



# Comparing British Columbia and Federal Oil and Gas Methane Emissions Regulations

## A FACT SHEET FOR POLICY-MAKERS

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This fact sheet presents the results of a comprehensive review comparing British Columbia’s methane emissions rules to the federal regulations. BC finalized their methane regulations in early 2019.

BC regulations have strong elements, representing best practices and in some cases exceeding the federal rules. In particular, BC rules require new pneumatic devices and some existing ones to be zero emitting. BC also include a three times per year inspection requirement for gas processing plants, compressor stations, and some batteries. However, there is room for improvement on tank venting limits

and leak detection and repair. Comprehensive leak detection should be required in the regulations, not guidance documents which don’t have strong enforcement requirements. Storage tank venting limits are also much higher than the federal rule.

Using five key areas of methane oil and gas regulation best practices, we compared BC rules to best practices. This comparison identifies improvement opportunities that could be implemented to align with such practices in order to achieve the same or better emissions reductions as the federal regulation.

Key Aspects	Best Practices	Federal Regulation	Provincial Regulation	How it Compares	Improvement Opportunity
1. Achieves ambitious methane emission reductions across multiple segments of the oil and gas sector and from all significant emission sources, new and existing.	1.1. Mandatory, performance-based standards.	Federal regulation establishes mandatory performance-based standards.	Regulation establishes mandatory performance-based standards (Sections 44 and 52).	Meets best practices	
	1.2. Effectively targets largest emissions sources.	Federal regulation effectively targets largest emission sources.	Regulation targets largest emission sources but venting limits, LDAR survey requirements need improvement.	Needs minor improvement	Set lower tank venting limits and require frequent LDAR at conventional facilities.
	1.3. Limited, and clearly circumscribed, exceptions.	Federal regulation establishes limited and clearly circumscribed exceptions maintaining strict limits for the largest emissions sources.	Regulation establishes limited and clearly circumscribed exceptions.	Meets best practices	

2. Reduce designed and intentional venting from pneumatics and compressors.	2.1. Engineer and design new pneumatic devices and pumps to be zero or near zero emitting. (e.g. use electricity or instrument air in lieu of natural gas as power source)	Federal regulation sets venting limits for new devices. (Section 37.1) No emissions are allowed from new pneumatic pumps (Section 39.1) with exceptions for infrequently used pumps.	Regulation requires new pneumatic devices and pumps to be zero emitting (Sections 52.05, 52.06, 52.07).	Meets best practices	
	2.2. Retrofit existing pneumatic devices and pumps to be zero or near zero emitting (e.g. replace high-bleed pneumatic devices with low or zero-bleeds).	Federal regulation sets a venting limit for existing pneumatic devices (Section 37.1) and requires no emissions from existing pneumatic pumps with exceptions for infrequently used pumps (Section 39.1).	Regulation requires some existing pneumatic devices to be non-emitting, and sets a venting limit on others. No rules for existing pneumatic pumps.	Needs minor improvement	Require existing pumps to be low or non-emitting.
	2.3. Reduce intentional venting from compressors.	Federal regulation establishes a venting limit for compressors that is ambitious and aims to reduce intentional venting. (Section 18 and Section 50)	Regulation sets limits on venting from compressors (Section 52.04).	Meets best practices	
3. Reduce venting and flaring from storage tanks and oil well-heads.	3.1. Reduces venting of gas from tanks.	Federal regulation establishes an annual venting limit for facility that is ambitious and aims to reduce venting of gas from major sources including tanks.	Regulation establishes a venting limit for tanks but it is not ambitious in comparison with best practices.	Needs minor improvement	Reduce venting limit for tanks to align with best practices such as in the federal rule.
	3.2 Reduce venting of gas from oil wellheads (Includes solution and associated gas).	Federal regulation sets an annual venting limit for facility that is ambitious and aims to reduce venting of gas from major sources including solution gas venting.	Regulation doesn't establish venting limits aiming to reduce emissions from well-heads.	Needs minor improvement	While establishing a limit is best practice, based on current inventory, well-heads not a significant source of emissions in BC due to low oil production.
	3.3. Limit flaring of gas; only allow where capture is infeasible.	Federal regulation doesn't establish a requirement limiting flaring of gas.	BC flaring and venting reduction guidelines only allow flaring when capture is not economic.	Meets best practices	
	3.4. Require use of high efficiency flares and combustors.	Federal regulation doesn't establish a requirement to use high efficiency flares but advises following provincial rules (Section 9) which don't require the use of high efficiency flares.	Regulation includes flare performance requirements but doesn't establish a minimum flare efficiency.	Needs major improvement	Require a 98% destruction efficiency for flares and combustors.
4. Regular leak detection and repair (LDAR).	4.1. Quarterly inspections of well sites, gas processing plants, compressor stations, tank batteries.	Federal regulation requires inspections three times per year for all but single well heads (Sections 30 (3); 52).	Regulation requires 3 times/year surveys at gas plants, compressor stations, multowell batteries and single well batteries with controlled tanks. Most single well batteries and tight gas wells only require 1 time/year LDAR, while conventional wells only require screening.	Needs minor improvement	Include inspection requirements for co-located facilities in regulation, not just guidance materials.
	4.2. Comprehensive inspections that apply to all sources with the potential to leak, unintentionally vent or abnormally operate.	Federal regulation requires LDAR inspections on all sources including thief hatches and pneumatic devices.	Regulation requires LDAR for all sources with potential to leak including pneumatics.	Meets best practices	
	4.3. Include robust alternative compliance pathway that allows for the use of emerging technologies that are as effective in reducing emissions as allowable instruments and that is subject to public input and regulatory review.	Federal regulation establishes robust alternative compliance pathway (Sections ; 29; 35; 50).	Regulation does not include robust alternative compliance pathway.	Needs major improvement	Include alternate compliance pathways in the regulations.
5. Record keeping, reporting and measurement	5.1 Include robust, detailed, site-specific record keeping provisions, demonstrating compliance with each of the mandatory methane reduction measures.	Federal regulation requires comprehensive site level record keeping by source type (Sections 6; 7; 10; 12; 19; 25; 27; 36; 38; 45; 48; 51; 53; 56).	Regulation and guidance materials establish comprehensive requirements for record keeping.	Meets best practices	
	5.2. Require annual public reporting demonstrating compliance.	Federal regulation doesn't require annual public reporting demonstrating compliance.	Regulation doesn't commit to a comprehensive annual report or public reporting.	Needs major improvement	Include a commitment to comprehensive and public annual reporting.
	5.3. Reliable measurement requirements.	Federal regulation establishes reliable measurement requirements. (Section 15, 16 and 17).	Comprehensive measurement requirements for fugitive sources. Venting measurement requirements not yet released.	Needs minor improvement	Publish comprehensive measurement requirements for venting.