

Ministry of the Environment and  
Climate Change

Ministère de l'Environnement et de  
l'Action en Matière de Changement  
Climatique



Central Region  
Technical Support Section

Région du Centre  
Section d'appui technique

5775 Yonge Street  
8<sup>th</sup> Floor  
Toronto, ON, M2M 4J1  
Tel.: 416-326-6700  
Fax: 416-325-6347

5775, rue Yonge 12<sup>e</sup> étage  
8<sup>e</sup> étage  
Toronto, ON, M2M 4J1  
Tél.: 416-325-6966  
Télééc: 41-325-6347

July 8, 2014

Mirka Januszkiewicz, P. Eng  
Director, Waste Management  
The Regional Municipality of Durham  
605 Rossland Road East  
Whitby ON L1N 6A3

Laura McDowell, P.Eng  
Director, Environmental Promotion and Protection  
The Regional Municipality of York  
17250 Yonge Street  
Newmarket ON L3Y 6Z1

**Re: Durham/York Energy from Waste Project  
Submission of Annual Ambient Air Monitoring Report (May to December 2013),  
Ambient Air Monitoring 2<sup>nd</sup> (May to June 2013) and 3<sup>rd</sup> (July to September 2013)  
Revised Quarterly Reports and Ambient Air Monitoring 4<sup>th</sup> Quarterly Report  
(October to December 2013)  
Environmental Assessment Condition 11**

Dear Ms. Januszkiewicz and Ms. McDowell,

Thank you for the above-noted submission. A data validation review was conducted by the Ministry of the Environment and Climate Change (MOECC), Central Region, for the Annual Ambient Air Monitoring Report (May to December 2013) along with the Ambient Air Monitoring 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Quarterly Reports prepared by Stantec for the Rundle and Courtice Stations in Clarington. The Ambient Air Monitoring 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Quarterly Reports respectively cover the time periods of May to June, July to September, and October to December 2013.

This review pertains to the continuous parameters, including sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and particulate matter smaller than 2.5 microns (PM<sub>2.5</sub>), as well as non-continuous parameters comprised of total suspended particulate (TSP), metals, polycyclic aromatic hydrocarbons (PAHs) and dioxins and furans.

The ministry's email correspondence on the 2<sup>nd</sup> and 3<sup>rd</sup> Quarterly Reports highlighted our previous comments for the continuous and the non-continuous parameters. Based on the ministry's review of the revised 2<sup>nd</sup> and 3<sup>rd</sup> Quarterly Reports and the 4<sup>th</sup> Quarterly Report submission, all previous comments that pertained to actual flows and units of measurement have been addressed.

Based on our review of the supporting documentation provided and the measurements reported in 2013, the following comments are offered at this time for your consideration.

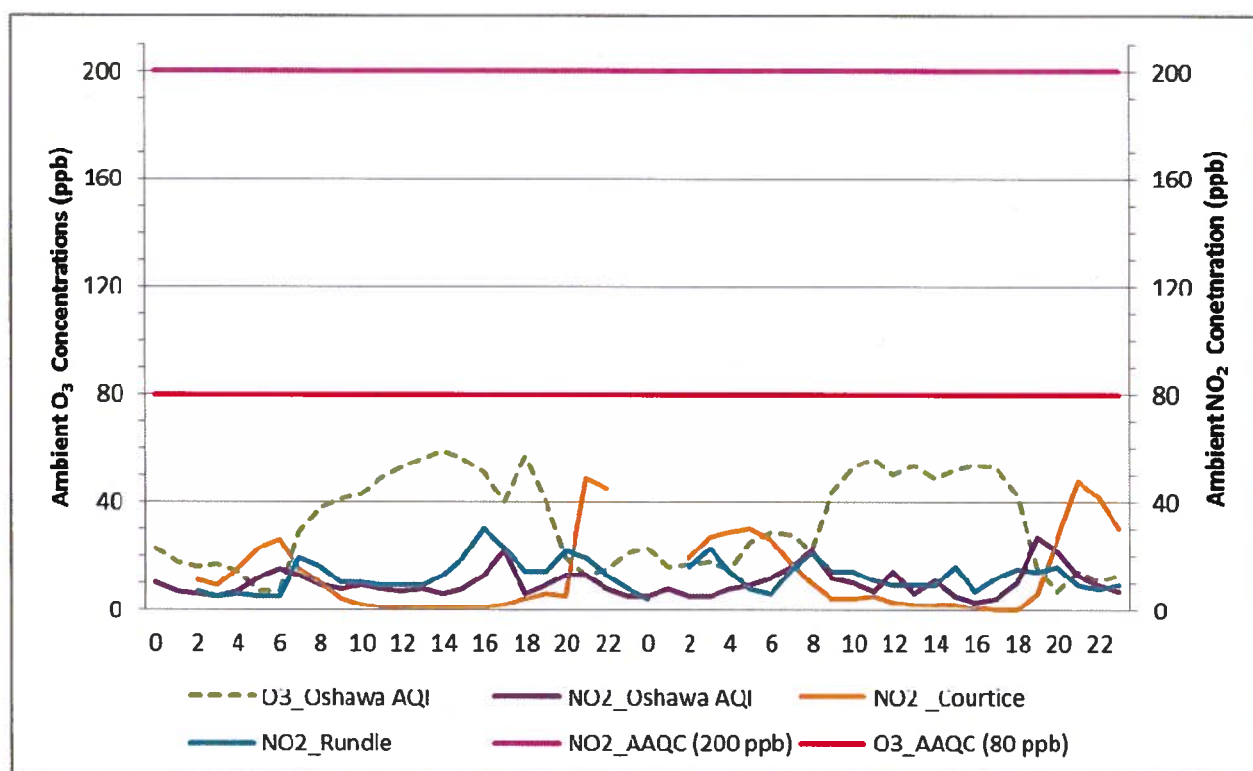
### 1. Continuous Parameters (May to December 2013)

Based on the review of the continuous parameters, SO<sub>2</sub> is deemed to be valid for the Quarterly Report submissions in 2013. However, the validity of NO<sub>2</sub> and PM<sub>2.5</sub> on the following dates is unclear and should be clarified:

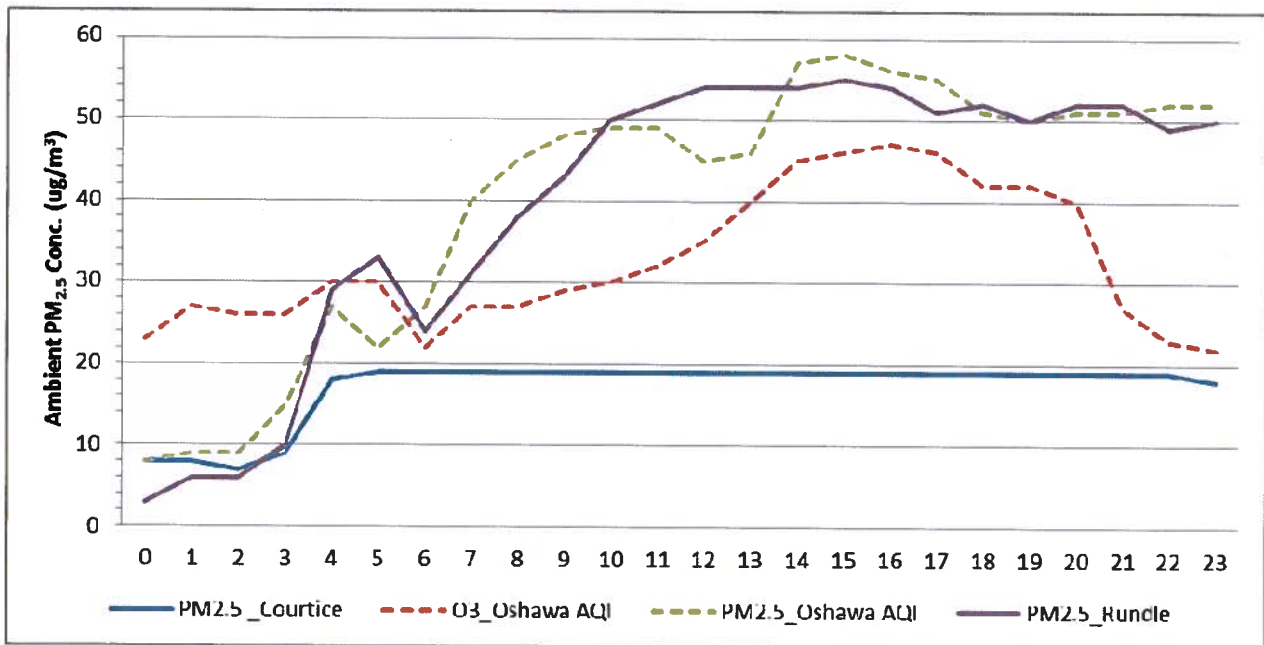
- NO<sub>2</sub> measurements at Courtice Station on May 6 and 7, 2013 commencing at 21:00 and 20:00, respectively, as shown in Figure 1.
- PM<sub>2.5</sub> on June 30 to July 3, 2013 at Courtice Station illustrates blocks of repeated hourly values as shown in Figure 2 on July 2, 2013.

In addition, we recommend noting that the high levels of PM<sub>2.5</sub> recorded at Courtice and Rundle were also observed at the Oshawa AQI due to forest fires in Quebec during the period of June 30 to July 3, 2013.

**Figure 1: NO<sub>2</sub> Hourly Measurements on May 6-7, 2013**



**Figure 2: PM<sub>2.5</sub> Hourly Measurements on July 2, 2013 at Courtice Station**



## 2. Non-Continuous Parameters (May to December 2013)

The supporting documentation and reported flows for the HiVols for TSP and metals and the PUF rates for the PAH measurements and dioxins and furans generally comply with the guidelines of the Ministry's Operations Manual and the approved Ambient Monitoring Plan, with the exception of the flows for TSP and metal samples which have been rectified in 2014 and the flows noted below for PAHs and dioxins and furans.

The daily flows are below the flow range recommended by the ministry for PAHs and dioxins and furans on the sampling dates noted below. On these dates, we recommend adding notes explaining that the flows are below the flow range of 8.0 cfm +/- 10% (i.e. 7.2-8.8 cfm) as stipulated in the *Operations Manual for Air Quality Monitoring in Ontario for PAHs and D/F*.

### PAHs

- Q3 Courtice, July 3<sup>rd</sup>, 15<sup>th</sup> and 27<sup>th</sup> - 6.7, 7.1, 6.4 cfm respectively
- Q3 range of flow 6.4-8.3 cfm for Courtice and 7.6-8.2 cfm for Rundle
- Q4 range of flow 7.7-8.7 cfm for Courtice and 6.8-8.8 cfm for Rundle
- Q4 Rundle, Oct 7<sup>th</sup> - 6.8 cfm

### Dioxins & Furans

- Q3 Courtice, July 3<sup>rd</sup> and 27<sup>th</sup> (same as PAHs) - 6.7, 6.4 cfm respectively
- Q4 Rundle, Oct 7<sup>th</sup> - 6.8 cfm

Based on the supporting documentation provided, the non-continuous data for Rundle and Courtice Stations from May to December 2013 appears to be valid with the exception of the daily flows which should be explained as notes under the data tables.

### 3. General Comments – 2013 Annual Ambient Air Quality Monitoring Report

We recommend revising the following statement which is currently presented in the Executive Summary of the Annual Ambient Air Quality Monitoring Report for the Durham York Energy Centre to reflect the schedule changes for this project:

*“...The DYEC was under construction in 2013, with commissioning of the facility currently anticipated to start in July 2014. Based on this schedule, 14 months of background air quality data will be collected prior to the start of the facility operations.” (Executive Summary, pg. vi)*

Please note that there was substantial data loss for NO<sub>2</sub> and PM<sub>2.5</sub> due to technical instrumentation problems at the beginning of the program. The above statement should integrate this note.

In addition, under Table 2-3 in the Annual Report entitled “*Summary of Air Quality Criteria for Metals*”, we recommend revision of Note D to replace “O. Reg. 419 24 Hour Guideline” with “Future O. Reg 419 standard that will be in effect in 2016”.

Thank you for the opportunity to comment on this project. We look forward to receiving your response and participating in a meeting with the Regions as noted in Condition 11.4(d) of the Notice of Approval for this project. Please contact me if you have any questions on the above comments.

Yours Sincerely,



Dan Orr  
Manager, Technical Support Section

cc: Marinha Antunes, Air Quality Analyst, Technical Support Section, MOECC  
Dan Delaquis, Supervisor (A), Air, Pesticides and Environmental Planning, MOECC  
Dave Fumerton, District Manager, York-Durham District Office, MOECC  
Sandra Thomas, Issues Coordinator, York-Durham District Office, MOECC  
Nisha Shirali, EA Planner & Coordinator, Technical Support Section, MOECC