

Delegation of W Bracken to Clarington Joint Committee
October 25, 2021

Joint Agenda Item 9.1.3 – Motion Requesting
Provincial Review of
O. Regulation 79/15

Please Support Motion Requesting a Full Review of Regulation 79/15

(suggest Bullet 3 edit to “verify that *adverse* cumulative effects *are* not occurring”

That the Municipality of Clarington respectfully requests the Provincial Government undertake a full review of O.Reg. 79/15 under the Environmental Protection Act with a view to:

- Providing greater control and monitoring of fuel content and on the emissions from approved facilities to ensure the advancement of GHG reduction is not being achieved at the cost of impacted air quality or community health;
- Ensuring the cumulative effects of proposals on communities is considered as part of a thorough and comprehensive assessment of applications for ALCF use; and
- Providing mechanisms to monitor and verify that cumulative effects are not occurring and a fulsome analysis to ensure GHG reductions are being achieved by fuel switching.

That a copy of this resolution be forwarded to the Honourable David Piccini, Minister of Environment, Conservation and Parks, MPP (Northumberland-Peterborough South) and Lindsey Park, MPP (Durham).

Long-Standing Concerns With O. Reg 79/15 Remain Unaddressed and Need Attention

- Many alternative fuels permitted contain, or are contaminated with, or create as a by-product of their combustion, **highly toxic contaminants**
- For example: treated wood, shingles, used carpets, plastics, treated textiles, tire fluff
- Furthermore, Reg 79/15 imposes **no limits on amount or percentages** of these materials for use in fuel blends, no limits on important fuel parameters including halogen content
- For example: St Marys Bowmanville - 2015 ECA contained limit that fuel blend could be no more than 5% treated wood, 10% plastic but limit was removed in recent April 2021 ECA

BACK DOOR PASS: Reg. 79/15 Exempts Industries Burning Garbage From Requiring Waste ECA and From Requirements under Environmental Assessment Act (EAA)

<https://www.ontario.ca/laws/regulation/150079>

Exemption from s. 27 of Act

3. (1) Section 27 of the Act does not apply to the use, operation, establishment, alteration, enlargement or extension of an alternative low-carbon fuel site if the following conditions are satisfied:

1. An ALCF application was made and an environmental compliance approval is in effect, including a statement by the Director that this section applies in respect of the site.
2. The use, operation, establishment, alteration, enlargement or extension is carried out in relation to one or more of the following activities at the site respecting fuel described in paragraph 1 of the definition of “alternative low-carbon fuel” in subsection 1 (1):
 - i. Collection of the fuel.
 - ii. Storage of the fuel, if the following conditions are met:
 - A. None of the fuel is stored for more than 18 months.
 - B. The maximum amount of the fuel stored is the amount that is reasonably capable of being combusted at the site during a period of six months.
 - C. The fuel stored is to be combusted at the site.
 - iii. Drying of the fuel using the heat generated from the process of manufacturing clinker, lime, iron, steel or metallurgical coke.
 - iv. Removal of incidental amounts of non-combustible materials from the fuel.
 - v. Size reduction of the fuel.
 - vi. Blending of the fuel with coal, coke or any other fuel.
 - vii. Combustion of the fuel.

Respected Environmental Groups, Law Associations, Citizens Registered Major Concerns When O. Reg 79/15 was First Released in 2015

- For example, the Canadian Environmental Law Association (CELA) stated:

*“...the proposal would purport to remove the designation of this type of activity (burning ostensibly “alternative fuels” but actually waste materials) from the authority of the Environmental Assessment Act (“EAA”). **If a proposed activity ever warranted the application of the EAA it is this one given the potential for increased atmospheric releases of certain toxic substances.**”*

[Canadian Environmental Law Association \(CELA\) Blog: The Alternative Fuels Environmental Three-Step: One Step Forward, Two Steps Back](#)

Approval Conditions in Reg 79/15 are Shockingly Light:

- 1) A Carbon Dioxide Emission Intensity Report and
- 2) Completion of Consultation Requirements

<https://www.ontario.ca/laws/regulation/150079>

Approval, conditions

4. The Director shall not issue an environmental compliance approval in respect of an ALCF application unless the following conditions are satisfied:

1. The application includes a carbon dioxide emission intensity report in respect of the alternative low-carbon fuel proposed to be combusted at the site, prepared in accordance with section 11, that includes a statement that the carbon dioxide emission intensity of the alternative low-carbon fuel is less than the carbon dioxide emission intensity of the coal or coke in the place of which the alternative low-carbon fuel is proposed to be combusted.
2. *If the application is in respect of a demonstration project,*
3. If the application is not in respect of a demonstration project, the application includes a statement by the proponent confirming that the proponent has complied with the notice and consultation requirements in this Regulation and that a copy of the consultation report prepared in accordance with section 8 is available on the proponent's website and will be provided to a person who requests it.

Carbon Dioxide Emission Intensity Analysis: Only One Sample of ALCF Required

<https://www.ontario.ca/laws/regulation/150079>

Sampling and analysis, alternative low-carbon fuel

10. (1) The carbon dioxide emission intensity of a fuel proposed to be combusted as an alternative low-carbon fuel, rounded to three significant digits, shall be determined according to the following formula:

$$\text{Carbon dioxide emission intensity} = \text{CC}_{\text{non-bio}} \times 3.67/\text{HHV}$$

where,

$\text{CC}_{\text{non-bio}}$ = the non-biological carbon content of the fuel,

HHV = the high heat value of the fuel.

(2) The total carbon content and high heat value of a fuel proposed to be combusted as an alternative low-carbon fuel shall be determined using samples of the fuel taken and analyzed in accordance with the following rules:

1. Only samples taken within 36 months before the determination is made shall be used.
2. One of the following methods shall be applied:
 - i. Analysis in accordance with a prescribed chemical analysis method of **at least one sample of the fuel**.
 - ii. Analysis in accordance with a prescribed chemical analysis method of **at least one sample** of each of the individual materials that the fuel is composed of or derived from, using a weighted average of the carbon content and high heat value of the individual materials.
3. The number of samples analyzed must provide results that are sufficiently representative of the fuel or individual materials and must allow for adequate characterization of the fuel or individual materials.

Inadequate as Chemical Composition Varies Widely in Waste Materials Burned (Ex. St Marys Demonstration Project Below); Unlimited Different Blends Are Possible

Table 3-5 - Median Results of Laboratory Tests Completed on Alternative Fuel

Parameter	Units	Alternative Fuel Used During Trial 1 (Median Value)	Alternative Fuel Used During Trial 2 (Median Value)
Calorific Value	MJ/kg	17.491	16.5
Moisture Content	% wt.	18.04	20.49
Total Halogen Content	% wt.	0.18	1.36
Total Chlorine	% wt.	0.16	1.32
Sulfur	% wt.	0.165	0.19
Carbon	% wt.	41.74	38.82
Ash Content	% wt.	5.04	4.36
Antimony (Sb)	ug/g	<0.1	18.475
Arsenic (As)	ug/g	<0.1	<0.1
Barium (Ba)	ug/g	25.9	37.725
Beryllium (Be)	ug/g	<0.1	<0.1
Cadmium (Cd)	ug/g	<0.1	<0.1
Chromium (Cr)	ug/g	9	13.3
Cobalt (Co)	ug/g	<0.1	0.95
Iron (Fe)	ug/g	581.6	941.95
Lead (Pb)	ug/g	<0.1	<0.1
Manganese (Mn)	ug/g	33.8	65.35
Nickel (Ni)	ug/g	4.8	4.725
Selenium (Se)	ug/g	<0.1	<0.1
Silver (Ag)	ug/g	<0.1	<0.1
Tin (Sn)	ug/g	<0.1	<0.1
Vanadium (V)	ug/g	<0.1	<0.1
Mercury (Hg)	ug/g	<0.001	<0.001

Fuel sampling conducted during the project showed that the ALCF blends used in each trial differed considerably in total halogen content and heavy metal content, among other parameters, and the reasons for this variation were “unclear.”

HDR Consultants, Alternative Fuel Demonstration Project Summary Waste Report (May 2019), online:
http://www.stmaryscement.com/Alternative%20Low%20Carbon%20Fuels%20Documents/Alternative%20Fuel%20Demonstration%20Project%20Summary%20Waste%20Report%20Final%20JUNE%202019%20w%20appendicesmin_2.pdf at pp 15 (Table 3-5) and 16

Inadequate Monitoring Requirements

Reg. 79/15 Only Requires NO_x and SO₂ Stack Emissions Monitoring
(and MECP has even proposed to remove that reporting requirement)

- Burning garbage releases toxic emissions;
- To protect the public, ambient air and environmental monitoring needs to be required for toxic pollutants associated with burning garbage including PM_{2.5}, heavy metals, dioxins/furans, PAHs, PFAs but Reg. 79/15 does not require such monitoring

Quarterly reporting

15. (1) This section applies to the holder of an environmental compliance approval issued in respect of an ALCF application if the application,

(a) is not in respect of a demonstration project; and

(b) is in respect of an alternative low-carbon fuel facility at which clinker is manufactured. O. Reg. 54/21, s.1 (1).

(1.1) The holder of an environmental compliance approval mentioned in subsection (1) shall ensure that emissions of nitrogen oxides and sulphur dioxide from a kiln located at the alternative low-carbon fuel facility referred to in clause (1) (b) are monitored during the year with,

(a) a continuous emissions monitoring system, installed and operated in accordance with Report EPS 1/PG/7; or

(b) a method that, in the opinion of the Director, will provide estimates of nitrogen oxides and sulphur dioxide emissions that are at least as accurate as the estimates that would be provided by a continuous emissions monitoring system referred to in clause (a).

O. Reg. 54/21, s.1 (1).

Comprehensive Ambient Air and Environmental Monitoring

Especially important for Communities with Burdened Air Sheds

- **this includes Clarington** where numerous ambient air exceedances have been measured including for:
 - particulate matter
 - benzo(a)pyrene
 - SO₂
 - dioxins/furans
- Clarington is an agricultural community - total mass loading to the environment (land, water, agricultural products) should be monitored

Problems With Reliance on O. Reg 419/05

- MECP relies on O. Reg 419/05 to assess proposals, but, even if an industry conducts a cumulative effects assessment, it relies on O.Reg. 419/05 as well
- Problems with O. Reg 419/05 include:
 - Inhalation pathway focused
 - Based on modelled POI air concentrations, not on total annual loadings of contaminants
 - Assesses risk based on exceeding thresholds, but many pollutants, including PM2.5 are non-threshold
 - For many of the pollutants of concern with burning waste, the standards are many decades old and considered not protective of human health or DO NOT EXIST (PM2.5, PM0.1, PFAs)
 - Does not look at preventing “hot spots”
 - Does not look at synergistic effects

Under cover of claim they will reduce greenhouse gas emissions, with Reg 79/15, MECP circumvents waste ECA and EAA requirements and rushes to approve burning waste proposals without the benefit of the scrutiny that the environmental assessment process could bring to address these deficiencies.

Reg 79/15 Fails to Require Monitoring/Reporting of GHG Emissions; No Verification of GHG Reduction Claims

- Carbon Dioxide Emission Intensity Report calculations/predictions are based on fuel samples analysis and are not enough
- Need monitoring and reporting of actual emissions of greenhouse gases when waste is burned

St Marys' Carbon Dioxide Emission Intensity Report predicted significantly lower CO₂ intensities, but measured CO₂ Emissions Were Actually Slightly Higher in Dec 2018 ALCF Trial

Excerpt of Table E-1-1 below from BCX Environmental Consulting, Alternative Fuels Demonstration Project Summary Report (May 2019), online:

<http://www.stmaryscement.com/Alternative%20Low%20Carbon%20Fuels%20Documents/Demonstration%20Permit%20-%20Air%20-%20ECA%204614-826K9W.pdf> at Table E-1-1 (pdf p 698)

Table E-1-1: Summary of Kiln Stack Emissions

Contaminant	CAS Number	Kiln Stack Emission Rate (g/s)			Alt Fuel Emissions Outside the Baseline Normal Range (Yes/No)	Statistically Significant Change in Emissions between Alt Fuel and Baseline/Post Baseline? (Yes/No)
		Baseline (Oct 2018)	Alt Fuel (Dec 2018)	Post Baseline (Dec 2018)		
Particulate						
PM	PM	2.02E+00	4.17E+00	4.12E+00	Yes	Yes
PM10	PM10	4.61E-01	5.08E-01	3.86E-01	Yes	Yes
PM2.5	PM2.5	1.84E-01	2.12E-01	1.75E-01	Yes	Yes
Combustion Gases						
NO _x	10102-44-0	8.94E+01	8.67E+01	9.73E+01	Yes	Yes
SO ₂	7446-09-5	1.37E+02	1.69E+02	1.14E+02	Yes	Yes
CO	630-08-0	1.19F+02	1.00F+02	7.49F+01	No	n/a
CO ₂	124-38-9	5.96E+04	5.59E+04	5.51E+04	No	n/a

Please Support Motion Today

(with Bullet 3 “verify that *adverse* cumulative effects *are* not occurring”

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