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April 28, 2014
File: 160950528

Attention: Greg Borchuk, P.Eng.
Project Manager, EFW
Waste Management Services

The Region of Durham
605 Rossland Rd.,
Whitby, ON L1N 6A3

Dear Mr. Borchuk,

Reference: Q4 2013 Ambient Air Quality Monitoring Report for the Durham York Energy Centre

Please find attached with this letter the Q4 2013 quarterly report for the Durham York Energy Centre (DYEC).

The quarterly reports for the DYEC monitoring are scientific documents prepared to present monitoring data to the MOE. The MOE requires that several statistics, including maximum levels, be presented in these reports. The MOE does not require 98th percentile values to be included in quarterly reports. The primary reason that 98th percentile PM_{2.5} concentrations are not included in the quarterly reports is because any comparisons to the current air quality criteria for PM_{2.5} would not be scientifically valid. In order to compare measurement data to the Canada-Wide Standard (CWS) for PM_{2.5} the following steps must be carried out:

1. Monitor daily average PM_{2.5} concentrations over 3 consecutive years.
2. Calculate the 98th percentile of the daily average PM_{2.5} concentrations in each year of the 3-years of data.
3. Average the 98th percentile values from each of the 3 years.
4. Compare this value to the currently applicable Canada-Wide Standard (CWS) for PM_{2.5}.

In other words, in order to compare ambient PM_{2.5} monitoring data to the current CWS, 3 years (36 months) of measurements are required, while a quarterly report only presents 3 months of data (one twelfth of the required data). Therefore attempting to draw any conclusions on ambient PM_{2.5} levels with respect to the CWS based on the amount of data provided in a quarterly report is potentially miss-leading and not scientifically valid.



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However, Regional Council has requested this data, which is presented in the following table. As noted above, drawing conclusions based on this data should be avoided.

Table 1 – Summary of Measured 98th Percentile Daily Average PM_{2.5} Concentrations – Q4 2013 (µg/m³).

Period	Courtice Monitoring Station	Rundle Road Monitoring Station
Q4 2013 (3-months)	18.3	21.1

Regards,

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