

SCS TECHNICAL BULLETIN

LANDFILL METHANE REGULATION (LMR) FOR MUNICIPAL SOLID WASTE LANDFILLS IN CANADA

June 8, 2026

Overview of the Regulations

Canada's Landfill Methane Regulation (LMR) aims to reduce methane emissions from landfills through performance-based approaches, requiring monitoring, reporting, and compliance with specific thresholds. The LMR is part of Canada's broader climate strategy and is designed to significantly reduce methane emissions, which are a potent greenhouse gas. The LMR took effect on December 31, 2025, and will introduce new obligations for both open and closed landfills over the next decade. Attached please find a summary of the new LMR.

With the submittal of methane generation assessments by June 10, 2026, many landfills will trigger additional stringent requirements for landfill gas (LFG) collection and control systems, monitoring, and compliance reporting.

About SCS Engineers

SCS Engineers (SCS) is the largest solid waste consulting, engineering, and contracting firm in North America and aim to assist landfills in Canada with their compliance obligations. SCS's special expertise is LFG engineering, compliance, operations and maintenance (O&M), monitoring, and construction. We have extensive experience with the federal LFG regulations in the United States as well as with state-level LMRs in California, Oregon, Washington, Maryland, and Colorado upon which the Canadian rule was modeled. In recognition of this expertise, SCS was hired to Environment Climate Change Canada (ECCC) to complete special studies that were used during the rulemaking process for the Canadian LMR. SCS also has a long history of work at Canadian landfills, including engineering and related services at over 40 landfills in 8 provinces.

The SCS team would be glad to work with you on your LMR compliance. As a first step, we would recommend long-term LFG planning, including budgeting, to develop a master plan for LMR compliance.

For more information contact:

[Pat Sullivan](#), REPA, CPP, BCES, Senior Vice President

<http://www.scsengineers.com>

SUMMARY OF REGULATION

Applicability

The LMR applies to:

- Municipal solid waste (MSW) landfills that disposed waste after January 1, 2010, AND have 450,000 tonnes of waste in place (WIP), excluding exemption portions of the landfill.

OR

- Landfills that have greater than 200,000 tonnes WIP AND disposed over 25,000 tonnes in 2025 or any subsequent year, excluding exemption portions of the landfill.

Exemptions

The following landfill types are exempt if they only accept the following wastes:

- Hazardous waste.
- Waste from forest products.
- Non-degradable waste.
- Construction and demolition (C&D) waste.

Portions of certain landfills may be exempt if:

- Non-contiguous areas,
- Did not accept waste after January 1, 2010, and
- Final cover in place.

Methane Generation Assessment

Each applicable landfill, which does not meet exemption criteria, must submit a methane generation assessment (MGA) by June 10, 2026 (or by June 1 of the next year after a landfill meets applicability criteria).

Methane Generation Thresholds

Based upon the MGA, the following scenarios may be required:

- For active sites for a specific year's reported MGA:
 - <664 tonnes: submit an MGA every year by June 1 until the site has above 664 tonnes or it closes.
 - >664 tonnes: sites will have additional compliance obligations under the LMR.
- For closed sites for a specific year's reported MGA:
 - <1000 tonnes: no further obligations.
 - >1000 tonnes: sites will have additional compliance obligations under the LMR.

Methane Control Requirements Applicability

When additional requirements beyond the MGA are triggered, the following requirements must be met:

- After the MGA in 2026:
 - >1,000 tonnes of methane and an existing landfill gas (LFG) recovery system
 - Comply with full rule requirements by January 1, 2028, for the areas cover by the LFG system.
 - The LFG system must be expanded into areas without coverage by January 1, 2029.
 - >1,000 tonnes of methane without an LFG system
 - Install an LFG system and comply with full rule requirements by January 1, 2029.
 - <1,000 but >664 tonnes
 - Install an LFG system and comply with full rule requirements by January 1, 2035.
- For MGAs after 2026:
 - >1,000 tonnes
 - Install LFG and comply with the LMR by January 1 of the 4th year after exceeding threshold.
 - <1,000 but >664 tonnes
 - Install an LFG system and comply with full rule requirements by January 1, 2035, or January 1 of the 4th year after exceeding, whichever is later.

- Applications for new or modified LFG systems are due 180 days prior to the final compliance deadline.
- Two-year extensions on final compliance deadline are available due to delays in procurement, delivery, construction, or delays in regulatory approvals.

Methane Control Requirements

Landfills that trigger the full LMR requirements must meet the following methane control requirements:

- No direct venting of methane to the atmosphere except under limited circumstances.
- LFG system must include control devices that will destroy methane by 98%.
 - Options include enclosed or open flares, engines, turbines, boilers, treatment system, etc.
 - Biofilters when methane concentrations are less than 25%.
- Source testing is not required.
- Methane emissions less than the defined thresholds:
 - 500 parts per million by volume (ppmv) at a single location.
 - 25 ppmv zone average across 4,500 m² grid.
 - 500 ppmv equipment leak standard.

Surface Emissions Monitoring (SEM) Requirements

- Required 3 times per year.
 - Before May 31, between June 1 and August 31, and after September 1, separated by at least 60 days.
- Annual SEM for closed landfills or closed areas of active sites if they have final cover.
- Areas that only accepted waste in last 12 months are exempt.
- Both instantaneous and integrated (zone-average) SEM required.
- Must follow U.S. Environmental Protection Agency (USEPA) Method 21 or OTM-51. Alternative monitoring methods allowed if

approved by Environment Climate Change Canada (ECCC).

- Monitoring required:
 - Serpentine path across the landfill surface at 30-meter spacing, offset 10 meters during each subsequent event.
 - Around the landfill perimeter.
 - At each cover penetration.
 - Other locations of concern, including >200 ppmv readings during previous SEM events.
- Follow-up for exceedances:
 - Within 30 days, confirm/correct exceedance and remonitor or prepare plan to resolve.
 - Within 6 months, remediation must be complete unless extension granted.

Methane Leak Monitoring

- Required 3 times per year.
 - Before May 31, between June 1 and August 31, and after September 1, separated by at least 60 days.
- Must follow U.S. EPA Method 21. Alternative monitoring methods allowed if approved by ECCC.
- Monitoring required:
 - All equipment that contains LFG unless there is serious risk to health and safety.
- Follow-up for exceedances:
 - Within 30 days, confirm/correct leak and remonitor or prepare plan to resolve.
 - Within 90 days, remediation must be complete unless extension granted.

LFG Well Monitoring

- Monthly monitoring using industry standard methods.
- All operational wells except those in construction areas or ones offline to prevent or extinguish a subsurface fire.
- Standards:
 - Vacuum: >0.5 inches of water vacuum
 - Oxygen: <5%
 - LFG flow present.
 - Certain wells exempted:
 - Methane <25% and final cover.
 - Inaccessible.
 - Where continuous monitoring is in place.
 - Decommissioned wells, not operating for 30 days.

- Visual inspection for damaged components.
- Follow up to identified conditions:
 - Prior to or as part of next monthly event, resolve any vacuum, oxygen, or flow issues.
 - Complete leak monitoring on damaged wells.

Recordkeeping and Reporting

- Keep all records related to LMR compliance for 5 years.
- Annual compliance reports due on June 1 of the subsequent year, for landfills subject to the full LMR requirements.
- Reports submitted through ECCC's Regulatory Services Platform.

Responsible Parties

The following parties are responsible for LMR compliance:

- Landfill owner/operator: all compliance obligations.
- LFG treatment system owner/operator: management of emissions from the treatment system.
- LFG management system owner/operators: leak monitoring of LFG system components.

Enforcement

ECCC will implement and enforce the LMR in accordance with the ECCC's Compliance and Enforcement Policy.

Equivalency Agreements

The LMR is applicable in addition to any provincial or territorial regulations. If there is overlap, ECCC may develop an equivalency agreement with the provinces/territories provided the provincial/territorial regulations will achieve the same outcomes as the federal LMR. In such a case, the federal LMR would no longer apply in that jurisdiction.