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Energy from Waste Advisory Committee (EFWAC) Meeting #17

Date: Friday, October 23, 2020

Location: Durham Region Headquarters – Council Chambers, from 2 p.m. to 4 p.m.

Facilitator: Bruce Withrow, Meeting Facilitators International

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

Attendees: Please see page 8 of 8

1. 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 2019 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.

Updates on the Emergency Amendment to the Environmental Compliance Approval

2. Due to the COVID-19 pandemic, an increase in waste and shift in its composition has occurred in Durham and York Regions (Regions). The Regions are forecasting that approximately 150,000 tonnes of waste will need to be processed this year and to manage this increase, above the facility's approved ECA of 140,000 tonnes per year (TPY), requested an Emergency Amendment to the Environmental Compliance Approval (ECA) from the Ministry of the Environment, Conservation and Parks (MECP) to an expansion to 160,000 TPY which was approved by the MECP and which will expire on December 31, 2020.
3. It was questioned if when the Provincial Order [issued under the Emergency Act] is lifted, it will automatically lift the MECP-approved Emergency Amendment to the ECA.

Staff confirmed that the Amendment will remain in place until its expiry date of December 31, 2020, issued by the MECP, and that 90 days following the end of a declared emergency, the Regions are to provide correspondence to the MECP to

advise on plan. If no contingency was used the MECP would be so advised, and input also provided on potential future considerations should a second wave occur.

4. With consideration to the estimated 150,000 tonnes of waste to be processed in 2020, it was asked of the Facility Manager the tonnes processed to date.

The Facility Manager confirmed to date, 109,000 tonnes had been processed.

5. In reference to the update summary provided by the Regions on the increase in waste received to date due to COVID-19, clarification on respective Regional values was requested, and if the increase was in total volume.

Durham Region: An increase in waste of approximately 15 per cent since the start of 2020, and an annual increase in total materials of approximately six per cent and of source separated organics at seven per cent. The tonnage has been relatively consistent, however, a shift in its composition to cardboard has occurred.

York Region: A year-over-year increase in waste of approximately 10 per cent with an increase in recyclables of 10 per cent.

Durham York Energy Centre Environmental Compliance Approval Annual Report – 2019

6. With regard to the system maintaining negative pressure [combustion air flow] and with consideration to the related containment test protocol inspections, it was questioned if there were instances where there were upsets in maintaining negative pressure.

Staff advised that when one or both boilers are in operation, the negative pressure in the tip hall is maintained and outages completed at the same time. With no boilers operational, louvers remain closed and odour walks and odour drives in the area are conducted to monitor odour. A micronutrient spray is also introduced during outages which ensure odours are minimized during outages. Additionally, waste is brought in the facility to fill the pit prior to boiler start-up. New waste acts as an odour buffer to the waste which remained in the pit during the outage, thereby minimizing the square footage of the waste exposed.

7. With reference to Section 9.2 regarding groundwater monitoring results, it was questioned what action was in place to deal with the elevated concentrations of chloride and sodium at Municipal Well 4 (MW4), attributed to salt-related runoff in the east storm water management pond, and an overview of the monitoring generally was requested, including maintenance of the pond and grounds around the facility.

Staff advised that in terms of the salt concentration, there is the potential of exfiltration with these ponds, however, they don't discharge commonly as they are an infiltration system. Flows and sizing of ponds have not seen much exfiltration and monitoring

results are in compliance with the ECA and Environmental Assessment (EA) limits. Staff are determining with the consultant if MW4, which existed before the facility was built, should be redrilled and local grade lowered. Additionally, the ponds were oversized for the ultimate sizing of the DYEC at 400,000 TPY and don't discharge often. The sediment was cleared out in 2016, following construction and prior to sod being laid. Covanta completes an annual inspection and staff will be discussing the facility's monitoring requirements and next steps with the MECP in 2021.

8. Concern was raised with regard to the development of a new AMESA Work Plan (Annual Report Sections 5.6 and 17.1 - Item 2), the reason why a report has still not yet been published identifying trends and monthly data, and when this report will be issued.

Staff confirmed that the ECA requirement has been met and they are proceeding in accordance with its direction, as written, as well as having confirmed that the Work Plan was submitted to the MECP (covering approximately 1.5 years) and following a next meeting with the MECP, and assessment of the data moving forward, staff will be reporting out to Regional Council and direction on a way forward will be forthcoming.

9. Staff were asked about the electricity generation at the site, including references in Section 4.2, and what powers the facility.

The facility is powered by parasitic load. Electricity to the grid creates revenues for the Owners (per PPA, \$0.08 per kilowatt hour per tonne of waste is received with CPI adjusted annually). Covanta continues to work on increasing kilowatt hours to generate more electricity and reduce liquidated damages, paid by Covanta when they do not meet the required output of 767 kilowatt hours per tonne of waste.

Covanta advised that each grapple load, equal to two tonnes, and each tonne produces 750 kilowatt hours equivalent to that used by a typical Ontario home in a month, and efficiencies continue to be made to push more power out to the grid (reduce site power use, energy from trash powers site, etc.).

10. It was noted that in past reports, the surface water monitoring program was suspended until the construction of Highway 401/418 interchange was completed. It was questioned that as this construction is nearing completion, whether the program will resume and be included in the 2020 annual report.

The MECP extended the exemption for surface water monitoring due to the increase in activities anticipated over the next few years. On an annual basis and in consultation with the MECP, staff will continue to assess when the program will resume.

11. Staff were questioned why the single AMESA run was compared to the average of the three method sampling runs instead of comparing each to the reference method run.

Staff advised that whether AMESA required a longer sampling period in order to get a more valid result was a question raised for the Work Plan, and in order to see if a more stable result could be determined, three sampling runs were conducted 1) four hours with 12 hours on cartridge, 2) four hours with two change outs and then 12 hours on cartridge, and 3) three four-hour tests. The results were improved but not enough, and a correlation was not obtained. Staff continued with the Work Plan.

12. With regard to the figure identified for bypass waste, Durham Region was questioned how much waste they (only) bypassed in the 2019.

Staff confirmed that 13,675 tonnes of waste was bypassed for Durham Region and clarified that as this is not included as it is not a requirement of the annual report.

- Staff were asked to consider inclusion of this information in future annual reports.

13. It was questioned if both Regions are reviewing monthly AMESA results.

Durham and York staff confirmed they receive a verbal update at monthly meetings which includes timing of insertion and removal of the cartridge and provision of available data. Staff advised there is an approximate turnaround time following submission of the results to the lab of one month.

Streamlined Environmental Assessment

14. In follow up to the presentation at the last meeting regarding the capacity increase impacts from 140,000 to 160,000 TPY which advised there would be no impact to the infrastructure, only permitting requirements to allow the increase to incoming waste at the site, the Owners are preparing for submission of the Streamlined EA. The MECP requested the Owners complete a full update to the Emissions Summary Dispersion Model Report (CALPUFF and meteorological data) which has a 10-year life, and the complete Environmental Screening Report (ESR) will be made available for public comment.

15. Clarification was requested regarding the end process and related steps of a Streamlined EA, and if the comment period is a submission to the MECP (via Environmental Registry of Ontario) or via the Regions.

It was confirmed that the process of a Streamlined EA creates an amendment to the ECA permit, and once the ESR is complete, a Notice of Completion is published for a 60-day review period, when requests for project elevation can be made. Comments are submitted to the MECP and provided to the Regions.

16. It was suggested that as it relates to Item 45 of the EA Audit Table summary included in Appendix D2 of the 2019 Third Party Audit Report summary and further to Condition 10.3 of the EA, that a description of at source diversion programs at Regional and

lower tier levels be included in the Annual Waste Management Diversion report. It was requested that as done last in 2017, this breakdown be included in the Waste Diversion Report.

Staff will take this under advisement.

17. It was questioned, further to the updates currently being undertaken for the Streamlined EA to 160,000TPY, if and when the public will be provided an opportunity to comment on the draft file, and if the new sulphur dioxide limits coming into effect in 2023 and Canadian Council of Ministers of the Environment's (CCME) Canadian Environmental Quality Guidelines (CEQGs) will be used when updating the ESDM.

Staff advised that the draft is being issued to the MECP and a record of consultation on questions from the public will be created.

Staff confirmed that the new SO₂ limits are included, and as CCME refers to ambient air quality and not an indication of the Ontario Regulation 419 ESDM modelling, it will be reported against MECP standards, as required by the MECP.

It was clarified that the Terms of Reference for the expansion to 250,000 TPY was approved by Durham Region Council to issue a Notice of Commencement and prepare a Consultation Plan. A Notice has not been issued as the Regions continue discussion on the Plan, including other considerations, with the MECP, while also determining a way forward, considering related timing, internally with legal, finance, and technical staff from both Regions.

Timing for Notice for the expansion to 250,000 TPY is undetermined and most likely not to occur this year.

18. With reference to Section 2.2 Waste Source, which indicated that waste was exclusively curbside, it was questioned if non-hazardous, non-divertible waste from other transfer stations went to the DYEC.

Staff advised that waste from the Waste Management Facilities via the transfer stations operated by Pebblestone, Pickering and Courtice are sent to the DYEC via the Courtice Waste Management Station.

- It was suggested to staff that the first sentence in this section should reflect this clarification.

19. In follow up to reference made in May 2019 by Durham Region staff in Report #2019-COW-8 and with regard to DYEC capacity, it was identified that a report would be presented in September 2019 which would describe the impacts of Durham Region's proposed Anaerobic Digestion (AD) facility on the DYEC. Has this report been prepared, and if so, what is the report number, and if not, when is this expected to be

presented to Council. Additionally, it was anticipated that the forthcoming report would discuss the impact on emissions, electricity generation, and not just the tonnage reduced from the DYEC.

Staff advised that a separate report was not prepared to identify the impacts of the AD and DYEC, and that the waste flows were modeled as done in the business case, to ascertain what the tonnage of waste between the facilities was and the impact was a decrease of 30,000 tonnes sent to the DYEC. The business case modelling also assessed electrical generation.

Staff to determine in what report(s) this information can be referenced.

20. As a follow up to the Third Party Audit Report and in reference to the previous audit findings, it is identified that MECP meetings are not documented by the Regions—why not and how can agreements reached between the Regions and MECP be tracked.

Staff clarified that referenced monthly meetings, now held quarterly, are not decision-making meetings. Staff provide updates on operations to the MECP, and these agenda items for discussion are included in the annual report(s) submitted to the MEPC. Decisions between the parties are prepared in writing and posted to the project website.

21. With regard to Durham Region's attempt to reach 70 per cent diversion, and current standing at 63 per cent, it was questioned what key factors are keeping Durham Region from reaching that long-term goal.

Durham Region staff confirmed the real issue is organics and are focusing on food waste reduction with their promotion and education campaigns, and implementing the mixed waste pre-sort and AD facility, with the possible consideration to expanding the list of accepted items (pet waste and diapers) which will increase diversion.

In response to additional discussion regarding Durham Region's consideration of at-source separation versus mixed waste pre-sort, staff advised the need for mixed waste pre-sort would address the pet waste in black bags which represents approximately 20 per cent while the remaining 80 per cent represents other organics, food waste, sanitary products.

22. It was asked if the 25,778 tonnes of bottom and fly ash reported is included in the 63 per cent diversion reported, and if it included cement or only fly ash, and where the fly ash is sent.

Staff confirmed that the fly ash includes reagents in the processing such as cement and pozzolan, and goes to Walker Brothers Landfill. In 2019, bottom ash and fly ash

was sent to Walker Brothers Landfill. However, in 2020 bottom ash is being sent to Modern Landfill in New York due to insufficient capacity at Walker Brothers Landfill.

Durham Region's Mixed Waste Pre-Sort and Anaerobic Digestion (MWPS/AD) Facility

23. In response to questions about whether mixed waste creates more dirty recyclables, and if it isn't cleaner for source separation, staff advised that the main objective of the MWPS/AD is to remove the organics, and the second is to remove non-combustibles as no energy is a waste of capacity to the DYEC.

Durham Region's Long-Term Waste Management Plan (LTWMP) (2021-2040)

24. Durham Region staff provided an update on the LTWMP advising that in early 2020, HDR was hired to complete a review of the plan, a project which would span two years with consultation scheduled in 2020 (virtually due to COVID-19) with internal departments, local area municipalities, advisory committees, and residents. A dedicated LTWMP web page at Durham.ca is available and includes access to the current survey (until November 2, 2020), with additional opportunities being coordinated to host a virtual Town Hall with questions and answers which will inform a presentation and report presented to Durham Region Council in 2021, following which a draft five-year action plan which will be made available for comment by members of the public.
25. Staff were asked to review the new DYEC website, with consideration to the Streamlined EA and future expansion to 250,000 TPY, to make the related documents easily searchable and visible online, including move of the Waste Diversion Reports from the Education and Resources drop-down menu option.
- Staff advised they will review the site and see where there may be options for it to be more intuitive.

No comments on the minutes of July 10, 2019, were received post meeting.

Meeting adjourned at 4:02 p.m.

Meeting attendees:

G. Anello, Director, Waste Management Services, The Regional Municipality of Durham (member)

L. McDowell, Director, Environmental Promotion and Protection, The Regional Municipality of York (member)

M. Fareed, Contract Management Engineer, Environmental Promotion and Protection, The Regional Municipality of York (alternate)

M. Whitbread, Manager, Operations and Policy Research, Parks and Environmental Services, City of Oshawa (alternate)

P. Thistle, Superintendent of Solid Waste, Town of Whitby (member)

F. Langmaid, Director, Planning Services, Municipality of Clarington (member)

A. Burke, Senior Planner – Special Projects, Municipality of Clarington (alternate)

C. Jones, Director, Planning Regulation, Central Lake Ontario Conservation Authority (member)

L. Gasser, Zero Waste for Zero Burning (member)

K. Meydam, Durham Environment Watch (member)

W. Bracken, Durham Environment Watch (alternate)

B. Withrow, Facilitator, Meeting Facilitators International

M. Neild, Facility Manager, Covanta

A. Porteous, Supervisor, Waste, The Regional Municipality of Durham

A. Evans, Project Manager, Waste Planning and Technical Services, The Regional Municipality of Durham

L. Waller, Works Technician, Waste Management Services, The Regional Municipality of Durham

M. Smart, Administrative Assistant, Works Department, The Regional Municipality of Durham

M. White, Corporate Services – Information Technology, The Regional Municipality of Durham