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October 29, 2018
File: 160950528

Attention: Ms. Emilee O'Leary, Regional Environmental Assessment Coordinator
Ministry of the Environment, Conservation and Parks
Technical Support Section
5775 Yonge Street, 8th Floor
North York, ON M2M 4J1

Dear Ms. O'Leary,

Reference: Durham York Energy Centre, MECP Data Validation Review of Q2 2018 Quarterly Report (April to June 2018)

The Ministry of the Environment, Conservation and Parks (MECP) conducted a review and issued a comment letter (dated October 16, 2018) regarding the Q2 2018 quarterly report for the Durham York Energy Centre (DYEC) project. This letter provides our responses to the MECP's comments and is an addendum to the report.

1.0 CONTINUOUS PARAMETERS

MECP Comment #1 (page 2 of 2): *Based on the supporting documentation provided, the continuous parameters (NO_2, $PM_{2.5}$, and SO_2) are deemed to be valid for the second quarter of 2018.*

Stantec Response: Noted.

2.0 NON-CONTINUOUS PARAMETERS

MECP Comment #1 (page 2 of 2): *Please provide field sample log sheets for April 2 and April 8 sampling events. The log sheets were not included in the electronic submission.*

Stantec Response: PDF's of the log sheets for non-continuous TSP and metals sampling on April 2 and April 8, and PAH and D/F sampling on April 8, are provided electronically with this letter.

MECP Comment #2 (page 2 of 2): *In Table 4-6 the wind direction on May 26 is reported as east, however in Table 4-8 the wind direction on May 26 is reported at southwesterly. Please re-visit this table and correct the discrepancy.*

Stantec Response: Stantec reviewed Tables 4-6 and 4-8 and confirmed that winds were predominantly southwesterly at the Courtice WPCP on May 26. A revised Table 4-6 is included in Attachment 1 of this response letter, and includes a revised description of potential source contributions for B(a)P.

MECP Comment #3 (page 2 of 2): *Based on the supporting documentation provided to date, TSP/metals, PAHs and Dioxins and Furans appear to be valid with the exception of the missing information noted in comment 2.*

Reference: **Durham York Energy Centre, MECP Data Validation Review of Q2 2018 Quarterly Report (April to June 2018)**

Stantec Response: Noted.

We trust that this letter has addressed the MECP's questions and comments. Please contact the undersigned if you would like to discuss further.

Yours truly,

Stantec Consulting Ltd.

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Attachments:

Attachment 1 Table 4-6 Source Contribution Analysis – Quarter 2 2018 B(a)P Exceedances
Submitted Electronically: Log sheets for April 2 and 8, 2018

Table 4-6: Source Contribution Analysis – Quarter 2 2018 B(a)P Exceedances

Date	Station	% above the MECP B(a)P Criterion	Wind Direction (blowing from)	Potential Source Contributions
2-May-18	Courtice WPCP	14.9%	West	Local roads and agricultural areas are located upwind of the Courtice WPCP Station. Potential sources could be vehicle exhaust emissions or agricultural activities.
	Rundle Road	3.6%	West	Land use in this direction is a mix of agricultural and commercial. Highway 418 construction activities were observed upwind of the Rundle Road Station during this quarter. Potential sources could be a nearby business with a poorly controlled combustion source operating, construction vehicle exhaust, or agricultural activities.
26-May-18	Courtice WPCP	261%	Southwest	Local roads and agricultural areas are located upwind of the Courtice WPCP Station. Potential sources could be vehicle emissions and/or agricultural activities.
	Rundle Road	178%	West-southwest	Highway 401, Highway 418 construction and a CN railroad are located upwind of the Rundle Road Station. Potential sources could be vehicle exhaust.

Hi-Vol Air Sampling Data Sheet

	Setup:	Retrieval:
Operator	03/28/18 AE	TZ (CLIMA)
Service Date (MM/DD/YY)		04/05/18

Sampler Location		Courtice WPCP	Rundle	Fence Line
Sampler Measurement (TSP/PM10/PAH)		TSP/ Metals	TSP/ Metals	TSP/ Metals
Sampler Serial #		3744	3746	6001
Run Start Date (MM/DD/YY)		04/02/18	04/02/18	04/02/18
Run Start Time (HH:MM AM/PM)		12AM	12AM	12AM
Run End Date (MM/DD/YY)		04/03/18	04/03/18	04/03/18
Run End Time (HH:MM AM/PM)		12AM	12AM	12AM
Pressure (in H2O) at Exit Orifice	Start	2.71	3.29	2.56
	Finish	2.80	3.54	
Elapsed Time Reading (hour)	Start	4720.64	4751.06	3391.57
	Finish	4744.02	4774.58	3415.35
Chart Recorder Reading for Mass Flow Samplers	Start	33	32	34
	Finish	36	40	37
Single Point Audit (Required every other site visit)	Pressure in inH2O at audit orifice			
	Standard flow rate (cfm)(calculated from Mass Flow Hi-Vol Sampler Spreadsheet)			
Circular Chart Recorded ID #				
Filter #	Filter	18030508	18030513	18030514
	Photo #			
Filter Condition/ Other Notes		Good, moderate/med. loading	Good, moderate/med. loading	Tear on top moderate loading
Met Conditions	Install:	Coo l	Coo l	coo l
	Remove:	Cold, windy, Sun & clear mix		
	Sampling Day Meteorological Data to be Filled in Once Available. Data Filled in (MM/DD/YY)			
	Temperature during sampling run (°C)			Courtice temperature used for Fenceline Station
	Courtice Barometric Pressure during sampling run (inHg):			
Site Operations	Install (conditions in the area applicable to all sites):	Hwy. Constr.	Hwy Con.	Hwy. Con
	Install: Site specific conditions:	N/A	N/A	N/A
	Remove (conditions in the area applicable to all sites):	Hwy construction, 401 & 418		
	Remove: Site specific conditions:		None	Ontario Power truck next to Site.

Hi-Vol Air Sampling Data Sheet

	Setup:	Retrieval:
Operator	T.L / C.L / A.W.	T.L. / A.W.
Service Date (MM/DD/YY)	04/05/18	2018 04/09

Sampler Location		Courtice WPCP	Rundle	Fence Line
Sampler Measurement (TSP/PM10/PAH)		TSP/ Metals	TSP/ Metals	TSP/ Metals
Sampler Serial #		3744	3746	0001
Run Start Date (MM/DD/YY)		04/08/18	04/08/18	04/08/18
Run Start Time (HH:MM AM/PM)		00:00	00:00	00:00
Run End Date (MM/DD/YY)		04/09/18	04/09/18	04/09/18
Run End Time (HH:MM AM/PM)		00:00	00:00	00:00
Pressure (in H2O) at Exit Orifice	Start	2.70	3.50	2.44
	Finish	2.78	3.37	2.42
Elapsed Time Reading (hour)	Start	4744.19	4774.77	345.68
	Finish	4767.59	4798.77	3439.47
Chart Recorder Reading for Mass Flow Samplers	Start	35	37	35
	Finish	37	37	34
Single Point Audit (Required every other site visit)	Pressure in inH2O at audit orifice			
	Standard flow rate (cfm)(calculated from Mass Flow Hi-Vol Sampler Spreadsheet)			
Circular Chart Recorded ID #				
Filter #	Filter	1803969	1803968	1803970
	Photo #			
Filter Condition/ Other Notes		Light loading Good condition	Light loading Good condition	Light loading Good condition
Met Conditions	Install:	Cold, windy, Sun/cloud mix		
	Remove:	Cold, windy, Sunny		
	Sampling Day Meteorological Data to be Filled in Once Available, Data Filled in (MM/DD/YY)			
	Temperature during sampling run (°C)			Courtice temperature used for Fenceline Station
	Courtice Barometric Pressure during sampling run (inHg):			
Site Operations	Install (conditions in the area applicable to all sites):	Construction, 401 & 418		
	Install: Site specific conditions:			
	Remove (conditions in the area applicable to all sites):	Same as Install		
	Remove: Site specific conditions:			

adjust flow to 3.15

345

SSP = 3.15

exit = 2.75

2.80

adjust 245

Hi-Vol Air Sampling Data Sheet

	Setup:	Retrieval:
Operator	JR / CL / AW	T.Z. / AW
Service Date (MM/DD/YY)	04/05/18	2018/04/09

		Courtice WPCP	Rundle
Sampler Location		Courtice WPCP	Rundle
Sampler Measurement (TSP/PM10/PAH)		D/F, PAH	D/F, PAH
Sampler Serial #		1429	1430
Run Start Date (MM/DD/YY)		04/08/18	04/08/18
Run Start Time (HH:MM AM/PM)		00:00	00:00
Run End Date (MM/DD/YY)		04/09/18	04/09/18
Run End Time (HH:MM AM/PM)		00:00	00:00
Magnehelic Reading	Start	~~40~~ 45	~~28~~ 52
	Finish	45	53
Elapsed Time Reading (hour)	Start	2642.20	2447.67
	Finish	2665.84	2471.62
Filter #	Filter #	102GFF-Courtice-04082018	102GFF-Rundle-04082018
	PUFF #	CC2727-01	CC2728-01
	Photo #		
Filter Condition/ Other Notes		Light Loading Good Condition	Light Loading Good condition
Met Conditions	Install:	Cold, windy, Sun & cloud mix	
	Remove:	Cool, Windy, Sunny	
	Sampling day meteorological data to be filled in once available. Data filled in (MM/DD/YY):		
	Temperature during sampling run (°C)		
	Courtice Barometric Pressure during sampling run (inHg):		
Site Operations	Install (conditions in the area applicable to all sites):	Construction, 401 & 418	
	Install: Site specific conditions:		None
	Remove (conditions in the area applicable to all sites):	Same as Install	
	Remove: Site specific conditions:		