Addendum to the Energy from Waste-Waste Management Advisory Committee Agenda

Tuesday, September 24, 2024

7:00 PM

Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

Please note: The Region of Durham continues to hold electronic meetings for Advisory Committees with limited in-person attendance at this time. Members of the public may view the Committee meeting via live streaming. If you wish to register as a delegate regarding an agenda item, you may register in advance of the meeting by noon on the day prior to the meeting by emailing delegations@durham.ca and will be provided with the details to delegate electronically.

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5. Delegations

A) Wendy Bracken, Clarington Resident (Virtual Attendance)

RE: Information Report #2024-INFO-55 - Durham York Energy Centre 2024 Compliance Source Test Update — Pages 2 to 16

B) Wendy Bracken, Clarington Resident (Virtual Attendance)

RE: DYEC LTSS Quarterly Report Q1-2024 and related September 13, 2024 Memorandum sent from Durham Works Commissioner — Pages 17 to 32

Delegation to EFW-WMAC Committee
September 24, 2024

W. Bracken

Durham Report #2024-INFO-55

DYEC 2024 Spring Compliance Source Test Report

Pay Careful Attention to Statements Made in Reports (If you can find them)

https://pub-durhamregion.escribemeetings.com/filestream.ashx?DocumentId=5007

- Durham INFO-55 does not identify any issues with the Spring Source Testing event

- ORTECH summary (Attachment 1 to INFO-55, see page 9/42 of compiled pdf) states :
  "*The facility was maintained within the operational parameters defined by the amended ECA* ***that constitutes normal operation during the stack test periods***" (emphasis added)

- HDR Technical Memorandum dated June 24, 2024 (Attachment 3 to INFO-55, see page 35/42 of compiled pdf) states the DYEC complied with ECA Schedule "C" limits "***based on the results summarized in ORTECH's test report (dated May 16, 2024)***" (emphasis added)

However…

STACK TESTING ISSUES are identified in STANTEC Oversight Report dated August 15, 2024 for the DIOXIN/FURAN Test

Excerpt below from STANTEC, *Oversight of Air Emissions Source Testing at DYEC (Spring 2024)*, p. 2, (see Attachment 2 to INFO-55 which in turn is on page 16/42 of CIP document)

"A second issue developed during the repeat test as ***steam production on Boiler 2 started to decline…, the sampling was halted at 11:52 AM. Feedstock with a high moisture content was suspected to be the cause of the declining steam production****. Sampling resumed at 12:08 PM…"*

Critical to Understand:

- **Dioxin/Furan emissions during that problematic approximately 20-minute period were exhausted to our air, but were <u>not collected and reported out for the Source Test</u>.**
- Dioxin/Furan emissions can be as much as 1000 times higher during other-than-normal operating conditions (OTNOC)

DYEC Emits Thousands of Pollutants BUT Just a Handful (below) are Monitored At Stack Continuously[1]

DYEC ***continuously*** monitors at stack:

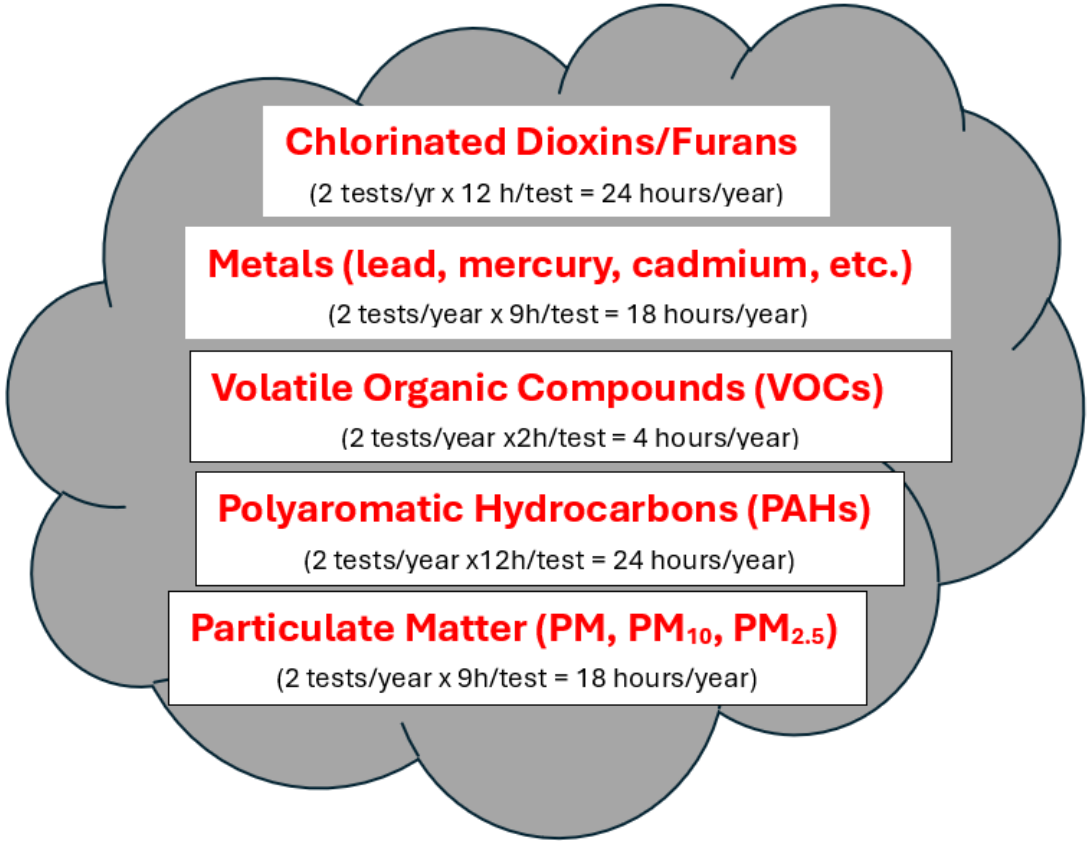
- nitrogen oxides (NOx)
- sulphur dioxide (SO2),
- hydrochloric acid (HCl)
- hydrogen fluoride (HF)
- ammonia (NH3)
- opacity, temperature, moisture

At economizer (before pollution control) DYEC continuously measures oxygen (O2), carbon monoxide (CO), organic matter (THC)

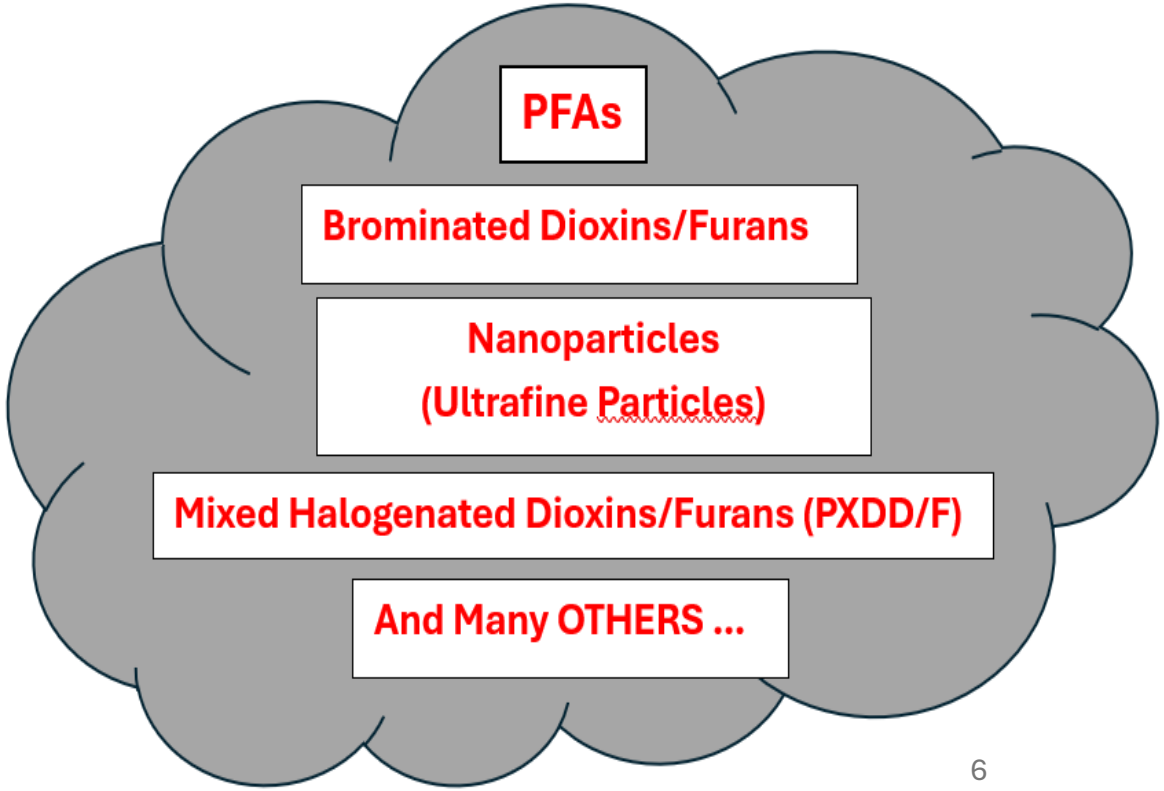
MOST Pollutants (including the most toxic) are Stack Tested Less Than 0.5% of Annual Operating Time through Pre-Arranged Stack Tests conducted under Optimal Operating Conditions OR are Not Monitored AT ALL[2,3]

STACK (SOURCE) TESTED:

LESS THAN 0.5% of OPERATING TIME



TOXICS NOT MONITORED AT ALL



Unclear Whether CEMS Data Was Also Excluded During Problematic Period of Low Steam Production

Different averages reported in ORTECH and STANTEC Reports?

Excerpt below from ORTECH, *DYEC 2024 Compliance Emission Testing for Amended ECA No. 7306-8FDKNX*, pages 7 and 11 (see Attachment 1 to Durham Report #2024-INFO-55)

Since relative accuracy and system bias testing was conducted in August 2023, the data recorded by the DYEC CEMS was used to assess against the in-stack emissions limits detailed in Schedule C of the ECA for hydrochloric acid, sulphur dioxide, nitrogen oxides and carbon monoxide. Note the DYEC CEMS data for the days when isokinetic testing was performed at each unit (March 18 to March 21, 2024) was used to determine the minimum, average and maximum concentrations of the combustion gases listed in the ECA. Concentration data measured by ORTECH on March 19, 2024 was used to assess against the total hydrocarbons (organic matter) in-stack emissions limit detailed in Schedule

ORTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

A summary of the minimum, average and maximum concentrations for the combustion gases measured by the DYEC CEMS with in-stack limits listed in the ECA is provided below for the two units.

Boiler No.	Parameter	Minimum	Average	Maximum	In-Stack Limit
Boiler No. 1	Carbon Monoxide (mg/Rm^3) (1)	4.0	6.1	9.5	40
	Hydrogen Chloride (mg/Rm^3) (2)	0.2	0.3	0.5	9
	Nitrogen Oxides (mg/Rm^3) (2)	110	111	113	121
	Sulphur Dioxide (mg/Rm^3) (2)	0	0.2	1.8	35
Boiler No. 2	Carbon Monoxide (mg/Rm^3) (1)	5.5	8.0	12.4	40
	Hydrogen Chloride (mg/Rm^3) (2)	2.1	2.2	2.4	9
	Nitrogen Oxides (mg/Rm^3) (2)	106	108	109	121
	Sulphur Dioxide (mg/Rm^3) (2)	0	0.39	2.4	35

(1) 4-hour average measured by DYEC CEMS, dry at 25□C and 1 atmosphere adjusted to 11% oxygen by volume
(2) 24-hour average measured by DYEC CEMS, dry at 25□C and 1 atmosphere adjusted to 11% oxygen by volume

STANTEC Auditing Process involved "…***eliminating data that may have been influenced by calibration or purging events that took place during this time.***"

STANTEC, *Oversight of Air Emissions Source Testing at DYEC (Spring 2024)*, August 15, 2024, p. 2

> The auditing process involved monitoring the real-time display of trending data, taking note of anomalies and discussing the deviations, and any corrective measures taken, with facility staff. After the monitoring periods, the recorded data in Excel files was further reviewed. Various monitoring parameters in the Excel files were more closely examined, eliminating data that may have been influenced by calibration or purging events that took place during this time. These parameters are summarized in **Table 1.** The parameters included oxygen (O_2) one-minute average, carbon monoxide (CO) 4-hour rolling average,

Boiler 1 Temperature below ECA Requirement
Boiler 2 Steam Production below Criteria

Were Temperatures During Problematic Period Even Included?

Excerpt below from STANTEC, *Oversight of Air Emissions Source Testing at DYEC (Spring 2024)*, Table 1, p. 2

Table 1: Summary of System Monitoring Parameters (March 20 – 21, 8:00 AM to 6:00 PM)

	Oxygen (%)	CO (mg/m^3)	NO_x (mg/m^3)	SO_2 (mg/m^3)	Moisture (%)	Combustion Temp (°C)	Steam Production (10^3 kg/hr)
	1 min average	4-hr average	1 min range (24-hr average)	1 min range (24-hr average)	1 min range (average)	1 min range	1 min range (average)
Boiler 1 March 20 (Test 1 & 2)	6.3 – 9.7	6 – 10	40.3 – 153.5 (102.1)	0 – 2.7 (0.0)	-5.0 – 26.0 (17.7)	989 – 1,154	30.1 – 35.5 (33.3)
Boiler 1 March 21 (Test 3)	6.9 – 10.4	5 – 7	28.9 – 158.4 (102.2)	0 – 251 (3.9)	0.7 – 26.0 (16.4)	996 – 1,176	28.4 – 35.0 (32.8)
Boiler 2 March 20 (Test 1 & 2)	6.3 – 10.1	6 – 11	55.7 – 161.9 (99.0)	0 – 0 (0.0)	-4.8 – 26.5 (17.7)	1,039 – 1,222	27.4 – 34.6 (34.6)
Boiler 2 March 21 (Test 3)	6.6 – 12.0	7 – 21	66.3 – 153.8 (103.3)	0 – 8.0 (0.1)	-0.6 – 31.1 (21.1)	1,024 – 1,234	28.2 – 34.9 (32.5)
Criteria	>6.0	40 (4 hr)	121 (24 hr)	35 (24 hr)	-	1,000	33.6

ECA: Absolute Temp Requirement of 1000ºC

- ECA (Section 6.(2)) requires that DYEC maintain a minimum temperature of 1000ºC "***during the entire thermal treatment cycle and subsequent shutdown until all Waste combustion is completed***" and that the facility shall achieve the temperature and other requirements "***over the complete range of operating parameters, including feed rate, feed characteristics, combustion air, flue gas flow rate and heating losses***"

Serious Concerns With Durham's Reporting

INFO-55 NOT Transparent For Public, Politicians, Committees

- Report does not adequately describe the 2024 Spring Source Test
- No mention of problems that occurred with dioxin/furan testing
- No mention that **some stack emissions part way through third test were intentionally not collected** (so not included in results used to determine compliance)
- No mention DYEC was non-compliant: DYEC temperatures dipped below 1000^{0} C ECA requirement during testing event;
- Low temperatures increase dioxin/furan emissions
- Advised full 2024 Source Test report availability as soon as sent to MECP, but as of September 22nd it is NOT POSTED

Gives public, politicians – who don't have the time to read technical attachments – the false impression the source test was without issues and that all emissions during the testing event were counted and reported and this is important because it provides context and understanding around the significant limitations of our monitoring which in turn informs OUR MONITORING RECOMMENDATIONS AND DECISIONS

Conclusion

- **Dioxin/Furan source test** is three 4-hour tests totalling **12 hours**
- Represents less than 0.25% of total operating time
- **these stack testing problems occurred during a pre-arranged, prepared-for, at ideal conditions with teams of consultants present– and they still didn't meet all ECA and their own criteria - what happens all the rest of the time???**

Better monitoring/reporting is needed, including:

- **testing during OTNOC conditions as is now required by the EU**
- **Environmental monitoring (flora, fauna, agriculture)**

References

1. Golder & Associates, *Durham-York Energy Centre Air Emission Monitoring Plan (AEMP), February 2013, Report Number: 10-1151-0343 AEMP*, Section 4.2, Table 3, page 6 https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/Air_Emissions_Monitoring_Plan_AEMP.pdf

2. Ontario Ministry of the Environment, *Environment Certificate of Approval (ECA), Number 7306-8FDKNX* Issue Date: June 28, 2011, Section 7. (1), page 25, and Schedule "D", page 50 and Schedule "E", page 54, 55 https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/EnvironmentalComplianceApproval.pdf

3. ORTECH, Source Test Reports available at https://www.durhamyorkwaste.ca/en/environmental-monitoring/air-emissions.aspx#Reports

   For specifics on pollutants and durations, for representative example see:
   ORTECH, *Covanta Durham York Renewable Energy Limited Partnership Durham York Energy Centre 2022 Compliance Emission Testing in Accordance with Amended Environmental Compliance Approval (ECA) No. 7306-8FDKNX*, Date: March 1, 2023,
   https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2022/Fall%20Source%20Test/20230301_RPT_2022_DYEC_Compliance_Source_Test_RFS.pdf

- Dioxins, Furans and Other Semi-Volatile Organic Compounds (SVOCs) including PCBs, Chlorobenzenes, Chlorophenols and Polycyclic Aromatic Hydrocarbons (PAHs), Section 4.4, page 19, states each test lasts 240 minutes =4 hours; Section 4.1 states triplicate tests are done for SVOCs; 3 x 4 hours = 12 hours
- Particulate and Metals, Section 4.2, page 17 states each test lasts 180 minutes = 3 hours; Section 4.1 states tests done in triplicate; 3 x 3 hours = 9 hours
- Volatile Organic Compounds (VOCs), Section 4.6, page 20 states there are three (3) runs, each run is 40 minutes, 3x40 minutes =120 minutes= 2 hours
- Aldehydes, Section 4.7, page 21 states each run is 60 minutes =1 hour, Section 4.1 states tests are done in triplicate, 3 x 1 hour = 3 hours

One year = 365 days/year x 24 hours/day = 8760 hours/year

Durham, York, Covanta, *ECA 2022 Annual Report*, Section 11, page 44 lists outages that total 635 hours. See:

https://www.durhamyorkwaste.ca/en/operations-documents/resources/2022/20230621_RPT_DYEC_2022_Annual_ACC.pdf

Estimated annual operating hours based on the data available = 8760 hours – 635 hours = 8125 hours

For above pollutants, the longest test duration is 12 hours.

The DYEC has two source tests per year: spring test is voluntary, fall test is for compliance so longest duration for year = 2 tests/year x 12 hours/test = 24 hours/year

Sampling duration per year/Operating Time per year ≅ 24/8125 = 0.00295=0.3% which is less than 0.5%

Delegation to EFW-WMAC Committee
September 24, 2024

W. Bracken

Memorandum on AMESA Sampling Q1 2024:

Quarterly (Q1-2024) Long-term Sampling System Report

https://pub-durhamregion.escribemeetings.com/filestream.ashx?DocumentId=5008

The Regional Municipality of Durham

Works Department

Memorandum

Date: September 13, 2024

To: Regional Chair Henry and Members of Regional Council

From: Ramesh Jagannathan, MBA, M.Eng., P.Eng., PTOE, Commissioner of Works

Copy: Elaine Baxter-Trahair, Chief Administrative Officer
Andrew Evans, M.A.Sc., P.Eng., Director, Waste Management Services

Subject: Durham York Energy Centre
Quarterly (Q1 – 2024) Long-Term Sampling System Report

Durham York Energy Centre

Long-Term Sampling System

Quarterly (Q1) Report

January 2024-May 2024

Table 1: AMESA Cartridge Replacement Schedule

Unit #	Run #	Start Date	End Date	Duration (days)
1	92	Feb 5, 2024	Feb 28, 2024	17
2	92	Jan 23, 2024	Feb 26, 2024	27
1	93	Feb 28, 2024	Mar 25, 2024	26
2	93	Feb 26, 2024	Mar 25, 2024	28
1	94	Mar 25, 2024	May 10, 2024	30
2	94	Mar 26, 2024	May 10, 2024	*

***Note 1:The cartridge duration times may differ even though the start and end dates are the same for both boiler units.**

*** Note 2: There is no result for boiler unit #2 for Run #94 due to sample invalidation. Refer to Section 7.1.**

Unit #	Run #	Start Date	End Date	Calculated Result (pg TEQ/Rm^3)
2	93	Feb 26, 2024	Mar 25, 2024	1.127
1	94	Mar 25, 2024	May 10, 2024	2.984
2	94	Mar 26, 2024	May 10, 2024	*

***Note 1: There is no result for boiler unit #2 for Run #94 due to sample invalidation. Refer to Section 7.1.**

7.1 Investigation

During the first quarter (Q1) of 2024, the AMESA Investigation Checklist was not triggered, however, due to unforeseen operation matters at the facility, an investigation was undertaken. which resulted in the invalidation of data for boiler #2 Run #94, as non-isokinetic conditions occured.

More Issues at the DYEC With Dioxins/Furans:

Long-Term (monthly) sampling of Dioxins/Furans reporting is very incomplete, and it is neither traceable nor transparent.

The public advocated for this monitoring and pays for it yet,

- **Regions have withheld the monthly AMESA data for years 2015 to 2019**[12,13]
- **For 2020 onward** some data provided, however, **many months of data have been invalidated or unavailable** and underlying lab reports, documents have not been provided[14,15,16,17,18,19]
- **Monthly results that have exceeded 64 pg TEQ/RM^3** (the stack test ECA limit is 60) **have been invalidated**[14,16,17,19] **according to protocol established by Covanta and the Regions**[20,21]
- Reasons cited include operational issues known to have potential to produce high dioxin/furan emissions

Many Hours and Months of Dioxin/Furan AMESA Data Have Already Been Invalidated/Omitted/Missing From 2020 to 2023

https://www.durhamyorkwaste.ca/en/environmental-monitoring/air-emissions.aspx#Reports

2020 Q4	October	B1: **INVALIDATED**	AMESA malfunctions
2021 Q1	Feb 10 – Feb 26	B1: **No result**	Repair of defective AMESA pump
2021 Q3	Aug 18- Sept 23	B1: **INVALIDATED**	Failed economizer tube
		(outage revealed accumulated ash reducing gas flow)	
2021 Q4	Oct 13 – Nov 10	B1: **INVALIDATED**	"Several incidents" identified including plugged economizer hopper with potential to lead to creation of dioxins/furans
2022 Q2	Apr 26 – May 25	B1: **Not Shown**	Sample compromised at lab
2022 Q3	June 24 – July 25	B2: **INVALIDATED**	"burner reliability issue"
2022 Q3	July 25 – Aug 26	B1: **INVALIDATED**	Plugged economizer
2023 Q4	Nov. 4 to end Q4	B1: **No results**	Malfunction of AMESA Unit 1

Posting notification of 2023 Q3, Q4: May 8, 2024

DYEC has had Major Dioxin and Furan Emissions Exceedances

Dioxin/Furan Stack Test Compliance Limit:

60 pg TEQ per cubic metre

- **Oct. 1-2, 2015: Acceptance Stack Tests Dioxins/Furans[4]:**

  Boiler 1 Tests average **229.3 pg TEQ per cubic metre**

  Boiler 2 Tests average **103.8 pg TEQ per cubic metre**

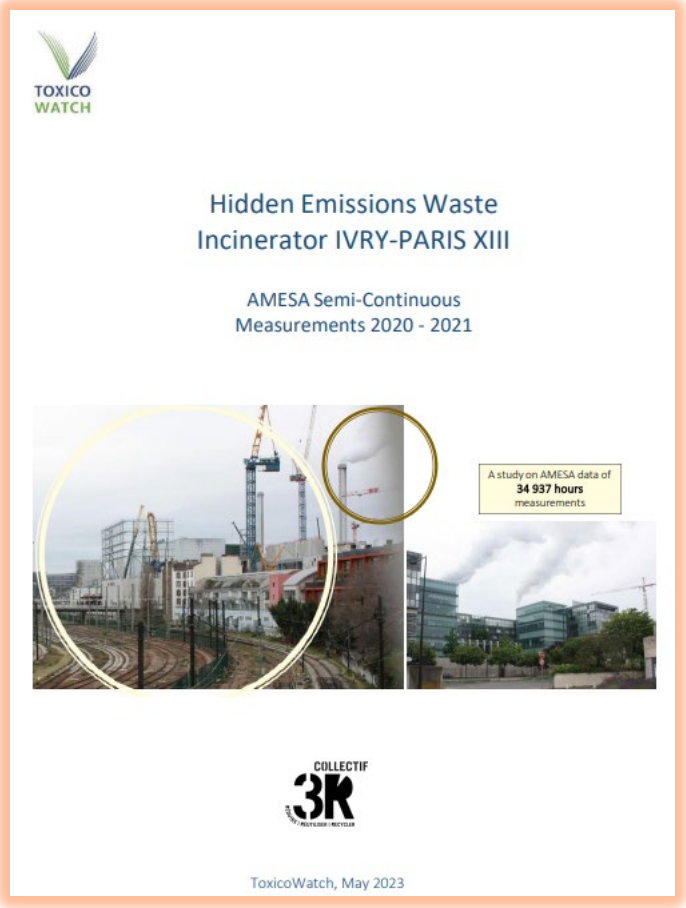
- **May 2 – May 11, 2016: Stack Test[5]**

  Boiler 1 Tests average **818 pg-TEQ per cubic metre**

The duration of the exceedances are unknown.

Continuous Emissions Monitors (CEMs) showed no indication there were problems proving that **the very limited continuous emissions monitoring does not protect us**.

ToxicoWatch Study of Paris Incinerator; French Government Warns Millions Not to Eat Backyard Chicken Eggs



> ***"The emissions data show that the waste incineration process is extremely vulnerable to disturbances****...the AMESA was found to be out of service for more than 3,000 hours per furnace, i.e. 125 days or 4 months over 2 years."*[10]

> ***"OTNOC is directly correlated with the possibility of high dioxin emissions, as research on OTNOC events has shown."***[11]

Millions in France warned not to eat eggs from backyard chickens due to forever chemical pollution

https://www.euronews.com/green/2023/11/21/millions-in-france-warned-not-to-eat-eggs-from-backyard-chickens-due-to-forever-chemical-p#vuukle-comments-2419688

More Concerns: DYEC 2023 Soil Testing Report shows

2023 Dioxin Concentrations More than Double 2013 Pre-DYEC Levels

That's a 114% Increase in Soil Concentration (Percent Loading).

	Background EA 2009[1]	Preconstruction Aug 2013[2]	Commissioning Aug 2015[2]	Operating* Aug 2016[2]	Operating Aug 2017[2]	Operating Aug 2020[2]	Operating Aug 2023[2]
Soil Concentration TEQ pg/g	1.2	1.12	0.7	0.626	1.22	1.23	2.4

1. Jacques Whitford, *Appendix B*, April 2009, *Site Specific Human Health and Ecological Risk Assessment (site specific HHERA)*, *Table 3.5 Baseline Concentrations for PCDD/PCDF in Soil*, page 41 of *Appendix B* (p. 91/196 pdf), Mean concentration (C_{mean}) of 13 samples taken from various locations was 1.2 TEQ ng/kg = 1.2 TEQ pg/g; Note baseline concentration used for input in HHERA was the 95% Upper Confidence Limit of the Mean (C_{UCLM}) =1.76 TEQ pg/g ~1.8 TEQ pg/g. https://www.durhamyorkwaste.ca/en/resources/Archived%20Documents/Appendix%20C-12%20Appendices/APPENDIX%20B%20-%20Baseline%20Chemical%20Concentrations_Dec09.pdf
2. RWDI, *Durham York Energy Centre 2023 Soil Testing Report*, November 15, 2023, *Table 4 Soil Analytical Results – Dioxins and Furans*, page 19/58 of pdf https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/Soil/2023/20231115_RPT_DYEC_2023_Soils_Testing_ACC.pdf

REFERENCES

4. HDR Consulting, *Acceptance Test Review Report Prepared for the Regional Municipalities of Durham and York*, April 20, 2016, Table 11 and Table 12, page 19
https://www.durhamyorkwaste.ca/en/operations-documents/resources/Documents/FacilityAcceptanceTesting/DYECAcceptanceTestReviewReportHDR.pdf

5. ORTECH, *Covanta Durham York Renewable Energy Limited Partnership May 2016 Emission Testing at the DYEC*, Report #21656, June 13, 2016, Executive Summary Page 8
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/May_2016_Source_Test_Report.pdf

10. Arkenbout, A., Bouman, K., ToxicoWatch Foundation, *Hidden Emissions Waste Incinerator IVRY-PARIS XIII AMESA Semi-Continuous Measurements 2020 – 2021*, May 2023, Executive Summary, page 5
https://www.toxicowatch.org/_files/ugd/8b2c54_90bb140118564292 97d14d6be5b50dc9.pdf

11. Ibid., Section 1.6, page 14

12. See DYEC website for Air Emissions/AMESA Reports at: https://www.durhamyorkwaste.ca/en/environmental-monitoring/air-emissions.aspx#Reports
There are no AMESA Reports posted for the years 2015, 2016, 2017, 2018, and 2019.
AMESA Reports are only posted for years 2021, 2022, 2023.

AMESA 2020 results are provided in 2020 ECA Annual Report found at: https://www.durhamyorkwaste.ca/en/operations-documents/resources/2020/20210330_RPT_2020_DYEC_ECA_Annual_ACC.pdf

13. Regional Municipality of Durham, *Durham Report #2021-WR-10: Durham York Energy Centre Operations – Long-Term Sampling System Reporting*, June 2, 2021, Section 1.2, page 1 details requests from the Municipality of Clarington for the AMESA data for years 2015 to 2019 as well as other AMESA information; Section 7.2, page 8 for Durham's response and rationale NOT to release the AMESA data.
https://calendar.durham.ca/meetings/Detail/2021-06-02-0930-Works-Committee-Meeting/101674d7-0ab4-4b26-b342-ad36009b7a41

14. 2020 AMESA data invalidated for October 2020: See 2020 ECA Annual Report, Section 5.6, pages 30, 31
https://www.durhamyorkwaste.ca/en/operations-documents/resources/2020/20210330_RPT_2020_DYEC_ECA_Annual_ACC.pdf

15. 2021 Q1, Feb 10 – Feb 26 no result reported: See *DYEC Long-Term Sampling System Quarterly (Q1) Report January 1, 2021 to March 31, 2021*, page 4 https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2021/20210820_RPT_DYEC_LTSS_Q1_ACC_FINAL.pdf

16. 2021 Q3, Aug 18- Sept 23 data invalidated: See *DYEC Long-Term Sampling System Quarterly (Q3) Report July 2021 to September 2021*, pages 4 to 7 https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2021/20220225_RPT_CIP_DYEC_LTSS_Q3_Report_ACC.pdf

17. 2021 Q4, Oct 13 – Nov 10 data invalidated: See *DYEC Long-Term Sampling System Quarterly (Q4) Report October 2021 to December 2021*, pages 6 to 8
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2021/20220414_RPT_DYEC_LTSS_2021_Q4_REV1_ACC.pdf

18. 2022 Q2, Mar 31 – June 15 data no result shown: See *DYEC Long-Term Sampling System Quarterly (Q2) Report April 2022 to June 2022*, pages 6, 7
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2022/20221104__RPT_DYEC_LTSS_2022_Q2_ACC.pdf

19. 2022 Q3, June 24 – July 25 data invalidated and July 25 – Aug 26 data invalidated: See *Long-Term Sampling System Quarterly (Q3) Report July 2022 to September 2022*, pages 6 to 8
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2022/20230127_RPT_DYEC_LTSS_2022_Q3_final_ACC.pdf
2023 Q4, Nov 4 – End of Q4 no results See *Long-Term Sampling System Quarterly (Q4) Report October 2023 to January 2024*, pages 6 to 9
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2023/20240426_RPT_DYEC_LTSS_2023_Q4_FNL_ACC.pdf

20. Covanta, Durham and York Regions, *Durham York Energy Centre AMESA Report*, February 3, 2021, pages 6-8
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2021/20210211_RPT_DYEC_AMESA_Report_20210203_ACC.pdf

21. Covanta, *DYEC AMESA – Investigation Checklist*, February 3, 2021
https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/AirEmissions/2021/AMESA_Investigation_Checklist_Rev.0_ACCpdf.pdf

22. See References 14 to 19 inclusive.