

Delegation to Clarington P&D Committee December 9th, 2024

W. Bracken

**Durham Response (Correspondence Item 1.1, Nov. 22 CIP) to
Clarington Correspondence Items Requesting 160 k Update
Report and AMESA Data:**

*WR-7 "Response to Questions Raised by Municipality of Clarington
Council in Correspondence Received at the June 5, 2024 Works
Committee Meeting"*

Background: May 28, 2024, Clarington writes Minister of Environment advising of their multiple requests to Durham for information as well as action regarding expansion of incinerator capacity to 160k



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May 28, 2024

The Honourable Andrea Khanjin, M.P.P.
Minister of Environment, Conservation and Parks
Via Email: minister.mecp@ontario.ca

Dear Hon. Andrea Khanjin:

Re: Proposal to Increase Durham York Energy Centre Throughput to 160,000 Tonnes Per Year

File Number: PG.25.06

At a meeting held on May 27, 2024, the Council of the Municipality of Clarington approved the following Resolution #PD-035-24:

Whereas In July 2019, Durham & York Regions initiated an Environmental Screening process for a throughput capacity increase from 140,000 tonnes per year to 160,000 tonnes per year;

And whereas on April 22nd, 2024, the Minister of the Environment in her letter to the Regions wrote that "the Regions can now proceed with the project subject to any other required permits or approvals";

And whereas in the Host Community Agreement between Durham Region and Clarington, Section 6.1: "Durham shall continue to implement and support an aggressive residual waste diversion and recycling program to achieve and/or exceed their 70% diversion recycling rate for the entire Region";

And whereas Durham has not maximized Waste Reduction and Diversion opportunities and should do so before proceeding to expand capacity. (As at 2022 Durham's RPRA Diversion Rate was 62% which includes credits for bottom ash);

And whereas five years have passed since the EA Screening study commencement with enhancements to waste management programs projected to occur at Durham Region to divert more organic waste and reduce garbage. 1) expanded green bin materials to be accepted beginning July 1, 2024. 2) offering

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source separated organics collection to multi-residential households in Durham, possibly in 2025;

And whereas DYEC Monitoring/Surveillance is not keeping up with other jurisdictions. In the Host Community Agreement, Section 3.2, "Durham shall ensure that the EFW facility utilizes maximum achievable control technology (MACT) for emissions control and monitoring systems";

And whereas in the Host Community Agreement, Section 3.3, "Durham shall ensure that, where technically feasible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment";

And whereas in the Host Community Agreement, Section 4.3: "At the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario";

Now therefore be it resolved that Clarington Council requests that Durham Region Council, at their May 29th, 2024, meeting take action to request Staff to produce an Update Report before proceeding with the DYEC Capacity Increase that would address and include the following:

- a. Re-evaluation of 2019 assumptions about need for the throughput increase given programs to capture additional organics from the garbage and in light of Durham's recent focus on Waste Reduction as per 2022 Durham's Long Term Waste Plan;
- b. An updated summary potential environmental/ecological impacts using most recent data;
- c. A written opinion from Durham's Medical Officer of Health on potential health impacts of capacity increase as well as recommendations on improvements to DYEC Monitoring Plans;
- d. Identification of all financial costs associated with capacity increase including required ECA study costs and confirming whether or not Durham & York would be eligible to receive the provincial power subsidy for waste beyond 140,000 tonnes per year;
- e. Copies of documents and comments to/from Durham/York and their consultants and the MECP since the submission of the December 2021 Env. Screening Report;

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- f. Summary showing how the concerns/comments submitted by the Municipality of Clarington & the public were addressed in the EA Screening process and how and when any unresolved issues would be addressed; and
- g. An evaluation of DYEC Monitoring Programs and emission control technologies, as well as identification of improvements required to meet commitments in EFW Business Cases and Host Community Agreement.

That if Durham proceeds to apply for the Environmental Compliance Approval (ECA) Amendment, that even if Durham and York were considered to be exempt from the requirement to post on the Environmental Registry (ERO) that Durham will request that ECA application(s) & supporting documents be posted to ERO;


That Durham commits to promptly posting all ECA applications/study documents to the DYEC project website;

That if not already done, Durham posts the attachment to Minister's April 22nd letter to them, as had been requested by the Minister, on the DYEC website immediately to inform public and update DYEC webpages;

That Regional Council appoint a Clarington Regional Councillor to the Durham Works Committee; and

That copies of this motion be sent to The Hon. Andrea Khanjin, Ontario Minister of the Environment, Conservation & Parks, Lower Tier Municipalities in Durham Region, Durham Region MPPs.

Yours truly,


John Paul Newman
Deputy Clerk

JPN/lh

Clarington Requests Not Adequately Addressed by Region in [WR-7](#) (listed as a) to g) in Clarington Correspondence PG-25-06) including:

a) Re-evaluation of 2019 assumptions about need for the throughput increase given programs to capture additional organics from the garbage

Region's Response: Two sentences, no figures.

b) An updated summary potential environmental/ecological impacts using most recent data;

Region's Response: No further update as MECP required none.

e) Copies of documents and comments to/from Durham/York and their consultants and the MECP since the submission of the December 2021 Env. Screening Report;

Region's Response: Do not provide and instead refer Clarington to Summary Tables (that refer to such correspondence but, again, do not provide it)

f) Summary showing how the concerns/comments submitted by the Municipality of Clarington & the public were addressed in the EA Screening process **and how and when any unresolved issues would be addressed; and**

Region's Response: Refer Clarington to Summary Tables, however summary tables are incomplete and do not adequately capture all submitted concerns

No Response in Region Report to Clarington Clause (g) on Monitoring Improvements

g) An evaluation of DYEC Monitoring Programs and emission control technologies, as well as identification of improvements required to meet commitments in EFW Business Cases and Host Community Agreement

Region's Response: NO RESPONSE

Clarington advised the Minister and reminded the Region of HCA commitments citing:

And whereas DYEC Monitoring/Surveillance is not keeping up with other jurisdictions. In the Host Community Agreement, Section 3.2, "Durham shall ensure that the EFW facility utilizes maximum achievable control technology (MACT) for emissions control and monitoring systems";

And whereas in the Host Community Agreement, Section 3.3, "Durham shall ensure that, where technically feasible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment";

And whereas in the Host Community Agreement, Section 4.3: "At the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario";

Examples where DYEC does not meet the European BAT requirements include highlighted

sections below: Note the first five columns are excerpts from the BAT Conclusions (see pages 14, 15 of 51 paged document). The stand-alone column on the right was created to show how current monitoring at the DYEC is different for these pollutants. Definitions for Dust and other pollutants are taken directly from the BAT conclusions.

Substance/ Parameter	Process	Standard(s) ⁽⁴⁾	Minimum monitoring frequency ⁽⁵⁾	Monitoring associated with	DYEC Monitoring
Dust (defined as Total particulate matter (in air))	Bottom ash treatment	EN 13284-1	Once every year	BAT 26	Durham does NOT continuously monitor Particulate Matter (instead uses crude substitute Opacity)
	Incineration of waste	Generic EN standards and EN 13284-2	Continuous	BAT 25	
Hg	Incineration of waste	Generic EN standards and EN 14884	Continuous ⁽⁸⁾	BAT 31	DYEC does NOT continuously monitor Mercury instead has two stack tests totaling 18 hours/yr)
TVOC	Incineration of waste	Generic EN standards	Continuous	BAT 30	No continuous monitoring of Total Volatile Organic Compounds; DYEC monitors organic matter
PBDD/F	Incineration of waste ⁽⁹⁾	No EN standard available	Once every six months	BAT 30	Polybrominated dioxins/furans are NOT monitored at the DYEC at all

Reference – See
COMMISSION
IMPLEMENTING DECISION
(EU) 2019/2010
of 12 November 2019
establishing the best
available techniques (BAT)
conclusions, under Directive
2010/75/EU of the European
Parliament and of the
Council, for waste
incineration found at:
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2019.312.01.0055_.01.ENG&toc=OJ%3AL%3A2019%3A312%3ATOC

Excerpts here from BAT 4.

Substance/ Parameter	Process	Standard(s) ⁽⁴⁾	Minimum monitoring frequency ⁽⁵⁾	Monitoring associated with
PCDD/F (Chlorinated Dioxins/Furans)	Incineration of waste	EN 1948-1, EN 1948-2, EN 1948-3	Once every six months for short-term sampling	BAT 30
		No EN standard available for long-term sampling, EN 1948-2, EN 1948-3	Once every month for long-term sampling ⁽¹⁰⁾	BAT 30
Dioxin-like PCBs	Incineration of waste	EN 1948-1, EN 1948-2, EN 1948-4	Once every six months for short-term sampling ⁽¹¹⁾	BAT 30
		No EN standard available for long-term sampling, EN 1948-2, EN 1948-4	Once every month for long-term sampling ^{(10) (11)}	BAT 30

DYEC Monitoring
Durham needs to check if reference standards used in Durham are as stringent as Europe including sampling and recovery procedures during source tests.
To my knowledge, judging what was provided in Durham 2021-WR-10, the DYEC does NOT include monitoring of dioxin-like PCBs in using long-term sampling. Only chlorinated Dioxins and Furans are collected/analyzed.

Reference – See COMMISSION IMPLEMENTING DECISION (EU) 2019/2010 of 12 November 2019 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration found at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2019.312.01.0055.01.ENG&toc=OJ%3AL%3A2019%3A312%3ATOC

Excerpts here from BAT 4.

EU Requires Monitoring During Other-than-normal-Operating-Conditions (OTNOC)

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2019.312.01.0055.01.ENG&toc=OJ%3AL%3A2019%3A312%3ATOC

BAT 5. BAT is to appropriately monitor channelled emissions to air from the incineration plant during OTNOC.

Description

The monitoring can be carried out by direct emission measurements (e.g. for the pollutants that are monitored continuously) or by monitoring of surrogate parameters if this proves to be of equivalent or better scientific quality than direct emission measurements. Emissions during start-up and shutdown while no waste is being incinerated, including emissions of PCDD/F, are estimated based on measurement campaigns, e.g. every three years, carried out during planned start-up/shutdown operations.

Comparing stack results against outdated emission limits does not protect us. Your Committee needs a full report comparing our requirements against the BAT-AELs.

It is notable as well that the BAT Conclusions also set BAT-AELs for long-term sampling of dioxins and furans. Here I have copied the table directly from the document.

BAT-associated emission levels (BAT-AELs) for channelled emissions to air of TVOC, PCDD/F and dioxin-like PCBs from the incineration of waste

Parameter	Unit	BAT-AEL		Averaging period
		New plant	Existing plant	
TVOC	mg/Nm ³	< 3–10	< 3–10	Daily average
PCDD/F ⁽²⁸⁾	ng I-TEQ/Nm ³	< 0,01–0,04	< 0,01–0,06	Average over the sampling period
		< 0,01–0,06	< 0,01–0,08	Long-term sampling period ⁽³⁰⁾
PCDD/F + dioxin-like PCBs ⁽²⁹⁾	ng WHO-TEQ/Nm ³	< 0,01–0,06	< 0,01–0,08	Average over the sampling period
		< 0,01–0,08	< 0,01–0,1	Long-term sampling period ⁽³⁰⁾

Reference – See COMMISSION IMPLEMENTING DECISION (EU) 2019/2010 of 12 November 2019 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration found at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2019.312.01.0055.01.ENG&toc=OJ%3AL%3A2019%3A312%3ATOC

Excerpts here from BAT Conclusions, Table 7₉

Region Owes the Host Community Detailed Responses

Clarrington also requested posting ECA application/study docs to ERO and project website:

- “That if Durham proceeds to apply for the Environmental Compliance Approval (ECA) Amendment, that even if Durham and York were considered to be exempt from the requirement to post on the Environmental Registry (ERO) **that Durham will request that ECA application(s) & supporting documents be posted to ERO**”;
- **“That Durham commits to promptly posting all ECA applications/study documents to the DYEC project website”**

Region’s Response: NO RESPONSE

Background: May 28, 2024, Clarington writes Minister of Environment advising of their further requests to Durham to release/provide DYEC incinerator dioxin/furan AMESA monitoring data

Clarington

If this information is required in an alternate format, please contact the Accessibility Co-ordinator at 905-623-3379 ext. 2131

May 28, 2024

The Honourable Andrea Khanjin, M.P.P.
Minister of Environment, Conservation and Parks
Via Email: minister.mecp@ontario.ca

Dear Hon. Andrea Khanjin:

Re: AMESA Monitoring and Reporting

File Number: PG.25.06

At a meeting held on May 27, 2024, the Council of the Municipality of Clarington approved the following Resolution # PD-036-24:

Whereas the Municipality of Clarington had previously requested that Durham Region provide Clarington with AMESA Long Term Sampling System for Dioxins and Furans data from 2015 – 2019, which to date has been withheld altogether;

And whereas since 2021 Durham Region has produced Quarterly AMESA Reports but has withheld the underlying data, thus making the results reported untraceable and not transparent;

And whereas multiple Quarterly AMESA reports have sampling periods where data was available but was invalidated and not reported;

Now therefore be it resolved that the Municipality of Clarington requests that Durham Region Council at their May 29th, 2024, meeting direct Staff to:

- a. Provide complete AMESA data for years 2015-2019 including underlying documents;
- b. Provide for 2020 and for Quarterly AMESA reports that Durham began providing in 2021, all supporting underlying documents together with a detailed rationale for each instance of data invalidation as well as the sample results for those periods where data was available but was not reported; and

AMESA Monitoring/Reporting


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- c. Ensure that all future Quarterly AMESA reports include the all-underlying data and provide a detailed rationale explaining any invalidated results and report all sampling results even if invalidated.

That copies of this motion be sent to The Hon. Andrea Khanjin, Ontario Minister of the Environment, Conservation & Parks, Lower Tier Municipalities in Durham Region, Durham Region MPPs.

Yours truly,


John Paul Newman
Deputy Clerk

NO Direct Response to Clarington's AMESA Requests

- While Durham speaks generally about AMESA monitoring there is no direct response to the requests for data and underlying reports

Failure to address totality of facts around DYEC operational history around Dioxin/Furan emissions and monitoring which point to need for precautionary approach, more monitoring

- Clarington and public made multiple requests for necessary AMESA data and underlying reports, but Region unacceptably continues to deny these reasonable requests and there is a great deal of withheld/invalidated data
- **How can the Host Community, Regional Councillors and Advisory Committees do their jobs without it?!**

For such an extremely toxic pollutant like dioxins, that bio-accumulate and which cause adverse health effects at extremely small exposures, **we simply cannot rely on spring and fall 12-hour dioxin test conducted at optimal conditions to predict public safety, especially when we know these facts:**

- 1) there have been multiple dioxins exceedances at the DYEC (2015 and 2016),
- 2) there was an ambient air exceedance for dioxins in 2018, on a very calm wind day, at the ambient air monitor nearest to the DYEC (ambient air testing is only done 1 out of every 24 days so about 4% of the time)
- 3) that, to our knowledge, this facility has NOT been source tested at Other-Than-Normal-Operating Conditions (OTNOC) including start-ups and shutdowns, though this facility has experienced numerous shut-downs and upset conditions
- 4) and they are not required to do such testing though it well known that dioxin emissions can be much higher (up to 1000 times) during OTNOC; Europe now requires incinerators to stack test during OTNOC.
- 5) that the most recent Soils Testing Report (soil testing only conducted once every 3 years now) shows dioxin concentration at downwind site is more than double pre-DYEC level and is above what was predicted in the EA
- 6) that even DURING those very short 4-hour-long dioxin source tests (there are three 4-hour tests totalling 12-hours) there have been operational issues and that at least one test has been pieced together, stopping dioxin collection during period of operational issues.

Clarington Must Do their Duty of Care for their residents

- **Write the Minister** to 1) advise of Region's action (lack of adequate response) to Clarington's requests and to consider Clarington's requests and 2) to request that the Minister require the Regions to post their application to amend their ECA to expand throughput to 160,000 tonnes per year on ERO as well as their supporting documents
- **Write the Ministry** to advise of unresolved issues around the expansion as they consider ECA application
- **Get legal opinion on HCA**
- **Get legal opinion on Clarington submitting an FOI request for AMESA data**