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Energy from Waste Advisory Committee (EFWAC) Agenda Meeting #21

**Friday, December 6, 2024
10 a.m. to noon**

**The Regional Municipality of Durham 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.

- 1. Welcome and Introductions**
- 2. [Durham York Energy Centre \(DYEC\) 2023 Annual Compliance Report \(ECA\)](#)**
The Project Team will respond to questions by EFWAC members regarding the DYEC 2023 Annual Compliance Report.
- 3. Updates**
 - a. Blue Box Transition Update / Business Improvement Areas Recycling Services
 - b. Enhanced Organics Program
 - c. Multi-residential Organics Program
- 4. Next Meeting**
Friday, June 27, 2025
- 5. Meeting Adjourns**

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Energy from Waste Advisory Committee (EFWAC) Meeting #20

Date: Monday, December 18, 2023

Location: Microsoft Teams (virtual) from 9:30 a.m. to 11:30 a.m.

Facilitator: Bruce Withrow, Meeting Facilitators International

Archive: Available at: <https://www.eventstream.ca/events/durham-region>

Attendees: Please see page 10 of 10

The meeting of the EFWAC will meet the obligations as detailed under Section 8 of the Notice of Approval to proceed with the Undertaking. This meeting objective is to review the 2022 Durham York Energy Centre (DYEC) Annual Report as submitted in accordance with Condition 15(1) of the Environmental Compliance Approval (ECA) #7306-8FDKNX, which states the following:

By March 31st following the end of each operating year, the Owner shall prepare and submit to the District Manager and to the Advisory Committee, an Annual Report summarizing the operation of the Site covering the previous calendar year.

Durham York Energy Centre Environmental Compliance Approval Annual Report – 2022 (Report)

1. With regard to the facility shutdowns listed under Section 11 of the Report, it was questioned if the included table was a comprehensive list of planned and unplanned shutdowns of any duration, and if not, with consideration to the potential for high emissions during a shut down, it was requested that if going forward the Report could identify all shutdowns (single and dual) of any duration, and include unplanned and uncontrolled events (i.e. caused by a thunderstorm, etc.).
 - Staff confirmed the table identifies dual outages when both boilers are offline which is posted in the annual report. Addressing the reporting of single boiler outages, staff is contemplating incorporating the relevant information in the upcoming annual report.
2. Staff were asked in follow up to a separate exchange with staff in November 2023 regarding a request for information about the source test procedure for dioxins and

furans. The member stated that the Ontario Source testing Code and Ambient Air Monitoring Plan, which specify the reference method set out by Environment Canada are to be used for dioxins and furans. The member then stated: ‘Application of this Reference Method (RM) for compliance testing requires strict adherence to the method in all respects. Deviation from the method may invalidate the test results. Any changes in equipment, reagents, materials, procedures, or calculations from those specified in the RM must be approved in writing by Environment Canada prior to testing. If deviations are made without prior approval, the validities of the tests shall be determined by Environment Canada on a case-by-case basis.’ The member stated the response received gave some description of the Environment of Canada procedures but did not answer what was being done by Durham, York and Covanta at the DYEC.

3. The member asked: “Does DYEC stack source testing, sampling, analysis and reporting for dioxins/furans strictly adhere and follow Environment Canada test methods?”
 - Staff confirmed that the methodology is prepared by ORTECH, and signed off by the Ministry of the Environment, Conservation and Parks (MECP) and replied that there could be some deviations from the test method.
4. The member asserted that when MECP acknowledges receipt, per ECA #7306-8FDKNX, Section 18 (a), it does not necessarily indicate compliance. The member asked for clarification about AMESA sampling duration.
 - Staff explained that AMESA sampling follows different rinsing and testing protocols.
5. Clarification was requested on the reported ‘Rejected / Unacceptable’ waste tonnage in Table 2: Municipal Solid Waste (MSW) Material Balance (Tonnes), of Section 2, and the reason for such variabilities between January to June, with reported amounts during these months either low or none, followed by much larger amounts from July to December, with peak tonnage reported in August.
 - Staff provided updates of a contract changeover at the transfer station. This transition involved direct delivery of material from Durham Region-owned waste management facilities. The incoming materials may contain much coarser materials like large amounts of construction and demolition waste (C&D). This trend would be anticipated to continue through 2023. Covanta sends out the (C&D) waste along with large pieces of wood.
 - In response to the concern, that contract and staffing changes are causing a downshift in performance; staff advised of a refinement in transfer station procedures. It should be noted that a relatively small amount of the roughly 30,000 tonnes of waste per annum from the waste management facilities (WMFs) is

deemed non-processable, and that this waste is also low in comparison to the overall quantity of waste that is processed monthly.

6. Staff were asked, with reference to the AMESA (LTSS) Work Plan Summary Report from early February 2021, if an AMESA Work Plan exists for 2021 onwards, if staff can make it available on the project website for public knowledge and reference. Page 33 of the ECA Report references invalidated runs in July and August 2022 'due to non-isokinetic, non-steady state operating conditions during the sampling period'. In comparison with the DYEC Quarterly (Q3) LTSS Report (July 2022 to September 2022), which reports (Pages 6 and 7 of 10) an incident where for AMESA Sampling Run #76, there was a high probability sampling occurred during non-isokinetic conditions and which seems to be the reason sampling periods are being invalidated, staff were questioned how the sampler does not adjust for these conditions and why the related data needs to be invalidated, with additional concern that this is when emissions of concern are most likely to be of issue with the Facility not operating in a steady state.
 - Staff confirmed that the February 2021 AMESA Work Plan is the current AMESA operating plan and is being followed.
 - Staff mentioned that the AMESA system is not a live system to match with any sudden change of the plant output.
7. Staff were asked about the Long-Term Sampling System with reference to Section 5.6 (Annual ECA Report), and previous confirmation that not all parts of the system are being analyzed, and questioned Report reference that states 'The AMESA...designed to meet the requirements of ECA Condition 7(3)...', and questioned which parts are included in the AMESA reporting testing, and which parts are not.
 - Staff re-confirmed the cartridge is the only piece that is analyzed, and re-iterated that measurements obtained from the AMESA samplers are not used for verifying compliance with the approval limit. AMESA and Source Test operate individually and are not comparable.
 - The source test is a traversing probe, not a stationary probe (whereas the AMESA is a stationary probe). Both filter and trap are collected, and the full sampling train is sent for analysis for the source test.
8. In follow up to the MECP's 2016 agreement that the Surface Water Monitoring Program be suspended due to area construction at Courtice Road/Highway 401 interchange and Tooley Creek realignment, undertaken by the Ministry of Transportation; Staff was asked about when the surface water testing would be

resumed. The comment was made stating that, ‘... now is the right time to restart and take the next steps to implement this Program in 2024.’

- Staff will take this under advisement with continued evaluation on an annual basis during the review of the groundwater and surface water monitoring with the MECP.
9. Staff were asked, in relation to Condition 7.3 of the governing ECA file which requires the Owner to ‘...measure the concentration of Dioxins and Furans in the Undiluted Gases leaving the APC Equipment associated with each Boiler...’ and with consideration that accurate concentrations are important to the public, in compliance with Section 7.3, if the Facility should instead be using each part identified on the sampling train (nozzle, probe, etc.), and not just the cartridge. Separate to being informed by the manufacturer’s recommendations and with consideration to the purpose of this Committee, staff were asked how partial measurement of the concentrations and exclusion of the sampling system components analysis meet the ECA and related monitoring plans.
- Staff reiterated that the Source Test is a different system from the LTSS (AMESA), and that the system is operated according to the manufacturer's directions which included consideration of sampling duration.
10. Staff were questioned, in relation to Page 31 of the ECA Annual Report, if the system is used to ‘...trend sample analysis results and evaluate the ongoing performance of the Air Pollution Control (APC) equipment...’, and Section 7.3(b) of the ECA #7306-8FDKNX, where the ‘Owner shall evaluate the performance of the long-term sampling system in determining Dioxins and Furans emission trends and/or fluctuations as well as demonstrating the ongoing performance of the APC Equipment associated with the Boilers.’, what document did MECP approve which defines the way the Regions report the outcome (LOQ picograms), and why was this method selected and who authorized it.
- Staff confirmed that the February 2021 AMESA Work Plan, which the Facility is currently operating under, was previously submitted to the MECP who provided the Regions with acknowledgement of its receipt and further, are aware of the Plant’s use as operating parameter (not compliance).
11. With regard to data validation and the Owners direction that AMESA is only for the purpose of the ECA and trend analysis, staff were advised that the Regions seem focused on the primary purpose not to measure concentration, that with previous data not being consistent, monitoring has been adjusted to get more consistent data, with concern that one should not fudge data to model any related validation.

- Staff stated that data is not ‘fudged’ to fit a model and reiterated that the system’s performance is adjusted, from the process variability in the boilers but remains subject to the limitations of the sampling equipment. AMESA runs were conducted along with the Source Tests to determine if results are similar. Regulatory results from the DYEC are low, and the Regions and Covanta continue to operate the facility in a manner to achieve such low concentrations.

Roundtable

In response to earlier discussion regarding the DYEC Streamlined Environmental Assessment (EA) (increase from 140,000 to 160,000 tonnes per year), staff confirmed that the questions received from the Ministry of the Environment, Conservation and Parks (MECP) in October 2023, following the July/August update, consisted mainly of confirming the location of documents and in some instances, resubmission of the models and background data / discussions due to staffing changes at the MECP. The Streamlined EA remains with the MECP for review, and the Regions await a response with additional questions and/or decision on approval of the EA.

- There are no new submissions.
12. Staff were asked whether given the implementation of the Enhanced Green Bin in July 2024 and its related estimated garbage reduction and that identified to date in 2023 (~10,000 tonnes), if the need still exists for a capacity processing increase at the Facility.
 - Staff advised that as Durham’s Enhanced Green Program rolls out in only the last six months of 2024 and with consideration to the impact from the provincial housing targets which will generate more waste, the Regions will be seeking optimization for Facility efficiency and service to both Regions as best as possible.
 13. Staff were asked if there has been any change in the Facility’s jurisdiction regarding accepted waste.
 - Staff advised the Facility will continue to only service Durham and York Regions.
 14. Clarification / further details as to what the MECP was requesting in October 2023 and staff confirmed that MECP’s requests were generalities and few, such as: how assumptions were modeled, correction requests to correspondence that was incorrectly linked in a table, confirmation of receipt of reference material, etc.
 15. Input regarding anticipated response from the MECP and whether Regional Council direction will be required, depending on MECP response. Staff shared the opinion that it is a positive sign that the MECP is corresponding, and that an ECA application to the

MECP will be filed as soon as possible, if approved to do so by the MECP, while also fulfilling the commitment made to the Municipality of Clarington, and ideally moving forward at a reasonable pace including if the MECP should request additional studies.

Waste Management Services Operations Update for the Regional Municipality of Durham

Angela Porteous, Supervisor, Waste Operations, the Regional Municipality of Durham (Durham), provided an Operations Update on current and future plans for Durham's waste management.

With many changes coming in 2024, Durham is proceeding with the rollout of the Enhanced Green Bin Program starting July 1, 2024, which was awarded to Seaclyff Energy, an Anaerobic Digestion (AD) processing facility in Leamington. Starting July 1, Durham will be accepting diapers, sanitary waste, and pet waste in the Green Bin. Bin sales will continue to be made available at the Waste Management Centre (4600 Garrard Road, Whitby). Program promotions will commence late spring/early summer 2024 to ensure residents have the necessary capacity for the start of the Enhanced Green Bin Program. Additional information is available in the February 8, 2023, Works Committee Report [#2023-WR-3](#) 'Organics Management Plan – Next Steps'.

By 2025, Durham must comply with Ontario's Food and Organic Waste Policy Statement which requires a 50 per cent waste reduction and resource recovery of food and organic waste generated at multi-residential properties. Of the two bids received in response to the request for proposal (RFP) for the multi-residential organics program, which closed on October 19, the supplier was presented to December Works Committee and pending Regional Council approval, recommends a phased approach to be rolled out in all 417 multi-residential buildings, in potential collaboration with the City of Oshawa (Oshawa) and Town of Whitby (Whitby) due to jurisdictional responsibilities, and in follow up to building surveys completed in 2023 to determine readiness to implement organics at individual sites, resulting in a participation rate response of approximately 64 per cent.

Durham is preparing for the transition for curbside collection of Blue Box materials through CMO (Circular Materials Ontario), with Miller Waste being awarded the contract for collection from July 1, 2024 to December 31, 2025, in Ajax, Pickering, Clarington, Scugog, Uxbridge, and Brock, and GFL in Whitby and Oshawa. Starting in 2026, as CMO will cease to service small businesses as part of this program, Durham is considering options to address financial implications and address continued service with a forthcoming report to Works Committee in the new year. HGC is the current contractor at the Material Recovery Facility (MRF) and has been awarded the contract by CMO to use the MRF until the end of 2025.

Durham residents will not experience any changes in service with the Blue Box transition, with Durham in discussions with Miller Waste and GFL regarding use of Service Durham (311) for call centre logistics.

Durham rolled out a successful and well advertised Curbside Giveaway Pilot on September 16, 2023, for residents to place unwanted items in good condition at curbside for anyone to pick up. More than 800 residents provided feedback on the Pilot, requesting this event be held annually or more frequently. Durham presented to Works Committee a report requesting approval for a permanent event to be held each spring and fall, which will be considered by Regional Council.

16. Staff were asked with reference to page 24 of Durham's Annual Waste Management Report that stated Durham and York Regions 'completed the Environmental Screening Report in March 2022 to increase the annual processing capacity at the Durham York Energy Centre from 140,000 to 160,000 tonnes per year', and with consideration to Durham's Enhanced Green Bin Program, how clay cat litter will be processed by anaerobic digestion (AD) and will residents be asked to separate, and additionally, questioned the reason for maintaining mixed-waste pre-sort component, have residents familiarize themselves and in the future then remove the need for source separation.
 - Staff confirmed that AD facilities have grit removal systems, and depending on the processing, plastic (diapers) and non-organic materials will remain in suspension. Further advising that the mixed-waste pre-sort was an option to capture materials in the garbage bag from residents who don't participate or mistakenly dispose of items. And in keeping with both the long- and short-term plan, AD contracted service was for 10 years, and once construction and inflation settles down, Durham will review and determine the program's value.
17. Staff were questioned if the mass of the fly ash that is reported in the ECA Annual Report on page 23, which identifies residual waste shipments sent to landfills, includes cement and pozzolan and from the collected samples for the National Pollutant Release Inventory (NPRI), whether staff are relying on the toxic characteristic leaching procedure (TCLP) and if so, whether the results can be made available to the public.
 - It was confirmed by staff that fly ash includes cement and pozzolan, and further, composite TCLP samples are submitted for chemical analysis, and calculation guidelines and ash testing protocols are made available on the NPRI Federal government website along with related reports. As TCLP is performed once every three years, the results are updated and posted accordingly in the annual report. Additionally, the fly ash is treated before going to the landfill in Thorold and is thereby, non-hazardous. The treatment consists of mixing the fly ash with a blend

of pozzolanic material, cement, and water. The thorough mixing of all ingredients in the pugmill results in an innocuous material as the fly ash is microencapsulated.

More information about the ash quantities may be found in the [2022 Durham York Energy Centre Annual Report](#).

18. Additionally, in response to the comment regarding variability in the ratio of bottom and fly ash, staff reiterated that the recorded weights relate to shipping from the facility, and that variability occurs on a month-to-month basis. With regard to Section 17.2 – Recommendations for 2023 (Page 49) reference to ‘expand and work on opportunities ... for optimizing reagent usage...’, staff were asked to advise on the changes made since the 2016 exceedance when the feed rate was adjusted and the Regions’ consultant, HDR, was addressing a valve-releasing carbon injection.
 - Staff advised that Covanta sets the reagent limits, confirming no changes have been made to the activated carbon. Lime rate is controlled based on CEMs measurements which is automatically controlled and adjusted based on controller calculations.
19. With regard to reference that some developers may be allowed by Durham to opt out of the Multi-Residential Program. Staff were requested if consideration is being made to update Durham’s Waste By-Law to mandate participation by new builds.
 - Staff confirmed the requirement to participate in all three streams exists if the building is expecting to receive Regional services. Legislation (Ontario Regulation 103-94 s.10) puts the onus on the building, and it is a legal matter with regard to whether Durham has jurisdiction to mandate capture—staff are currently in discussion with Legal and will be working with Durham solicitors to ensure residents are being provided with the opportunities to divert waste and are looking to assess issues encountered at some sites. Durham is unable to dictate the use of specific equipment and further, do not approve building plans, as this is the responsibility of the local area municipality. Durham sets standards for waste collection only and staff has indicated that it also depends on equipment specifications (old tri-sorters vs. new three chutes).
20. Staff were asked if the same practices identified on page 43 of the ECA Report is applicable to Durham files, and separately, with regard to the Streamlined EA capacity increase, if the MECP had mentioned in discussion with Durham and York Regions those requests submitted to MECP asking for improved monitoring plans and inclusion of additional parameters.
 - Durham follows the practices that are outlined on page 43 of the ECA.

- The Regions provided responses to the Municipality of Clarington in March 2022, and additional modelling was not included in the discussion.
21. It was questioned if the Region of Durham's Annual Waste Management Report could be released earlier than October, and instead be shared at a similar time as when the ECA Report is issued, with consideration to it having been made available, pre-DYEC, much earlier which also included its presentation to Works Committee.
- Staff confirmed the Annual Waste Management Report is not being held up administratively, with every effort made to publish the document as early as possible with considerations made to data analysis, file accessibility, and staffing workloads.
22. Staff were asked to consider scheduling the next annual meeting earlier in the year, and provide draft minutes within a reasonable time frame, with the inclusion of the requested follow up committed to by staff, as discussed during this meeting.
- Staff advised that draft minutes are anticipated to be issued within two months post-meeting, with date of next meeting confirmed.

Post-meeting note: The 2024 meeting is proposed to be held on **Friday, June 21** with time to be determined and members canvassed for availability.

Staff thanked members for providing comments and respective involvement in overseeing the Facility.

Meeting adjourned at 11:28 a.m.

Enclosed: December 2023 Update to EFWAC by A. Porteous, Supervisor, Waste Operations

Meeting attendees:

- A. Evans, Director, Waste Management Services, The Regional Municipality of Durham (member)
- M. Fareed, Contract Management Engineer, Waste Management, The Regional Municipality of York (alternate)
- L. Akeson, Manager, Waste Services, Town of Whitby (member)
- C. Jones, Director, Planning Regulation, Central Lake Ontario Conservation Authority (member)
- L. Gasser, Zero Waste for Zero Burning (member)
- W. Bracken, Durham Environment Watch (alternate)
- N. Ratnasingam, Climate Change Response Coordinator, Municipality of Clarington (member)
- B. Withrow, Facilitator, Meeting Facilitators International
- S. Mensour, Waste Coordinator, Town of Whitby (guest)
- A. Porteous, Supervisor, Waste Operations, The Regional Municipality of Durham (guest)
- B. Parayankuzhiyil, DYEC Facility Manager, Covanta
- S. Kaur, Environmental Specialist, Covanta
- L. Milne, Acting Director, Waste Management and Forestry Operations, The Regional Municipality of Durham (member)
- R. Jagannathan, Acting Commissioner, Works, The Regional Municipality of Durham
- G. Anello, Director, Waste Management Services, The Regional Municipality of Durham (alternate)
- K. Dykman, Supervisor, Waste Services, The Regional Municipality of Durham
- N. Williams, Project Manager, Waste Services, The Regional Municipality of Durham
- L. Waller, Works Technician, Waste Management Services, The Regional Municipality of Durham
- R. McCormick, Works Technician, Waste Management Services, The Regional Municipality of Durham
- M. Smart, Administrative Assistant, Works Department, The Regional Municipality of Durham
- R. Inacio, Corporate Services – Information Technology, The Regional Municipality of Durham