

PROVINCE OF BRITISH COLUMBIA

ORDER OF THE BOARD OF THE BRITISH COLUMBIA ENERGY REGULATOR

Energy Resource Activities Act

The board of the British Columbia Energy Regulator orders that, effective January 1, 2025,

- (a) the Drilling and Production Regulation, B.C. Reg. 282/2010, is amended as set out in the attached Appendix 1,
- (b) the Oil and Gas Processing Facility Regulation, B.C. Reg. 48/2021, is amended as set out in the attached Appendix 2, and
- (c) the Pipeline Regulation, B.C. Reg. 281/2010, is amended as set out in the attached Appendix 3.

DEPOSITED

August 28, 2024

B.C. REG. 256/2024

August 19, 2024

Date



Chair, Board of Directors

(This part is for administrative purposes only and is not part of the Order.)

Authority under which Order is made:

Act and section: Energy Resource Activities Act, S.B.C. 2008, c. 36, ss. 106, 111, 112

Other: _____

R10748829

APPENDIX 1

1 Section 4 (1) of the Drilling and Production Regulation, B.C. Reg. 282/2010, is amended

(a) by repealing paragraph (m) and substituting the following:

(m) section 41 (4), (4.02) and (6); , *and*

(b) by adding the following paragraphs:

- (o.1) section 52.03 (1);
- (o.2) section 52.04 (3);
- (o.3) section 52.05 (4.1);
- (o.4) section 52.06 (4);
- (o.5) section 52.08 (5); .

2 Section 18 is amended

(a) in subsection (9) (a) by adding “subject to subsection (10),” before “the surface casing”, and

(b) by adding the following subsection:

(10) Subsection (9) (a) does not apply to a well if all of the following requirements are met:

- (a) the surface casing is cemented to the surface;
- (b) the surface casing is set below the base of usable groundwater;
- (c) the buildup pressure of the surface casing vent does not exceed 1/2 of the formation leak off pressure at the base of the surface casing;
- (d) the well permit holder has control of emissions through one of the following:
 - (i) installation of a burst plate on the surface casing vent with a maximum pressure that does not exceed 1/2 of the formation leak off pressure at the base of the surface casing;
 - (ii) flaring emissions of natural gas from the surface casing vent in accordance with sections 42 to 44;
 - (iii) routing emissions of natural gas from the surface casing vent to hydrocarbon conservation equipment.

3 Section 41 is amended

(a) by adding the following subsections:

(1.1) A well permit holder who vents natural gas during a well liquids unloading event must maintain a record of the event including all of the following:

- (a) the dates on which the event was carried out;
- (b) the location of the venting;

- (c) the measures taken to reduce emissions of natural gas;
 - (d) the volume, in m³, of natural gas vented.
- (2.1) Subsection (2) does not apply to a well permit holder if the requirements in section 18 (10) are met. ,
- (b) in subsection (4.01) by striking out “emissions of gas” and substituting “emissions of natural gas”, and**
- (c) by adding the following subsections:**
- (4.02) Beginning on January 1, 2026, despite subsection (4.01) and subject to subsection (4.03), if all of the following apply, a well permit holder must ensure emissions of natural gas from a surface casing vent flow do not exceed 3 m³ per day:
- (a) the surface casing is cemented to the surface;
 - (b) the surface casing is set below the base of usable groundwater;
 - (c) the buildup pressure of the surface casing vent does not exceed 1/2 of the formation leak off pressure at the base of the surface casing.
- (4.03) Subsection (4.02) does not apply
- (a) until 90 days after discovery of the vent flow,
 - (b) during testing of a vent flow or during a well operation, or
 - (c) until after initial completion of a well unless a well becomes inactive in accordance with section 25 prior to initial completion of the well.
- (4.04) A well permit holder must notify the regulator, in electronic form, at least 7 days before taking action to control the emission of natural gas from a surface casing vent flow referred to in subsection (4.02).
- (4.05) A notice under subsection (4.04) must
- (a) demonstrate how the criteria in subsection (4.02) are met, and
 - (b) identify the actions taken to control the emission of natural gas from a surface casing vent flow.

4 Section 41.1 is amended

- (a) in subsection (2)**
- (i) by striking out “Subject to subsections (7) to (9)” and substituting “Subject to subsections (7) and (9)”;**
 - (ii) in paragraph (b) by adding the following subparagraph:**
 - (vi) a gas sales meter facility. , **and**
 - (iii) by repealing paragraph (c),**

(b) in subsection (3) by repealing the table and substituting the following:

Column 1 Days pressurized per calendar year	Column 2 Number of surveys required per calendar year
0 – 30	0
31 – 90	1
91 – 181	2
182 – 272	3
273 or more	4

(c) in subsection (4) (b) by striking out “commission” and substituting “regulator”,

(d) in subsection (5) by striking out “Subject to subsections (7) to (9)” and substituting “Subject to subsections (7) and (9)”,

(e) by adding the following subsections:

- (5.1) This subsection and subsection (5) are repealed on December 31, 2029.
- (5.2) Beginning on January 1, 2030, a well permit holder of an active well, other than a water source well, a water injection well or a water disposal well, that is pressurized 91 days or more in a calendar year must carry out at least one comprehensive survey of the well per calendar year.
- (5.3) A well permit holder of an inactive well, other than a water source well, a water injection well or a water disposal well, must carry out at least one screening survey of the well per calendar year. ,

(f) in subsection (6)

- (i) by striking out “Subject to subsections (7) to (9)” and substituting “Subject to subsections (7) and (9)”, and**
- (ii) in paragraph (b) by striking out “subsection (2) (b) or (c)” and substituting “subsection (2) (b)”,**

(g) by adding the following subsection:

- (7.1) Beginning on January 1, 2030, a permit holder who carries out a comprehensive survey of a well under subsection (5.2) must at the same time carry out a comprehensive survey of each other facility and well of the permit holder that is located at the same site.

(h) by repealing subsection (8),

(i) in subsection (9) by striking out “facility or” in both places,

(j) by repealing subsection (10) and substituting the following:

- (10) If a leak is detected at a facility or well during a comprehensive survey, the permit holder of the facility or well must quantify the leak rate. ,

(k) by repealing subsection (11),

(l) in subsection (13) by adding “or a facility associated with a well” after “at a well”,

(m) in subsections (14) (b) and (15) (a) by striking out “commission” and substituting “regulator”,

(n) by repealing subsection (15) (i) (i), (vii) and (viii), and

(o) by adding the following subsections:

- (17) Beginning on January 1, 2028, a facility permit holder must install a fixed leak monitoring device for the purpose of detecting leaks from hatches and pressure relief devices on a controlled production tank.
- (18) A facility permit holder must keep records in respect of a fixed leak monitoring device on a controlled production tank including the following:
 - (a) a description of the device including thresholds for leak indications;
 - (b) the date and time of leak detection;
 - (c) a description of the measures taken to investigate the leak;
 - (d) a description of when and what actions were taken to address leak indications.
- (19) A facility permit holder must repair a leak detected at a controlled production tank in accordance with subsection (12).
- (20) If within 60 days of repairing a leak at a controlled production tank the facility permit holder detects a reoccurrence of the leak, the facility permit holder must report the reoccurrence of the leak to the regulator within 14 days of detection.

5 *The following section is added:*

Alternative leak detection and repair

- 41.2**
- (1) A permit holder may apply to the regulator for approval to develop and implement an alternative leak detection and repair program.
 - (2) A proposed alternative leak detection and repair program must include the following:
 - (a) a list of the wells and facilities included in the alternative leak detection and repair program;
 - (b) a description of the proposed leak detection technology including a description of how leaks will be detected, quantified and repaired;
 - (c) a description of practices to be used to ensure reliable operation of the leak detection technology;
 - (d) an estimate of the reduction in natural gas emissions to be achieved by the alternative leak detection and repair program compared to leak detection and repair measures referred to in section 41.1.
 - (3) If an alternative leak detection and repair program is approved under this section, wells and facilities included in the alternative leak detection and repair program are not required to comply with section 41.1.

6 Section 44 (1) is amended by adding the following paragraph:

- (d.1) flare and incinerator systems installed after January 1, 2025 are designed for a 98% carbon conversion efficiency; .

7 The following sections are added:

Definition

52.011 In this Division, “**modification**”, in relation to an existing facility, means the addition of major process equipment to the facility.

Controls to eliminate venting of natural gas emissions

52.021 (1) A facility permit holder may vent natural gas at a facility if an assessment demonstrates that elimination of venting is not practicable due to one or more of the following:

- (a) the impairment of the safe operation of the facility;
- (b) the impairment of the reliable operation of the facility;
- (c) the economic feasibility is unattainable based on a net present value calculation that considers capital and operating costs, provincial price of carbon emission and total emission reduction achieved.

(2) Despite subsection (1), a facility permit holder may vent natural gas for one or more of the following:

- (a) emergency purposes;
- (b) carrying out operations at a facility that operates 60 days or less per calendar year;
- (c) maintenance operations;
- (d) process upsets.

(3) The assessment referred to in subsection (1) must be signed and sealed by a professional engineer licensed or registered under the *Professional Governance Act*.

(4) The facility permit holder must keep a detailed record to demonstrate how each criteria in subsection (1) was assessed.

(5) The facility permit holder must keep records referred to in subsection (4) until the facility is removed.

8 Section 52.03 is repealed and the following substituted:

Uncontrolled production tanks

52.03 (1) Subject to subsection (2) or (3), a facility permit holder must not vent natural gas from an uncontrolled production tank at a facility unless it is permitted under section 52.021.

- (2) Subsection (1) does not apply to a facility that began operations before January 1, 2022 if
 - (a) the emissions of natural gas from all uncontrolled production tanks at the facility are less than 9 000 m³ per month, and
 - (b) the facility permit holder has not made a modification to the facility on or after January 1, 2028.
- (3) Subsection (1) does not apply to a facility that began operations on or after January 1, 2022 if
 - (a) the emissions of natural gas from all uncontrolled production tanks at the facility are less than 1 250 m³ per month,
 - (b) the facility permit application was made before January 1, 2025, and
 - (c) the facility permit holder has not made a modification to the facility on or after January 1, 2028.
- (4) This subsection and subsections (2) and (3) are repealed on January 1, 2035.
- (5) The facility permit holder must maintain
 - (a) a record of the volume, in m³, of natural gas emitted from the uncontrolled production tank in each calendar month, and
 - (b) all records of equipment and methods used to quantify the volume of natural gas reported.
- (6) The facility permit holder must submit the records referred to in subsection (5) (a) to the regulator by March 31 of each year.
- (7) A facility permit holder must maintain the records submitted under subsection (5) for a period of 7 years after submission.

9 Section 52.04 is amended

- (a) in subsection (2) by striking out “A facility permit holder of a facility” and substituting “Subject to subsection (2.1), a facility permit holder of a facility”;**
- (b) by adding the following subsection:**
 - (2.1) Subsection (2) does not apply to reciprocating compressors or centrifugal compressors if emissions of natural gas from the compressor seals
 - (a) are routed to hydrocarbon gas conservation equipment, or
 - (b) subject to sections 42 to 44, are flared. ,
- (c) by repealing subsection (3) and substituting the following:**
 - (3) A facility permit holder of a facility that uses a reciprocating compressor described in subsection (4) or (4.1) must not vent natural gas from the compressor seals of the reciprocating compressor unless it is permitted under section 52.021. ,

(d) by adding the following subsection:

- (4.1) Subsection (3) applies to a reciprocating compressor at a facility if the facility permit holder
- (a) applied for a facility permit on or after January 1, 2025, or
 - (b) made a modification to the facility after January 1, 2028. ,

(e) in subsection (5) (a) by striking out “5 m³ per hour” and substituting “3 m³ per hour”,

(f) in subsection (5) (b) by striking out “0.83 m³ per hour” and substituting “0.3 m³ per hour”,

(g) in subsections (6) (b), (7) (a), (9) (b) and (10) (a) by striking out “commission” and substituting “regulator”, and

(h) by adding the following subsections:

- (8.1) A facility permit holder of a facility to which this subsection applies must not vent natural gas from the seals of a centrifugal compressor unless it is permitted under section 52.021.
- (8.2) Subsection (8.1) applies to a facility if the facility permit holder
- (a) applied for a facility permit on or after January 1, 2025, or
 - (b) made a modification to the facility after January 1, 2028.
- (12) This subsection and subsections (1) to (11) are repealed on December 31, 2034.
- (13) Beginning on January 1, 2035, a facility permit holder must not vent natural gas from the compressor seals of a reciprocating compressor or the compressor seals of a centrifugal compressor unless it is permitted under section 52.021.

10 Section 52.05 is amended

(a) in subsection (1) by repealing the definition of “pneumatic device” and substituting the following:

“pneumatic device” does not include a pneumatic pump, a pneumatic compressor starter or an emergency shutdown device. ,

(b) by repealing subsection (4) and substituting the following:

- (4) A facility permit holder of a facility that began operations before January 1, 2021, other than a gas processing plant or a large compressor station, must not use at the facility a pneumatic device that vents natural gas unless the emissions of natural gas from the device do not exceed 0.17 m³ per hour.
- (4.1) Beginning on January 1, 2028, a facility permit holder referred to in subsection (4) who makes a modification to a facility must not use at the facility a pneumatic device that vents natural gas unless it is permitted under section 52.021.
- (4.2) Subsection (4.1) does not apply to well facilities.
- (4.3) This subsection and subsections (4) to (4.2) are repealed on December 31, 2034.

(4.4) Beginning on January 1, 2035, a facility permit holder of a facility must not use at the facility a pneumatic device that vents natural gas unless it is permitted under section 52.021. ,

(c) in subsection (5) (c) by striking out “under subsection (4) (b)”, and

(d) by repealing subsections (7) to (9).

11 Section 52.06 is amended by adding the following subsections:

(4) A facility permit holder must not use a pneumatic pump that vents natural gas at a facility unless it is permitted under section 52.021.

(5) Subsection (4) applies to a facility if the facility permit holder

(a) applied for a facility permit on or after January 1, 2025, or

(b) made a modification to the facility, other than a well facility, after January 1, 2028.

(6) This subsection and subsections (1), (2), (4) and (5) are repealed on December 31, 2034.

(7) Beginning on January 1, 2035, a facility permit holder of a facility that includes a pneumatic pump must not vent natural gas unless it is permitted under section 52.021.

12 The following section is added:

Methane emissions from pneumatic devices and pneumatic pumps

52.061 (1) In this section, “**pneumatic devices and pneumatic pumps fleet**”, in relation to a permit holder means all of the pneumatic devices and pneumatic pumps used at facilities of the permit holder whether or not under the same permit.

(2) Beginning on January 1, 2030, a permit holder that uses a pneumatic device or pneumatic pump at a facility must ensure that the emissions of methane from the permit holder’s pneumatic devices and pneumatic pumps fleet do not exceed the annual methane emissions threshold calculated in accordance with subsection (3).

(3) Subject to subsection (4), the annual methane emissions threshold is calculated in accordance with the following formula, rounded to the nearest whole number:

$$\text{Annual volume of methane emissions (tonnes/year)} = 0.4 (a+b+c+d+e+f)$$

where:

- a = number of oil wells;
- b = number of gas wells;
- c = number of disposal wells;
- d = number of batteries;
- e = number of satellite batteries;
- f = number of processing batteries.

- (4) The number of wells or batteries referred to in subsection (3) are wells or batteries reported as active in the 2021 calendar year.
- (5) The permit holder must maintain records in respect of the information used to make the calculation under subsection (3) until January 1, 2035.
- (6) The permit holder must submit to the regulator a report stating the total volume in tonnes of emissions of methane from the pneumatic devices and pneumatic pumps fleet by March 31 of each year.
- (7) This section is repealed on December 31, 2034.

13 Section 52.08 is amended

(a) by adding the following subsection:

(0.1) In this section:

“Dehydrator Engineering and Operations Sheet” means a form that demonstrates the optimized glycol circulation rate for the dehydrator with recorded normal operating conditions, control technology and equipment;

“glycol dehydrators fleet”, in relation to a facility permit holder, means all glycol dehydrators used at facilities of the permit holder, whether or not under the same permit, but does not include glycol dehydrators at a facility referred to in subsection (7). ,

(b) by repealing subsections (1) to (3), and substituting the following:

- (3) A facility permit holder of a facility that uses a glycol dehydrator must
 - (a) maintain a record of the volume of natural gas emitted from the dehydrator in each calendar year,
 - (b) submit the record referred to in paragraph (a) to the regulator by March 31 of the calendar year after the calendar year to which the record relates, and
 - (c) complete a Dehydrator Engineering and Operations Sheet for each glycol dehydrator at a facility.
- (4) A Dehydrator Engineering and Operations Sheet referred to in subsection (3) must be
 - (a) available at the location of the glycol dehydrator,
 - (b) revised once per calendar year or upon a change in the operation status of the glycol dehydrator, and
 - (c) in the form and manner specified by the regulator.
- (5) Subject to subsection (6), beginning on January 1, 2025, a facility permit holder of a facility that uses a glycol dehydrator must not vent natural gas from the glycol dehydrator unless it is permitted under section 52.021.
- (6) A facility permit holder of a facility must ensure that the average emissions of natural gas from a glycol dehydrators fleet does not exceed 25 tonnes per dehydrator per year.

- (7) Subsection (5) applies to a facility where a facility permit holder
 - (a) applied for a facility permit on or after January 1, 2025, or
 - (b) made a modification to the facility on or after January 1, 2028.
- (8) This subsection, the definition of “glycol dehydrators fleet” in subsection (0.1) and subsections (5) to (7) are repealed on December 31, 2034.
- (9) Beginning on January 1, 2035, a facility permit holder of a facility that uses a glycol dehydrator must not vent natural gas from the glycol dehydrator unless it is permitted under section 52.021.

14 Section 52.13 is amended by renumbering paragraph (a) as paragraph (a.1) and by adding the following paragraph:

- (a) a record or report required to be submitted or maintained under section 41; .

APPENDIX 2

1 Section 21 of the Oil and Gas Processing Facility Regulation, B.C. Reg. 48/2021, is amended by adding the following subsections:

- (5) A processing facility permit holder must maintain records of inspections conducted under subsection (4) (b).
- (6) A processing facility permit holder must ensure that flare and incinerator systems installed after January 1, 2025, are designed for a 98% carbon conversion efficiency.

2 Section 22 (1) is amended by adding the following paragraph:

- (a.1) section 41.2 [alternative leak detection and repair]; .

APPENDIX 3

1 The Pipeline Regulation, B.C. Reg. 281/210, is amended by adding the following section:

Venting of natural gas during operation to depressure pipeline

- 7.1** (1) A pipeline permit holder must not vent natural gas during an operation to depressure a pipeline unless
- (a) the gas heating value, volume or flow rate are insufficient to support stable combustion,
 - (b) the venting is conducted in a manner that does not constitute a safety hazard,
 - (c) the venting does not cause off-site odours,
 - (d) the quantity of vented gas is minimized, and
 - (e) the duration of venting is minimized.

- (2) Despite subsection (1) (a) a permit holder may vent natural gas if
 - (a) an operation to depressure a pipeline is needed to address an imminent risk to health, safety or the environment,
 - (b) natural gas conservation or destruction would result in an interruption of the natural gas supply to the public, or
 - (c) natural gas conservation or destruction equipment is not available at the site and it is not feasible to use portable conservation or destruction equipment due to access limitations or the configuration of the pipeline at the site.

2 *Section 12 is amended by renumbering the section as section 12 (1) and by adding the following subsection:*

- (2) A pipeline permit holder must keep records of an operation to depressure a pipeline under section 7.1 (2), including all of the following:
 - (a) the dates on which the operation to depressure a pipeline was carried out;
 - (b) the location of the operation to depressure a pipeline;
 - (c) the measures taken to reduce emissions of natural gas;
 - (d) the volume, in m³, of natural gas emitted.