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Via Email

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**Comments on EBR Registry Number 011-2709 (CofA for the Durham/York EFW)
*submitted on behalf of Durham Environment Watch***

In regards to the EBR Registry Number 011-2709, Durham and York Regions applications for Certificates of Approval that would allow a proposed municipal solid waste incinerator to be built and operated in Courtice, we thank you for posting the information to the EBR website and allowing another round of public comment. We felt this was imperative due to the fact that the Minister of Environment indicated that concerns that had been submitted during the EA process which had not been resolved or adequately answered through that process, would be addressed through "future approvals", which would include the Certificate of Approval application process.

In addition, some of these unresolved concerns have been intensified due to information contained in the C of A application by Covanta/Durham-York, and other concerns have not yet been answered. Durham Region has promised its residents "the best of the best", and what is proposed in the C of A application is not consistent with Durham Region's commitment to state of the art monitoring as promised in Durham Council resolutions of Jan 23, 2008.

Emissions Monitoring:

Most of the pollutants of greatest concern such as lead, mercury, cadmium, PM2.5, volatile organic compounds will not be monitored continuously. They are proposed to be tested only once a year in a pre-arranged stack test. The rest of the time the emissions of these pollutants isn't known, and with no pre-sorting of the waste to be burned in the facility we know that emission levels can change, especially with the burning of some hazardous waste not source separated.

Given the potential health risks and the *EA study results for particulate matter, mercury, and organic carcinogens*, it is our strong opinion that the application should have included a commitment to continuously monitor mercury, particulate matter and organic matter, and we request that this be made a requirement within the C of A.

Particulate Matter

On page 15 of the Ontario A-7 Guideline (Air Pollution Control, Design and Operation Guidelines for Municipal Waste Thermal Treatment Facilities) regarding installing a high

sensitivity continuous particulate matter monitor instead of an opacity monitor the Guideline states:

"The Ministry encourages the use of high sensitivity continuous particulate matter monitoring systems over opacity monitoring since particulate emissions have a direct environmental impact."

Yet the C of A application proposes only opacity monitoring. The C of A application contains a PM 2.5 emission rate that is *nearly 2.5 times the emission rate used in the EA*, and the EA study itself reported a measured baseline PM 2.5 concentration which already exceeds the WHO benchmark and closely approaches the Canada Wide Standard.

PM 2.5 is the most dangerous form of particulate matter and poses substantial risk to human health because due to the microscopic size, the smallest particles can enter the bloodstream through the lung and be carried to all organs, including having the ability to pass through the blood-brain barrier into the brain.

Due to the fact that no risk assessment and no medical review of the health impact of these increased emissions has been done:

We therefore request, as per Ministry recommendation, that continuous PM 2.5 monitoring be required instead of (or in addition to) opacity monitoring.

We also request that the new data regarding baseline PM 2.5 and other baseline respiratory irritant pollutant concentrations be used to reassess the EA Human Health and Ecological Risk Assessment and that the C of A application also use the amended values for baseline concentrations.

Dioxins and Furans

In the C of A application (Air) on page 21 (page 129 of pdf), Exhibit 5 shows the proposed compliance verification method for Dioxins and Furans to be EPA Method 23 stack test, not continuous monitoring. This seems to conflict with section 1.3.1.5.2 which states that long-term integrated continuous dioxins sampling device will be provided. Due to the serious risk that Dioxins pose to the health of humans and environment, and that they bioaccumulate over time, we believe the sampling device should be used for operational monitoring and compliance verification, therefore:

We request that an AMESA (Adsorption Method for Sampling of Dioxins and Furans) cartridge system be installed to continuously sample for dioxins and furans, and that the frequency of sample collection and analysis biweekly.

We also request that the continuous sampling be continued for the life of the facility and be reported publicly.

Mercury and other hazardous waste (Air) (Waste)

Source separation by households will be relied upon for removal of hazardous waste and there will be no pre-sort or secondary sorting done at the facility or transfer stations for black/green bag waste collected from curb side so it is likely there will be mercury containing waste and other hazardous waste going to the facility and into the pit to be burned (such as CFL's, some types of batteries, thermometers, thermostats, household switches, fluorescent lamps and other sources). There will also be some ICI waste included to be picked up and burned in the incinerator.

We therefore request that a full pre-sort procedure be ordered for waste before it is dumped into the pit for incineration.

Mercury can directly enter waterways through a wastewater disposal system or be deposited from the air. Once in the water, biological processes transform it into methylmercury, which is a highly toxic form of mercury. Methylmercury accumulates in the tissues and organs of fish and in humans (or any other animals that eat fish). The most common way people are exposed to any form of mercury is by eating fish containing methylmercury, and we know that the mercury levels in Lake Ontario are already posing a threat to human health. Mercury is a neurotoxin. There is evidence in humans and animals that exposure to methylmercury can have adverse effects on the developing and adult cardiovascular system, blood pressure regulation and heart-rate variability. In fetuses, infants, and children, the primary health effect of methylmercury is impaired neurological development.

The location of the proposed incinerator site is less than 1/2 km from Lake Ontario. Although encouraged by the MOE A-7 Guideline, there has been no provision for continuous sampling for mercury, and we strongly believe that only annual source testing is not adequate.

We therefore request that an AMESA-M cartridge system be installed to continuously sample for mercury, and that the frequency of sample collection and analysis be set at biweekly.

Volatile Organic Compounds

Neither the EA nor the ESDM Report included assessments for acetone, acrolein, styrene, and mesitylene (1,3,5-trimethylbenzene), all of which have POI standards in Schedule 3 of O.Reg.419, and are expected to be emitted from the facility as indicated in the EA. The lack of an assessment of acrolein and acetone were identified as an issue by the MOE (Approvals Branch) during the review of the EA documentation. These contaminants should be included in the assessment of compliance with O.Reg.419. These contaminants are also listed in Appendix 1 of the A-7 Guideline (Page 38, Volatile Organic Matter table).

We therefore request that the C of A be amended to include an assessment of acetone, acrolein, styrene and mesitylene.

Basic Comprehensive C of A

Approval of a Basic Comprehensive C of A allows a proponent to operate within a maximum operating envelope and permits changes to be made to a facility without applying for an amendment to the C of A. The conditions related to the limited operational flexibility in a Basic Comprehensive C of A are generally reviewed and renewed every five years.

We request that the C of A be reviewed and renewed at a maximum 5 year interval and that the submission materials also be made available to the Municipality of Clarington as host community, EFWAC (EFW Advisory Committee) members, and other concerned stakeholders (including citizens) within the Region of Durham.

C of A (Waste)

- **12.2 – Power Disruptions**

In case of a station blackout, a standby 250 kW diesel generator is provided to power the auxiliaries necessary to assure an orderly shutdown of the plant in the event of a total loss of station power.

There appears to be no redundancy, therefore no "Plan B" if the stand-by generator fails to perform.

EA Notice of Approval to Proceed - Compliance with Minister's Conditions of Approval

- **Section 13 – Air Emissions Operational Requirements**

Stack concentration per train for PM_{2.5} provided by Covanta in the CofA application is 21.0 mg/Rm³ (*Source Emissions Spreadsheet, page 4, Appendix C, ESDM, Cof A Application, March 2011*) is **more than double** the 9 mg/Rm³ operational requirement for stack concentration of particulate matter set in Schedule 1 – Air Emissions Operational Requirements.

Section 21.3 – Types of Waste and Service Area

"The proponent shall ensure that all incoming waste is inspected prior to being accepted at the site to ensure that only non-hazardous municipal solid waste is being accepted."

According to the C of A application, waste collected at curb side will be not be screened or re-sorted for the removal of small hazardous waste items likely to be found in household "garbage" such as CFLs, batteries, smoke detectors, etc. Some items are not considered "hazardous" until they are crushed or burned, when they become toxic or release substances from them.

Granted they may be individually in small amounts, however when the amount is calculated in waste from the combined population of **1.8 million** (Waste CofA, Page 6, Section 4.a - population served by this site) it can amount to a substantial amount of hazardous waste. This is why we request a requirement to pre-sort the collected waste prior to incineration.

- **Section 8 – Advisory Committee**

8.9 – *"...At the first meeting, the advisory committee shall develop a Terms of Reference outlining the governance and function of the advisory committee."*

Section 8.10 of Conditions of Approval states: *The Terms of Reference shall, at a minimum, include: b) Frequency of meetings;*"

To date, only the Project Team has determined the ToR without a vote on the final version which was sent to the Ministry with only one-way comments allowed to be made in writing by the Committee, no discussion and no agreement on that final version. The committee has also not had input on frequency and dates of meetings. This is a Proponent-run committee with little input allowed at the 2 meetings we have had to date. We had one meeting (approx 2 hours) on January 20 and one meeting (same) on April 11. We have just been advised that the next meeting will be at some time in August, yet to be determined. One meeting every 3 – 4 months is not adequate, according to the Citizen's groups, especially since the first meeting was completely closed to the public (with security guards present to keep anyone not specifically named to the committee out of the meeting room). At the 2nd meeting, the public was allowed to attend but they are not allowed to make deputations or ask questions.

EFWAC members were told that if we had any questions of the Project Team, to put them in writing by April 21 and the Project Team would respond. To date (June 5), there has been no response to the submitted questions nor acknowledgement of receipt of questions (questions were submitted only by the 3 Citizen Groups named by the Minister in his Conditions of Approval (Section 8.5)

- **Section 7 – Community Involvement and Public Consultation**

7.5 – *The proponent shall hold public meetings to discuss the design, construction and operation of the undertaking, including but not limited to:*

a) *At least one meeting prior to the start of construction;*

b) *At least one meeting prior to the receipt of non-hazardous municipal solid waste on site; and,*

c) *At least one meeting a minimum of six months but not later than 12 months after the initial receipt of non-hazardous municipal solid waste on the site.*

7.6 *The proponent shall provide notice of the public meetings a minimum of 15 days prior to the meeting.*

In a letter dated January 10, 2011, from Assistant Deputy Minister Kevin French, Operations Division, we were informed that, *"The ministry has required the proponents of the project to undertake additional public and stakeholder consultation before and during the application process for the Certificates of Approval."*

The Certificate of Approval Application was submitted by the proponents in early March 2011. To date there have been no public meetings held for consultation with the public. In the C of A Application (Waste), Attachment 3, Public Consultation Report (Page 3), under the heading "Meetings open to the Public", it states: *"The following meetings have been held, open to the public for both observation and delegation, since EA approval:"*

But you will see there have been no public information sessions where the public could ask questions and "consult" with proponents. The Regional Council and Committee meetings are held during the daytime in Durham Region, and few members of the public are able to attend. It is possible to make a delegation to Council if approved, but delegations are not allowed to ask questions.

C. Area Municipalities Waste Director Meetings with EFW updates (these were not open to

the public to my knowledge).

D. Specific meetings with Clarington staff and Councillors (not open to the public)

E. EFW Advisory Committee (pursuant to EA Approval Condition 8): First meeting January 20, 2011 in Durham with subsequent meetings to be scheduled. (not open to the public despite requests from EFWAC members to allow the public in – instead there were security guards to keep them out)

F. Integrated Waste Management Advisory Committee. (this Committee has not been struck yet)

To date there have been no public meetings held for consultation with the public. None were held prior to submission of the C of A application and there have been none scheduled so far.

This is similar to what happened during the EA process. There were multiple PICs held during the beginning of the process to let people know that that an incinerator would be built, where it would be built, and that there were no health or financial risks (only “water vapour comes out of the stack”). As people became more familiar with the studies and what was being proposed, the PICs stopped, and when residents of Durham and especially Clarington asked repeatedly for Public Information Sessions to be held, we were repeatedly denied. Because of that, and because of the way the EFW Advisory Committee was set up and has been handled since January, there is ever-growing mistrust surrounding the studies.

We ask that this C of A application have stringent requirements as this is the document which sets out legally enforceable limits and the residents of Durham and York, and especially of Clarington, depend on those stringent requirements to provide a small measure of risk reduction, even though we know that there are health risks, some which have not been adequately assessed because our air shed is already so overburdened with respiratory irritants. We have been told that because our air is already so high in some of these pollutants, especially PM 2.5, Nitrogen Oxides and others, that the addition of more from this proposed incinerator will result in only a small increase in total levels. If it were being built in a cleaner air shed, the measurable percentage of impact would be much greater. We don't believe building it in this location, especially without enhanced restrictions and requirements (such as pre-sort of waste and continuous monitoring) should be approved. That is why we are requesting such enhancements to the Certificate of Approval, as a bare minimum.

There are still unresolved issues which came to light during the EA process and were not addressed in the C of A Application, such as producing risk assessments for some of the key pollutants which were not health based, baseline concentrations of some criteria pollutants were not measured at the site and not included for assessment of total cumulative impact in the health risk assessment and are still not included in the C of A application.

Our major requests are, at a minimum:

1. **That an AMESA cartridge system be installed to continuously sample for dioxins and furans, and that the frequency of sample collection and analysis biweekly**
2. **That an AMESA-M cartridge system be installed to continuously sample for, and that the frequency of sample collection and analysis biweekly**
3. **As per Ministry recommendation, that continuous PM 2.5 monitoring be required instead of (or in addition to) opacity monitoring.**

- 4. That the new data regarding baseline PM 2.5 and other baseline respiratory irritant pollutant concentrations be used to reassess the EA Human Health and Ecological Risk Assessment and that the C of A application also use the amended values for baseline concentrations.**
- 5. That a full pre-sort procedure be ordered for waste at the facility before it is dumped into the pit for incineration.**
- 6. request that the C of A be amended to include an assessment of acetone, acrolein, styrene and mesitylene**
- 7. That the C of A be reviewed and renewed at a maximum 5 year interval and that the submission materials also be made available to the Municipality of Clarington as host community, EFWAC (EFW Advisory Committee) members, and other concerned stakeholders (including citizens) within the Region of Durham.**
- 8. That the C of A be required to comply with conditions set out in the Minister's Notice to Proceed Conditions of Approval (November 2010)**
- 9. That a Draft C of A Approval be circulated to Clarington (as host community) and also to interested residents and Community Groups and EFWAC Members prior to a final approval by the Ministry.**

Thank you for your consideration of our comments on the Certificate of Approval Application for the Durham-York/Covanta proposed EFW Incinerator. Please advise on how the public would be informed of the opportunity to review future submissions by the Regions and Covanta BEFORE the Ministry makes their final decisions.

Respectfully,

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On behalf of Durham Environment Watch