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The Regional Municipality of Durham Information Report

From: Commissioner of Works
Report: #2021-INFO-20
Date: February 19, 2021

Subject:

Management of Toxics in the Environment

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to explain how Canada and Ontario regulate and limit the introduction of toxics to the environment and how the Regional Municipality of Durham's (Region) waste management programs provide residents with safe disposal options for products containing toxic substances.

2. Background

2.1 At the January 27, 2021 Council Meeting there was discussion on the management of toxics in the environment related to solid waste management resulting in a request for more information.

2.2 The common definition of toxic is a poisonous substance. Most chemicals in use today are considered poisonous if exposure is high enough in quantity. Regulators focus on limiting the use of substances considered the most highly poisonous and minimizing exposure to other substances.

2.3 The manufacture or import of toxic substances is regulated at the federal level by Environment Canada and Health Canada prior to the substances entering the market.

- 2.4 The transportation, storage and emissions from the use of toxic substances are regulated both federally and provincially.
- 2.5 Disposal by industry or businesses of materials containing toxic substances is regulated under provincial waste regulations.
- 2.6 Most municipalities in Ontario operate household hazardous waste programs to collect and properly dispose of consumer products containing toxic substances. Financial and operational responsibility for this program is scheduled to transition to Extended Producer Responsibility on July 1, 2021.
- 2.7 Emissions of toxics or compounds of concern in Ontario are regulated in Environmental Compliance Approvals for air, water and land emissions.

3. Management of Toxic Substances

Federal Programs

- 3.1 Canada's Chemicals Management Plan (CMP) is the federal program to track the manufacture and use of all chemical substances in commerce in Canada. This is the basis for regulating what chemicals are made or imported for use in manufacturing consumer products in Canada. This program does not measure, monitor or regulate releases of chemicals but is a program to collect information on the quantities of a particular chemical substance in commerce in Canada.
- 3.2 The Region does not report under the CMP, as the Region only purchases products that are commercially available for use in its operations. Examples of where such products are used by the Region include water and wastewater treatment facilities, cleaning of Long-Term Care Homes and Regional offices, road repairs and maintenance.
- 3.3 Releases of toxics or pollutants to the air, water or land are reported annually to Environment Canada as part of the National Pollutant Release Inventory (NPRI). Facilities that manufacture or use prescribed substances above the regulated threshold level must report the quantity of the substance released as air emissions, wastewater or disposal.
- 3.4 NPRI does not establish release limits but only gathers data on the quantity of each substance that is released. Waste incinerators and large wastewater treatment plants are typically obligated to report. The Durham York Energy Centre (DYEC) reports pollutant releases under this program. A review of the NPRI data for other major facilities within the Durham area shows that the DYEC air releases

are lower for the majority of reportable pollutants. Emissions of dioxins and furans and heavy metals are lower from the DYEC than other reporting industry in the area.

Ontario Programs

- 3.5 Ontario's Toxics Reduction Act and associated regulations are intended to reduce the use and creation of toxic substances by manufacturers. Prescribed companies in Ontario are required to report on the quantity of designated toxic substances used and develop plans to reduce the use of each substance. Implementation of developed plans is voluntary.
- 3.6 Municipal waste management operations are not subject to the Toxics Reduction Act.
- 3.7 The Toxics Reduction Act and associated regulations are repealed effective December 31, 2021. The Environmental Registry of Ontario notification of the repeal of the Act stated that the program did not result in meaningful reductions in the use of toxic substances in Ontario.
- 3.8 Air, water and land emissions from waste disposal facilities in Ontario, such as landfills, compost facilities and the energy from waste facility, are regulated under provincial regulatory limits and facility specific Environmental Compliance Approvals (ECA). Emissions limits are imposed on the Region's closed landfills and the Durham York Energy Centre. The DYEC limits are equal to or lower than the provincial guidelines for emissions from EFW facilities. The planned Mixed Waste Pre-sort and Anaerobic Digestion Facility will also be subject to ECA limits established by provincial regulators which may include but not be limited to odour control measures, process water requirements and digestate management quality.

4. Waste Management Responsibility and Influence

- 4.1 The Region has no influence on the chemical substances that are imported or used by manufacturers in consumer products.
- 4.2 The Region operates several programs to divert consumer products containing toxics out of the garbage stream. These programs include the used tire program, used battery collection program, used electronics program and the household hazardous waste program. Three of these programs have transitioned to full Extended Producer Responsibility (EPR) under Ontario regulations. The household hazardous waste program is the final program to move to full EPR and

is scheduled for transition on July 1, 2021. Under EPR the producers of designated products containing toxics are responsible for program management and meeting provincial targets.

- 4.3 The first objective of the Long-term Waste Management Plan (LTWMP) is to educate and engage with residents on the 5Rs. The first two Rs, Rethink and Reduce, encourage consumers to rethink purchases before they buy and to reduce consumption. Enhancing these practices would reduce the quantity of toxic substances purchased and eventually disposed of by residents.
- 4.4 The Region is forecast to see significant population growth over the coming decades. This growth will result in a corresponding increase in the generation of garbage, recyclables, organics and household hazardous waste; all of which could increase the impacts on the environment. The LTWMP will consider the management of each waste stream through regulated programs and operating our facilities within the approved limits.

5. Relationship to Strategic Plan

- 5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. To protect the environment for the future by demonstrating leadership in sustainability and addressing climate change.

6. Conclusion

- 6.1 The Regional Municipality of Durham has limited influence on the various factors that determine the quantity of toxic material that enters the environment. The Regional Municipality of Durham will continue to provide diversion opportunities for consumer products that contain toxic substances. Resident education about the importance and availability of these programs will continue to be a focus.
- 6.2 The Durham York Energy Centre source test report will be presented in March and will demonstrate that the plant performance is resulting in emissions well below the stringent limits.

6.3 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