. If this is a restriction, it should be included in the Operational Plans / Section 7 list.

Closure

Aeroustics generally agrees with the conclusion of the Theakston report, provided the above points are addressed.

Yours truly,

AERCOUSTICS ENGINEERING LIMITED


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