

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.



# The Regional Municipality of Durham Information Report

---

From: Commissioner of Works  
Report: #2021-INFO-10  
Date: February 5, 2021

---

**Subject:**

Odour Mitigation Strategies for the Mixed Waste Pre-sort and Anaerobic Digestion Facility

---

**Recommendation:**

Receive for information

---

**Report:**

**1. Purpose**

1.1 This report will provide an overview of odour mitigation strategies that may be used at the Mixed Waste Pre-sort and Anaerobic Digestion Facility including proven technologies already in place at the Durham York Energy Centre.

**2. Background**

2.1 In 2020 multiple informational memorandums and Council Information Reports were issued to provide background information on the anaerobic digestion process, existing pre-sort and anaerobic digestion facilities and how the Mixed Waste Pre-sort (MWP) and Anaerobic Digestion (AD) Facility will support Durham's Integrated Waste Management System.

2.2 The informational memorandums also provided some details on the compliance obligations for the planned MWP and AD Facility starting with the Environmental Assessment requirements. Additional background on compliance obligations will be provided in 2021.

### **3. Previous Reports and Decisions**

- 3.1 In 2020 multiple information reports and memos were issued to provide background information and details on Mixed Waste Pre-sort and Anaerobic Digestion to Council and the public:
- a. 2020-INFO-80 Anaerobic Digestion Facilities;
  - b. 2020-INFO-76 The Regional Municipality of Durham's Evolving Waste Management System;
  - c. 2020-INFO-70 Environmental Assessment Trigger for the Mixed Waste Pre-sort and Anaerobic Digestion Project;
  - d. July 10, 2020 Interoffice Memorandum Current Waste Tonnage: Organics and Mixed Waste;
  - e. July 3, 2020 Mixed Waste Pre-sort and Anaerobic Digestion Informational Resources and Communication; and
  - f. June 15, 2020 Mixed Waste Pre-sort Facilities.

### **4. Odour Mitigation**

- 4.1 The MWP and AD Facility will strive to meet zero odours off-site. Similar to the Durham York Energy Centre (DYEC) operations, this will be accomplished by a combination of physical and administrative controls.
- 4.2 The Request for Proposal for the design, build, operate and maintain contract will include requirements for the successful contractor to include odour reduction and mitigation measures in the design of facility. The successful contractor will also be responsible for meeting all Environmental Compliance Approval obligations for odour management.
- 4.3 The DYEC employs several control measures to minimize odour from waste handling operations. Similar controls, as appropriate, may be used at the MWP and AD facility. These controls include:
- a. No outdoor waste storage;
  - b. Minimize queuing of trucks on-site by scheduling deliveries;
  - c. Regular site inspections and removal of any fallen waste;
  - d. Require waste delivery trucks to be tarped when entering and exiting the site;
  - e. Maintain negative air pressure on the waste tipping floor; and

- f. Tipping floor doors remain closed except when vehicles enter or leave the facility.
- 4.4 These control measures have proven to be effective odour management practices at the DYEC. None of the odour complaints for the area have been attributed to DYEC operations.
- 4.5 Odour management requirements will also be included in the Environmental Compliance Approval for the MWP and AD Facility. These requirements will likely include keeping doors closed, restrictions on outdoor storage of waste, housekeeping requirements and preparation of an Odour Management and Mitigation Plan.

## **5. Existing AD Facilities**

- 5.1 The City of Toronto operates the Dufferin and Disco Road anaerobic digestion facilities. These facilities both maintain waste operations indoors and under negative air pressure. The exhaust air is filtered through a biofilter prior to release to the atmosphere. These facilities also employ house keeping and administrative controls to minimize odour emissions.
- 5.2 The City of Toronto directs residents to call 311 for odour concerns for the facilities. There have been no odour complaints for the City of Toronto AD facilities.
- 5.3 Woolwich Bio-En Power Inc. owns and operates an AD facility in Elmira, Ontario. This facility employs a biofilter for exhaust air and must maintain less than one odour unit at the property line. The facility recently presented a proposal to increase processing capacity to Woolwich Council that was positively received.
- 5.4 Anaerobic digestion facilities are common in European countries where they are frequently located in urban areas to provide district heating opportunities. These facilities operate successfully in the communities in which they are located.

## **6. Conclusion**

- 6.1 Similar to the Durham York Energy Centre, all Mixed Waste Pre-Sort and Anaerobic Digestion Facility operations will be conducted indoors in buildings with odour control measures in place. It is anticipated that off-site odours from the Mixed Waste Pre-Sort and Anaerobic Digestion Facility will be minimal and not impact the surrounding area.

6.2 For additional information, contact: Gioseph Anello, Director, Waste Management Services, at 905-668-7711, extension 3445.

Respectfully submitted,

**Original signed by:**

---

Susan Siopis, P.Eng.  
Commissioner of Works