



CAPITAL PAVING INC.

Quality Construction by Quality People
P.O Box 815 Guelph, Ontario N1H 6L8

May 19, 2010

VIA EMAIL

To: **Jeremy Vink**
Senior Planner
Township of Woolwich
Box 158, 24 Church St. W.
Elmira ON N3B 2Z6

RE: **Response to Township Air Quality Peer Review**
Capital Paving Inc. – Montrose Pit
Part lots 71, 74 & 75, Concession GCT
Township of Woolwich, Region of Waterloo

Dear Mr. Vink,

Please find enclosed with this letter, a response letter to the Township's Air Quality peer review by Capital's consultant RWDI Air Inc. for the proposed Montrose Pit.

We trust the responses provided will satisfy the Township's peer review consultant, AMEC.

Should you have any questions, please do not hesitate to call me at (519) 822 – 4511 or email at glourenco@capitalpaving.on.ca

Yours truly,

CAPITAL PAVING INC.

George Lourenco
Resources Manager



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RWDI AIR Inc.
650 Woodlawn Road West
Guelph, Ontario, Canada N1K 1B8



May 18, 2010

George Lourenco
Capital Paving Inc.
4459 Concession 7
Puslinch, Ontario
N0B 2K0

Re: Montrose Pit Air Quality Peer Review
RWDI Project 1011440

Dear Mr. Lourenco,

The following tables summarize our responses to comments provided by AMEC in its Peer Review of Air Quality Assessment Air Quality Review, Montrose Pit, dated March 15, 2010.

We trust that this information meets your needs at this time. Please feel free to call if you have questions or comments.

Yours very truly,

RWDI AIR Inc.

Mike Lepage, M.S., CCM
Principal

MFL/klm

Table 1. Responses to Body of AMEC Report

No.	Issue	Response
1.	In Section 1.0, the date of the RWDI Air Quality Assessment is noted as April 2008.	The correct date of the RWDI Report is April 2009. This is repeated in Section 4.0.
2.	In Section 2.1, second paragraph, the Montrose Pit is incorrectly referred to as a quarry.	The application is for a pit. No blasting is to be performed at the facility.
3.	In Section 2.2, Item III indicates that this is a Class "A", Category 2 license.	The application is for a Category 1 license.
4.	In Section 2.2, AMEC recommends that the site plans specifically reference the BMP [Best Practices Management Plan]	Capital Paving intends to include this reference on the site plans
5.	In Section 2.2, AMEC indicates that extraction cells are within 300m of some residences and, therefore, the ARA requirement that processing equipment must be equipped with spray bars when operated within 300m of a residence should be addressed.	The processing equipment will not operate within 300m of a residence and, as such, the ARA requirement has been addressed. The equipment will have spray bars in any case, as part of the BMP.
6.	In Section 2.3.1, AMEC recommends that Capital Paving should obtain a Certificate of Approval	This is already a requirement of the prescribed conditions in regulations under the ARA and, therefore, Capital Paving will obtain a C of A in accordance with the requirements.
7.	In Section 2.4.3, AMEC indicates that the MOE's land use planning guideline, D-6, recommends that pits and quarries be treated as Class III industrial facilities under that guideline.	This statement is not correct. Guideline D-6 recommends this only in the case of residential encroachment on an existing pit. The guideline does not apply to proposed pits.
8.	Section 2.4.4, AMEC questions ORTECH's designation of the facility as a Class II industry under Guideline D-6. One reason for doing so is that the site plans indicates that 24-hour per day shipping might occur. This is mentioned again in Section 4 of the AMEC report.	Capital Paving's current intent is to limit the operations to daytime only. Guideline D-6 does not apply to this facility, but if it did, RWDI would agree with ORTECH's interpretation. The facility meets the definition of a Class II industry, i.e., a place for medium scale processing with outdoor storage of waste materials, periodic outputs of potential minor annoyance, with frequent movement of products and/or heavy trucks during daytime hours.
9.	In Section 4.0, it is noted that "no mention made in any report or on the site plans of off-site materials being brought to the site for crushing or processing".	These operations are not being planned for the Montrose Pit.
10.	Section 4 of the AMEC report indicates that "these reports do not comply with the Aggregate Resources Act Requirements"	The only ARA requirement that AMEC raised was discussed at items 5 and 6 above. As indicated there, these requirements are being met.

No.	Issue	Response
11.	In Section 4, AMEC indicates that the RWDI study “does not model all emissions from the site [i.e., fugitive dust emissions from truck traffic and storage piles], nor cumulative emissions. Though this is acceptable for Certificate Approval application, it is not sufficient to assess appropriateness of land use compatibility.	RWDI generally disagrees with these comments. The MOE approach for Certificate Approvals reflects the low health risk nature of the emissions from aggregate operations. For this type and scale of emissions, we are of the opinion that modelling of impacts from all sources is not essential and, instead, the development and proper implementation of a management plan, based on the best practices available in the industry, is an effective approach to dealing with land use compatibility issues.
12.	In Section 4, AMEC indicates there are inconsistencies and lack of detail in the current dust management plan.	The management plan is being revised and updated, taking into consideration AMEC’s comments.

Table 2. Responses to Table 1 of AMEC Report

No.	Issue	Response
1.	<p>Though Section 6 is labelled “and Background Air Quality”, there is no discussion of background air quality in the RWDI report. While this is considered appropriate of a Certificate of Approval application, it is not for Environmental Assessments or for impact assessments to determine land use. MOE assumes all land use and compatibility issues have been resolved prior to considering approval. As such, cumulative impacts need to be assessed to determine land use compatibility.</p> <p>There are currently at least 2 other pit proposals for the area. This air quality study does not consider this. It is not clear how this should be addressed in any specific study.</p>	<p>RWDI generally disagrees with these comments. The MOE approach for Certificate Approvals reflects the low health risk nature of the emissions from aggregate operations. For this type and scale of emissions, we are of the opinion that modelling of impacts from all sources is not essential and, instead, the development and proper implementation of a management plan, based on the best practices available in the industry, is an effective approach to dealing with land use compatibility issues.</p> <p>In any case, the nearest of the two proposed pits mentioned are approximately 2 kilometres south of the Montrose Pit. The contribution of suspended particulate matter (SPM) from these sites is expected to be indistinguishable from the general background. A review of the dust studies prepared by SENES for these sites confirms this conclusion.</p>
2.	<p>Actual emissions from the site include emissions from fugitive emissions such as on-site truck movements and stockpiles. This has not been considered. As well, the facility is using a dedicated haul road that will run from the site to Katherine St. This too has not been assessed, even though it runs past two homes.</p> <p>While this is considered appropriate of a Certificate of Approval application (assuming an appropriate Best Management Plan is developed), it is not acceptable for Environmental Assessments or for impact assessments to determine land use. MOE</p>	See response at Issue 1 above.

No.	Issue	Response
	<p>assumes all land use and compatibility issues have been resolved prior to considering approval. Impacts of fugitive dust need to be considered.</p>	
3.	<p>A dedicated haul road is proposed from the site to Katherine St. This has not been assessed. This is not a public road and will create a new potentially significant source (i.e. impact) on nearby receptors. The road goes past two residential properties and can potentially impact other nearby properties.</p>	<p>See response to Issues 1 and 2, above. In addition, receptor R2, one of the residences adjacent to the haul road will not be occupied during the operation of the Montrose Pit.</p>
4.	<p>Capital is proposing to use a conveyor to move material from the working face to the processing area. This is an excellent approach to minimizing dust and traffic. RWDI has considered the conveying to be a negligible source. This is acceptable for the main conveyor runs, but any conveyor drops or transfer points cannot be considered insignificant. It is not clear that the conveyor from the face to the process area will be one straight conveyor run or whether drop/transfer points will be needed for changes in elevations or direction.</p>	<p>RWDI did include representative conveyor transfer points between the crushing plant and the central processing and stockpile area.</p>
5.	<p>Report indicates that PM10 and PM2.5 are only minor fractions of total particulate and as such, if total particulate is controlled, then the finer fractions are also below standards. Given that fine particulate are a health based concern, this should be supported by calculations. (note: all the issues discussed above should also be considered for fine particulate)</p>	<p>See response to Issue #2, above. RWDI's experience with similar facilities indicates that achieving a high level of control for SPM through implementation of a strong BMPP will also ensure that concentrations of fine particulate will also be sufficiently controlled. Supporting calculations will be provided with the addendum to the BMPP to further justify this position.</p>
6.	<p>MOE continues to have an air quality criterion related to dust fall. This can often be a very noticeable impact on nearby receptors and should be considered.</p>	<p>RWDI's experience with similar facilities indicates that achieving a high level of control for SPM through implementation of a strong BMPP will also ensure that dust fall will also be sufficiently controlled. Supporting calculations will be provided with the addendum to the BMPP to further justify this position.</p>
7.	<p>The operations at the face seem to consist only of a front end loader, loading material to the grizzly on the conveyor. It is not clear if there will be more than one loader or if there will be a rock breaker on the grizzly. If there is no breaker, how will oversized materials be cleared?</p> <p>As well, in the process description, it states that there will be a "loader" at the plant. Based on</p>	<p>Due to the nature of the material handled, a rock breaker on the grizzly is not required. One loader will operate at the extraction face, and one loader will operate in the central processing and stockpile area. The appearance of three loaders at the central processing and stockpile area reflects loading of trucks at different locations during a normal hour of operation. Regardless of the number of loaders, the significant emissions from loading of the shipping trucks are generated by the material transfer, which is determined by the tonnage handled during each</p>

No.	Issue	Response
	<p>the calculations, it would appear there will be three loaders at the plant.</p> <p>Since emissions are related to activity and number of sources, clarity is required with respect to number of operating equipment and operation process.</p>	<p>transfer.</p>
8.	<p>It is unusual for pits to operate at night. This must be considered in the modelling assessment and impact assessment. RWDI has suggested that on days with night operations, daytime activities be reduced.</p> <p>This may be an appropriate mitigation measure, but requires some careful modelling and assessment to determine how significantly daytime operations need to be curtailed to minimize impact. The exact operations for these conditions would need to be clearly defined in the site plans, BMP and C of A.</p>	<p>Capital Paving has confirmed that night time operations are no longer planned for this site.</p>
9.	<p>The Town of Woolwich OPA requires an assessment of monitoring. This has not been provided in any report.</p> <p>We would not recommend actual air quality monitoring for this site. Real time monitoring is very expensive and siting of the monitors to ensure maximum impacts are captured is always difficult. Integrating (i.e. standard hi-volume) monitors are not appropriate. They require days to obtain results and only provide a retrospective look at impacts and mitigation. Visual “monitoring” on an ongoing basis to ensure no visible plumes of dust come from operations and traffic is the most appropriate monitoring to ensure appropriate mitigation and minimize off-site impacts.</p>	<p>RWDI agrees with this statement, and does not recommend an ambient monitoring program for this site. Additional details of the visual monitoring requirement will be provided in a revised BMPP.</p>

Table 3. Responses to Table 2 of AMEC Report

No.	Issue	Response
1.	<p>See Section 2.4.4 above. Site can operate at night and is a large operation. Class III designation, as suggested by MOE guidance might be more appropriate.</p>	<p>Capital Paving has confirmed that night time operations are no longer planned for this site. Guideline D-6 does not apply to this facility, but if it did, RWDI would consider the Class II designation to be appropriate.</p>

No.	Issue	Response
2.	<p>The plan provides an excellent framework for control of dust emissions, but some further details are required.</p> <p>A minimum daily inspection to observe dust emissions from traffic and operations. Visible dust from any operation needs to trigger mitigation. Using visual triggers allows both the operator and other agencies to determine if dust control is adequate.</p> <p>Record keeping of these observations and actions needs to be included.</p>	<p>RWDI will prepare, on behalf of Capital Paving, an addendum to the July, 2008 ORTECH Air Quality and Dust Management Plan. This BMPP addendum will provide additional details to clarify the control measures that will be implemented.</p>
3.	<p>The aggregate is inherently moist. This reduces dust emissions. Any stockpiled materials and materials that have been exposed will dry and could cause potential dust emissions. A mechanism for watering these exposed areas should be included.</p> <p>It should be noted that the RWDI report assumes water spray bars are included on the process plant to ensure moisture content is retained. This should be included in the DMP.</p>	<p>See response to Issue #2, above. Details on watering practices will be provided in this addendum.</p>
4.	<p>Crushed asphalt is proposed to control dust on road surfaces. This is appropriate, but watering will still be required. No watering truck is discussed in this report.</p>	<p>See response to Issue #2, above. Details on the watering truck will be provided in this addendum.</p>
5.	<p>“tall mature trees....act as wind breaks”</p> <p>Trees and vegetation can act as dust barriers. Studies have shown that dust (especially fugitive dust from traffic) stays near the ground (within 2 m) and as a result, can be reduced by planting of appropriate vegetation. Appropriate plantings to provide “dust screens” in-line with sensitive receptors should be considered.</p>	<p>See response to Issue #2, above. Additional details on plantings will be provided in this addendum.</p>
6.	<p>More intensive actions will be required during times of high wind, high temperatures or very dry conditions. More detail should be provided on increased inspection and mitigation during extreme conditions. .</p>	<p>See response to Issue #2, above. Additional details on inspection and mitigation practices will be provided in this addendum.</p>

No.	Issue	Response
7.	DMP includes cleaning of the paved access road from the site to Katherine street. This should be part of the regular inspection, cleaning and record keeping. This can eliminate track-out to Katherine Street if the access road is well maintained.	See response to Issue #2, above. Additional details on inspection and mitigation practices will be provided in this addendum.
8.	Checklist and record keeping. No form has been provided for review. Details of this report are key in determining what routine actions will be undertaken and recorded.	See response to Issue #2, above. An inspection form will be provided in this addendum.
9.	Not all receptors indicated on site plans and assessed in the RWDI report have been considered. There is an on-site home at the north east corner of the site that was not assessed. As well there is a home just off-property north east of the site.	See response to Issue #2, above. Specific details on these residences will be included in the addendum to the BMPP.
10.	No discussion of complaint response. A complete management plan should include complaint response form and procedures.	See response to Issue #2, above. A complaint response procedure will be provided in this addendum.
11.	We would not recommend actual air quality monitoring for this site. Real time monitoring is very expensive and siting of the monitors to ensure maximum impacts are captured is always difficult. Integrating (i.e. standard hi-volume) monitors are not appropriate. They require days to obtain results and only provide a retrospective look at impacts and mitigation. Visual "monitoring" on an ongoing basis to ensure no visible plumes of dust come from operations and traffic is the most appropriate monitoring to ensure appropriate mitigation and minimize off-site impacts.	RWDI agrees with this statement, and does not recommend an ambient monitoring program for this site. Additional details of the visual monitoring requirement will be provided in an addendum to the BMPP.
12.	"farmhouse immediately south...if farm house remains occupied, exemplary efforts to control dust may be required" As well, there are two receptors to the north east of the site that have not been assessed. Ortech does not indicate what "exemplary" efforts may entail. This should be detailed in the DMP.	See response to Issue #2, above. Specific details on these residences will be included in the addendum to the BMPP.