



600 Southgate Drive
Guelph ON Canada
N1G 4P6

Tel: +1.519.823.1311
Fax: +1.519.823.1316
E-mail: solutions@rwdi.com

MEMORANDUM

DATE:	2020-02-05	RWDI Reference No.: 1701868
TO:	Greg Sweetnam	EMAIL: gsweetnam@jamesdick.com
CC:	James Parkin	EMAIL: jparkin@mhbcplan.com
FROM:	Brian Sulley	EMAIL: Brian.Sulley@rwdi.com
RE:	Addendum to Air Quality Assessment Reid Road Reservoir Quarry Town of Milton	

Dear Mr. Sweetnam,

I have prepared this memo to address the issues raised by the Joint Agency Review Team (JART) in their review of the Air Quality Assessment (AQA) and Best Management Practices Plan for Dust (BMPP) for the proposed Reid Road Reservoir Quarry (RRRQ), both dated June 20, 2018.

As the BMPP is meant to be a living document, a new version of the BMPP has been issued in conjunction with this addendum. A full revision of the AQA is not required, and this addendum was prepared to formalize the clarifications provided to the JART in October 2019.

Figure Labelling (JART Comments 1 & 2)

The concerns regarding the figure labelling have been rectified, and updated versions of Figures 2a through 2e are attached to this memo. A table has also been attached that provides a summary of all model parameters (Table 3: Dispersion Modelling Parameters). The dispersion modelling files were provided to the JART for review on November 1, 2019.

Background Air Quality Data (JART Comment 3)

RWDI agrees that this justification should have been provided in the original AQA. The Guelph monitoring station was considered adequate given that the predicted impacts of the proposed quarry are low compared to the relevant AAQCs, leaving room for uncertainties in background levels. In the case of fine particulate matter, background levels in Southern Ontario are not



very sensitive to the proximity of major roadways and vary relatively little from one monitoring station to another.

The MECP monitoring station at 125 Resources Road in Toronto is located next to one of the busiest sections of the 401 (approximately 150m away from the traffic lanes). The air quality data from this station are in fact comparable to that of the Guelph Station with respect to fine particulate. NO₂ levels are higher at Resources Road. This is shown in the revised copy of Table 1: Ambient Air Quality Data, attached to this response (the 5-year averages now reflect 2012-2016, as the 2016 values are now available).

A revised version of Table 2: Emission Summary Table - Cumulative Effects Analysis has been attached and uses the ambient levels from MECP station 35125 Toronto West. Using this version of Table 2, the conclusions of the study remain unchanged.

Supporting Information on Control Factors (JART Comments 4, 5 and 6)

Concerns were raised by JART regarding the control factors applied in the AQA, based on information contained in the Environment & Climate Change Canada (ECCC) Pits and Quarries Reporting Guide (Reporting Guide), and interpretations of the emission factors in the U.S EPA AP-42: Compilation of Air Emissions Factors.

With respect to washed aggregate leaving the wash screen, this material would contain little to no fine particulate and would be completely saturated with water. The subsequent processing steps would therefore be fully controlled (100%). The MECP has accepted this approach for ECA applications on numerous occasions and is consistent with the approach used in other jurisdictions as well. The ECCC Reporting Guide has no specific section on emissions from wash plant operations. A review of available literature (e.g., San Joaquin Valley Air Pollution Control District, University of Minnesota, Golder) show a similar approach in other jurisdictions.

With respect to the wash plant screen, this is not the same as using spray bars to control dust on an otherwise dry screen deck. Wash screens uses much higher volumes of water to completely saturate and wash the aggregate and is not accurately represented by the ECCC reporting guide (there is no section on wash plants). The MECP has accepted this approach for ECA applications on numerous occasions and is consistent with the approach used in other jurisdictions as well (e.g., San Joaquin Valley Air Pollution Control District, University of Minnesota, Golder). Common practice is to exclude the wash screen entirely.

Lastly, with respect to controls on the loading of washed stone into trucks for shipment, the control rate refers to the washed nature of the material handled, not the application of water (although the material will indeed also be inherently wet due to the washing process). Our



Greg Sweetnam
James Dick Construction Limited
RWDI#1701868
FEBRUARY 5, 2020

field experience has indicated that dust emissions from this type of material are significantly reduced compared to unwashed materials. We consider 90% control to be conservative. The MECP has accepted this approach for ECA applications on numerous occasions.

Regulatory Oversight (JART Comment 7)

The JART review identified a concern about how the mitigation measures identified in the BMPP would be implemented to ensure compliance with the applicable air quality regulations and guidelines.

The requirement for a BMPP is included on Page 3 of the Site Plans, and therefore this requirement can be legally enforced by the Ministry of Natural Resources and Forests under the ARA.

The site may be exempt from requiring an Environment Compliance Approval (ECA), in accordance with s. 1. (1) 13. iv. of O.Reg. 524/98, provided that a mobile processing plant is operated below grade. In that case, the ARA Site Plans always provide the necessary legislative instrument.

Closing

Please do not hesitate to contact me if you have any questions.

Yours truly,

RWDI

Brian G. Sulley, B.A.Sc., P.Eng.
Technical Director, Principal

BGS/RS/hta
Attach.



Greg Sweetnam
James Dick Construction Limited
RWDI#1701868
FEBRUARY 5, 2020