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(Consolidated up to 228/2011)

### ALBERTA REGULATION 91/2005

#### Pipeline Act

#### PIPELINE REGULATION

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# **Part 1 Administration**

## **Interpretation**

**1(1)** In this Regulation,

- (a) “Act” means the *Pipeline Act*;
- (b) “Alberta One-Call” means the non-profit corporation called Alberta One-Call that transmits a notification from a person who intends to disturb the ground to its members whose buried facilities might be affected by the ground disturbance;
- (c) “Board Pipeline Base Map” means the plan produced by the Board on a township or smaller area basis showing pipelines currently licensed under the Act;
- (d) “break” means the escape of substance from a pipeline in a manner that immediately impairs the operation of the pipeline;
- (e) “contact damage” means damage to a pipeline that occurs during a ground disturbance and results in
  - (i) a puncture or crack in the pipeline,
  - (ii) a scratch, gouge, flattening or dent on the pipeline surface, or

- (iii) damage to the pipeline's protective coating that compromises the functionality of the coating, with the exception of minor damages that may occur during final hand excavation and external cleaning;
- (f) "corporate emergency response plan" means a general emergency response plan that applies to all wells, pipelines and facilities of a licensee;
- (g) "Directive 56" means *Directive 56: Energy Development Applications and Schedules* as published by the Board and amended from time to time;
- (h) "Directive 60" means *Directive 60: Upstream Petroleum Industry Flaring Directive* as published by the Board and amended from time to time;
- (i) "Directive 71" means *Directive 71: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry* as published by the Board and amended from time to time;
- (j) "distribution specification gas" means natural gas that does not contain more than an average of 7 milligrams of hydrogen sulphide gas per cubic metre of natural gas at an absolute pressure of 101.325 kilopascals at a temperature of 15 degrees Celsius, equivalent to 5 parts per million;
- (k) "emergency" means a present or imminent event, outside the scope of normal operations, that requires prompt co-ordination of resources to protect the health, safety or welfare of people or to limit damage to property and the environment;
- (l) "emergency response plan" means a comprehensive plan to protect the public that includes criteria for assessing an emergency and procedures for mobilizing response personnel and agencies, establishing communications and ensuring coordination of the emergency response;
- (m) "facility surface lease" means the area leased by a licensee for a well, installation or facility connected to a pipeline, but does not include an access road to the well, installation or facility;
- (m.1) "flowing water" means water within a creek, stream, river, lake or other body of water except where the water is completely frozen to the bed of the body of water;
- (n) "hand excavation" means excavation of a pipeline or part of a pipeline by hand and includes excavation by water or

air jets and, if the pipeline is more than 1.5 metres below the surface of the ground, excavation by a combination of hand and mechanical means in accordance with the procedure set out in Schedule 3;

- (o) “HVP product” means hydrocarbons or a hydrocarbon mixture as defined in CSA Z662;
- (p) “Interim Directive 99-8” means *Interim Directive 99-8: Noise Control Directives* as published by the Board and amended from time to time;
- (q) “leak” means the escape of substance from a pipeline in a manner that does not immediately impair the operation of the pipeline;
- (r) “LVP product” means hydrocarbons or a hydrocarbon mixture as defined in CSA Z662;
- (s) “occupant” means
  - (i) a person, other than the owner, who is in actual possession of land,
  - (ii) a person who is shown on a certificate of title or by contract as having an interest in land,
  - (iii) an operator granted a right of entry as defined in the *Surface Rights Act* in respect of land pursuant to a right of entry order as defined in that Act,
  - (iv) in the case of Crown land, a person shown on the records of the department or other body administering the land as having an interest in the land, or
  - (v) the holder of a permit for a coal mine;
- (t) “owner” means
  - (i) the person in whose name a certificate of title has been issued pursuant to the *Land Titles Act*, or
  - (ii) if no certificate of title has been issued, the Crown or other body administering the land;
- (u) “% SMYS” means the hoop stress level expressed as a percentage of the specified minimum yield strength of the pipe based on nominal wall thickness;
- (v) “polymeric” means consisting of either thermoplastic or thermoset polymer engineering materials;

- (w) “surface construction activity” means construction activity that is concentrated at the surface of the ground or at a depth of less than 30 centimetres and that does not result in a reduction of the earth cover over a pipeline to a depth that is less than the cover provided when the pipeline was installed;
- (x) “surface development” means occupied permanent or part-time dwellings, publicly used facilities, including campgrounds, places of business and any other structures used by the public on a regular basis;
- (y) “Uniform Color Code” means the Uniform Color Code set out in the American Public Works Association publication *Recommended Marking Guidelines for Underground Utilities*.

(2) Words and expressions used but not defined in this Regulation have the meanings assigned to them in the Act and in the codes and standards referred to in section 9(2).

(3) For the purposes of section 1(1)(e) of the Act, the controlled area is

- (a) a strip of land 30 metres wide on each side of the pipeline, measured from the pipe centreline, or
- (b) the distance from the pipe centreline to the edge of the right of way,

whichever is wider.

(4) For the purposes of the Act and this Regulation, if piping or a pipeline that conveys gas, steam or HVP product is contained wholly within the boundary of a facility surface lease or wholly within the boundaries of adjacent and abutting facility surface leases, it is not considered a pipeline.

(5) A natural gas pipeline that conveys distribution specification gas at pressures of 700 kilopascals or less, but that is used for the purposes of providing fuel or gas in connection with a facility, scheme or other matter authorized under the *Oil and Gas Conservation Act* or the *Oil Sands Conservation Act* is a pipeline within the meaning of the Act.

(6) For the purposes of section 19 of the Act and this Regulation,

- (a) an individual is resident in a jurisdiction if the individual makes his or her home in and is ordinarily present in that jurisdiction, and

- (b) a corporation or other organization referred to in section 21 of the Act is resident in a jurisdiction if a director or officer of the corporation, a member of the organization or a person employed or retained to provide services to the corporation or organization makes his or her home in that jurisdiction, is ordinarily present in that jurisdiction and is authorized to
  - (i) make decisions respecting a licence for a pipeline issued by
    - (A) the regulatory body having lawful authority in that jurisdiction, or
    - (B) in the case of Alberta, the Board,
  - (ii) operate the pipeline, and
  - (iii) implement directions from the regulatory body, or in the case of Alberta, the Board, relating to the pipeline.

(7) Repealed AR 160/2008 s2.

AR 91/2005 s1;186/2005;160/2008;228/2011

### **Exemption - agents**

**1.1(1)** In this section,

- (a) “mutual recognition agreement” means a valid and subsisting agreement made between the Board and a regulatory body for the purpose of recognizing substantial regulatory equivalency and enabling reciprocity between Alberta and another jurisdiction;
- (b) “regulatory body” means an entity having lawful authority respecting the regulation of pipelines in a jurisdiction other than Alberta.

**(2)** An individual or a corporation or other organization is exempt from the requirement to appoint an agent under section 19(2) of the Act if, and for so long as, the individual, corporation or organization

- (a) is resident in a jurisdiction within the meaning of section 1(6),
- (b) is subject to the authority of a regulatory body that is a party to a mutual recognition agreement with the Board,
- (c) is in compliance with all applicable legislation and regulations and all applicable directives, orders and

directions of the Board and the regulatory body referred to in clause (b),

- (d) owes no debt
  - (i) to the Board directly, or
  - (ii) to the Board to the account of the orphan fund continued by section 69(1) of the *Oil and Gas Conservation Act*,
- (e) does not, in Alberta or elsewhere, operate pipelines in a manner that, in the opinion of the Board, is unsafe or presents a serious threat to public safety or the environment,
- (f) agrees to attorn to the jurisdiction of Alberta with respect to all matters, obligations and liabilities pertaining to its pipeline licences and permits in Alberta, and
- (g) meets any other conditions imposed by the Board.

(3) For greater certainty, nothing in this section requires the Board to enter into a mutual recognition agreement if the other jurisdiction fails to prove to the satisfaction of the Board that substantial regulatory equivalency exists between Alberta and the other jurisdiction.

AR 160/2008 s3;84/2009

#### **Compliance with Directive**

**1.2** A licensee shall comply with the requirements of *Directive 077: Pipelines — Requirements and Reference Tools*, as published by the Board and amended from time to time.

AR 91/2010 s2

#### **Notification**

**2(1)** Unless otherwise authorized by the Board, a licensee who is required to notify the Board under this Regulation shall send the notice electronically through the Board's digital data submission system.

**(2)** Notwithstanding subsection (1), a licensee who is required to notify the Board of a pipeline leak, break, test failure or contact damage shall immediately do so by telephoning the appropriate regional field centre of the Board.

**Application for licence to construct and operate pipeline**

**3(1)** Unless otherwise authorized by the Board, an application under Part 4 of the Act for a licence to construct and operate a pipeline, including any applicable installation, must be in accordance with the requirements of Directive 56.

**(2)** Unless otherwise authorized by the Board, and in addition to the requirements of subsection (1), for a steam distribution pipeline having an internal aggregate capacity greater than 0.5 cubic metres, the licensee shall

- (a) confirm in its application to the Board that it has registered the design of the pipeline and any mechanical coupling with the Alberta Boilers Safety Association in accordance with the *Design, Construction and Installation of Boilers and Pressure Vessels Regulations (AR 227/75)*, and
- (b) obtain all required approvals from the Alberta Boilers Safety Association prior to putting the pipeline into operation.

**(3)** No application is required

- (a) for the replacement of parts of a pipeline or parts of a pipeline liner if
  - (i) the length of each individual replacement section is less than 100 metres,
  - (ii) the replacement sections are equivalent to the original material or exceed the requirements and suitability for purpose of the original material,
  - (iii) the replaced sections of pipeline or pipeline liner are removed, and
  - (iv) the replacement work is carried out wholly within the existing right of way;
- (b) if the pipeline, regardless of length, is contained wholly within the boundary of a facility surface lease or wholly within the boundaries of adjoining facility surface leases;
- (c) for a short-term temporary pipeline in accordance with Directive 56.

**Survey of right of way boundaries**

- 4(1)** The applicant for a licence shall ensure that right of way boundaries for the pipeline are surveyed in accordance with the *Surveys Act* before the commencement of construction.
- (2)** An applicant or licensee is exempt from the requirements of subsection (1) with respect to repairs or modifications to a pipeline within the existing right of way unless the repairs or modifications require an additional right of way.
- (3)** The Board may exempt an applicant or licensee from the requirements of subsection (1) or (2) in exceptional circumstances.

**Notice to Board of delay or failure to complete licensed work**

- 5(1)** If the work on a pipeline for which a licence has been issued will not be commenced prior to an expiry date set out in the licence, the licensee shall notify the Board at least 30 days prior to the expiry date in accordance with the requirements of Directive 56.
- (2)** If the work on a pipeline for which a licence has been issued will not be commenced or completed, the licensee shall notify the Board in accordance with the requirements of Directive 56.

**Commencement of construction**

- 6** At least 24 hours prior to the commencement of construction of a pipeline, the licensee shall notify the Board in accordance with section 2(1) of the location of the construction and the proposed time of commencement.

**Operations, maintenance and integrity management manuals**

- 7(1)** A licensee shall prepare and maintain a manual or manuals containing procedures for pipeline operation, corrosion control, integrity management, maintenance and repair and shall on request file a copy of each manual with the Board for review.
- (2)** A licensee shall include in the appropriate manual referred to in subsection (1) provision for evaluation and mitigation of stress corrosion cracking when the licensed pipeline has disbonded or non-functional external coatings.
- (3)** A licensee shall
- (a) update the manuals referred to in subsection (1) as necessary to ensure that their contents are correct, and
  - (b) be able to demonstrate that the procedures contained in the manuals are being implemented.

**Emergency response plans**

**8(1)** A licensee of a pipeline shall prepare and maintain a corporate emergency response plan in accordance with the requirements of Directive 71 and shall submit a copy to the Board for review on request.

**(2)** A licensee of a pipeline conveying HVP product shall prepare a site-specific emergency response plan in accordance with Directive 71 and shall,

- (a) in the case of a pipeline that is not yet in operation, submit the plan to the Board and obtain the Board's approval of the plan before putting the pipeline into operation, and
- (b) in the case of a pipeline already in operation, submit the current site-specific emergency response plan for the pipeline to the Board for review.

**(3)** For a pipeline conveying a product that contains hydrogen sulphide gas in the gas phase when the pipeline is operating at the licensed conditions, a licensee shall calculate the emergency planning zone in accordance with Directive 71 and determine whether any surface development exists or is taking place within the emergency planning zone.

**(4)** If any surface development exists or is taking place within the calculated emergency planning zone of a pipeline referred to in subsection (3), the licensee shall prepare a site-specific emergency response plan in accordance with Directive 71, and shall,

- (a) in the case of a pipeline that is not yet in operation, submit the plan to the Board and obtain the Board's approval of the plan before putting the pipeline into operation, and
- (b) in the case of a pipeline already in operation, submit the current site-specific emergency response plan for the pipeline to the Board for review.

**(5)** If there is no surface development within the calculated emergency planning zone of a pipeline referred to in subsection (3), the licensee shall prepare and maintain a corporate emergency response plan in accordance with Directive 71 and shall submit a copy to the Board for review on request.

**(6)** A licensee of a pipeline shall, in accordance with Directive 71,

- (a) update all emergency response plans for the pipeline, as necessary,
- (b) conduct training exercises in carrying out emergency response plans, and

- (c) ensure that it is capable of adequately responding to spills.

## Part 2 Materials and Design

### Codes and standards

**9(1)** A reference in this Regulation to a code or standard is to the latest published edition of the code or standard issued by the Canadian Standards Association (CSA).

**(2)** Except as otherwise specified by this Regulation, the following standards are in force:

- (a) CSA Z245.11, *Steel Fittings*;
- (b) CSA Z245.12, *Steel Flanges*;
- (c) CSA Z245.15, *Steel Valves*;
- (d) CSA Z662, *Oil and Gas Pipeline Systems*.

**(3)** Except as otherwise specified by this Regulation, the minimum requirements for the design, construction, testing, operation, maintenance, repair and leak detection of pipelines are set out in CSA Z662.

**(4)** The leak detection requirements contained in Annex E of CSA Z662 are mandatory for liquid hydrocarbon pipelines.

AR 91/2005 s9;186/2005

### Approval of non-standard materials or methods

**10(1)** Notwithstanding section 9, if an applicant or licensee proposes to use a polymeric or fibre-reinforced composite material for pipeline construction or repair, the applicant or licensee shall ensure that the Board has been provided with sufficient technical information concerning the material to allow the Board to determine whether the material is acceptable for the proposed use.

**(2)** If an applicant or licensee proposes to use pipeline materials, pipeline components, joining methods, construction methods, repair methods or maintenance methods other than those that are included in CSA Z662, the applicant or licensee shall ensure that the Board has been provided with sufficient technical information concerning the materials, components or methods to allow the Board to determine whether the materials, components or methods are acceptable for the proposed use.

**(3)** If the Board is satisfied that the materials, components or methods referred to in subsections (1) and (2) are acceptable for the

proposed use, the Board may approve the use of the materials, components or methods, subject to any restrictions on or conditions regarding their use that the Board considers necessary.

(4) An applicant or licensee who proposes to use materials, components or methods referred to in subsections (1) or (2) must have received the Board's approval of the use of the materials, components or methods before proceeding.

(5) If an engineering assessment is required by CSA Z662 and is used by the applicant or licensee to support the acceptability of the material, components or methods referred to in subsection (1) or (2), it must be submitted to the Board on request.

#### **Polymeric or fibre-reinforced pipe**

**11** Unless authorized by the Board, a licensee shall not install polymeric or fibre-reinforced composite pipe as either freestanding liner inside a steel pipeline or a freestanding pipe for the purpose of conveying natural gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas.

#### **Exemption from standard**

**12** If CSA Z662 requires a pipeline to be altered because of a change in its surroundings, the Board may, on application, determine whether the pipeline is suitable and safe for continued service under the original standards to which it was built and if satisfied may exempt the licensee from any or all of the requirements of CSA Z662.

#### **Emergency shutdown devices and check valves**

**13(1)** A licensee shall ensure that a pipeline conveying gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas, or any lesser hydrogen sulphide content that the Board stipulates in a particular case, is equipped with automatically actuated emergency shutdown devices or check valves, in a manner that will isolate the pipeline into segments whose volumes are in accordance with those specified in the licence.

(2) A licensee shall ensure that an automatically actuated emergency shutdown device referred to in subsection (1)

- (a) is designed to close on the failure of any control or operating component,
- (b) remains closed once the device has closed due to actuation or failure, and

- (c) requires on-site human intervention to reopen once it has closed unless it was closed due to a planned pipeline shutdown.

#### **Control systems in blended gas streams**

**14(1)** If gas streams are blended for the purpose of maintaining a lower hydrogen sulphide content in the final blended stream, and any inlet stream conveys gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas, or any lesser hydrogen sulphide content that the Board stipulates in a particular case, the licensee shall ensure that there are 2 independent safety systems to prevent a greater hydrogen sulphide content in the blended stream than permitted in the licence.

**(2)** A licensee shall ensure that one of the 2 independent safety systems referred to in subsection (1) provides, as a minimum, the process control to achieve the blend ratio and that the other system provides, as a minimum, monitoring and automatic shutdown.

#### **Equipment pressure ratings**

**15(1)** A licensee shall ensure that any valve, flange, fitting or other component connected to a pipeline has a manufacturer's rating that is equal to or greater than the maximum operating pressure authorized by the Board.

**(2)** In addition to the requirements of subsection (1), a licensee shall ensure that the pressure ratings for all valves

- (a) do not exceed those specified in CSA Z245.15, and
- (b) are derated for service temperatures above 120 degrees Celsius as specified by CSA Z662.

**(3)** In addition to the requirements of subsection (1), a licensee shall ensure that the pressure ratings for all flanges

- (a) do not exceed those specified in CSA Z245.12,
- (b) are derated for service temperature in accordance with the applicable manufacturing standard or specification for that flange, and
- (c) are derated for service temperature in accordance with CSA Z662 if the applicable manufacturing standard or specification does not address the proposed service temperature.

**(4)** A licensee shall ensure that the pressure ratings for all other components are derated for service temperatures above 120 degrees

Celsius in accordance with CSA Z662 if the applicable manufacturing standard or specification does not address the proposed service temperature.

(5) Subsections (2) to (4) apply only in respect of licences granted after the coming into force of this Regulation.

#### **Stress level limitations**

**16** For pipelines designed to convey gas with a content of more than 10 moles of hydrogen sulphide gas per kilomole of natural gas, the design stress levels may not be greater than

- (a) 60% SMYS for all underground piping, and
- (b) 50% SMYS for all above ground piping.

#### **Maximum noise levels**

**17** A licensee shall operate pipeline facilities and conduct pipeline construction and operations in accordance with the maximum noise level limitations specified by the Board in Interim Directive 99-8.

#### **Casing under highway, road or railway**

**18** If casing or thicker-wall pipe required by CSA Z662 is installed under a highway, road or railway, the casing or thicker-wall pipe must extend for the full width of the right of way of the highway, road or railway.

#### **Modifications due to highway, road or railway**

**19** If the construction of a new highway, road or railway or the modification of an existing highway, road or railway requires the upgrading of an existing pipeline, the required casing, thicker-wall pipe or other load-bearing structures allowed by CSA Z662 must extend for the full width of the right of way of the highway, road or railway.

#### **Minimum earth cover**

**20(1)** Unless otherwise authorized by the Board, and subject to subsection (3), the minimum earth cover for any pipeline must at all times be the greater of the minimum earth cover specified in CSA Z662 and, as the case may be,

- (a) 1.4 metres within the right of way of a highway,
- (b) 1.1 metres within the right of way of a road, and

(c) 0.8 metres in any other place.

**(2)** Unless otherwise authorized by the Board, the minimum earth cover set out in subsection (1) must be maintained for all operating and discontinued pipelines.

**(3)** Unless otherwise specified by the Board, for a pipeline existing at the time that this Regulation comes into force, if lesser earth cover was permitted by the construction standards and regulatory requirements in place at the time of construction, that lesser cover is acceptable.

### **Surface pipelines**

**21(1)** A licensee of an existing pipeline, well or facility who intends to install a surface pipeline for temporary service shall do so in accordance with the requirements set out in this section and in Directive 56.

**(2)** A licensee shall install

- (a) a form of pressure-relieving device if any possibility of a pressure increase above the allowable maximum operating pressure exists due to a rise in ambient air temperature or solar heating,
- (b) a system to allow for adequate expansion or contraction due to temperature change,
- (c) temperature monitoring equipment if the pipeline material has temperature limitations,
- (d) suitable restraints to adequately control lateral or vertical movement, and
- (e) any other safety or operational systems the Board considers appropriate.

**(3)** A licensee shall bury the pipeline at all road and trail crossings and shall install pipeline warning signs at the point of pipeline entry and exit of each crossing.

**(4)** A licensee shall take additional precautions, including adding extra pipeline warning signs or providing other warnings to indicate the presence of a surface line, when

- (a) equipment may be working in the vicinity of the pipeline,
- (b) off-road vehicular traffic may endanger the pipeline, or
- (c) any conditions may obscure or endanger the pipeline.

**Operating pressure**

**22(1)** Unless otherwise authorized by the Board, a licensee shall design, operate and maintain its pipeline in accordance with the maximum operating pressure permitted in the licence.

**(2)** If 2 or more pipelines are connected and their licensed maximum operating pressures differ by more than 5% of the lowest licensed maximum operating pressure, a pressure control system and overpressure protection must be installed in accordance with CSA Z662 to ensure that the pipeline with the lowest maximum operating pressure will not be subjected to a pressure greater than its licensed maximum operating pressure.

**(3)** In addition to subsection (2), a licensee shall install a pressure control system and overpressure protection at any point in a pipeline where supply from any source makes it possible to increase the pressure in the pipeline above its licensed maximum operating pressure.

**(4)** Unless otherwise authorized by the Board, the operating pressure of a pipeline at all points along the pipeline must not exceed the maximum operating pressure permitted in the licence.

**(5)** Unless otherwise authorized by the Board, the maximum operating pressure of a section of a pipeline must be determined using the test pressure recorded or calculated at the highest point in the section.

### **Part 3 Pressure Testing**

**Placing pipeline into operation**

**23** A licensee shall not place a pipeline into operation until

- (a) a pressure test satisfactory to the licensee has been completed in accordance with CSA Z662 and this Regulation,
- (b) the pipeline test pressure has been reduced to a level no greater than the proposed maximum operating pressure and, if necessary, the pipeline has been purged, and
- (c) all tie-ins have been completed and inspected.

**Notice to Board of pressure test**

**24** A licensee shall notify the Board at least 48 hours prior to the commencement of any pressure test.

**Conditions for pressure testing**

**25** A licensee shall pressure test a pipeline that will be buried during operation with the full depth of earth cover applied.

**Protection of persons and property**

**26** A licensee shall conduct a pressure test in a manner that will ensure the protection of persons and property in the vicinity of the pipeline.

**Report of leak or break**

**27** A licensee shall immediately notify the Board of any leak or break that occurs in a pipeline during pressure testing.

**Maximum length of pipe to be pressure tested**

**28** The Board may specify the maximum length of pipe to be tested in any test.

**Recording pressure test results**

**29(1)** A licensee's record or chart of a pressure test must be continuous and legible over the full test period, with the commencement and termination points of the test identified.

**(2)** A licensee may use electronic pressure-recording instruments if

- (a) a permanent paper copy of the test data is retained, and
- (b) the sampling rate and instrument sensitivity are sufficient to properly identify the expected deviations from normal test pressure.

**(3)** The instrument used to record the pressure during a test must be selected so that the pressure reading occurs between 25% and 90% of the full range of the instrument.

**(4)** The range of the pressure-recording instrument referred to in subsection (3) must be recorded on the chart face or on the permanent paper copy of the test data.

**(5)** Each pressure-recording instrument must be periodically calibrated to maintain accuracy to within 2% of its range, and the Board may require verification of such calibration.

**Unsatisfactory test**

**30** If evidence of satisfactory testing is not provided to the Board on request, the Board may order that the pipeline be

- (a) depressured,
- (b) purged, if necessary, and
- (c) pressure tested as directed by the Board.

**Alternative methods for establishing pipeline integrity**

**31** A licensee may apply to the Board for approval to establish the integrity of the pipeline by methods other than pressure testing.

**Pressure testing above 100% SMYS**

**32** If a pipeline is to be tested at a pressure that would cause a hoop stress greater than 100% SMYS, the licensee shall

- (a) use liquid test media,
- (b) develop a detailed test procedure and submit a copy of it to the Board on request,
- (c) plot a pressure-volume curve starting at 80% SMYS, and
- (d) prior to pressure testing, develop a detailed plan for spill containment and cleanup that can be implemented immediately in the event of a leak or break and submit a copy of the plan to the Board on request.

**Pressure near test head assembly**

**33** The test pressure for any part of a pipeline that is within 20 metres of the connection with the test head assembly must be limited to a hoop stress level not greater than 90% SMYS.

**Minimum test pressure**

**34** Notwithstanding CSA Z662, a licensee shall use a minimum test pressure of

- (a) not less than 700 kilopascals for any pipeline, unless the Board approves a lower test pressure, and
- (b) not less than 1.4 times the maximum operating pressure in all class locations for pipelines conveying gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas.

**Contingency plans for liquid test media**

**35(1)** A licensee shall comply with the liquid test media requirements in Directive 077 if

- (a) the licensee intends to test a pipeline using a liquid test medium other than fresh water, and
- (b) one or more of the following matters will apply in respect of the test:
  - (i) the volume of the test section will exceed 500 cubic metres;
  - (ii) the hoop stress level during the test is expected to exceed 100% SMYS;
  - (iii) the pipeline will cross or be within 100 metres of flowing water at the time of pressure testing.

(2) If none of the matters described in subsection (1)(b) will apply in respect of the test, the licensee shall, prior to the start of pressure testing, develop and maintain contingency plans as required in the appropriate section of CSA Z662.

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#### **Approval of gaseous test media**

**36(1)** If a licensee proposes to use air or another gaseous medium to pressure test a pipeline section that has an internal volume larger than 125 cubic metres, the licensee shall first submit to the Board for approval a detailed proposal for the test, including a fully documented engineering evaluation that demonstrates that the proposed testing procedure is safe and sufficiently sensitive to detect leaks.

(2) If the licensee proposes to use air or another gaseous medium to pressure test a pipeline section where there is known or suspected to be corrosion or any other condition that could potentially cause the pipeline to break during testing, the licensee shall first submit to the Board for approval a detailed proposal for the test, including a fully documented engineering evaluation that demonstrates that the proposed testing procedure complies with the requirements of CSA Z662 and this Regulation and that appropriate measures will be implemented to ensure the protection of people and property in the vicinity of the pipeline.

#### **Gases used in testing**

**37** A licensee may use non-toxic gases other than those specified in CSA Z662 to pressure test a pipeline within CSA Z662 Class 1 areas if the testing complies with all other requirements of CSA Z662 and this Regulation regarding gaseous media pressure testing.

**Release of gaseous test media**

**38** After the completion of a pressure test, any gaseous medium to be released must be vented or flared in accordance with Directive 99-8 and Directive 60.

**Hydrogen sulphide gas prohibited in test medium**

**39** No gas containing hydrogen sulphide may be used as a test medium.

**Duration of test**

**40(1)** Notwithstanding the test durations specified in CSA Z662, a licensee may pressure test a pipeline or section of a pipeline less than 75 metres in length or a pipeline permanently located above ground for a minimum of one hour.

**(2)** In exceptional circumstances, a licensee may apply to the Board to pressure test a pipeline or section of a pipeline other than one referred to in subsection (1) for a shorter period than the minimum specified in CSA Z662.

**Pressure testing of vessels or manifolds**

**41** An in-line pressure vessel or prefabricated manifold on a pipeline does not require a field pressure test if it has been shop pressure tested.

**Retest**

**42** The Board may require a pipeline to be retested if, in the opinion of the Board, it may be unsafe for the pipeline to continue to be operated at the licensed operating pressure.

## **Part 4 Inspection and Records**

**Right of way inspection**

**43(1)** The licensee of a pipeline that crosses water or unstable ground shall at least once annually inspect the pipeline right of way to assess

- (a) the surface conditions on and adjacent to the right of way,
- (b) indications of any leak in the pipeline,
- (c) any construction activity performed by others,

- (d) any encroachment or development near the pipeline right of way, or
- (e) any other condition affecting the operation of the pipeline.

(2) The licensee of a pipeline other than one referred to in subsection (1) shall inspect the pipeline right of way in accordance with that subsection at least once annually or in accordance with the inspection intervals determined in the integrity management component of the licensee's manual or manuals referred to in section 7.

(3) The licensee shall conduct the inspections required under subsections (1) and (2)

- (a) at times of the year judged by the licensee to be the most appropriate to achieve a satisfactory inspection, and
- (b) so as to reasonably minimize disturbance or damage to affected surface property.

#### **Additional inspections**

**44(1)** Notwithstanding the frequency of inspections required by section 43, a licensee shall carry out additional inspections in accordance with section 43(1)(a) to (e) as follows:

- (a) monthly for any CSA Z662 Class 1 LVP product gathering segments;
- (b) once every 2 weeks for any Class 1 LVP product transmission segments, Class 1 HVP product segments or Class 2 segments conveying gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas;
- (c) once every week for any Class 2, 3 or 4 LVP product gathering or transmission segments, Class 2, 3 or 4 HVP product segments, or Class 3 or 4 segments conveying gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas.

(2) For the purposes of this section and section 45, "LVP product" does not include multiphase fluids or oilfield water.

#### **Surface construction activity**

**45** If a licensee detects or becomes aware of any current or proposed surface construction activity within the controlled area of a pipeline conveying LVP product, HVP product or gas containing

more than 10 moles of hydrogen sulphide gas per kilomole of natural gas, the licensee shall

- (a) if the surface construction activity has not commenced, meet with the party proposing to carry it out to determine what safety measures, if any, are necessary to ensure the safety of the pipeline,
- (b) if the surface construction activity has commenced, meet immediately with the party carrying it out on the site of the activity for the purpose set out in clause (a),
- (c) if there is uncertainty concerning the depth of the pipeline, confirm the depth of the pipeline prior to any further or proposed surface construction activity,
- (d) identify and mark on the ground the location of the pipeline and the limits of the controlled area, and
- (e) supervise the surface construction activity at least once each day on which the surface construction activity is taking place to ensure that all necessary safety measures are being implemented.

#### **No fees for inspection and supervision**

**46** A licensee shall perform inspections or supervision as required under this Part without charging any fee to the party carrying out the surface construction activity.

#### **Records of inspection and supervision**

**47** Unless otherwise authorized by the Board, a licensee shall maintain a record of all inspection and supervision required under this Part for a period of 2 years from the date the record is made and shall submit a copy of the record to the Board on request.

#### **Material balance inspection**

**48** A licensee shall interpret material balance records in accordance with Appendix E of CSA Z662 to determine whether a leak trend is established.

#### **Material balance calculations**

**49** A licensee who performs material balance calculations shall use sound engineering practices to derive measurement uncertainties and alarm tolerances.

**Shutdown device inspection**

**50** A licensee shall at least once annually inspect and test the emergency shutdown devices referred to in sections 13 and 14 to ensure that they are operating properly.

**Materials to be provided to Board**

**51** A licensee shall submit to the Board on request

- (a) samples of materials used in the construction of a pipeline,
- (b) cut-outs from the pipeline, and
- (c) samples of defective materials.

**Records of data**

**52(1)** A licensee shall maintain

- (a) a record of data recorded by the operator and by the supervisory control and data acquisition system, including actions taken on field-investigated alarms, for a period of 3 months from the time of the observations, and
- (b) a record of all leaks, breaks and contact damage until the pipeline is removed.

**(2)** The licensee shall submit a copy of the records referred to in subsection (1) to the Board on request.

**Annual inspection for external corrosion mitigation**

**53(1)** Unless otherwise authorized by the Board, a licensee shall conduct an inspection or test on all steel and aluminum lines in a pipeline system to determine the effectiveness of external corrosion mitigation procedures

- (a) annually, and
- (b) prior to the resumption of operation of a discontinued or abandoned pipeline.

**(2)** Notwithstanding subsection (1), an inspection or test for external corrosion mitigation is not required for a pipeline being used as a conduit for a pulled-through freestanding liner unless the outer pipeline is being used as a secondary containment vessel.

**Annual evaluation for internal corrosion mitigation**

**54(1)** Unless otherwise authorized by the Board, a licensee shall conduct and document an evaluation of any operating or discontinued metallic pipelines in a pipeline system to determine the necessity for, and the suitability of, internal corrosion mitigation procedures

- (a) annually,
- (b) prior to the commencement of operation of a new pipeline, and
- (c) prior to the resumption of operation of a discontinued or abandoned pipeline.

**(2)** The evaluation for internal corrosion mitigation shall include, as necessary, an evaluation of production records, operating experience, monitoring data and inspection data.

**Exemption for lined metallic pipelines**

**55(1)** The evaluation for internal corrosion mitigation referred to in section 54 is not required for metallic pipelines containing a full contact polymeric liner unless there is reason to believe that corrosive fluids have entered the annular space between the liner and the pipe.

**(2)** If there is reason to believe that corrosive fluids have entered the annular space between the liner and the pipe of a metallic pipeline referred to in subsection (1), the evaluation set out in section 54 must be performed to confirm whether the existing condition of the pipeline is acceptable and determine the necessity for internal corrosion mitigation procedures.

**Records of evaluation**

**56** A licensee shall maintain a record of the inspections and evaluations required under sections 53, 54 and 55 and their results for a period of at least 6 years from the date the record is made and shall submit a copy of the record to the Board on request.

**Notice of maintenance activity**

**57(1)** The licensee of a pipeline conveying HVP product or natural gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas shall notify the Board at least 48 hours prior to commencing

- (a) the replacement of short portions of pipeline allowed by section 3(3)(a),

- (b) instrumented internal inspections of the pipeline, and
- (c) any activity that may result in welding on an in-service pipeline.

(2) If the requirement for 48 hours' notice referred to in subsection (1) cannot be met due to the need for emergency pipeline repairs to restore service, the licensee shall notify the Board at the earliest opportunity.

## **Part 5 Ground Disturbance**

### **Ground disturbance in absence of pipeline right of way**

**58** No person shall undertake a ground disturbance within 5 metres of the centreline of a pipeline where there is no pipeline right of way without the approval of

- (a) the licensee of the pipeline, or
- (b) the Board, if approval cannot reasonably be obtained from the licensee.

### **Alberta One-Call**

**59** Every licensee shall register with the Alberta One-Call service and shall

- (a) register every licensed pipeline with Alberta One-Call regardless of the operational status of the pipeline, and
- (b) for new construction, register the pipeline prior to putting it into operation.

### **Preparation for ground disturbance**

**60(1)** For the purposes of section 32(1)(a)(i)(B) of the Act, the distance from the perimeter of the area in which a person proposes to undertake a ground disturbance within which the person shall take all precautions reasonably necessary to ascertain whether a pipeline exists before commencing any work, operation or activity is 30 metres.

(2) A person proposing to undertake a ground disturbance within the controlled area of a pipeline shall notify the licensee of the pipeline and Alberta One-Call at least 2 days and not more than 10 days, excluding Saturdays, Sundays and holidays, prior to commencing the ground disturbance so that Alberta One-Call may notify the licensee of any buried pipeline of the intent to disturb the

ground and request that the licensee identify and mark the location of the pipeline.

(3) The identifying and marking referred to in subsection (2) must be provided no later than 2 days, excluding Saturdays, Sundays and holidays, after the licensee is notified of the proposed ground disturbance unless a longer time period is agreed to by the licensee and the person proposing to undertake the ground disturbance.

(4) If the licensee has notice of a proposed ground disturbance in the controlled area of a pipeline, the licensee shall, prior to the commencement of the ground disturbance, accurately mark on the surface of the ground the horizontal position and alignment of the pipeline with clearly distinguishable warning signs and markers at adequate intervals in accordance with the Uniform Color Code, and provide documentation of the markings to the person proposing to undertake the ground disturbance.

(5) A person shall not proceed with a ground disturbance within the controlled area of a pipeline until the locating and marking of the pipeline has been completed.

(6) If the person proposing to undertake the ground disturbance wishes to carry out the identifying and marking of the pipeline in accordance with the requirements of subsection (4) and obtains the prior agreement of the licensee to do so, the licensee may delegate its responsibility under subsection (4) to the person.

(7) Notwithstanding subsection (4), alternative methods of locating and marking a pipeline may be used if agreed to by the licensee and the person proposing to undertake the ground disturbance.

(8) Subsections (4) and (5) do not apply if

- (a) the ground disturbance is proposed to be undertaken in the controlled area outside the right of way of an existing pipeline,
- (b) the right of way or pipeline is clearly separated from the proposed ground disturbance by a fence, highway, road or other visible improvement, and
- (c) the exemption from the requirements of subsections (4) and (5) is agreed to by the licensee of any affected pipeline.

(9) The requirement for 2 days' notice in subsection (2), and all the requirements of subsections (3), (4) and (5), do not apply if a ground disturbance is undertaken in connection with the restoration of essential public services in an emergency or containment of an environmental emergency and the alternative notification, location

and excavation procedures are agreed to by the licensee of any affected pipeline.

#### **Erection of temporary fencing**

**61(1)** Before commencing a ground disturbance in the controlled area of a pipeline where uncontrolled access over the pipeline by equipment may cause damage to the pipeline, the person responsible for the proposed ground disturbance shall erect temporary fencing of the pipeline right of way to limit access.

**(2)** When necessary, the temporary fencing shall allow for crossings of the pipeline right of way.

**(3)** The location of crossings and the precautions to be taken to protect pipelines from damage at those locations shall be determined and agreed to by the licensee and the person responsible for the proposed ground disturbance, and failing agreement, either party may apply to the Board for a decision.

#### **Approval of ground disturbance**

**62(1)** When approval for a ground disturbance is requested from a licensee pursuant to section 42 of the Act or section 58 of this Regulation, the licensee shall respond in writing within 21 days from the date the approval is requested.

**(2)** An approval granted by the Board pursuant to section 42 of the Act or section 58 of this Regulation may contain terms and conditions the Board considers appropriate in the circumstances.

#### **Duties of licensee and person undertaking ground disturbance**

**63(1)** A licensee of an existing pipeline who has been notified under section 32(1)(b) of the Act of a proposed ground disturbance shall

- (a) have a representative inspect the pipeline before the commencement of the ground disturbance to ensure that the identifying and marking referred to in section 60(4) have been properly carried out,
- (b) ensure that its representative has in his or her possession when on the site of the ground disturbance a copy of the written approval for the ground disturbance,
- (c) ensure that its representative has completed a supervisory level training course in ground disturbance practices and is currently certified to supervise a ground disturbance, and

(d) carry out any inspections of the ground disturbance that are necessary to ensure the continued safety of the pipeline.

(2) The person responsible for a ground disturbance shall keep all pipeline warning signs or markers referred to in section 60(4) visible and legible for the duration of the ground disturbance and shall replace or relocate them if necessary.

(3) A person undertaking a ground disturbance who exposes any part of a pipeline shall notify the licensee at least 24 hours prior to backfilling the pipeline, and on being so notified, a representative of the licensee shall inspect without delay the exposed part of the pipeline before backfilling to ensure that no damage has occurred.

(4) A licensee shall retain a record of any inspections conducted under subsection (3) for a period of 2 years from the date the record is made and shall submit a copy of the record to the Board on request.

#### **Safety of adjacent pipeline**

**64** If in the opinion of the Board it is desirable to do so, the Board may require that an existing pipeline located adjacent to a ground disturbance in the controlled area of a pipeline be depressured, operated at a reduced pressure or otherwise protected throughout the period of the ground disturbance.

#### **Exposing pipeline**

**65(1)** An excavation conducted for the purpose of locating a pipeline shall be done by hand excavation until the pipeline is sufficiently exposed to enable it to be identified.

(2) A representative of the licensee shall be present at the time the pipeline is being exposed, unless the licensee and the person undertaking the ground disturbance agree otherwise.

(3) A person proposing to undertake a ground disturbance that will cross or be carried out within 5 metres of an existing pipeline shall, before commencing any mechanical excavation, locate and expose the existing pipeline by hand excavation.

(4) Hand excavation procedures must be acceptable to the licensee of the pipeline.

(5) After a pipeline has been located in accordance with this section, no person shall use or cause to be used mechanical excavation equipment within 600 millimetres of the pipeline or within any distance beneath a pipeline, except under the direct

supervision of a representative of the licensee of the existing pipeline.

**(6)** Notwithstanding subsection (3), an existing pipeline need not be exposed if

- (a) it has been located, marked and inspected in accordance with sections 60 and 63, and hand excavated to a distance of 5 metres on each side of the located and marked position, with the hand excavation being made to a depth at least 150 millimetres greater than that required for the ground disturbance, or
- (b) its position has been verified to the satisfaction of the licensee by comparison with recorded measurements of the pipeline taken during a previous exposure.

**(7)** If a proposed ground disturbance will be parallel to and within 5 metres of a pipeline, the pipeline may be exposed at intervals along the pipeline, with the length of the intervals being at the discretion of the licensee of the existing pipeline or at the Board's direction.

**(8)** If a pipeline is to be exposed by the licensee of the pipeline, the licensee may make written application to the Board for approval to use pipeline exposure procedures other than those referred to in subsection (6) or (7).

#### **Vehicles crossing pipeline**

**66** No person shall operate a vehicle or equipment across a pipeline at a point that is not within the upgraded and traveled portion of a highway or public road without obtaining approval from the licensee of the pipeline unless

- (a) the vehicle or equipment is used for farming operations,
- (b) the vehicle is an off-highway vehicle as defined in section 117(a)(iii) to (viii) of the *Traffic Safety Act*, or
- (c) the vehicle is a private passenger vehicle as defined in section 1(1)(jj) of the *Traffic Safety Act* and has a nominal chassis rating of not greater than 3/4 of a ton.

#### **No fees for ground disturbance activities**

**67** A licensee shall locate and mark a pipeline, perform inspections and supervise a ground disturbance as required under this Part without charging any fee to the party undertaking the ground disturbance.

## Part 6 Warning Signs

### Pipeline warning signs

**68(1)** A licensee shall install pipeline warning signs

- (a) at each side of the crossing where a pipeline crosses a highway, road, railway or watercourse,
- (b) within the land acquired for the pipeline and facing the highway, road, railway or watercourse,
- (c) if the pipeline right of way adjoins the right of way of a highway, road or railway, on the common boundary of the rights of way but not within the right of way of the highway, road or railway, and
- (d) if the pipeline is
  - (i) located in a ditch or unpaved area in the right of way of a highway or road, or
  - (ii) conveying HVP product in an urban area,at intervals that will clearly and continuously mark the location of the pipeline.

**(2)** A licensee shall install warning signs as required by subsection (1)

- (a) prior to the commencement of operation of the pipeline,
- (b) in accordance with either format set out in Schedule 1, provided that the format is consistent for the entire pipeline that is the subject of the licence,
- (c) no more than 300 millimetres from a fence line, if one exists,
- (d) as close to the centreline of the pipeline as possible without risking striking the pipeline,
- (e) so that each sign is not obscured by brush or any other thing, and
- (f) as independent, free-standing structures that must not be attached to any other structures except the fencing surrounding the licensee's facilities.

**(3)** Notwithstanding subsection (2)(b), a licensee may install temporary warning signs not in accordance with Schedule 1 while

surface restoration activities are in progress but shall install permanent warning signs in accordance with Schedule 1 as soon as surface restoration activities are completed.

(4) A licensee shall, regardless of the operational status of the pipeline and for all pipelines, including abandoned pipelines, maintain pipeline warning signs and shall replace any pipeline warning sign that becomes defaced, worn out or illegible or that is missing or destroyed.

(5) A licensee shall, regardless of the operational status of a pipeline and for all pipelines, including abandoned pipelines, update all warning signs by replacing them with new signs or applying durable permanent adhesive decals bearing the updated information

- (a) before a telephone number indicated on the warning sign becomes invalid, and
- (b) within 180 days of a change in any of the other information required by Schedule 1 unless otherwise authorized by the Board.

(6) If a pipeline or part of a pipeline has been removed, any existing warning signs in the area from which the pipeline or part of the pipeline has been removed shall also be removed.

(7) A licensee may apply to the Board for permission to install warning signs otherwise than in accordance with Schedule 1 in exceptional circumstances.

(8) A licensee shall not indicate on a pipeline sign that a pipeline is abandoned.

#### **HVP product**

**69** Warning signs for a pipeline conveying HVP product must clearly indicate the name of the highest vapour pressure HVP product that may be conveyed.

#### **Group pipeline signs**

**70(1)** A licensee may install group pipeline warning signs for a group of pipelines in the same right of way, rather than a separate sign for each pipeline, if

- (a) the licensee is the same for each pipeline in the group,
- (b) each pipeline in the group conveys the same product,

- (c) the warning sign, in accordance with Schedule 1, identifies that there are other pipelines close by, and
- (d) none of the pipelines in the group convey HVP product or gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas.

(2) The warning signs for a group of pipelines must be placed on both sides of the right of way containing the group of pipelines and must not be more than 60 metres apart.

#### **Identification of pipeline installations**

**71(1)** A licensee shall install pipeline warning signs in accordance with Schedule 2 adjacent to all pipeline installations, including meter regulator stations and regulator stations, valves, field manifolds and line heaters.

(2) A licensee shall install a large facility identification sign at the entrance to any gas compressor station and oil pumping station showing the name of the facility, legal location of the facility, the name of the licensee, an emergency telephone number and a warning symbol as set out in Schedule 2.

(3) Warning symbols identifying the hazard at a pipeline installation referred to in subsection (2) shall be limited to

- (a) Category I: Flammable (gas or liquid), or
- (b) Category II: Poisonous Gas.

(4) A Category I symbol must be used unless an installation conveys a poisonous substance, in which case a Category II symbol must be used.

(5) No warning symbols may be used that do not conform to the requirements set out in this section and Schedule 2.

## **Part 7 Changes to Pipeline**

#### **Liner installation**

**72** Unless otherwise authorized by the Board, an application to the Board for approval to install a liner in a pipeline or part of a pipeline shall be in accordance with the requirements of Directive 56.

**Liner installation in sour service**

**73** If a liner is to be installed in a pipeline to be used in sour service, as defined in CSA Z662, and the hoop strength capability of the lined system depends on the strength of the exterior pipeline pipe, the exterior pipeline pipe must be in accordance with the sour service requirements of CSA Z662 and this Regulation.

**Change in substance or pressure**

**74** Unless otherwise authorized by the Board, an application for approval to convert a pipeline to convey a substance other than the substance authorized by the licence or to provide for a change in the licensed maximum operating pressure of a pipeline must be in accordance with the requirements of Directive 56.

**Testing requirements for change in substance or pressure**

**75** The Board may establish testing requirements it considers necessary for the approval of a change in substance conveyed or licensed maximum operating pressure.

## **Part 8 Release of Product**

**Report of leak, break or contact damage**

**76** If a leak, break or contact damage has been reported to the Board in accordance with section 35 of the Act or section 27 of this Regulation, the licensee shall on request submit to the Board a written report indicating

- (a) the time the leak, break or contact damage occurred,
- (b) the approximate quantity of substance lost, if any,
- (c) the method of repair, if applicable,
- (d) the conditions that caused or contributed to the leak, break or contact damage and any substantiating reports,
- (e) the steps to be taken to prevent similar occurrences in the future,
- (f) information regarding the spill containment and recovery techniques, and
- (g) any other information that the Board may request.

**Containment of leak or break**

**77** If oil, salt water or other deleterious liquids escape from a leak or break in a pipeline, the licensee shall, on detection of the leak or break, take immediate steps to stop the source of release and contain and clean up the spill.

**Repair of leak, break or contact damage**

**78** If a leak, break or contact damage occurs in a pipeline, the Board may specify the method of repair.

**Intentional release of gas**

**79(1)** Unless otherwise authorized by the Board, a licensee shall not intentionally release from a pipeline into the atmosphere any non-distribution specification gas unless the gas is burned in an approved manner or otherwise treated to meet the required specifications.

**(2)** Subsection (1) does not apply when the gas referred to in subsection (1) is vented intermittently

- (a) from the annulus of a lined pipeline during a liner inspection,
- (b) during the removal of corrosion coupons, provided that the coupon loop or fitting has been purged with gas not containing hydrogen sulphide gas at a concentration higher than acceptable for distribution specification gas, and the coupon loop or fitting is then depressurized to flare, hydrogen sulphide removal treatment or other process before opening, or
- (c) from a pig sender or receiver that has been purged with gas not containing hydrogen sulphide gas at a concentration higher than acceptable for distribution specification gas, and the pig sender or receiver is then depressurized to flare, hydrogen sulphide removal treatment or other process before opening.

**(3)** Gas vented intermittently in accordance with subsection (2)

- (a) does not require an approval under Directive 60,
- (b) must not be vented continuously, and
- (c) must not cause off-lease odours.

**(4)** Any other gas vented from a pipeline must be vented in accordance with the requirements of Directive 60.

**Part 9**  
**Relocation or Alteration of Pipeline**  
**or Other Board Direction**

**Application for direction under section 33 of the Act**

**80(1)** An application for a direction under section 33 of the Act must include

- (a) one copy of the most recent Board Pipeline Base Map showing
  - (i) the present location of the pipeline where the alteration, relocation or addition is proposed,
  - (ii) the name of the licensee and the licence number of the pipeline,
  - (iii) the proposed pipeline alteration, relocation or addition, and
  - (iv) details of any surface work or improvement at the pipeline location if the alteration, relocation or addition is to accommodate the surface work or improvement;
- (b) the specifications of the pipeline and any associated casing;
- (c) a statement concerning
  - (i) the purpose of the pipeline alteration, relocation or addition and the reason the applicant considers it to be in the public interest,
  - (ii) any documented evidence relating to prior knowledge by either party of the surface work or improvement affecting the pipeline, and
  - (iii) the opinion of the applicant about allocation of costs necessary to complete the pipeline alteration, relocation or addition and the reasons for it;
- (d) an estimate of total costs for the alteration, relocation or addition;
- (e) a list of owners and occupants of property affected by the pipeline alteration, relocation or addition and the status of acquisition of right of way, working space and consents of owners and occupants.

(2) On receipt of the application referred to in subsection (1), the Board may require written comments from the persons affected by the pipeline alteration, relocation or addition.

(3) The Board may require the licensee to perform any testing that it considers necessary prior to making an order under section 33 of the Act.

#### **Notice to Board**

**81(1)** A licensee shall notify the Board when the work pursuant to a direction under this Part has been completed.

(2) After receiving a notice referred to in subsection (1), the Board may amend the licence.

## **Part 10 Discontinuance, Abandonment, Removal or Resumption**

#### **Discontinuance or abandonment of pipeline**

**82(1)** Unless otherwise authorized by the Board, a licensee shall discontinue, abandon or return to active flowing service a pipeline that has not seen active flowing service within the last 12 months.

(2) Unless otherwise authorized by the Board, a licensee required under subsection (1) to discontinue or abandon a pipeline or part of a pipeline shall do so in accordance with the requirements of Directive 56 and notify the Board in accordance with the requirements of Directive 56 within 90 days of the completion of the discontinuance or abandonment operations.

(3) When a pipeline or part of a pipeline is discontinued, the licensee shall ensure that the pipeline or the part of the pipeline that is discontinued is

- (a) physically isolated or disconnected from any operating facility or other pipeline,
- (b) cleaned, if necessary,
- (c) purged with fresh water, air or inert gas, any of which may include the addition of internal corrosion inhibitors if the licensee is prepared to mitigate the environmental effects that could occur as a result of accidental release or spillage,
- (d) protected by suitable internal and external corrosion control measures,

- (e) not isolated or disconnected in a manner that results in an adjoining operating pipeline having fittings or connection points remaining that would create stagnant fluid traps or dead legs, unless
  - (i) those locations are permanently accessible and subject to a scheduled inspection program, or
  - (ii) the contained fluids are confirmed and documented as being non-corrosive,

and

- (f) left in a safe condition.

**(4)** If a pipeline or part of a pipeline cannot be physically isolated or disconnected from an operating facility or pipeline, it must not be discontinued or abandoned but must be maintained as an operating pipeline and its integrity must be taken into account in the licensee's overall pipeline integrity management program.

**(5)** When a pipeline or part of a pipeline is abandoned, the licensee, in addition to meeting the requirements of subsection (3), shall

- (a) remove any surface equipment, including pig traps, risers, block valves and line heaters, unless they are located within the boundaries of a facility that will continue to have other licensed equipment operating after the pipeline abandonment,
- (b) cut off the pipeline or the part of the pipeline to be abandoned below surface at pipeline level, except when it is located within the boundaries of a facility that will continue to have other licensed equipment operating after the pipeline abandonment,
- (c) purge the pipeline with fresh water, air or inert gas, none of which may contain added chemicals or corrosion inhibitors,
- (d) remove cathodic protection from the pipeline,
- (e) permanently plug or cap all open ends by mechanical means or welded means, and
- (f) identify all ends with a permanent tag that indicates the licensee, licence and line number, other end points, date of abandonment and abandonment media left inside the pipeline.

(6) When an existing pipeline is exposed for any purpose and reveals a stagnant fluid trap or dead leg in an operating segment of the pipeline that resulted from a previous discontinuance or abandonment, the licensee shall remedy the stagnant fluid trap or dead leg by

- (a) removing and replacing the affected parts of the pipeline,
- (b) establishing permanent access to the affected parts of the pipeline and subjecting them to a scheduled inspection program,
- (c) confirming and documenting that the contained fluids are non-corrosive, or
- (d) some other method acceptable to the Board.

(7) If the pipeline or the part of the pipeline to be discontinued or abandoned is either polymeric in composition or contains a polymeric liner, the licensee shall monitor the internal atmosphere for a period of time sufficient to determine that the polymeric materials are not evolving any hazardous gaseous constituents that would prevent the pipeline from complying with subsection (3)(c) and (f).

(8) Subsection (6) applies to all pipelines including those that were discontinued or abandoned prior to the coming into force of this Regulation.

(9) A licensee shall abandon a pipeline in accordance with this section

- (a) if the Board has suspended or cancelled the licensee's licence because the licensee has contravened the Act, this Regulation or an order or direction of the Board,
- (b) if the Board has notified the licensee that in the opinion of the Board the pipeline may constitute an environmental or safety hazard,
- (c) if the licensee has ceased to be a resident of Alberta and has not appointed an agent in accordance with the Act,
- (d) if the licensee is deceased,
- (e) if the licensee is a corporation registered, incorporated or continued under the *Business Corporations Act* that is not active or has been dissolved or if the corporate registry status of the licensee is struck or rendered liable to be struck under any legislation governing corporations,

- (f) if the licensee has not discontinued the pipeline in accordance with the Act, this Regulation or an order or direction of the Board,
- (g) if the pipeline is associated with a well or facility that has been abandoned or has been ordered to be abandoned by the Board and the pipeline is not used for any other well or facility,
- (h) if the licensee has sold or disposed of the licensee's interest in the pipeline and has not transferred it to a person who is eligible to hold a licence for the pipeline, or
- (i) where otherwise ordered to do so by the Board.

AR 91/2005 s82;186/2005;212/2005

#### **Responsibility for discontinued or abandoned pipeline**

**83** Notification to the Board of discontinuance or abandonment operations does not relieve the licensee from the responsibility for further discontinuance or abandonment or other operations with respect to the same pipeline or part of a pipeline that may become necessary.

#### **Removal of pipeline**

**84** Unless otherwise authorized by the Board, a licensee intending to remove an entire pipeline or any part of a pipeline shall submit an application to the Board for approval in accordance with the requirements of Directive 56.

#### **Resumption of pipeline operation**

**85(1)** Unless otherwise authorized by the Board, a licensee intending to resume the operation of a pipeline or part of a pipeline that has been discontinued, abandoned or that has not been in active flowing service within the last 12 months shall make an application to the Board for approval in accordance with the requirements of Directive 56.

**(2)** An application under subsection (1) shall include comprehensive information as set out in Directive 56 about the pipeline materials and their condition and the Board may require pressure testing, non-destructive examination, material testing or other examination of the pipeline before rendering a decision on the application.

## **Part 11 Transitional Provisions, Repeal, Expiry and Coming into Force**

### **Transitional**

**86** A licence or approval granted by the Board before the coming into force of this Regulation remains in force according to its terms until it expires or is amended, suspended or cancelled or a subsequent licence or approval is granted under the Act or this Regulation.

### **Repeal**

**87** The *Pipeline Regulation* (AR 122/87) is repealed.

### **Expiry**

**88** For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on January 31, 2015.

### **Coming into force**

**89(1)** Subject to subsections (2), (3), (4) and (5), this Regulation comes into force on May 31, 2005.

**(2)** Section 44(1)(b), in respect of Class 2 segments conveying gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas, and section 44(1)(c), in respect of Class 3 or 4 segments conveying gas containing more than 10 moles of hydrogen sulphide gas per kilomole of natural gas, come into force on November 30, 2005.

**(3)** Sections 45, 68(2)(b) and (f), 68(4), (5), (6) and (8) and 71(2) come into force on November 30, 2005.

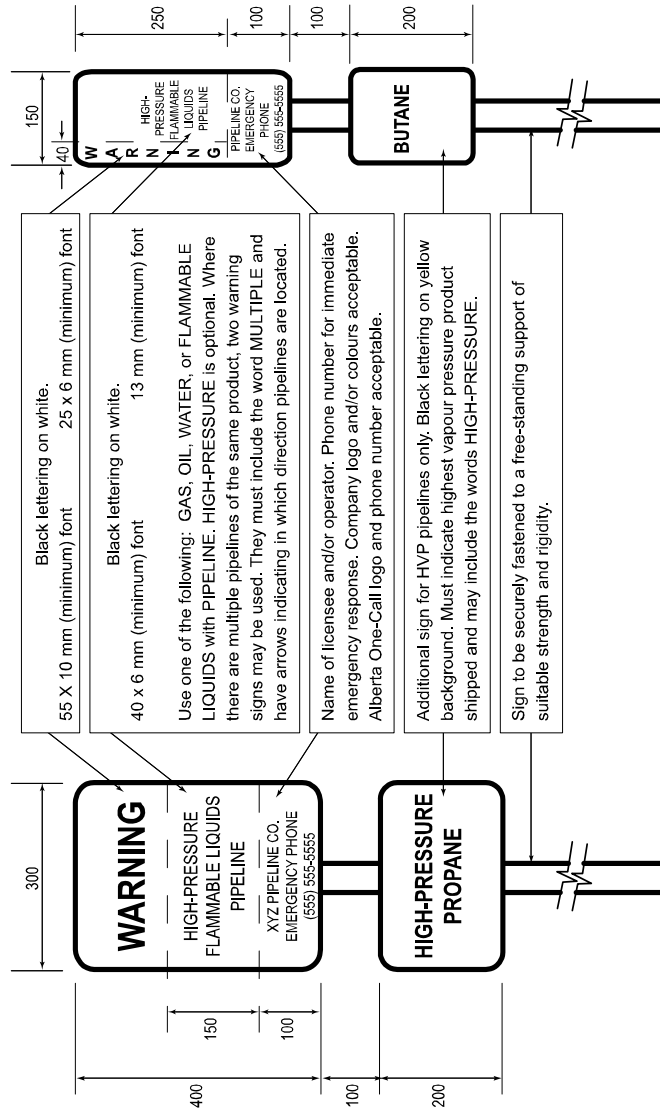
**(4)** Sections 7, 43, 54, 59, 63(1)(b) and (c) and 82(1) come into force on May 31, 2006.

**(5)** With respect to licences granted before the coming into force of this Regulation, including amendments to those licences whether granted before or after the coming into force of this Regulation, section 82(4) comes into force on May 31, 2006.

**(6)** With respect to licences granted after the coming into force of this Regulation, section 15(2) to (4) come into force on November 30, 2005.

**Schedule 1**

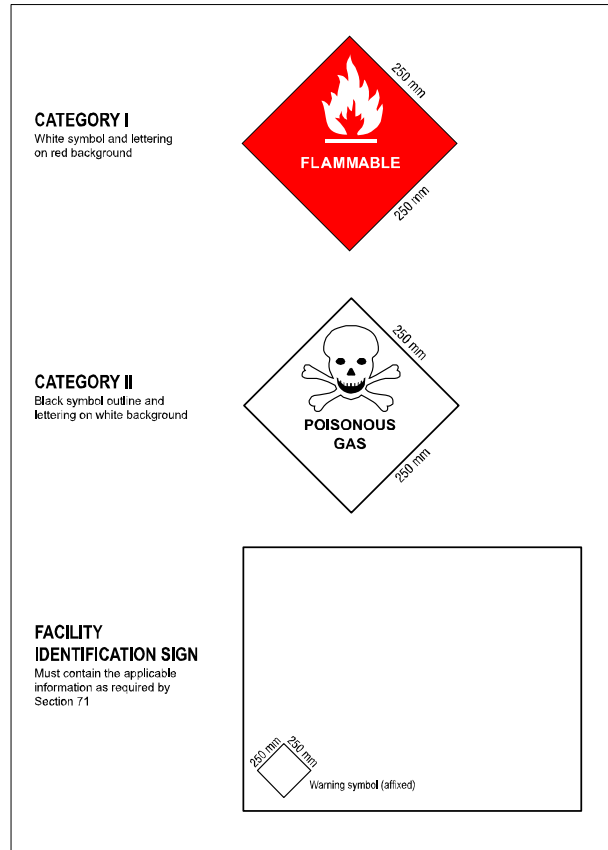
**Approved Pipeline Warning Signs**



All dimensions are in millimetres (mm).  
Approximately to scale.

## Schedule 2

### Facility Identification Signs



## Schedule 3

### Excavation Procedures for Exposing a Pipeline that is More Than 1.5 Metres Below the Surface of the Ground (section 65)

#### Steps:

- 1 Using electronic or other depth location devices, determine the location, alignment and approximate depth of cover of the pipeline to be exposed. A minimum of 3 readings spaced a minimum of 3 m apart must be taken and the alignment marked.
- 2 Add 25 cm to the maximum depth recorded. This sum is labelled C on Figures 1 and 2.

- 3** Using hand excavation, dig a trench of length  $2C$  to a depth not exceeding 1.5 m at right angles to the alignment marked in Step 1.
- 4** If no pipeline is found, dig a square of side  $2C$  centred on the hand-excavated trench, as shown in Figure 1, using mechanical excavation to a depth of 0.5 m less than the trench depth.
- 5** Decrease the dimension of  $C$  by the depth of the mechanical excavation.
- 6** Repeat the procedure from Step 3, using a new value for  $C$  each time until the pipeline is found.
- 7** If the pipeline is very deep, check the alignment and depth after the 2nd mechanical excavation and adjust  $C$ , if necessary.

This procedure is based on the assumption that an electronic depth location device gives a reasonably accurate alignment and depth of pipeline to be exposed. The addition of 25 cm to the indicated depth is intended as a precautionary measure to accommodate inaccuracy in depth and alignment.

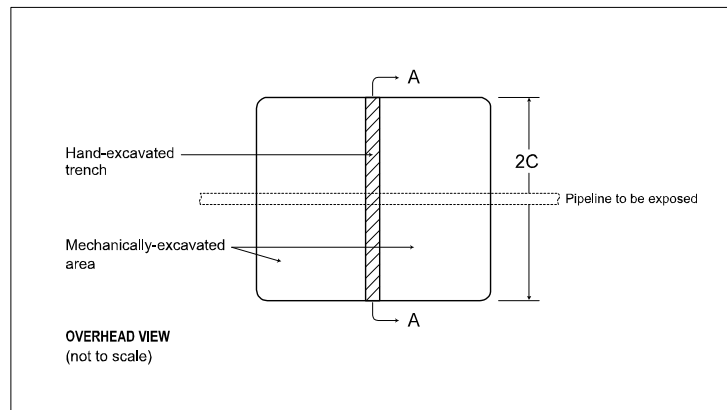


Figure 1 - Plan View

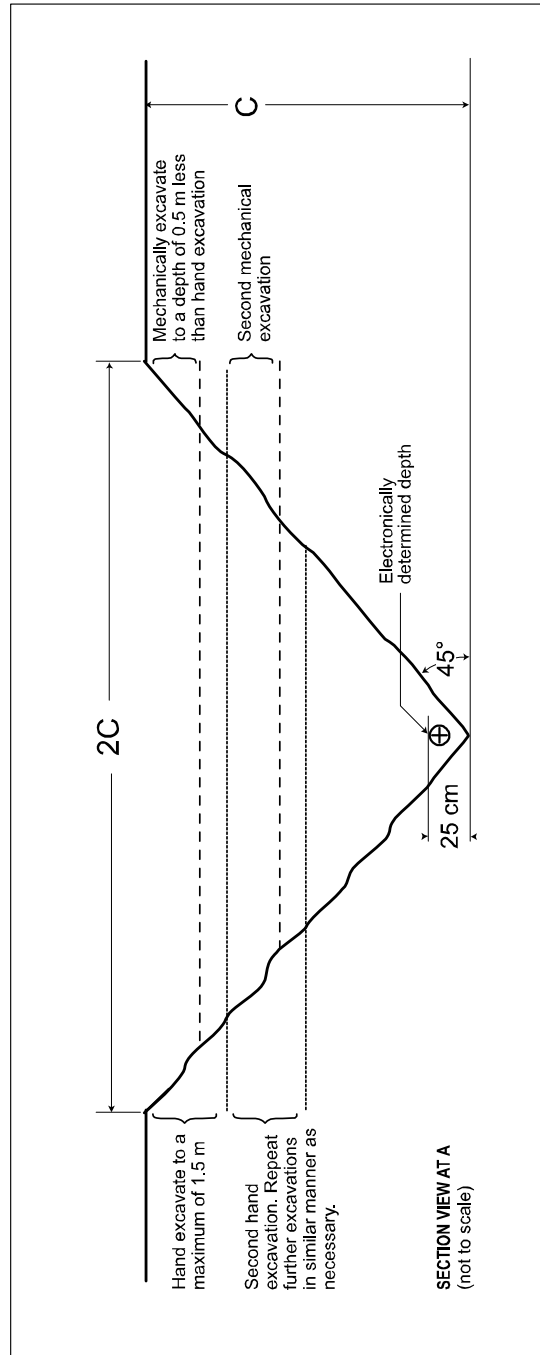


Figure 2 - Cross-section (along outline AA in Figure 1)