



The Regional Municipality of Durham

COUNCIL INFORMATION PACKAGE

August 3, 2018

Information Reports

- [2018-INFO-109](#) Commissioner of Works – re: Durham York Energy Centre Source Test Update
- [2018-INFO-110](#) Commissioner of Works – re: Durham York Energy Centre Ambient Air Monitoring Exceedance Dioxins and Furans
- [2018-INFO-111](#) Acting Commissioner of Finance – re: Response to Regional Council's Request for Additional Information on Property Tax Comparisons contained in Recent Media Articles

Early Release Reports

There are no Early Release Reports

Staff Correspondence

1. [Memorandum from K. Kilbourne, Project Planner](#) – re: New Application for a Regional Official Plan Amendment
2. [Memorandum from D. Beaton, Commissioner of Corporate Services](#) – re: Municipal Act, 2001, Section 275 – Restricted Acts after Nomination Day (Lame Duck)

Durham Municipalities Correspondence

1. [Township of Uxbridge](#) – re: Resolution passed at their Council meeting held on July 16, 2018, regarding upholding maximum sentences for firearm offences under the criminal code

Other Municipalities Correspondence/Resolutions

There are no Other Municipalities Correspondence/Resolutions

Miscellaneous Correspondence

There are no Miscellaneous Correspondence

Advisory Committee Minutes

There are no Advisory Committee Minutes

Members of Council – Please advise the Regional Clerk at clerks@durham.ca by 9:00 AM on the Monday one week prior to the next regular Committee of the Whole meeting, if you wish to add an item from this CIP to the Committee of the Whole agenda.

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.



The Regional Municipality of Durham Information Report

From: Commissioner of Works
Report: #2018-INFO-109
Date: August 3, 2018

Subject:

Durham York Energy Centre Source Test Update

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to provide an update on the Regional Municipalities of Durham and York's (Owners) spring 2018 Source Test results at the Durham York Energy Centre (DYEC).

2. Background

2.1 The Environmental Compliance Approval (ECA) requires the Owners to perform annual Source Testing in accordance with the procedures and schedule outlined in Schedule "E" of the ECA. The Source Test is to determine the rate of emission of the Test Contaminants from the Stack.

2.2 On October 9, 2013, Regional Municipality of Durham (Durham) Council directed staff to undertake an additional annual source test at the DYEC for a three year period commencing in 2015. The May 2018 Source Test is the third of the Durham Council directed Source Tests.

3. Owners' Source Test

3.1 The Owners' Source Test was conducted from May 28 to June 01, 2018, for all test contaminants on both Boiler #1 and Boiler #2.

3.2 The results of the Owners' Source Test demonstrated that all emissions were within the limits detailed in the ECA (Attachment #1).

- 3.3 The final Owners' Source Test Report was sent to the MOECP and subsequently posted to the project website.

Distribution Modeling

- 3.4 The DYEC emissions dispersion was modeled utilizing the Source Test data and the MOECC approved CALPUFF model. The results of the contaminant concentrations at the maximum point of impingement were then compared to the limits within the Ontario Regulation 419/05 Air Pollution – Local Air Quality. Ontario Regulation 419/05 Air Pollution – Local Air Quality limits are set to be protective of human health and the environment.
- 3.5 All of the calculated impingement concentrations were well below the regulatory limits. Of particular interest is the evaluation of Dioxins and Furans. These values, once modeled for the maximum point of impingement, show that concentrations of 0.0004 PicoGrams (pg) Total Toxic Equivalency Concentration per Reference Cubic Metre (TEQ/Rm³) can be attributed to the DYEC emissions. The Ontario Regulation 419/05 Air Pollution – Local Air Quality regulatory standard is 0.1 pg TEQ/Rm³.

4. Owners' Consultants' Reviews

- 4.1 Airzone One Ltd., the Source Test peer reviewer, provided a memo on their preliminary findings on the Source Test sampling (Attachment #2), which concludes that:

“Based on the observations made during collection of samples, we are satisfied that Ortech collected all dioxin and furan samples according to standard operating procedures and approved methods, with the deviations from the methods/protocols already noted. Final comments concerning the results of all of the testing and compliance of the facility will be made upon review of the final stack testing report to be issued by Ortech.”

- 4.2 The Emissions Specialist from HDR was also present during the Source Tests. In Attachment #3, HDR reported that:

“HDR has completed our review of the preliminary results from the DYEC 2018 Spring Stack Test that was performed during the period between May 29 and June 1, 2018. Representatives from HDR were present to observe the testing procedures and DYEC operations throughout the majority of the Compliance Test period. Overall, ORTECH appeared to follow good stack sampling procedures, and Covanta's plant personnel were observed to be operating the DYEC in accordance with acceptable industry operating standards. Based on the preliminary results summarized in Table 1, the results of the 2018 Spring Stack Test demonstrated that the DYEC operated below the ECA's

Schedule “C” limits.”

5. Conclusion

- 5.1 The Owners’ technical consultants and peer reviewers have confirmed that the voluntary Source Tests was conducted in accordance with the Ministry of the Environment and Climate Change’s guidelines.
- 5.2 All results of the diagnostic and compliance Source Tests were in compliance with the Environmental Compliance Approval limits.

6. Attachments

Attachment #1: Source Test Results

Attachment #2: AirZone One Ltd. Source Tests: Preliminary Findings Memo

Attachment #3: HDR Inc. Source Test Assessment Memo

Respectfully submitted,

Original signed by

Susan Siopis, P.Eng.
Commissioner of Works

Summary of Compliance Source Test Results

Parameter	Units	Environmental Compliance Approval Limit	Boiler #1 Result	Boiler #2 Result
Particulate Matter (PM) ⁽¹⁾	mg/Rm ³	9	1.11	0.96
Mercury (Hg) ⁽¹⁾	µg/Rm ³	15	0.22	0.77
Cadmium (Cd) ⁽¹⁾	µg/Rm ³	7	0.14	0.12
Lead (Pb) ⁽¹⁾	µg/Rm ³	50	0.45	0.29
Hydrochloric Acid (HCl) ^{(2) (3)}	mg/Rm ³	9	2.2	4.4
Sulphur Dioxide (SO ₂) ^{(2) (3)}	mg/Rm ³	35	0.1	0
Nitrogen Oxides (NO _x) ^{(2) (3)}	mg/Rm ³	121	110	110
Carbon Monoxide (CO) ^{(2) (4)}	mg/Rm ³	40	27.8	30.3
Total Hydrocarbons (THC) ⁽⁵⁾	ppm	50	0.8	1.2
Dixons and Furans ⁽⁶⁾	pg TEQ/Rm ³	60	10.4	10.5

- (1) dry at 25 degree Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume
- (2) based on process data or Continuous Emissions Monitoring (CEM) data provided by Covanta
- (3) maximum calculated rolling arithmetic average of 24 hours of data measured by the Durham York Energy Centre (DYEC) Continuous Emissions Monitors (CEMS), dry at 25 degrees Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume
- (4) maximum calculated rolling arithmetic average of 4 hours of data measured by the DYEC CEMS, dry at 25 degrees Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume
- (5) average of three one-hour tests measured at an undiluted location, reported on a dry basis expressed as equivalent methane
- (6) calculated using the North Atlantic Treaty Organization (NATO)/ Committee on the Challenges of Modern Society (CCMS) (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25 degrees Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume

Gioseph Anello, MEng, PEng, PMP
Manager of Waste Planning & Technical Services

The Regional Municipality of Durham
605 Rossland Road East, Box 623
Whitby, Ontario, L1N 6A3
Tel: (905) 668-4113 ext. 3445
Email: Gioseph.Anello@Durham.ca

July 25th, 2018
Job/reference #: J18030

RE: Audit of Spring 2018 Voluntary Source Testing – Preliminary Findings

Dear Mr. Anello,

At this time, we are providing our preliminary review of the sample collection for the Spring 2018 Voluntary Source Testing of the Durham York Energy Centre (DYEC). This preliminary review will provide a general overview of our findings. A more detailed review of the testing campaign will be provided once the final source testing report has been issued. The field sampling audits were undertaken by Adomait Environmental Solutions Inc. (Adomait).

Source Sampling Audit

Adomait observed the sampling of two stack trains at the Durham York Energy Centre, focusing specifically on the sampling of semi-volatile organic compounds (SVOC) conducted on May 31st and June 1st, 2018. Mr. Martin Adomait of Adomait was responsible for observing the stack samplers throughout the process. Mr. Adomait's observations focused primarily on the stack sampling methods and implementation procedures. Ms. Janice Tessman observed the instrumentation in the process control room during the sample collection periods.

In the Process Operations Center, observations were made on one minute readings as they appeared on the system monitors. Readings were manually recorded every 10 minutes, although deviations were identified when they occurred.

1. Oxygen concentrations were maintained > 6% at all times and were generally 6.9 to 9.1%. The ECA compliance limit is > 6%.
2. CO spikes occurred more frequently when compared to the Fall 2017 Compliance Test. Most of the CO spikes did not last beyond the 10 minute interval. The CO spikes started to cause issues on May 31st due to their frequency. Consequently, the SVOC test on Unit 2 was halted and the CO burner was started. However, after one hour, the system had not stabilized and the SVOC test on Unit 2 was abandoned. This decision was reached by Covanta staff. The extended delay of the test would have made the test unrepresentative.
3. CO spikes were less frequent on June 1st and the operation was far more stable. It was surmised, by Covanta staff, that the waste processed on May 31st was much wetter and inconsistent than the waste processed on June 1st.
4. The sampling of Unit 1 was delayed on June 1st until a starting time of 12:46 due to temperature irregularities in two of the Unit's air pollution control (APC) streams. The feed from two of the streams had different temperatures suggesting that one of the streams had been blocked. The maintenance crew tried to unclog the recycle pathways, as well as replacing temperature and level sensors. After the repair, the streams again had similar temperatures and the system seemed to function well.

5. The quench tower inlet and outlet temperatures showed consistent control of the rising temperatures on both monitoring days during sample collection. The inlet temperatures rose moderately from 167°C to approximately 171°C. The outlet temperatures remained consistent throughout at 149 to 153°C. Based on previous source testing observations, the quench tower inlet temperatures could be expected to increase during the day (within allowable limits); however, this time only moderate increases were observed. In any case, the outlet temperatures remained steady regardless of the inlet temperatures.
6. As a result of consistent outlet temperatures from the Quench tower, the baghouse inlet temperatures remained ~140 to 144°C. This is approximately the midpoint of the ECA performance requirement. The ECA performance requirement is 120 to 185°C (Section 6(2)(h)). These readings were consistent with observations from previous stack tests (~144°C (2017 Compliance Test); 138 to 140°C (Spring 2016); and 142 to 145°C (Fall 2016)). Consistent temperatures in the baghouse allow comparison between data sets at different times. It is also important when considering the volatilization of various dioxins and furans that may be in particle-bound form in the baghouse. Increased temperatures could volatilize dioxins and furans already captured by the baghouse in particle-bound form.
7. Production at the plant is often evaluated in terms of steam flow. Steam flow was in the range of 32 to 34 thousand m³/hour. This was similar to levels observed during other stack testing campaigns at this plant. Similar production also makes the comparison between different stack tests possible.
8. Carbon and lime dosage were consistent with the previous testing campaigns. Carbon doses of ~5 kg/hour were necessary to keep the dioxins in check.
9. Occasional anomalies in the one minute data were observed in the flowrate and moisture numbers. The calculated moisture at times were reduced to zero. Similar to other testing campaigns when this was observed, it is speculated that this is related to the problems that occur during the reading of dry versus wet oxygen monitors. Typically, this anomaly would only last for one minute.

Observations of the stack testing procedures were undertaken during the SVOC sampling part of the program. General observations are presented here, and will be presented in greater detail in the final report.

1. Where possible, leak checks were observed at both the start and conclusion of all SVOC tests. Leak checks were always performed at the conclusion of tests. When the leak checks are successful, the source sampling tests are considered valid. Leak checks were always performed in a systematic manner to ensure good QA/QC.
2. Stack temperatures reported by the stack testing crew were checked with the auditor in the control room to verify that the temperature was consistent with the in-stack readings. In all cases, temperatures varied by +/- 2°C. This level of variance is consistent with expected bias between different temperature probes.
3. Occasionally, minor aberrations were noted in the velocities of the Method 5 control panels. Due to the large vacuum at these sampling locations, the seal on the sampling port would become dislodged at times and interfere with the pitot tubes. The crew members responded quickly and efficiently to repair the seal.
4. Impinger/XAD temperatures were checked periodically at each sampling train. Ortech supplied plenty of ice to the crews. The temperatures were maintained in the 45 to 55°F. These temperatures are critical as it improves adsorption of dioxins/furans on the sampling media.
5. Adomait recorded dry gas meter correction and pitot factors for comparison with the final report to be issued by Ortech.
6. All trains operating at the baghouse outlet locations were inserted into the stack while the sampling train was running. Given the high negative pressure at these locations, it was important to ensure that the filter was not displaced prior to the start of sampling. This also limits loss of any sample from the train.
7. Auditing was only conducted on the sampling trains at the Boiler 1 and 2 outlets. The quench tower inlet locations were not monitored in this sampling round.

AirZOne

Comprehensive Air Quality Services

SVOC samples were collected following the procedures in EPS 1/RM/3 and US EPA Method 23. During the source testing, Ortech followed the sampling and recovery procedures as specified by the methods to maintain the integrity of the samples. Ortech had adequate staff on site to collect samples and transfer the sampling media to the on-site lab for recovery and clean-up. Communications with the control room were maintained at an excellent level to ensure samples were collected during representative operating conditions.

Laboratory Processing Audit

At the request of the Regional Municipality of Durham, Airzone One Ltd. (Airzone) did not audit the laboratory processing samples for the testing program. Airzone will review the laboratory data provided with Ortech's final report, with specific focus on the dioxin/furan and particulate matter results.

Conclusion

Based on the observations made during collection of samples, we are satisfied that Ortech collected all dioxin and furan samples according to standard operating procedures and approved methods, with the deviations from the methods/protocols already noted. Final comments concerning the results of all of the testing and compliance of the facility will be made upon review of the final stack testing report to be issued by Ortech.

Sincerely,



Lucas Neil, PhD
Air Quality Scientist
Airzone One Ltd.
lneil@airzoneone.com



Technical Memorandum

To: Gioseph Anello, PEng, Region of Durham

Cc: Mirka Januszkiewicz, PEng (Region of Durham)
Craig Bartlett; Christian Shelepuk (Region of Durham)

Laura McDowell, Peng (Region of York)
Ron Gordon; Seth Dittman, PEng (Region of York)

John Clark, PE; Shawn Worster; Kirk Dunbar (HDR)

From: Bruce Howie, PE

Date: July 30, 2018

Re: **Durham York Energy Centre: Spring 2018 Stack Test**
HDR Observations During Testing and Summary of Results

Introduction

During the period from May 29 through June 1, 2018, ORTECH Consulting, Inc. (ORTECH) conducted Compliance Testing at the Durham York Energy Center (DYEC). Although similar testing is required annually under Section 7 of the Environmental Compliance Approval (ECA) originally issued by the Ontario Ministry of Environment and Climate Change (MOECC) on June 29, 2011, this testing was conducted voluntarily. HDR personnel were on-site to observe DYEC operations and procedures during the testing that took place on May 29, May 30, and June 1. The purpose of this technical memorandum is to summarize the observations of HDR personnel during the testing, and to summarize our review of the results for the Compliance Test based on the information provided in the ORTECH Test Report, dated July 18, 2018.

HDR Observations during the Compliance Test

HDR personnel were on-site during the air emission tests that occurred on May 29, May 30 and June 1, 2018. Attachment A summarizes the schedule of testing completed, along with identifying any tests that were aborted. HDR's role on-site was to observe operations of the DYEC and the conduct of Covanta, the Facility Operator, and ORTECH, the stack test firm hired by the Regions to conduct the tests and sampling. It was observed by HDR that most of the ORTECH personnel on-site during the Spring 2018 Stack Test were part of the same testing crews that conducted previous stack tests and sampling at the DYEC. HDR observed that ORTECH followed each test according to the applicable standards and procedures. ORTECH was careful during each port change to ensure that the probe was not scraped inside the port during insertion and removal of the probe. In addition, Sample box ice was replenished in a timely manner, sampling equipment was assembled properly, and all required leak checks were conducted. After each completed

test, the sampling trains were transported to a trailer located outside the boiler building for recovery and clean up to avoid potential contamination at the test location.

A complete day-by-day summary of HDR's observations of operations and testing during the entire Spring 2018 Stack Test is included in Attachment B. Attachment C provides a summary of the DYEC operating data during the Dioxin/Furan testing. Overall, no deviations from the approved test protocol or applicable stack test procedures were observed by HDR personnel during the testing period. It should be noted that the actual clock times associated with each run are slightly longer than the run lengths indicated in the test plan. This difference in time is due to the fact that it took between 5 and 15 minutes for ORTECH to pull the probe out of the first port, leak check the sampling equipment, and insert the probe into the second port.

While rare, leak check failures and equipment issues can occur during typical stack testing programs. During the first metals test on Unit 2 on May 31, 2018, after initial insertion of the test probe, a portion of the towel used to seal the port came loose and wrapped around the end of the probe. The issue was identified immediately after insertion of the probe by ORTECH, who responded with the following actions: the probe was pulled back out; the towel was removed; the sampling apparatus was restarted; and the probe was reinserted. No further issues arose during the test run. Also on May 31, during the pre-testing leak checks for Unit 1 – SVOC (dioxin) run 2, leakage in the sampling train was found to be occurring. ORTECH investigated the problem and identified a damaged O-ring on part of the sampling train. The O-ring was replaced and the sample train subsequently passed the pre-test leak check, after which the test run commenced. In all of these cases, it is HDR's opinion that ORTECH acted in accordance with the testing procedures and generally accepted stack testing standards.

HDR was also on-site to observe plant operations and the conduct of Covanta personnel during the testing period. Overall, it is HDR's opinion that the boilers and air pollution control systems were operated under normal conditions during the sampling periods identified in the schedule included in Attachment A. There were several process upsets during the course of the week that resulted in testing being delayed while issues were addressed as well as the abortion of one test run as a result of a process upset requiring actions being taken by the operator in order to maintain compliance with regulatory limits for CO emissions. As part of our on-site observations, HDR noted the following items:

- It was observed and noted, by Covanta that Unit 1 performance was generally less stable over the course of the week. This was concluded due to several high carbon monoxide (CO) emission events that occurred within the unit during testing. These high CO events were controlled by Covanta in accordance with the accepted Standard Operating Procedures (SOP) and no exceedances of the 4-hour limit for CO were recorded.
- Start of testing was delayed on May 31 due to a vibration alarm on one of the air cooled condenser (ACC) fans that caused the fan to trip. This trip occurred as the ORTECH

personnel were completing setup, and resulted in the delayed start of testing for a short time while the system was examined by Covanta.

- On May 31 SVOC (dioxin) test 2 on Unit 2 was aborted. During the testing the CO level within Unit 2 was high (>30 mg/Rm3) and was approaching the 4 hour block average limit in the ECA. As a result of the rising trend, Covanta took corrective action by engaging the gas burners in the unit in accordance with the accepted SOPs. The test was temporarily paused as a result of the burners operating, (which actually started to operate prior to suspension of the test run due to a miscommunication between Covanta and ORTECH). Ultimately, the run was aborted as the length of the pause exceeded one hour. The cause of the high CO issue was not immediately determined. The run was performed the following day
- On June 1 prior to the start of testing on Unit 1, Covanta inspected the fly recirculation hopper above the rotary mixer due to ongoing issues with readings from instrumentation in the area. During the inspection it was noted that previous rodding of the hopper to keep fly ash from plugging had resulted in the presence of several holes in the hopper throat, which allowed ambient air to be drawn into the process. After the discovery Covanta patched the holes (metal sheeting and caulking) and allowed the reactor to reach equilibrium before conducting the testing. This delayed the start of testing by approximately 4 hours on this day.

Summary of Results

The results of the testing program, based on ORTECH's July 18, 2018 report, are summarized in Table 1 and Figures 1 and 2. As shown, emissions of all pollutants are corrected to 11% oxygen and were below the ECA's Schedule "C" limits.

Table 1 – Summary of Test Results

Parameter	Units	ECA Limit	Unit 1		Unit 2	
			Result	% of Limit	Result	% of Limit
Particulate Matter (PM) ⁽¹⁾	mg/Rm ³	9	1.11	12.3%	0.96	10.7%
Mercury (Hg) ⁽¹⁾	µg/Rm ³	15	0.22	1.5%	0.77	5.1%
Cadmium (Cd) ⁽¹⁾	µg/Rm ³	7	0.14	2.0%	0.12	1.7%
Lead (Pb) ⁽¹⁾	µg/Rm ³	50	0.45	0.9%	0.29	0.6%
Hydrochloric Acid (HCl) ⁽²⁾⁽³⁾	mg/Rm ³	9	2.0	22.2%	3.8	42.2%
Sulphur Dioxide (SO ₂) ⁽²⁾⁽³⁾	mg/Rm ³	35	0.02	0.1%	0	0.0%
Nitrogen Oxides (NO _x) ⁽²⁾⁽³⁾	mg/Rm ³	121	109	90.1%	109	90.1%
Carbon Monoxide (CO) ⁽²⁾⁽⁴⁾	mg/Rm ³	40	19.7	49.3%	13.0	32.5%
Total Hydrocarbons (THC) ⁽⁵⁾	ppm	50	0.8	1.6%	1.2	2.4%
Dioxin and Furans ⁽⁶⁾	pg TEQ/Rm ³	60	<10.4	17.3%	<10.5	17.5%

(1) dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(2) based on process data or CEM data provided by Covanta

(3) maximum calculated rolling arithmetic average of 24 hours of data measured by the DYEC CEMS, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(4) maximum calculated rolling arithmetic average of 4 hours of data measured by the DYEC CEMS, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(5) average of three one hour tests measured at an undiluted location, reported on a dry basis expressed as equivalent methane

(6) calculated using the NATO/CCMS (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

Figure 1 DYEC Test Results as a Percent of ECA Limit

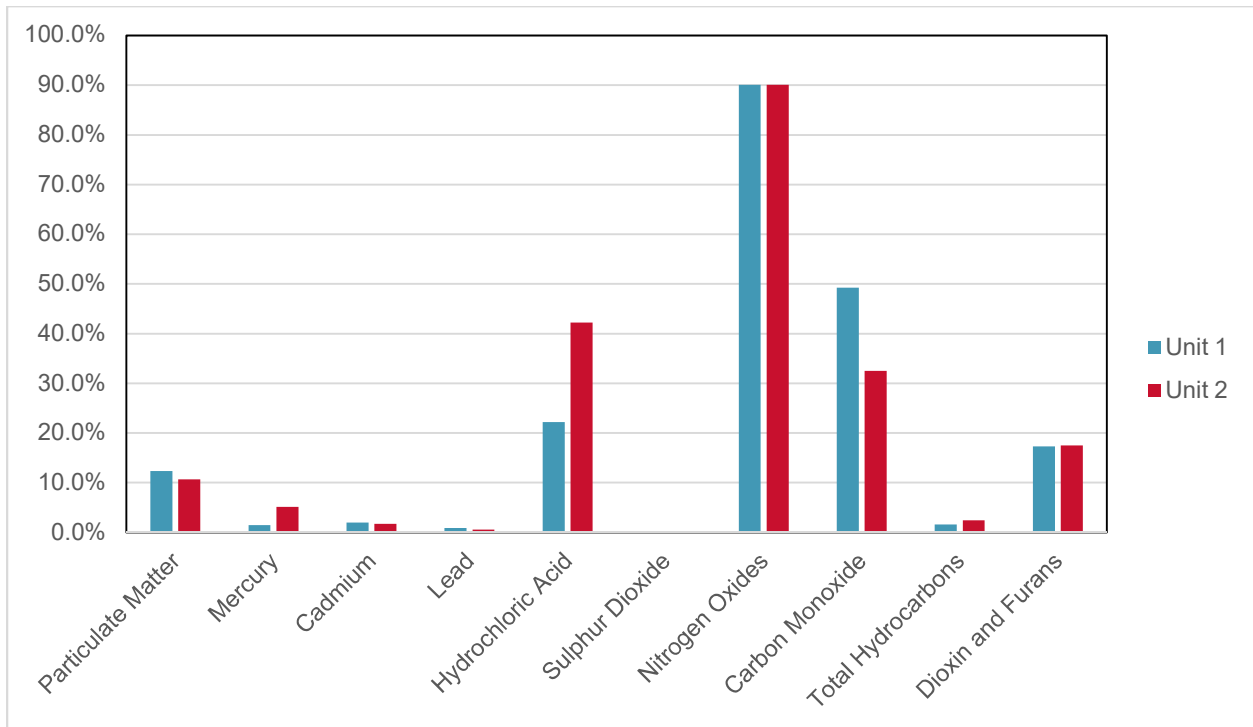
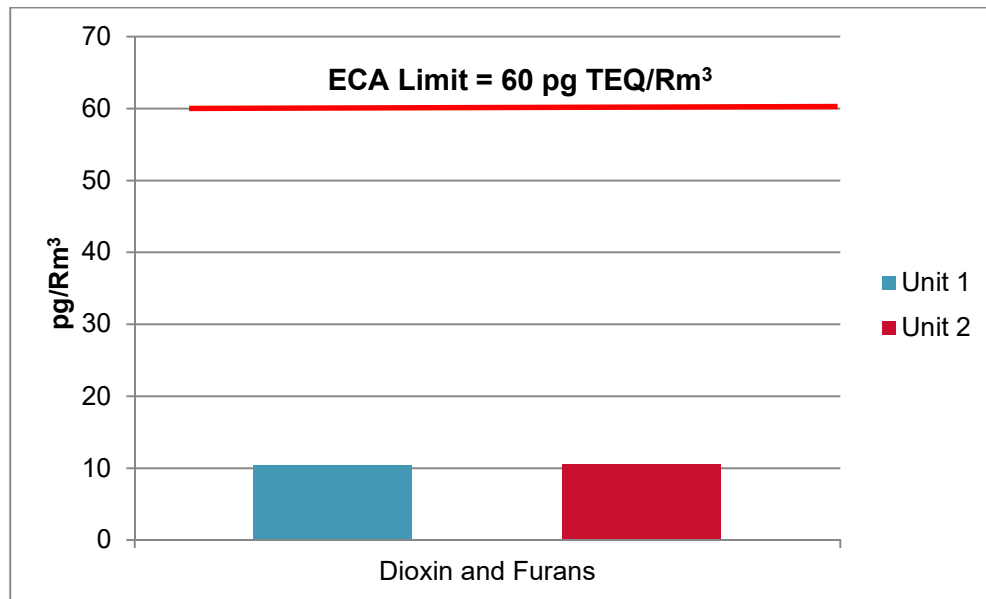


Figure 2 – Test Results for Dioxins and Furans



As a part of HDR’s review of the ORTECH report, we completed a review of the data presented and calculations. There were no errors in calculations noted during this review.

The analytical laboratory included the following notes that pertain to their analyses.

- SVOC Analytical Report:

- (PCDD/F), electronic page 508:

This report supersedes all prior reports for the above-noted work order and test. The report has been revised as follows:

On further review it was found that the result for 1,2,3,6,7,8-HxCDF was incorrect in cases where other selected compounds were being reporting from DB-225 second-column confirmation data.

These sample extracts received column solid phase extraction cleanup with Florisil as well as activated carbon prior to analysis by GC/HRMS.

There were peaks observed in the parent octachlorodiphenylether mass that coeluted with HxCDF targets. However, the extract has received cleanup steps designed to exclude diphenylethers. In addition, in cases where peaks did not coelute with a HxCDF peak, no peak was observed in the HxCDF mass, as would be expected for an octachlorodiphenylether. No bias to HxCDF data is expected.

- Toxic PCB Cogeners by GC/HRMS, electronic page 522:

For the laboratory control sample, all recoveries of 13C12-PCB-169 and 13C12-PCB-189 were above the method control limits. The native target data are not biased as a result.

- CB by LRGC/MS, electronic page 537:

The Method Blank (and Field Blank) samples contained low levels of 1,4-dichlorobenzene. This was a contaminant in the media used.

- Chlorophenols as acetate derivatives by SIM GC/MS, electronic page 549:

The recoveries of select labelled extraction standards are below typical control limits. As a result, the sample data may be biased low, as evidenced by the laboratory control sample and field standard recoveries.

- PAH by CARB method 429 (LR option) – Isotope dilution, electronic page 563:

The result for the d12-benzo(a)anthracene in sample “18-21840-SVOC-(31 THRU 35) TEST #3 (#2 APC OUTLET)” (lab id L2104490-7) was marginally above the method acceptance criterion. Native results calculated by Isotope Dilution are inherently recovery corrected so no impact to overall data quality is expected.

The results for 1-methylnaphthalene in the Laboratory Control Sample were marginally above the method acceptance criterion. Levels in the client samples may be similarly biased.

- VOCS via SW846 Method 5041A/8260C, electronic page 586:

Ketone data by VOST analyses are estimated values only.

The results for Trichlorotrifluoromethane; 1,3-Butadiene; Isopropylbenzene; Dichlorodifluoromethane; Ethylene Dibromide; 1,3,5-trimethylbenzene are semi-quantitative due to being outside the normal volatility range for method 0030/0031.

All samples contained a large amount of water and saturated tenax in the first tube of each pair, the glass wool was removed from the tubes and replaced before desorbing.

There were significant and variable levels of methylene chloride and toluene in most samples and all field and trip blanks. Since the need for dilution is assessed using the first of each series of runs, the levels of these targets have exceeded the calibration range in some cases.

The recovery of the internal standard is below the method control limit for some samples, however, the surrogate and field standard recoveries are within limits. Sample data are not expected to be biased as a result, except as noted.

For the sample 18-21840-VOST-(14A, 14B) TEST #3 TRIP BLANK (#1 APC OUTLET), the recoveries of the internal standards are low and the recovery of the field standard is high. The reported results may be elevated as a result.

- Aldehydes Case Narrative, electronic page 604:

Reporting limits for all targets were elevated due to higher sample volumes.

Dilutions were required to separate acetone and acrolein which further elevated the reporting limit for acrolein.

A trip spike was received from the field but was prepared by ALS Burlington using the wrong derivatization media. Therefore recovery data for this QC sample is unavailable.

Results for sample number L2105254-9 18-21840-M430-Trip Spike are unavailable.

- SVOC and VOST Proof Data:
 - PCDD/F by EPA M23, electronic page 622:
*Low levels of OCDD observed in proof and in blank as an EMPC.
Glassware is approved for collection of samples for PCDD/F analysis.*
 - PCB Cogeners by EPA 1668C, electronic page 626:
No indication is given as to whether or not any cogener was detected and if the glassware was approved for collection of samples for PCB analysis. Review of the results indicates that cogener PCB-118 was detected in the glassware proof.

As indicated in the lab notes, the majority of these items are expected to either have no impact on results or to have biased the results to be higher. For the chlorophenols that are indicated as being potentially biased low, the results for all compounds are either below detection limit or close to the detection limit and the modeling results indicate that the largest has an impact of less than 1% of the corresponding MOECC limit (the remainder are orders of magnitude below their corresponding Jurisdictional Screening Levels). Therefore, none of these items are expected to adversely impact the DYEC's compliance status as reported in the ORTECH document.

Conclusions and Recommendations

HDR has completed our review of the preliminary results from the DYEC 2018 Spring Stack Test that was performed during the period between May 29 and June 1, 2018. Representatives from HDR were present to observe the testing procedures and DYEC operations throughout the majority of the Compliance Test period. Overall, ORTECH appeared to follow good stack sampling procedures, and Covanta's plant personnel were observed to be operating the DYEC in accordance with acceptable industry operating standards. Based on the preliminary results summarized in Table 1, the results of the 2018 Spring Stack Test demonstrated that the DYEC operated below the ECA's Schedule "C" limits.

Attachments:

Attachment A – Summary of Stack Test Schedule

Attachment B – Summary of Field Notes for the Stack Test Period

Attachment C – Summary of Operating Data during Dioxin/Furan Tests

Attachment A:
Summary of Stack Test
Schedule

Table 2 – Spring 2018 Stack Test Schedule

Day/Location	Parameter	Method	Run No.	Duration	Start Time	End Time	
Tuesday May 29, 2018							
# 1 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	1	180	8:45	11:57	
			2	180	13:05	16:17	
# 2 APC Outlet	Hydrogen Fluoride	EPA M26A	1	60	8:46	9:57	
			2	60	10:42	11:42	
			3	60	13:28	14:28	
	PM10, PM2.5 Cond	EPA M201A/202	1	120	9:23	11:26	
			2	120	13:12	15:16	
3	120	16:24	18:27				
Wednesday May 30, 2018							
# 1 APC Outlet	PM10, PM2.5 Cond	EPA M201A/202	1	120	8:34	11:54	
			2	120	13:29	15:32	
			3	120	16:37	18:40	
# 2 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	3	180	9:15	13:12	
			1	180	8:15	11:32	
	Hydrogen Fluoride	EPA M26A	2	180	12:59	16:09	
			1	60	8:12	9:12	
			2	60	10:21	11:21	
3	60	12:57	13:57				
Thursday May 31, 2018							
# 1 APC Outlet	Dioxins and Furans	EPS 1/RM/2	1	240	9:09	13:22	
			2	240	15:26	19:37	
	VOST	SW846-0030	1	80	11:05	12:45	
			2	80	15:27	17:00	
	Aldehydes	CARB Method 430	1	60	9:20	10:20	
			2	60	17:16	18:16	
# 2 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	3	180	9:18	13:03	
			1	240	9:13	13:29	
	Dioxins and Furans	EPS 1/RM/2	2	240	14:54	Aborted	
			1	80	10:44	12:29	
	VOST	SW846-0030	2	80	14:56	16:42	
			1	60	9:11	10:11	
2	60	17:01	18:01				
Friday Jun 1, 2018							
# 1 APC Outlet	Dioxins and Furans	EPS 1/RM/2	3	240	12:44	16:50	
			VOST	3	80	14:15	15:53
			Aldehydes	3	60	12:50	13:50
# 2 APC Outlet	Dioxins and Furans	EPS 1/RM/2	2	240	8:26	12:38	
			3	240	13:09	17:19	
			VOST	3	80	10:04	11:53
Aldehydes	CARB Method 430	3	60	8:30	9:30		

Attachment B:
Summary of HDR Field Notes
For the Stack Test Period

Day #1, May 29 Recap:

Testing start time: 8:45, end time: 18:27.

- HDR (Bruce Howie) was on-site yesterday at the DYEC to observe the start of the Compliance Test on boilers 1 and 2.
- During our observations, both boilers were at full load at ~33,600 kg/hr.
- Operations and testing activities all appeared to going smoothly, and all tests planned for were completed successfully (in addition to those noted below inlet and outlet THC runs were completed by ORTECH).
- It was noted however, by the operator (Brienne Muir) that Unit 1 performance was generally poorer due to encountering several CO spikes (these were controlled by the operator). The CO did not exceed the 4-hour average in the ECA.
- From Covanta Rick Kohler and Paul Kantola were in attendance to support and monitor the testing.

HDR (Andrew Evans) will be back on-site Thursday and Friday to monitor the Dioxins/Furans testing on both units. Kirk Dunbar will also be on site for portions of the testing. We will obtain the results for today (Wednesday) at this time.

A summary of the tests and start/stop times is provided below.

Unit	Test Parameter	Test Method	Run No.	Test Start	Test Stop
Unit 1	Particulates/Metals	US EPA 29	1	8:45	11:57
	Particulates/Metals	US EPA 29	2	13:05	16:17
	Hydrogen Fluoride	US EPA 26A	1	8:46	9:57
	Hydrogen Fluoride	US EPA 26A	2	10:42	11:42
	Hydrogen Fluoride	US EPA 26A	3	13:28	14:28
Unit 2	PM10/PM2.5/Condensable	US EPA M201A/202	1	9:23	11:26
	PM10/PM2.5/Condensable	US EPA M201A/202	2	13:12	15:16
	PM10/PM2.5/Condensable	US EPA M201A/202	3	16:24	18:27

Day #2, May 30 Recap:

Testing start 8:12, end time 18:40. HDR was not on site during the testing, and has provided information based on records provided to us by Covanta

For Day 2 (May 30) run information was obtained from Covanta’s testing logs as produced by the testing supervisor and the operators. All tests scheduled were completed (run times in table 1 below). In addition – the third Particulate Metals run for Boiler number 1 – scheduled for Day 3- was moved forward and completed.

Unit	Test Parameter	Test Method	Run No.	Test Start	Test Stop
Unit 1	PM10/PM2.5/Condensable	US EPA M201A/202	1	8:34	11:54
	PM10/PM2.5/Condensable	US EPA M201A/202	2	13:29	15:32
	PM10/PM2.5/Condensable	US EPA M201A/202	3	16:37	18:40
	Particulate Metals	US EPA 29	3	9:15	13:12
Unit 2	Particulates/Metals	US EPA 29	1	8:15	11:32
	Particulates/Metals	US EPA 29	2	12:59	16:09
	Hydrogen Fluoride	US EPA 26A	1	8:12	9:12
	Hydrogen Fluoride	US EPA 26A	2	10:21	11:21
	Hydrogen Fluoride	US EPA 26A	3	12:57	13:57

Day #3, May 31 Recap:

Start time 9:09, end time 19:37.

- HDR (Andrew Evans and Kirk Dunbar) was on-site at the DYEC to observe the Compliance Test on boilers 1 and 2.
- During our observations, both boilers were at full load at ~32,600 kg/hr and the hydrated lime and carbon rates on both units were set at 175 kg/hr and 5.2 kg/hr, respectively.
- Martin Adomait from Airzone was also on site conducting auditing of the testing on behalf of the Regions.
- For Day 3 – Not all tests were successfully completed. The planned particulate metals test – scheduled for unit 2 was moved forward and completed today however.
- Several minor issues were encountered which resulted in testing delays, and a process upset ultimately resulted in the one of the dioxin runs being stopped part way through.
 - Start of testing was delayed shortly due to a plant alarm. A vibration alarm on one of the ACC fans tripped as the testers were completing setup and the testing was held for a short time while the system was examined by Covanta.
 - During initial insertion of the particulate metal run, a portion of the towel used to seal the port came lose and wrapped around the end of the probe. The probe was pulled back and the towel removed.
 - During the pre-testing leak checks for Unit 1 – SVOC (dioxin) run 2 leakage was found to be occurring. ORTECH investigated the problem – ultimately locating a damaged O-ring on part of the sampling train. The unit was repaired, retested prior to the test commencing – the troubleshooting lasted approximately 45 minutes.
 - The CO level on Unit 2 approached its 4 hour permitted limit during the second SVOC test. As a result of the rising trend, the operator took corrective action by engaging the gas burners in the unit, as a result of this the test was paused. The length of the pause approached an hour in length, and ultimately the run was aborted as a result. It will be rescheduled for Friday afternoon.

A summary of the tests and start/stop times is provided below.

Unit	Test Parameter	Test Method	Run No.	Test Start	Test Stop
Unit 1	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	1	9:09	13:22
	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	2	15:26	19:37
	VOST	SW846-0030	1	11:05	12:45
	VOST	SW846-0030	2	15:27	* (17:00)
	Aldehydes	CARB Method 430	1	9:20	10:20
	Aldehydes	CARB Method 430	2	17:16	18:16
Unit 2	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	1	9:13	13:29
	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	2	14:54	Aborted
	VOST	SW846-0030	1	10:44	12:29
	VOST	SW846-0030	2	14:56	16:42
	Aldehydes	CARB Method 430	1	9:11	10:11
	Aldehydes	CARB Method 430	2	17:01	18:01
	Particulate Metals	US EPA 29	3	9:18	13:03

* stack tester left before end time could be confirmed. Will check the note sheets tomorrow (updated time in brackets).

Day #4, Jun 1 Recap:

Start time 8:26, end time 16:50

Observations from Andrew Evans for Jun 1:

- The remainder of the testing program was completed, including completion of the aborted dioxin/furan run on Unit 2 from Day 3.
- Prior to testing being commenced on Unit 1, Covanta inspected the Hopper area above the rotary mixer due to ongoing issues with readings from instrumentation in the area. During the inspection it was noted that the previous rodding of the system had resulted in several holes in the hopper throat, which allowed ambient air to be drawn in to the process. After the discovery Covanta patched the holes (metal sheeting and caulking) and allowed the reactor to reach equilibrium before conducting the testing. The delay was approximately 4 hrs.
- During our observations, both boilers were at full load at ~32,600 kg/hr
- Covanta support on site, and the Regions' third party consultant, Airzone, is on site.

A summary of the tests and start/stop times is provided below.

Unit	Test Parameter	Test Method	Run No.	Test Start	Test Stop
Unit 1	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	3	12:44	16:50
	VOST	SW846-0030	3	14:15	15:53
	Aldehydes	CARB Method 430	3	12:50	13:50
Unit 2	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	2	8:26	12:38
	Outlet SVOC (Dioxin/Furan)	EPS 1/RM/2	3	13:09	17:19
	VOST	SW846-0030	3	10:04	11:53
	Aldehydes	CARB Method 430	3	8:30	9:30

Attachment C:
Summary of Operating Data
during the Dioxin/Furan Tests

May 2018 Voluntary Testing Dioxin Testing
Operations Data and Results

Operating Parameter ¹	Boiler 1			Boiler 2		
	Run 1 31-May	Run 2 31-May	Run 3 1-Jun	Run 1 31-May	Run 2 1-Jun	Run 3 1-Jun
MSW Combusted (tonnes/day)	211.05	211.05	230.37	207.05	207.05	229.43
Steam (kg/hr)	33,373	33,154	33,360	33,333	33,636	33,252
Steam temp °C	491	486	497	488	496	497
-						
Primary Air Flow (Nm ³ / min)	34,160	33,985	35,258	34,732	36,077	37,203
Overfire Air Flow (Nm ³ / min)	8,183	7,674	6,782	7,267	7,252	7,011
Tertiary Air (Fresh LN Air) (Nm ³ / min)	9,670	9,591	8,935	9,820	9,458	9,222
Tertiary air temperature °C	37.3	40.4	40.0	36.3	35.7	40.2
Lime Injection (kg/day)	174.7	174.1	174.0	174.6	176.4	172.1
Ammonia Injection Rate (liters/m)	0.3	0.3	0.3	0.3	0.5	0.4
Carbon Injection (kg/hr)	5.2	5.3	5.2	5.2	5.2	5.1
Combustion air preheat temp °C	94.3	100.4	105.1	96.1	105.0	105.0
Average Combustion Zone Temp °C	1,120	1,089	1,124	1,191	1,194	1,157
Superheater #3 Flue gas inlet Temp °C	584	582	595	580	593	595
Economizer Inlet Temp °C	340	339	342	340	343	346
Economize Outlet Temp °C	168	170	170	166	167	170
Quench Outlet Temp °C	152	152	152	151	151	151
Reactor Outlet (BH Inlet) Temp °C	142	141	141	144	144	144
Baghouse Outlet Temp °C	139	138	138	140	140	140
Tertiary Air Header Pressure mbar	60	60	60	60	60	60
Tertiary Air Left mbar	37	36	32	37	34	33
Tertiary air Right mbar	37	37	32	37	34	33
Baghouse Differential Pressure mbar	13	12	13	11	11	11
Oxygen (%) – Boiler Outlet ²	8.4	8.4	8.4	7.0	7.0	7.0
Oxygen (%) - Baghouse Outlet	8.4	8.0	8.5	7.6	8.3	8.5
CO -Boiler Outlet	28.0	22.1	15.7	21.3	11.4	13.5
CO - Baghouse Outlet	18.0	18.8	10.2	18.4	8.1	9.1
NOx - mg/Rm3	109.6	110.0	109.3	109.5	109.4	109.0
NH ₃ mg/Rm3	7.7	7.2	7.7	11.8	11.7	12.2
Flue gas moisture	19%	18%	19%	14%	14%	14%
Outlet/Stack Dioxin - NATO - (pg TEQ/Rm ³)	11.4	9.9	9.8	10.5	10.1	10.9

¹Average Unit data for the periods corresponding to the test run times.

²Oxygen at boiler outlet reported incorrectly by DCS. Data is being corrected and updated by Covanta.

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.



The Regional Municipality of Durham Information Report

From: Commissioner of Works
Report: #2018-INFO-110
Date: August 3, 2018

Subject:

Durham York Energy Centre Ambient Air Monitoring Exceedance Dioxins and Furans

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to provide notification of a measured exceedance of the ambient concentration of Dioxins and Furans (D/F) on May 26, 2018 at the Courtice Water Pollution Control Plant (WPCP) Monitoring Station.

2. Background

2.1 As part of the requirements of the Environmental Assessment (EA) Notice to Proceed, three ambient air monitoring stations (the regulated stations) were installed: upwind, Courtice WPCP; downwind, Rundle Road, and at the fence line of the Durham York Energy Centre (DYEC). A fourth, voluntary downwind monitoring station Crago, was installed at Regional Council direction. The regulated ambient air monitoring is to continue until approval to cease is obtained from the Ministry of Environment, Conservation and Parks (MOECP).

2.2 Since ambient air monitoring began, the stations have not recorded any other exceedances of Dioxins and Furans in the ambient air.

3. Ambient Air Monitoring Station Dioxin and Furans Exceedance

3.1 The May 26, 2018, Dioxins/Furans (D/F) Toxic Equivalency Quotient (TEQ) concentration at the Courtice WPCP Station was determined to be 0.109 PicoGrams Total Toxic Equivalency Concentration per Reference Cubic Metre (pg TEQ/Rm³) which is above of the MOECP Schedule 3 air quality Standard

from Regulation 419/05-Air Pollution - Local Air Quality (O. Reg. 419/05) of 0.1 pg TEQ/Rm³.

- 3.2 D/F TEQ concentrations at the Rundle Road and Crago Stations were 0.091 and 0.095 pg TEQ/m³, respectively which were elevated relative to recent measurements of 0.02 pg TEQ/m³.
- 3.3 All D/F TEQ values were below the MOECP's Upper Risk Threshold (URT) of 1.0 pg TEQ/m³.

Source Test and Distribution Modeling

- 3.4 The results of the Owners' Source Test conducted May 28 to June 1, 2018, demonstrated that all emissions were within the limits detailed in the ECA. The D/F testing was conducted on May 31 and June 1. The results were 10.4 pg TEQ/Rm³ for Boiler #1 and 10.5 pg TEQ/Rm³ for Boiler #2. The ECA limit for D/F is 60 pg TEQ/Rm³. (Please refer to Report# 2018-INFO-109).
- 3.5 The DYEC emissions dispersion was modeled utilizing the Source Test data and the MOECP approved CALPUFF model. The results of the contaminant concentrations at the maximum point of impingement were then compared to the limits within the Ontario Regulation 419/05 Air Pollution – Local Air Quality. Ontario Regulation 419/05 Air Pollution – Local Air Quality limits are set to be protective of human health and the environment.
- 3.6 The D/F values, once modeled for the maximum point of impingement, show that a concentration of 0.0004 pg TEQ/m³ can be attributed to the DYEC emissions.

Wind Direction and Speed May 26, 2018

- 3.7 The winds were blowing mainly from south-westerly directions at the Courtice WPCP and Rundle Road Stations on May 26th, and mainly from westerly directions at the Crago Road Station. Wind speeds were low to moderate throughout the day.
- 3.8 The hourly wind roses and time history plots show that over the course of the day, the DYEC was upwind of each of the three monitoring stations for a period of time. Thus, we can expect that all three monitors would have potentially been impacted by DYEC emissions but by varying amounts. However, in accordance with the meteorological data illustrated in Attachment #1, at the Courtice WPCP monitoring station, the DYEC stack was upwind for only short periods of time.
- 3.9 The Courtice WPCP monitoring station measurement, which had the highest D/F concentration, was also the sample for which winds were blowing from the DYEC to the station for the least amount of time. The other stations had the winds from the direction of the DYEC for a greater amount of time and therefore, if the DYEC was the source of the D/F then the Crago and Rundle Road monitoring stations

should have had higher D/F readings.

- 3.10 Given the wind direction and duration that the DYEC stack was upwind of the Courtice WPCP station, it is highly unlikely that the DYEC was a contributing source of D/F on May 26, 2018.

4. Assessment

- 4.1 The MECP develops Ambient Air Quality Criteria (AAQC) and air quality standards based on available toxicological information for individual chemicals. In general, the MECP uses an approach that is based on identifying the highest reported exposure level that does not result in an observable adverse health effect (referred to as the No Observable Adverse Effect Level or NOAEL), or the lowest reported exposure associated with an observable adverse health effect (referred to as the Lowest Observable Adverse Effect Level or LOAEL). For each chemical, the MECP sets the AAQC or Standard at a concentration that is typically more than 100 times lower than the NOAEL or LOAEL selected for use in the derivation. This approach is used to account for uncertainties that may exist in the toxicological information used in the derivation of the Standard. On May 26, 2018, a D/F TEQ concentration of 0.109 pg TEQ/m³ was measured at the Courtice WPCP station. Although the D/F TEQ measurement on May 26, 2018 exceeded the MECP 24-hour AAQC, the exceedance was marginal (9% higher than the AAQC).
- 4.2 In interpreting the human health risks that may be associated with this exceedance it is important to understand the pattern and frequency of these exceedances. Exposures that exceed a defined exposure limit on an intermittent basis (exceedances are separated by weeks or months) do not represent the same level of human health risk as exceedances that occur on a more frequent basis (occur on multiple consecutive sampling events).
- 4.3 To properly evaluate the potential health risks that may be associated with the occasional exceedances of the 24-hour D/F exposure limit, it is important to also consider the frequency of these occurrences. The D/F TEQ concentrations at the Courtice WPCP station have consistently been around 0.02 pg TEQ/m³ for the past several years and in the subsequent sample collected June 19, 2018. In addition, the D/F TEQ concentrations at the Rundle Road and Crago Road stations were 0.091 pg TEQ/m³ and 0.098 pg TEQ/m³, respectively. Based on these results, the exceedance noted on May 26, 2018 would appear to represent an isolated event and as such, would be considered to represent a negligible human health risk.

5. Conclusion

- 5.1 Based on Stantec's review, the Durham York Energy Centre is unlikely to have substantially contributed to the elevated Dioxin/Furan concentration at the Courtice Water Pollution Control Plant Station measured on May 26, 2018. Furthermore, the measured Dioxin/Furan concentration is not expected to have resulted in an adverse effect on human health or the environment.

6. Attachments

Attachment #1: Meteorological Data May 26, 2018 and Dioxin/Furan Concentrations through 2018

Respectfully submitted,

Original signed by

Susan Siopis, P.Eng.
Commissioner of Works

Station	Dioxins and Furans Concentration on May 26, 2018 (pg _{TEQ} /m ³)	D/F Concentration through 2018	Wind Rose on May 26, 2018	Hourly Wind Rose on May 26, 2018	Wind Direction Time Series on May 26, 2018
Crago	0.098				
Rundle	0.091				
Courtice	0.109				



The Regional Municipality of Durham Information Report

From: Acting Commissioner of Finance
Report: #2018-INFO-111
Date: August 3, 2018

Subject:

Response to Regional Council's Request for Additional Information on Property Tax Comparisons contained in Recent Media Articles

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to respond to Regional Council's July 25, 2018 request for additional information on the property tax rate comparisons contained in the article titled "*The GTA Cities with the Highest Property Taxes (INFOGRAPHIC)*" published on the Zoocasa website.

2. Background

2.1 On July 12, 2018, an article was published on Zoocasa's website titled "*The GTA Cities with the Highest Property Taxes (INFOGRAPHIC)*". The article provided a general explanation of property taxes and attempted a comparison of property tax rates and property taxes using June 2018 Toronto Real Estate Board (TREB) data across the Greater Toronto Area (GTA). Zoocasa is a website that provides real estate news, listings and information for both buyers and sellers within the GTA and Ontario.

2.2 On July 19, in response to an inquiry from an Oshawa Express journalist, a written response and additional follow-up was provided by Regional Finance staff. The Oshawa Express published a related article on July 25, 2018.

3. Comments on the Methodology Used in the Zoocasa Article

- 3.1 The article accurately indicates that a comparison of property tax rates is not meaningful as this is just one factor in the calculation of property taxes. Despite this acknowledgement the article does compare property tax rates and fails to accurately consider Current Assessed Values (CVA).
- 3.2 CVA needs to be considered when comparing property taxes across jurisdictions as home values vary considerably across jurisdictions. In addition, a municipality's weighted CVA determines the property tax rates and an individual property's CVA determines the amount of property taxes paid.
- 3.3 The article uses June 2018 TREB data to approximate an average home price as opposed to using Municipal Property Assessment Corporation's (MPAC) CVA data to calculate the property taxes for an average residential home. The June 2018 TREB data is understood to be the average monthly residential home resale price within each jurisdiction. There are critical shortcomings in the use of the TREB data to approximate CVA.
- The TREB approach is not consistent with the methodology used by municipalities to calculate tax rates and the resulting property tax amounts. Municipalities set tax rates and calculate property taxes based on the CVA for each property as determined by MPAC. There is almost a four-year time lag between the CVA used by municipalities to determine the 2018 property tax rates and the TREB data used for the article.
 - Further, the TREB data is a very small sample of the homes in a given jurisdiction as it only reflects those homes that have sold in a given month. Municipal tax rates are calculated using the CVA of all properties within a municipal jurisdiction at a specific point in time.
- 3.4 As a result of this methodological flaw, the property taxes referenced in the article for Durham Region are significantly overstated. The Region's 2018 average residential home has a CVA of \$424,900 which is materially lower than the article's average home price for the Durham's local municipalities of approximately \$620,000.
- 3.5 When comparing property tax dollars paid, it is also important to consider that different jurisdictions provide different services. As an example, the City of Toronto has a user pay solid waste charge that is separate from property taxes. In Durham Region, solid waste is funded by property taxes. In Durham, solid waste makes up roughly seven per cent of the average tax bill, while this service (and its user-pay funding) is not included in Toronto property tax number quoted in the article.

- 3.6 While acknowledging that property tax comparisons are very difficult across jurisdictions, the annual Strategic Property Tax Study (Report # 2018-COW-32), does attempt such a comparison. The analysis uses ten “average” homes across the Region. MPAC provides the Region with the assessment of these homes in 30 other jurisdictions. The use of MPAC expertise and data ensures that the comparison across jurisdictions is done at the same point in time and uses consistent methodology to derive comparable assessments. The results from the Region’s 2018 study found that, while Durham property taxes were slightly higher than the average of the 30 comparable municipalities used in the study, the Region’s residential property taxes were competitive.
- 3.7 The Commissioner of Planning and Economic Development has assisted with this report.

Respectfully submitted,

Original Signed by M.E. Simpson

M.E. Simpson, CPA, CMA, MA
Acting Commissioner of Finance



Interoffice Memorandum

TO: Mr. Ralph Walton
Regional Clerk/Director of Legislative Services

FROM: Kristy Kilbourne, MCIP, RPP
Project Planner

DATE: July 26, 2018

RE: New Application for a Regional Official Plan Amendment
 File Number: **OPA 2018-003**
 Applicant: Mike Kennedy
 Location: Part Lot 16, Concession 6 (former Scott)
 Municipality: Township of Uxbridge

The Regional Municipality of Durham


Planning and Economic Development Department

Planning Division

The above noted application is being circulated to you for your review and comment.

The purpose of the application is to permit the severance of a dwelling rendered surplus as a result of the consolidation of a non-abutting farm parcel.

As we wish to consider this application expeditiously, we respectfully request your comments by August 23, 2018. Please call me if you have any questions.


 Kristy Kilbourne, MCIP, RPP
 Project Planner

:cm

Encl: Application package

C.S. - LEGISLATIVE SERVICES

Original
To: <i>T. Fraser</i>
Copy CIP-memo
To: <i>only</i>
C.C. S.C.C. File
Take Appr. Action



Interoffice Memorandum

Date: July 31, 2018
To: Regional Council
From: Don Beaton, Commissioner of Corporate Services
Subject: *Municipal Act, 2001, Section 275 - Restricted Acts after Nomination Day (Lame Duck)*

The Regional
Municipality of Durham
Corporate Services

605 ROSSLAND RD. E.
PO BOX 623
WHITBY, ON L1N 6A3
CANADA

905-668-7711
1-800-372-1102

durham.ca

Don Beaton
Commissioner of
Corporate Services

Regional Council becomes “lame duck” if it is determined that the new council will include less than three-quarters of the members of the outgoing Council. In order to determine whether the three-quarters threshold has been met, one must have regard to the nominations that have been submitted for the new Council.

If on nomination day (July 27, 2018) it can be determined with certainty that **8 or more** members of the outgoing Regional Council are not returning, then the restrictions in s. 275 of the *Act* will apply.

At present, it can be determined with certainty that 10 members of Council will not be returning, therefore for the first lame duck period (as of nomination day – July 27th) Council would be considered lame duck.

Respectfully submitted,

Original signed by:

Don Beaton
Commissioner of Corporate Services

c: G.H. Cubitt, Chief Administrative Officer



The Corporation of the

Township of Uxbridge

In The Regional Municipality of Durham

Town Hall
51 Toronto Street South
P.O. Box 190
Uxbridge, ON L9P 1T1
Telephone (905) 852-9181
Facsimile (905) 852-9674
Web www.town.uxbridge.on.ca

C.S. - LEGISLATIVE SERVICES

SENT VIA REGIONAL COURIER

July 23, 2018

Region of Durham
Corporate Services Department
Legislative Services
605 Rossland Road East
Whitby, Ontario
L1N 6A3

Original
To: CIP
Copy Chief P. Martin
To:
C.C. S.C.S. File
Take Appr. Action

Attention: Ralph Walton, Regional Clerk/Director of Legislative Services

**RE: UPHOLDING MAXIMUM SENTENCES FOR FIREARM OFFENCES
UNDER THE CRIMINAL CODE
TOWNSHIP FILE: A-17 RGG**

Please be advised that during the regular meeting of the Council of July 16, 2018 the following motion was carried;

THAT the Council of the Township of Uxbridge support the Region of Durham's Resolution that the Attorney General of Canada and the Attorney General of Ontario re-examine and re-assess all firearm legislation, and ask the Attorney General to provide assurance that the issue of upholding the maximum sentences for firearm offences under the Criminal Code is being addressed and information as to how the issue is being addressed;

AND THAT the programs necessary to stop the importation and removal of street level guns be adequately resourced and funded;

AND THAT the Attorney Generals within both levels of government create a public information program that explains the consequences of using a gun in the process of a crime.



I trust you will find the above to be satisfactory.

Yours truly,

A handwritten signature in black ink, appearing to read "Debbie Leroux". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Debbie Leroux
Director of Legislative Services/Clerk
/ljr

cc: The Right Honourable Justin Trudeau, Prime Minister
The Honourable Doug Ford, Premier
J. O'Connell, MP
P. Bethlenfalvy, MPP
L. LeBlanc, Deputy Minister of Municipal Affairs and Housing
M. Brow, Deputy Minister of Public Safety and Emergency Preparedness
B. Carlton, Chief Executive Officer, Federation of Municipalities of Ontario
P. Vanini, Executive Director, Association of Municipalities of Ontario