

Reducing Canada's Landfill Methane Emissions Proposed Regulatory Framework, Environment and Climate Change Canada

Overview

Oxford County is a regional municipality in Ontario with a population of approximately 122,000 and is responsible for delivering municipal solid waste management services to eight (8) Area Municipalities. Waste management services includes curbside garbage and recycling collection services, as well as the processing of municipal solid waste at the Oxford County Waste Management Facility (OCWMF).

The County owns and operates one active municipal non-hazardous solid waste landfill site and eight (8) closed municipal landfill sites. The eight (8) closed landfills have been closed since the 1980s and therefore will not be impacted by the proposed regulation. The OCWMF was commissioned in 1986 and in 2022 received approximately 80,000 tonnes of mixed solid waste of which approximately 47,000 tonnes was landfilled.

Due to rated landfill capacity at the OCWMF, installation of landfill gas collection and flaring system (LGCFS) was required under provincial regulatory requirements. The LGCFS system has been in operation since mid-2010 and consists of 18 vertical extraction wells and a mechanical pumping system that draws gas to the flare for combustion. The estimated total methane gas generated annually at the OCWMF is in the order of 3,900 tonnes and as a result, a methane generation assessment will be required under the proposed federal regulatory framework.

Oxford County has been very successful in diverting biodegradable material from landfill over the last 15 years, including, but not limited to, actively promoting backyard composting to reduce residential yard and food waste, yard waste collection and the diversion of construction and demolition material. Oxford County has committed to Zero Waste with the goal of diverting 90% of waste to extend landfill capacity to 2100.

In support of its Zero Waste goal, the County recently completed a review of organic waste resource recovery technologies to identify a preferred alternative for the processing of organic waste collected from a potential source separated collection program to meet Provincial diversion targets by 2023.

Comments

Oxford County fully supports the initiative by ECCC to regulate and control methane emissions from Canadian landfills that contribute to greenhouse gas emissions. This approach will promote consistency, transparency, and introduce a defined framework for landfill methane measurement. We are pleased to offer the following inputs to be considered in the final proposal.

Time Constraints

Under the proposed regulatory framework, owners of landfills will have 1-2 years to meet performance and compliance requirements. This may present a challenge to some Municipalities, especially those whose landfills do not already have an engineered methane control system. Moreover, budget for such projects

will need to be captured in the annual municipal budget and approved by Council which may sometimes delay access to funds.

It is also worth mentioning that the narrow compliance period will lead to high competition for resources such as contracting experts, procurement of equipment, and installation of infrastructure. The County recommends that further consideration be given to the implementation timeline to avoid undue stress on resources and supply chain demands.

Funding

Compliance with the proposed regulation will require financial investment in terms of system implementation/upgrades and/or expanding on existing monitoring and measurement programs. This will impact annual capital budgets and could potentially pose a heavy financial burden for smaller municipalities with limited resources. The County would therefore encourage the Federal Government to consider sponsoring funding programs for municipalities that do not have the financial resources to comply with this proposed regulation.

Proposed Regulatory Requirements

Oxford County does not have any objection to the requirements outlined in the proposed regulatory framework in principle. However, we have identified the following concerns for consideration:

- (i) Streamlining reporting requirements:
Municipalities in Ontario are already subject to Provincial regulatory requirements in relation to landfill gas control systems. It would seem practical for the proposed federal regulation to incorporate existing provincial requirements for cost and operational efficiencies.
- (ii) Reliability of drone-based technology:
Drone-based methane monitoring is an emerging technology, and although it has seen some successes, it is still evolving. We strongly recommend that the reliability and practicality of this method under various circumstances be tested and proven before it becomes a mandatory requirement.

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