

Part

No. 25 20 June 2018

Laws and Regulations

Volume 150

Summary

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Contents

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(2) proclamations and Orders in Council for the coming into force of Acts;

(3) regulations and other statutory instruments whose publication in the *Gazette officielle du Québec* is required by law or by the Government;

(4) Orders in Council, decisions of the Conseil du trésor and minister's orders whose publication is required by law or by the Government;

(5) regulations made by courts of justice and quasi-judicial tribunals;

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PROVINCE OF QUÉBEC

1ST SESSION

41ST LEGISLATURE

QUÉBEC, 15 MAY 2018

OFFICE OF THE LIEUTENANT-GOVERNOR

Québec, 15 May 2018

This day, at thirty minutes past seven o'clock in the evening, His Excellency the Lieutenant-Governor was pleased to assent to the following bill:

173 An Act mainly to introduce a basic income for persons with a severely limited capacity for employment

To this bill the Royal assent was affixed by His Excellency the Lieutenant-Governor.



Bill 173 (2018, chapter 11)

An Act mainly to introduce a basic income for persons with a severely limited capacity for employment

Introduced 14 March 2018 Passed in principle 19 April 2018 Passed 15 May 2018 Assented to 15 May 2018

Québec Official Publisher 2018

EXPLANATORY NOTES

This Act first amends the Individual and Family Assistance Act mainly to introduce the Basic Income Program, whose goal is to grant enhanced financial assistance to persons with a severely limited capacity for employment and who are recipients of the Social Solidarity Program.

As regards the Basic Income Program, the Act provides, in particular

(1) that the eligibility conditions for the program are to be determined by regulation;

(2) that an eligible person may elect not to take advantage of the program or elect to take advantage of it subsequently under the conditions determined by regulation;

(3) various specific rules, including the possibility for an eligible person to own certain property or liquid assets, as determined by regulation;

(4) that the basic income is established and paid monthly and is calculated according to the method prescribed by regulation; and

(5) that the basic income may be increased by the amount of special benefits.

Second, other amendments are made to the Individual and Family Assistance Act as regards, in particular

(1) the introduction of a work income supplement for recipients of a last resort financial assistance program;

(2) the potential adjustments to the social solidarity allowance for recipients under the program; and

(3) the possibility of increasing the amount of personal expense allowance paid to a person being sheltered who receives financial assistance under the Social Solidarity Program or the Basic Income Program. Lastly, the Government is empowered to make the necessary regulations for the purposes of the Basic Income Program, and amending, transitional and final provisions are introduced.

LEGISLATION AMENDED BY THIS ACT:

 Act to promote access to justice through the establishment of the Service administratif de rajustement des pensions alimentaires pour enfants (chapter A-2.02);

- Individual and Family Assistance Act (chapter A-13.1.1);
- Health Insurance Act (chapter A-29);
- Act respecting prescription drug insurance (chapter A-29.01);
- Code of Civil Procedure (chapter C-25.01);
- Act respecting pre-hospital emergency services (chapter S-6.2);

– Act to allow a better match between training and jobs and to facilitate labour market entry (2016, chapter 25).

REGULATION AMENDED BY THIS ACT:

– Individual and Family Assistance Regulation (chapter A-13.1.1, r. 1).

Bill 173

AN ACT MAINLY TO INTRODUCE A BASIC INCOME FOR PERSONS WITH A SEVERELY LIMITED CAPACITY FOR EMPLOYMENT

THE PARLIAMENT OF QUÉBEC ENACTS AS FOLLOWS:

INDIVIDUAL AND FAMILY ASSISTANCE ACT

1. Section 1 of the Individual and Family Assistance Act (chapter A-13.1.1) is amended by adding the following sentence at the end of the second paragraph: "It is also designed to foster their social participation."

2. Section 2 of the Act is amended by adding the following sentence at the end: "The measures, programs and services are also established to contribute to those persons' economic inclusion."

3. Section 15 of the Act is amended by replacing "or the Social Solidarity Program" in the first paragraph by ", the Social Solidarity Program or the Basic Income Program".

4. Section 25 of the Act is amended by adding the following paragraph at the end:

"Subparagraphs 2 and 3 of the first paragraph do not apply within the framework of the Basic Income Program."

5. Section 30 of the Act is amended by adding "or an application made under the Basic Income Program" in the second paragraph after "financial assistance".

6. Section 33 of the Act, amended by section 25 of chapter 25 of the statutes of 2016, is again amended by replacing "last resort financial assistance program" in paragraph 2 by "financial assistance program provided for in Chapter I, II, V or VI of Title II".

7. Section 45 of the Act is amended by replacing "To foster the objectives" by "In order to foster the achievement of the objectives".

8. Section 47 of the Act, amended by section 27 of chapter 25 of the statutes of 2016, is again amended by inserting "or the Basic Income Program" after "Solidarity Program".

9. Section 55 of the Act, amended by section 28 of chapter 25 of the statutes of 2016, is again amended by adding the following paragraph at the end:

"Moreover, when the amount obtained under the first paragraph is greater than zero, the benefit is increased, in the cases and under the conditions determined by regulation, by a work income supplement, the amount of which is calculated in accordance with the method provided for in that paragraph."

10. Section 56 of the Act is amended by replacing "paragraph 2 of section 55" in the first paragraph by "subparagraph 2 of the first paragraph of section 55".

II. Section 72 of the Act is amended

(1) by inserting the following paragraph at the beginning:

"The Government may, by regulation, prescribe for recipients under the program the amounts of the adjustments for adults, which may vary according to the time elapsed since they became recipients under the program, and determine the cases in which and the conditions under which those amounts are to be granted.";

(2) by inserting "also" after "The Government may" in the second paragraph.

12. Section 81 of the Act is amended

(1) by replacing "or the Social Solidarity Program" by ", the Social Solidarity Program or the Basic Income Program";

(2) by replacing "either of those last resort financial assistance programs, to the extent that they are also eligible under those last resort programs" by "any of those financial assistance programs, to the extent that they are also eligible under those programs".

13. The Act is amended by inserting the following section after section 83.5, enacted by section 31 of chapter 25 of the statutes of 2016:

 14. The Act is amended by inserting the following after section 83.14, enacted by section 31 of chapter 25 of the statutes of 2016:

"CHAPTER VI

"BASIC INCOME PROGRAM

"83.15. The purpose of the Basic Income Program is to grant enhanced financial assistance to persons with a severely limited capacity for employment. A further purpose is to foster their social participation and contribute to their economic inclusion.

"83.16. In order to foster the achievement of the objectives of the Basic Income Program, the Minister may, in accordance with Title I, offer employment-assistance and social assistance and support measures, programs and services to persons eligible under the program and, where applicable, adapt them to meet the particular needs of the persons concerned by the program.

"83.17. A person is eligible under the Basic Income Program if, during the period determined by regulation, the person has a severely limited capacity for employment within the meaning of section 70 and is a recipient under the Social Solidarity Program, and if the person meets the other conditions determined by regulation.

Despite the first paragraph, a person is also eligible under the Basic Income Program if, in the cases and under the conditions determined by regulation, the person has a severely limited capacity for employment that should in all likelihood prevent the person from acquiring economic self-sufficiency permanently or indefinitely.

The provisions of this chapter apply by operation of law to any person who meets the eligibility requirements of the program.

"83.18. A person may not receive an allowance granted under the Social Solidarity Program if he or she is eligible under the Basic Income Program.

Despite the first paragraph, an eligible person may elect not to take advantage of the Basic Income Program in the cases and under the conditions determined by regulation.

However, the person may at any subsequent time apply to take advantage of the program in accordance with the conditions determined by regulation.

"83.19. A person who is no longer eligible under the program becomes eligible again in the cases and under the conditions determined by regulation.

"83.20. The benefit granted under the program takes the form of a basic income.

"83.21. The basic income is established monthly and calculated in accordance with the method determined by regulation.

For the calculation of the basic income, the regulation may, among other things,

(1) establish the amount of the applicable basic income, in the cases and under the conditions it determines;

(2) prescribe, in the cases and under the conditions it determines, any adjustment amount that may increase the basic income and any amount that may be subtracted from the income, and exclude any amount from the calculation; and

(3) prescribe special rules for the month of the application.

The basic income is increased by any special benefit amount granted under the Social Solidarity Program, in the same cases and under the same conditions, subject to the exceptions determined by regulation.

"83.22. In the cases and under the conditions determined by regulation, a person eligible under the program may own certain property or liquid assets in order to foster the person's social participation and economic inclusion.

"83.23. The basic income is paid monthly according to the terms determined by regulation.

****83.24.** Sections 49 to 51, 58, 59, 63, 64 and 69 apply to the Basic Income Program.

"83.25. When there is failure to fulfil any of the obligations imposed by sections 30, 31, 36, 63 and 64, the Minister may, as the case may be, refuse or cease to pay financial assistance or reduce it.

Decisions made by the Minister under this section must include reasons and be communicated in writing to the person concerned."

15. Sections 87 and 88, the first paragraph of section 90, section 91, the first paragraph of sections 92 to 94 and the second paragraph of section 107 of the Act are amended by inserting "or the Basic Income Program" after "last resort financial assistance program".

16. Section 114 of the Act, amended by section 35 of chapter 25 of the statutes of 2016, is again amended by replacing "II or V" in the second paragraph by "II, V or VI".

17. Section 132 of the Act is amended by inserting the following paragraph after paragraph 15:

"(15.1) prescribing the method for calculating the amount of the work income supplement, and determining the cases in which and the conditions under which it is granted;".

18. Section 133 of the Act is amended by replacing paragraph 2 by the following paragraphs:

"(2) prescribing, for the purposes of the first paragraph of section 72, the amounts of the adjustments for adults, which may vary according to the time elapsed since they became recipients under the program, and determining the cases in which and the conditions under which those amounts are to be granted; and

"(3) prescribing, for the purposes of the second paragraph of section 72, more flexible rules concerning the matters referred to in that paragraph."

19. The Act is amended by inserting the following sections after section 133.1, enacted by section 38 of chapter 25 of the statutes of 2016:

"133.2. For the purposes of the Basic Income Program, the Government may make regulations

(1) prescribing, for the purposes of the first paragraph of section 83.17, the period during which a person must have a severely limited capacity for employment and be a recipient under the Social Solidarity Program, as well as the other eligibility requirements for the program;

(2) prescribing, for the purposes of the second paragraph of section 83.17, the cases in which and the conditions under which a person who has a severely limited capacity for employment that should in all likelihood prevent the person from acquiring economic self-sufficiency permanently or indefinitely is also eligible under the Basic Income Program;

(3) prescribing, for the purposes of the second paragraph of section 83.18, the cases in which and the conditions under which a person may elect not to take advantage of the program;

(4) prescribing, for the purposes of the third paragraph of section 83.18, the cases in which and the conditions under which a person may apply to take advantage of the program;

(5) prescribing, for the purposes of section 83.19, the cases in which and the conditions under which a person who is no longer eligible under the program becomes eligible again;

(6) prescribing, for the purposes of section 83.21, the method for calculating the basic income;

(7) prescribing, for the purposes of the third paragraph of section 83.21, the exceptions to the cases in which and the conditions under which a special benefit is granted;

(8) prescribing, for the purposes of section 83.22, the cases in which and the conditions under which a person may own certain property or liquid assets; and

(9) prescribing, for the purposes of section 83.23, the terms for payment of the basic income.

"133.3. Despite any provision to the contrary, the Government may, on the joint recommendation of the Minister of Employment and Social Solidarity and the Minister of Health and Social Services, prescribe by regulation the cases and the manner in which the amount of personal expense allowance referred to in the second paragraph of section 512 of the Act respecting health services and social services (chapter S-4.2) or section 161 of the Act respecting health services and social services for Cree Native persons (chapter S-5) may be increased for a person who receives financial assistance under the Social Solidarity Program or the Basic Income Program."

OTHER AMENDING PROVISIONS

ACT TO PROMOTE ACCESS TO JUSTICE THROUGH THE ESTABLISHMENT OF THE SERVICE ADMINISTRATIF DE RAJUSTEMENT DES PENSIONS ALIMENTAIRES POUR ENFANTS

20. Section 15 of the Act to promote access to justice through the establishment of the Service administratif de rajustement des pensions alimentaires pour enfants (chapter A-2.02) is amended by inserting "or the Basic Income Program" after "last resort program" in the second paragraph.

HEALTH INSURANCE ACT

21. The Health Insurance Act (chapter A-29) is amended by replacing "last resort financial assistance program provided for in" in the fourth paragraph of section 67 and in sections 70 to 71.1 by "financial assistance program provided for in Chapter I, II, V or VI of Title II of".

ACT RESPECTING PRESCRIPTION DRUG INSURANCE

22. Section 15 of the Act respecting prescription drug insurance (chapter A-29.01) is amended by replacing "last resort financial assistance program provided for in" in paragraph 2 by "financial assistance program provided for in Chapter I, II, V or VI of Title II of".

23. Section 17 of the Act is amended by replacing "last resort financial assistance program provided for in" in the definition of "person suffering from a functional impairment" in paragraph 1 by "financial assistance program provided for in Chapter I, II, V or VI of Title II of".

CODE OF CIVIL PROCEDURE

24. Article 449 of the Code of Civil Procedure (chapter C-25.01) is amended by replacing "or social solidarity" by ", social solidarity or basic income".

25. Article 698 of the Code, amended by section 40 of chapter 25 of the statutes of 2016, is again amended by replacing "or a social solidarity allowance" in subparagraph 3 of the second paragraph by ", a social solidarity allowance or a basic income".

ACT RESPECTING PRE-HOSPITAL EMERGENCY SERVICES

26. Section 118 of the Act respecting pre-hospital emergency services (chapter S-6.2) is amended by replacing "last resort financial assistance program provided for in" in the first paragraph by "financial assistance program provided for in Chapter I, II, V or VI of Title II of".

ACT TO ALLOW A BETTER MATCH BETWEEN TRAINING AND JOBS AND TO FACILITATE LABOUR MARKET ENTRY

27. Section 43 of the Act to allow a better match between training and jobs and to facilitate labour market entry (2016, chapter 25) is amended by replacing "by the Minister under section 84 of the Individual and Family Assistance Act before the date of coming into force of section 83.1 of that Act" in the first paragraph by "by the Minister of Employment and Social Solidarity in accordance with the Act respecting Access to documents held by public bodies and the Protection of personal information (chapter A-2.1) before the date of coming into force of section 83.1 of the Individual and Family Assistance Act".

INDIVIDUAL AND FAMILY ASSISTANCE REGULATION

28. Section 177.23 of the Individual and Family Assistance Regulation (chapter A-13.1.1, r. 1), introduced by section 24 of the Regulation to amend the Individual and Family Assistance Regulation, enacted by Order in Council 1085-2017 dated 8 November 2017, is amended by replacing "an amount calculated" in the second paragraph by "a work income supplement, the amount of which is calculated".

29. Section 177.28 of the Regulation, introduced by section 24 of the Regulation to amend the Individual and Family Assistance Regulation, enacted by Order in Council 1085-2017 dated 8 November 2017, is amended by striking out "additional" in the first paragraph.

30. In any agreement entered into by the Minister of Employment and Social Solidarity in accordance with the Act respecting Access to documents held by public bodies and the Protection of personal information (chapter A-2.1) before the date of coming into force of section 83.15 of the Individual and Family Assistance Act (chapter A-13.1.1), enacted by section 14, a provision relating to the Social Assistance Program or a last resort financial assistance program also applies to the Basic Income Program from that date unless, in the year following that date, one of the parties notifies the other party in writing of its intention not to include that program, in whole or in part, in the agreement.

The first paragraph ceases to apply to an agreement on the day the first amendment made to the agreement by the parties after the date of coming into force of section 83.15 of that Act, enacted by section 14, becomes effective.

The first paragraph applies despite section 70 of the Act respecting Access to documents held by public bodies and the Protection of personal information.

31. Sections 6, 21 to 23 and 26, insofar as they concern Chapter V of Title II of the Individual and Family Assistance Act, and sections 13 and 27 to 29 have effect from 1 April 2018.

32. The provisions of this Act come into force on the date or dates to be determined by the Government, except

(1) section 7, which comes into force on 15 May 2018; and

(2) sections 9 to 11, 17 and 18, and section 19 where it enacts section 133.3 of the Individual and Family Assistance Act, insofar as the latter section concerns the Social Solidarity Program, which come into force on 1 January 2019.

Coming into force of Acts

Gouvernement du Québec

O.C. 730-2018, 6 June 2018

An Act to increase the jurisdiction and independence of the Anti-Corruption Commissioner and the Bureau des enquêtes indépendantes and expand the power of the Director of Criminal and Penal Prosecutions to grant certain benefits to cooperating witnesses (2018, chapter 1) — Coming into force of section 27 of the Act

COMING INTO FORCE of section 27 of the Act to increase the jurisdiction and independence of the Anti-Corruption Commissioner and the Bureau des enquêtes indépendantes and expand the power of the Director of Criminal and Penal Prosecutions to grant certain benefits to cooperating witnesses

WHEREAS the Act to increase the jurisdiction and independence of the Anti-Corruption Commissioner and the Bureau des enquêtes indépendantes and expand the power of the Director of Criminal and Penal Prosecutions to grant certain benefits to cooperating witnesses (2018, chapter 1) was assented to on 14 February 2018;

WHEREAS paragraph 2 of section 54 of the Act provides that the Act comes into force on 14 February 2018, except section 27, which comes into force on the date to be set by the Government;

WHEREAS it is expedient to set 20 June 2018 as the date of coming into force of section 27 of the Act;

IT IS ORDERED, therefore, on the recommendation of the Minister of Public Security:

THAT 20 June 2018 be set as the date of coming into force of section 27 of the Act to increase the jurisdiction and independence of the Anti-Corruption Commissioner and the Bureau des enquêtes indépendantes and expand the power of the Director of Criminal and Penal Prosecutions to grant certain benefits to cooperating witnesses (2018, chapter 1).

ANDRÉ FORTIER, Clerk of the Conseil exécutif Gouvernement du Québec

O.C. 731-2018, 6 June 2018

An Act to make wearing of the uniform by police officers and special constables mandatory in the performance of their duties and respecting the exclusivity of duties of police officers who hold a managerial position (2017, chapter 20) —Coming into force of sections 2 to 5 and 10 of the Act

COMING INTO FORCE of section 2 to 5 and 10 of the Act to make wearing of the uniform by police officers and special constables mandatory in the performance of their duties and respecting the exclusivity of duties of police officers who hold a managerial position

WHEREAS the Act to make wearing of the uniform by police officers and special constables mandatory in the performance of their duties and respecting the exclusivity of duties of police officers who hold a managerial position (2017, chapter 20) was assented to on 19 October 2017;

WHEREAS section 11 of the Act provides that the Act comes into force on 19 October 2017, except section 2 to 5 and 10, which come into force on the date or dates to be set by the Government;

WHEREAS it is expedient to set 20 June 2018 as the date of coming into force of section 2 to 5 and 10 of the Act;

IT IS ORDERED, therefore, on the recommendation of the Minister of Public Security:

THAT 20 June 2018 be set as the date of coming into force of section 2 to 5 and 10 of the Act to make wearing of the uniform by police officers and special constables mandatory in the performance of their duties and respecting the exclusivity of duties of police officers who hold a managerial position (2017, chapter 20).

ANDRÉ FORTIER, Clerk of the Conseil exécutif

103527

103526

Regulations and other Acts

Gouvernement du Québec

O.C. 688-2018, 6 June 2018

An Act respecting the Pension Plan of Management Personnel (chapter R-12.1)

Special provisions in respect of classes of employees designated under section 23 of the Act — Amendments

Amendments to the Special provisions in respect of classes of employees designated under section 23 of the Act respecting the Pension Plan of Management Personnel

WHEREAS, under the first paragraph of section 23 of the Act respecting the Pension Plan of Management Personnel (chapitre R-12.1), notwithstanding any inconsistent provision of the Act, except the provisions of Chapter VIII, the Government may establish special provisions with respect to classes of employees it designates;

WHEREAS the Government made the Special provisions in respect of classes of employees designated under section 23 of the Act respecting the Pension Plan of Management Personnel (chapitre R-12.1, r. 2);

WHEREAS it is expedient to amend the provisions;

WHEREAS, under the second paragraph of section 23 of the Act, an order under the first paragraph of that section may have effect 12 months or less before it is made;

IT IS ORDERED, therefore, on the recommendation of the Minister responsible for Government Administration and Ongoing Program Review:

THAT the amendments to the Special provisions in respect of classes of employees designated under section 23 of the Act respecting the Pension Plan of Management Personnel (chapitre R-12.1, r. 2), attached hereto, be made;

THAT section 1 to 5 of the amendments come into force on 1 July 2019;

THAT section 6 of the amendments have effect from 21 November 2017.

ANDRÉ FORTIER, Clerk of the Conseil exécutif

Amendments to the Special provisions in respect of classes of employees designated under section 23 of the Act respecting the Pension Plan of Management Personnel

An Act respecting the Pension Plan of Management Personnel (chapter R-12.1, s. 23, 1st and 2nd pars.)

I. The Special provisions in respect of classes of employees designated under section 23 of the Act respecting the Pension Plan of Management Personnel (chapter R-12.1, r. 2) is amended in section 9 by inserting the following after subparagraph 2 of the first paragraph:

"(2.1) the operation referred to in paragraph 1 of section 50.3 of the Act is carried out by selecting, from among the highest annualized pensionable salaries, as many as are necessary to make the aggregate of the contributory periods corresponding to the years for which the salaries are selected equal to 3 or, if the aggregate is less than 3, selecting all the salaries;".

2. Section 13 is amended by adding the following paragraph at the end:

"For the purposes of this section with respect to a person if any of paragraphs 1 to 11 of Schedule II applies or applied to the person whose former pension plan is the pension plan of management personnel, section 49 of the Act, as it reads on (*insert the date of coming into force of this section*), applies for the determination of the nearest date on which the pension payable would have been granted without actuarial reduction pursuant to the former pension plan.".

3. Section 25 is amended by adding the following paragraph at the end:

"Despite the second paragraph, the pensionable salaries to be selected are, from among the highest annualized pensionable salaries, as many as are necessary to make the aggregate of the contributory periods corresponding to the years for which the salaries are selected equal to 3 or, if the aggregate is less than 3, selecting all the salaries.".

4. Section 26 is amended by adding the following paragraph at the end:

"For the purposes of this section with respect to a person if any of paragraphs 1 to 11 of Schedule II applies or applied to the person whose former pension plan is the pension plan of management personnel, section 49 of the Act, as it reads on (*insert the date of coming into force of this section*), applies for the determination of the nearest date on which the pension payable would have been granted without actuarial reduction pursuant to the former pension plan.".

5. Section 27 is amended

(1) by striking out "and, if any of paragraphs 1 to 11 of Schedule II applies or applied to the person, applying paragraph 1 of section 50.3 of the Act";

(2) by adding the following paragraph at the end:

"If any of paragraphs 1 to 11 of Schedule II applies or applied to the person, the pensionable salaries selected are, from among the highest annualized pensionable salaries, as many as are necessary to make the aggregate of the contributory periods corresponding to the years for which the salaries are selected equal to 3 or, if the aggregate is less than 3, selecting all the salaries.".

6. The following is inserted after section 35.1:

"35.2. For the purposes of the first paragraph of section 196.30 of the Act, the salaries of the employees who are members of the plan do not include the salaries of the employees covered by this Order in Council.".

103521

Gouvernement du Québec

O.C. 722-2018, 6 June 2018

Building Act (chapter B-1.1)

Construction Code Regulation —Amendment

Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act

WHEREAS, under section 173 of the Building Act (chapter B-1.1), the Régie du bâtiment du Québec adopts by regulation a building code containing building standards for buildings, facilities intended for use by the public, installations independent of a building and petroleum equipment installations or their vicinity;

WHEREAS, under section 176 of the Act, the code may require manufacturers to provide instructions regarding the assembly, erection, maintenance and inspection of materials, facilities and installations;

WHEREAS, under section 176.1 of the Act, a code may, with respect to the matters to which it applies, contain provisions concerning the subjects listed in section 185 of the Act;

WHEREAS, under section 178 of the Act, the code may require observance of a technical standard drawn up by another government or by an agency empowered to draw up such standards and may also provide that any reference it makes to other standards include subsequent amendments;

WHEREAS, under section 179 of the Act, the Board may determine the provisions of the code of which the infringement shall constitute an offence under paragraph 7 of section 194 of the Act;

WHEREAS, under paragraph 0.1 of section 185 of the Act, the Board may, by regulation, exempt from the application of the Act or certain of its provisions categories of facilities, installations or construction work;

WHEREAS, under paragraph 3 of section 185 of the Act, the Board may, by regulation, determine the cases in which construction work must be reported to the Board, the time, form and manner according to which the report must be forwarded by the persons referred to in sections 22 and 37.2 of the Act and the conditions that they must fulfill;

WHEREAS, under paragraph 6.2 of section 185 of the Act, the Board may, by regulation, prohibit the sale, lease or exhibiting of materials or accessories which are not certified or approved for purposes of use in construction work on buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations by a recognized person or body the Board designates;

WHEREAS, under paragraph 6.3 of section 185 of the Act, the Board may, by regulation, prohibit the sale, lease or exhibition of apparatus intended to be supplied from or to supply an electrical installation where the apparatus is not certified or approved by a recognized person or body the Board designates;

WHEREAS, under paragraph 20 of section 185 of the Act, the Board may, by regulation, determine the cases in which it collects fees for approval, authorization, revision, inspection, training, consultation, issuance of certificates of conformity, accreditation of recognized persons or bodies, and verifications, and fix such fees;

WHEREAS, under paragraph 31 of section 185 of the Act, the Board may, by regulation, prescribe the form, content and manner of forwarding of the register of activities used as a basis for a levy that each contractor must place at its disposal;

WHEREAS, under paragraph 36 of section 185 of the Act, the Board may, by regulation, set the time limit and the manner of payment of the levy payable by each contractor;

WHEREAS, under paragraph 37 of section 185 of the Act, the Board may, by regulation, determine the provisions of a regulation adopted under that section of which the infringement constitutes an offence under paragraph 7 of section 194 of the Act, with the exception of provisions adopted under subparagraphs 5.2, 18, 18.1, 20 and 36.1 and under subparagraphs 16 and 17 with respect to fees payable;

WHEREAS, under paragraph 38 of section 185 of the Act, the Board may, by regulation, adopt any other related or suppletory provision it considered necessary to give effect to the provisions of that section and of the Act;

WHEREAS, under the first paragraph of section 192 of the Act, the contents of the code may vary according to the classes of persons, contractors or owner-builders, and according to the classes of buildings, facilities or installations to which the code applies;

WHEREAS the Board made the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act on 17 April 2018;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act was published in Part 2 of the *Gazette officielle du Québec* of 27 September 2017 with a notice that it could be approved by the Government, with or without amendment, on the expiry of 45 days following that publication;

WHEREAS, under section 189 of the Building Act, every code or regulation of the Board is subject to approval by the Government which may approve it with or without amendment;

WHEREAS it is expedient to approve the Regulation with amendments;

IT IS ORDERED, therefore, on the recommendation of the Minister responsible for Consumer Protection and for Housing:

THAT the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act, attached to this Order in Council, be approved.

ANDRÉ FORTIER, Clerk of the Conseil exécutif

Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act

Building Act

(chapter B-1.1, ss. 173, 176, 176.1, 178, 179, 185, pars. 0.1, 3, 6.2, 6.3, 20, 31, 36, 37 and 38, and s. 192)

1. Chapter V Electricity of the Construction Code (chapter B-1.1, r. 2) is replaced by the following:

"CHAPTER V

ELECTRICITY

DIVISION I

SCOPE

5.01. In this Chapter, unless the context indicates otherwise, "Code" means the Canadian Electrical Code, Part I, Twenty-third edition, CSA C22.1-15, published by CSA Group, as well as any subsequent amendments that may be published by that organization.

That Code is incorporated by reference into this Chapter subject to the amendments provided for in section 5.05.

However, any amendments to that edition published by CSA Group after 1 October 2018 will apply to construction work only from the last day of the sixth month following the publication of the French and English versions of those amendments. If those versions are not published at the same time, the 6-month period runs from the date of publication of the last version.

The provisions of the third paragraph do not apply to errata, which take effect as soon as they are published by CSA Group.

5.02. Subject to the exemptions provided for in section 5.03, this Chapter applies to any construction work on an electrical installation within the meaning of the Code and covered by the Building Act (chapter B-1.1).

5.03. The following installations are exempt from this Chapter:

(1) an electric lighting installation attached to a pole used to distribute electric power by a public electricity distribution undertaking;

(2) an installation used for the operation of a subway and powered exclusively by circuits supplying the railway of that subway.

DIVISION II

REFERENCES

5.04. Unless otherwise provided for, a reference in this Chapter to a standard or code is a reference to that standard or code as adopted by the chapter of the Construction Code (chapter B-1.1, r. 2) or the Safety Code (chapter B-1.1, r. 3) that refers to it.

DIVISION III

AMENDMENTS TO THE CODE

5.05. The Code is amended

(1) in Section 0:

(1) by striking out the following portion of the second paragraph of "Object": "Safe installations may be also achieved by alternatives to this Code, when such alternatives meet the fundamental safety principles of IEC 60364-1 (see Appendix K). These alternatives are intended to be used only in conjunction with acceptable means to assess compliance of these alternatives with the fundamental safety principles of IEC 60364-1 by the authorities enforcing this Code.";

(2) by striking out the part "Scope";

(3) by striking out the definition of "**Energized**";

(4) by replacing the definition of "**Electrical installa**tion" by the following:

"Electrical installation": the installation of any wiring in or upon any land or in a building from the point or points where electric power or energy is delivered therein or thereon by the supply authority or from any other source of supply, to the point or points where such power or energy can be used therein or thereon by any electrical equipment and shall include the connection of any such wiring with any of the said equipment (see Appendix B).";

(5) by striking out the definition of "**Permit**";

(6) by striking out the definition of "Current-permit";

(7) by striking out the definition of "Energized part";

(8) by inserting the following definition after "Conduit":

"**Connecting point**: The point at which the consumer's service entrance is connected to the distributor's supply, as specified by the supply authority.";

- (2) in Section 2:
- (1) by striking out Rule 2-000;

(2) by replacing Rule 2-004 by the following:

"2-004 Declaration of work

(1) An electrical contractor or owner-builder shall declare to the Régie du bâtiment du Québec the construction work carried out to which Chapter V Electricity of the Construction Code (chapter B-1.1, r. 2) applies.

(2) The declaration shall contain the following information:

(a) the address of the work site;

(b) the name, address and telephone number of the person for whom the work is carried out;

(c) the name, address, telephone number and licence number of the electrical contractor or owner-builder;

(d) the dates scheduled for the beginning and end of the construction work;

(e) the nature and type of work, in particular the specific kind of work and a description of the powers to be installed; and

(f) the use of the building or installation and the number of stories and dwellings in the building.

(3) The declaration shall be made on the form provided for that purpose by the Board or on any other document containing the information required by Subrule (2).

(4) The declaration shall be sent to the Board not later than the twentieth day of the month following the date on which the work begins.

(5) Notwithstanding Subrule (1), the declaration of work is not required

(a) in the case of work mentioned in a request for supply made to a supply authority;

(b) in the case of work involving power of no more than 10 kW that does not require a replacement or addition of wiring; or

(c) from an owner-builder who keeps a register containing the information mentioned in Subrule (2).";

- (3) by striking out Rule 2-006;
- (4) by replacing Rule 2-008 by the following:

"2-008 Levies and fees

(1) The levy which every electrical contractor shall pay annually to the Régie du bâtiment du Québec is \$799.04 plus an amount corresponding to a non-indexable value of 2.5% of the contractor's payroll.

(2) For the purposes of this Rule, "payroll" means the total of payments made, before deductions, to apprentice electricians and journeyman electricians carrying out construction work on an electrical installation, including hourly or piece-work wages, commissions, bonuses, pay for leave and any other form of remuneration. The payments made annually to an apprentice electrician or a journeyman electrician by an electrical contractor are presumed to be made to a person assigned to construction work on an electrical installation.

(3) The following payments are not included in the payroll:

(*a*) payments to a person who qualifies an electrical contractor for the issue of a licence because of his or her technical knowledge;

(b) payments for construction work on an electrical installation at a hydroelectric power station at the time of the original construction.

(4) An electrical contractor renting the services of an apprentice electrician or a journeyman electrician through a third party that does not hold a licence shall include the cost of those services in calculating the payroll.

(5) An apprentice electrician or a journeyman electrician who is a partner in a partnership is, for calculation of the payroll, presumed to receive annual wages of \$37,611.70 for the electrical installation work he or she carries out for the partnership.

(6) The fixed amount of the levy to be paid under Subrule (1) is established in proportion to the number of months for which the licence is valid, a part of a month being considered a full month.

(7) In the case of voluntary abandonment of a holder's licence, the validity period of the licence is deemed to have ended on the date on which the Board received a notice to that effect.

Part 2

(8) An electrical contractor shall pay the levy under this Rule to the Board not later than:

(*a*) 31 May for a payroll calculated for the period from 1 January to 31 March of the current year;

(b) 31 August for a payroll calculated for the period from 1 April to 30 June of the current year;

(c) 30 November for a payroll calculated for the period from 1 July to 30 September of the current year;

(*d*) 28 February for a payroll calculated for the period from 1 October to 31 December of the preceding year.

(9) Each payment shall also include the applicable portion of the fixed amount of the levy. An electrical contractor shall provide with each payment a written statement indicating the portion of the payroll applicable to each apprentice electrician or journeyman electrician identified by name. If a licence is issued to the electrical contractor during the year, the first statement and the first payment shall be made on the first date in Subrule (8) that is at least two months after the issue of the licence.

(10) If an electrical contractor fails to send the statement required under this Rule to the Board, or if the Board has reason to believe that the statement is inaccurate, the Board shall make an estimate of the contractor's payroll. In such a case, it is the contractor's responsibility to demonstrate that the estimate is inaccurate.

(11) If it is established that an electrical contractor's payroll differs from the amount used to establish the levy, the Board shall bill or credit, as the case may be, an amount equal to the difference between the amount levied and the amount calculated according to the actual payroll.

(12) The levy that an electrical owner-builder shall pay annually to the Board in accordance with Subrule (8) is \$599.32, plus inspection fees of \$158.47 for the first hour of inspection or fraction thereof and half that rate for each half-hour or fraction thereof of inspection in addition to the first hour; an amount of \$74.56 for each trip related to the inspection shall be added to those fees.

(13) The fees payable under Subrule (12) shall be paid not later than 30 days after the billing date.";

(5) by deleting Rules 2-010 and 2-012;

(6) by replacing Rule 2-014 by the following:

"2-014 Plans and specifications

(1) An electrical contractor or owner-builder shall not start construction work on an electrical installation to which Chapter V Electricity of the Construction Code (chapter B-1.1, r. 2) applies unless plans and specifications have been prepared for the work if the installation requires a service exceeding 200 kW.

(2) The plans and specifications referred to in Subrule (1) shall contain the following information:

(a) name and address of the person responsible for preparing them;

(b) type of building or electrical installation and the location of the work;

(c) location of the service line and distribution;

(*d*) the supply voltage and the single-line diagram of the service line and distribution;

(e) loads, protection characteristics and identification of the feeder and branch circuits at their respective panelboards;

(f) rated power of each apparatus;

(g) type and size of raceways to be used;

(*h*) number and characteristics of conductors used in the raceways;

(*i*) cable characteristics;

(*j*) type of materials, accessories or apparatus installed in hazardous locations;

(k) size and location of grounding conductors;

(*l*) a description of all underground parts of the installation;

(*m*) for an addition to an existing electrical installation, all information on the part of the installation on which work is to be carried out and a list of the existing loads or of the maximum demand loads of the existing installation recorded for the last twelve months; and

(*n*) for an electrical installation exceeding 750 V, the vertical and horizontal clearances of live parts and a description of the grounding and mechanical protection of live parts.";

(7) by deleting Rules 2-016 to 2-020;

(8) by replacing Rules 2-024 to 2-028 by the following:

"2-024 Approval of electrical equipment used in an electrical installation, intended to consume energy from an electrical installation or to supply such an installation (see Appendices A and B)

(1) The selling or renting of electrical equipment that has not been approved is prohibited.

(2) All electrical equipment used in an electrical installation shall be approved for the use for which it is intended. In addition, the use of electrical equipment that has not been approved in an electrical installation or the permanent connection of such equipment to such an installation is prohibited. However, for purposes of a test, exhibition, presentation or demonstration, electrical equipment shall be permitted to be used without being approved if a notice containing the following warning in letters at least 15 mm high is posted: "NOTICE: This electrical equipment has not been approved for sale or rental as required by Chapter V Electricity of the Construction Code (chapter B-1.1, r. 2).

(3) Subrules (1) and (2) do no not apply to electrical equipment

(a) located upstream from the connecting point;

(b) intended to be interconnected, in accordance with section 84 of the Code;

(c) located upstream from a stand-alone inverter; or

(d) whose power consumption is not more than 100 VA and whose voltage is not more than 30 V, except in the case of signs, lighting devices, luminaries, thermostats with heat anticipators, electromedical devices or apparatus installed in a hazardous location.

2-025 Approval of a Portable Generator

The selling or renting of a portable generator that has not been approved is prohibited.

2-028 Mark of Approval (see Appendix A)

(1) Electrical equipment that has received certification by a certification organization accredited by the Standards Council of Canada that has notified the Board of its accreditation and whose certification seal or label attests to compliance with Canadian standards is considered to be approved.

(2) Electrical equipment bearing the label of an organization accredited by the Standards Council of Canada that has notified the Board of its accreditation attesting that, without being certified in accordance with Subrule (1), the equipment is recognized as complying with the requirements of CSA SPE-1000-13, "Model Code for the Field Evaluation of Electrical Equipment", or with the requirements of CSA SPE-3000-15, "Model Code for the Field Evaluation of Medical Electrical Equipment and Systems", published by CSA Group, is also considered to be approved. However, amendments or subsequent editions of those Standards shall apply, for the purposes of this section, from the publication of their French and English versions. If those versions are not published at the same time, the amendments or editions shall apply as of the publication of the last version.

(3) Notwithstanding Subrules (1) and (2), approval is not required for each of the components of electrical equipment if the equipment has received an overall approval.";

(9) by striking out Rules 2-128 to 2-132;

(10) by replacing Rule 2-324 by the following:

"2-324 Electrical equipment near a venting or relief discharge for combustible gas (see Appendix B)

(1) Arc-producing electrical equipment shall be installed at least 3 m from any venting or relief discharge for combustible gas.

(2) Notwithstanding Subrule (1), in the case of natural gas, the distance shall be permitted to be 1 m.";

(11) by adding the following heading and Rule after Rule 2-404:

"Circuits from different buildings

2-500 Feeder or branch circuit from another building (see Appendix B)

A feeder or branch circuit from another building shall not be installed to serve electric equipment linked to a building already supplied by a separate consumer's service, except

(a) in the case of emergency power sources; or

(b) in the cases provided for in Rule 6-106.";

(3) in Section 4:

(1) by replacing Rules 4-006 (3), (4), (5) and (6) by the following:

"(3) Except for underground installations, Subrules (1) and (2) shall also apply to any allowable ampacity obtained from tables other than those mentioned in Subrule (1). If values different from those at 90 °C are not indicated in those tables, the correction factors in Table 12C shall then be applied.";

(2) by adding the following Subrule at the end of Rule 4.024:

"(5) Notwithstanding Subrule (3), for underground consumer's services exceeding 600 A fed by parallel conductors, each neutral conductor shall be minimally sized in accordance with Table 69.";

(4) in Section 6:

(1) by replacing Rule 6-104 by the following:

"6-104 Number of consumer's services

(1) The number of low-voltage consumer's services terminating at any one overhead supply service run shall be limited by the following factors:

(a) the total calculated load shall not exceed 600 A; and

(b) the number of conductors connected to each supply service conductor shall not exceed four.

(2) In the case of a change to the electrical installation of a building with more than four conductors connected to one supply service conductor, replacement of the conductors shall be permitted provided that the total number of conductors is not increased and the total calculated load does not exceed 600 A.";

(2) in Rule 6-112:

(a) by replacing "9 m" in Subrule (2) by "8 m";

(b) by adding the following after Subrule (8):

"(9) Notwithstanding Subrule (2), in the case of an existing installation and where it is impossible to comply with the minimum 1 m clearance set out in Subrule (3), the height of the point of attachment of service conductors shall be not more than 9 m, if such a measurement allows compliance with the clearance required.

(10) Notwithstanding Subrules (2) and (9), in the case of an existing installation and where it is impossible to comply with the minimum 1 m clearance set out in Subrule (3), it shall be permitted to install a barrier made of solid material so as to make service conductors exposed to persons from a window, door or porch permanently inaccessible.

(11) Notwithstanding Subrule (6), in the case of an existing installation in which the service presents no noise problem due to the amplification of vibrations caused by the mutual repulsion of the conductors, it shall be permitted to fasten the service conductor support to a solid wooden structural member of a wall with a lag screw not less than 9 mm in diameter. The threaded part of the lag screw shall penetrate the solid wooden structural member to a depth of at least 75 mm.";

(3) by replacing Rule 6-206 by the following:

"6-206 Consumer's service equipment location (see Appendices B and G)

(1) Service boxes or other equivalent consumer's service equipment shall be

(*a*) installed in a location that complies with the requirements of the supply authority;

(b) readily accessible or have the means of operation readily accessible; and

(c) except as provided by Subrules (3), (4), (5), and (6), placed within the building being served, as close as practicable to the point where the consumer's service conductors enter the building and not located in

(i) coal bins, clothes closets, bathrooms, or stairways;

(ii) rooms in which the temperature normally exceeds 30 $^{\circ}$ C;

(iii) dangerous or hazardous locations;

(iv) locations where the headroom clearance is less than 2 m, except in the case of a renovation in a building, provided that the existing clearance is not reduced; or

(v) any other similar location.

(2) Notwithstanding Subrule (1)(b), where subject to unauthorized operation, the service disconnecting means shall be permitted to be rendered inaccessible by

(a) an integral locking device;

(b) an external lockable cover; or

(c) location of the service box or its equivalent inside a separate building, room, or enclosure.

(3) Notwithstanding Subrule (1)(c), if the environmental conditions inside the structure are not acceptable, it shall be permitted, where a deviation has been allowed in accordance with Rule 2-030, to place the service disconnecting means on the outside of the building or on a pole provided that it is

(*a*) installed in an enclosure approved for the location or of the type approved as protected against the weather; and

(b) protected against mechanical damage if it is located less than 2 m above ground.

(4) Notwithstanding Subrule (1)(c), in the case of single dwellings or apartment and similar buildings, the service box shall be permitted to be a meter mounting device equipped with a combined breaker outside the building or on a post, provided that an associated distribution panelboard equipped with a main breaker of a current rating equal to or lower than that of the meter mounting device is used inside the building. The service box shall

(a) be weatherproof and specifically approved for that use;

(b) be protected against mechanical damage if installed less than 2 m above ground;

(c) be equipped with a lockable outside cover; and

(d) supply only one feeder dedicated to the associated distribution panelboard.

(5) The meter mounting devices installed in compliance with Subrule (4) shall be grouped.

(6) The consumer's service heads connected to the meter mounting devices installed in accordance with Subrules (4) and (5) shall be grouped so as to require a single connecting point.";

(4) by replacing Rule 6-300(1)(b)(ii)(B) by the following:

"(B) where a conductor transition is necessary to compensate for a voltage drop provided for in Rule 8-102, provided that the conditions set out in Rule 12-112 (5) (a) or (b) are complied with (see Appendix B)."; (5) by replacing Rule 6-302(2) by the following:

"(2) Except for an installation or an existing trestle, no portion of the conductors that is run on the supply side of the consumer's service head on outside building surfaces shall be permitted to be run as exposed wiring.";

(6) in Rule 6-308, by inserting "Except for 347/600 V underground consumer's service in a raceway," at the beginning;

(7) by replacing Rule 6-310 (c) by the following:

"(c) where a conductor transition is necessary to compensate for the voltage drop provided for in Rule 8-102, provided that the conditions set out in Rule 12-112(5) are complied with.";

(5) in Section 8:

(1) by striking out Rule 8.002;

(2) by striking out Rule 8-102(3) and (4):

(3) by replacing Rule 8-106(6) to (10) by the following:

"(6) The ampacity of conductors of feeders or branch circuits shall be determined in accordance with the Section(s) dealing with the type of equipment being supplied.

(7) Notwithstanding the requirements of this Section, the ampacity of the conductors of a feeder or branch circuit shall not be required to exceed the ampacity of the conductors of the service or of the feeder from which they are supplied.

(8) Where additional loads are to be added to an existing service or feeder, the augmented load shall be permitted to be calculated by adding the sum of the additional loads, with demand factors as permitted by this Code to the maximum demand load of the existing installation as measured over the most recent 12-month period, but the new calculated load shall be subject to Rule 8-104(5) and (6).

(9) The method of calculation in Subrule (8) shall be permitted to be used for the replacement of a service or feeder of an existing installation, with or without additional load.";

(4) in Rule 8-108:

(a) by replacing the part of Subrule (1) preceding Subrule (1)(a) by the following:

"(1) For a single dwelling, the panelboard shall provide space for at least the equivalent of the following number of 120 V branch circuit overcurrent devices, including enough space for two 35 A double-pole overcurrent devices and for all the other devices required:";

(b) by replacing Subrule (2) by the following:

"(2) Notwithstanding Subrule (1), sufficient spaces for overcurrent devices shall be provided in the panelboard for the two 35 A double-pole overcurrent devices and for all other overcurrent devices, and at least two additional spaces shall be left for future 120 V branch circuit overcurrent devices, and two additional spaces for future 240 V double-pole devices.";

(5) in Rule 8-200:

(a) by replacing "the greater of Item (a) or (b)" in the part of Subrule (1) before Item (a) by "the greater of Item (a) or (b), and be increased to include the load provided for in Item (c) in the case of a single dwelling referred to in that Item";

(b) by replacing Items (vi) and (vii) of Subrule (1)(a) by the following:

"(vi) any loads provided for in addition to those outlined in Items (i) to (v) at 25% of the rating of each load with a rating in excess of 1500 W if an electric range has been provided for, or 100% of the rating of each load up to a total of 6000 W, plus 25% of the load in excess of 6000 W if an electric range has not been provided for; or";

(c) in Subrule (1), by adding the following after Item (b):

"(c) in the case of a single dwelling with a garage, a carport or a parking area, a load provided for the supply of electric vehicle supply equipment, according to the following cases:

(i) 35% of the power rating of the first supply equipment and 70% of the power rating of the second, if an electric range and electric water heater have been provided for and in addition the electric space-heating load does not come from a central unit and is at least 14 kW;

(ii) 70% of the power rating of the first supply equipment and 80% of the power rating of the second, if an electric range and electric water heater have been provided for and the electric space-heating load does not come from a central unit and is less than 14 kW; or

(iii) 90% of the power rating per supply equipment in the cases not covered by Items (i) and (ii).";

(d) by adding the following after Rule 8-200(3):

"(4) For the purposes of this Rule, it is prohibited to use, to calculate the minimum ampacity of service or feeder conductors for a single dwelling with a garage, carport, or parking area, the relaxations provided for in Rule 8-106 (1) and in Table 39.";

(6) in Rule 8-202:

(a) by adding the following after Subrule (1)(a)(vii)(B):

"(C) Notwithstanding Items (A) and (B), in the case of a load for the supply of electric vehicle supply equipment, that load shall be calculated in accordance with the method provided for in Rule 8-200(1)(c); or";

(b) by replacing Subrule (3)(e) by the following:

"(e) in addition, any lighting, heating, and power loads not located in dwelling units shall be added to the preceding loads, by using a demand factor of 75%, except automobile heater receptacles included in the basic load of each dwelling.";

(7) by replacing Rule 8-204(1)(c) by the following:

"(c) electric space-heating, air-conditioning, and total loads of other permanently connected equipment based on the rating of the equipment installed, subject to Rule 8-106(4); plus";

(8) by replacing Rule 8-206(1)(c) by the following:

"(c) electric space-heating, air-conditioning, and total loads of other permanently connected equipment based on the rating of the equipment installed, subject to Rule 8-106(4); plus";

(9) by replacing Rule 8-208(1)(c) by the following:

"(c) electric space-heating, air-conditioning, and total loads of other permanently connected equipment based on the rating of the equipment installed, subject to Rule 8-106(4); plus";

(10) in Rule 8-400:

(a) by replacing Subrule (1) by the following:

"(1) In the application of this Rule, the following definition shall apply:

Controlled — supply to the receptacle is cycled by other than a manual operation.";

(b) by replacing Subrules (3) to (5) by the following:

"(3) Service or feeder conductors shall be considered to have a basic load of

(a) 1300 W for each of the first 30 duplex receptacles;

(b) 1100 W for each of the next 30 duplex receptacles; and

(c) 900 W for each additional duplex receptacle.

(4) If the load is controlled, the ampacity of the service or feeder conductors shall:

(a) be determined in accordance with Subrule (3), considering only the maximum number of duplex receptacles that can be supplied simultaneously; or

(b) not be lower than 125% of the rating of the load controller.

(5) For the purposes of Subrules (3) and (4), two single receptacles shall be considered to be one duplex receptacle.";

- (6) In Section 10:
- (1) by adding the following in Rule 10-802:
- "(3) Copper-clad aluminum is prohibited.";
- (2) by replacing Rule 10-812 by the following:

"10-812 Grounding conductor size for ac systems and for service equipment (see Appendix B)

(1) Subject to Subrule (2), the copper grounding conductor size connected to a grounding electrode shall not be less than No. 6 AWG.

(2) The copper grounding conductor size connected to water distribution metal piping shall be determined according to the ampacity of the largest ungrounded conductor in the circuit or the equivalent for multi-conductors and shall be sized not smaller than

(a) No. 6 AWG for an ampacity of 250 A or less;

(b) No. 3 AWG for an ampacity of 251 A to 500 A;

(c) No. 0 AWG for an ampacity of 501 A to 1000 A; and

(d) No. 00 AWG for an ampacity of 1001 A or more.

(3) If a material other than copper is used for a grounding conductor, the material shall have a conductivity equivalent to what is required in Subrule (1) or (2).";

(7) in Section 12:

(1) by replacing Rule 12-012(8) by the following:

"(8) Raceways shall be permitted to be installed directly beneath a concrete slab at grade level, provided that the concrete slab is not less than a nominal 100 mm in thickness, the location is adequately marked, and the raceway will not be subject to damage.";

(2) by adding the following after Rule 12-020:

"12-022 Wiring under the metal deck of a roof

Except for rigid metal conduits, no wiring shall be installed less than 38 mm from the underside of the metal deck of a roof.";

(3) by replacing Rules 12-108(2) and (3) by the following:

"(2) Notwithstanding Subrule (1)(a), a single splice per conductor shall be permitted if a transition between conductors is necessary to compensate for the maximum voltage drop provided for in Rule 8-102, provided that it is spliced in the same manner, and that

(a) in the case of an overhead installation, the splice is thermit-welded or made by means of a compression connector applied with a compression tool compatible with the particular connector; or

(b) in the case of an underground installation, the splice complies with the conditions set out in Rule 12-112(5)(a) or (b).

(3) Notwithstanding Item (1)(f), conductors of one phase, polarity, or grounded circuit conductor shall not be required to have the same exact length as those of another phase, polarity, or grounded circuit conductor.";

(4) by adding the following Subrule at the end of Rule 12-116:

"(5) Cutting or adding strands or altering conductors in any other way to connect them to terminal parts, lugs or other junctions is prohibited."; (5) by replacing Rule 12-312 by the following:

"12-312 Conductors over buildings

Only conductors entering a building shall be permitted to run over the building.";

(6) by adding the following Subrule at the end of Rule 12-510:

"(5) Except in the locations provided for the installation of cupboards or counters, non-metallic-sheathed cables concealed in the inside walls of a dwelling unit that are located 1 to 2 m from the floor shall

(a) be installed in a completely vertical manner;

(b) have their outer surface located more than 32 mm from the hidden edge of the finishing element; or

(c) be effectively protected from mechanical damage from driven nails or screws.";

(7) by replacing Rule 12-516 by the following:

"12-516 Protection for non-metallic-sheathed cable in concealed installations (see Appendix G)

(1) The outer surfaces of non-metallic-sheathed cables shall be kept a distance of at least 32 mm from the edges of the members intended to be used as support for sheathing or cladding, or the cable shall be effectively protected from mechanical damage.

(2) Where non-metallic-sheathed cables pass through a metal member, they shall be protected by an insert approved for the purpose and adequately secured in place.

(3) Where non-metallic-sheathed cables are installed behind a baseboard, moulding or other similar finishing element, their outer surfaces shall be kept a distance of at least 32 mm from the hidden edge of the element, or they shall be effectively protected from mechanical damage from driven nails or screws.";

(8) by adding the following Subrule at the end of Rule 12-616:

"(3) The installation of armoured cable in a concealed space in a metal element constituting the roof deck of a building or structure is prohibited.";

(9) in Rule 12-904:

(a) by replacing Subrule (1) by the following:

"(1) Except for single-conductors installed in nonmetallic raceways, all conductors of a circuit shall be contained in the same raceway, or in the same channel of a multiple-channel raceway except that, where it is necessary to run conductors in parallel due to the capacity of an ac circuit, additional raceways shall be permitted to be used, provided that

(a) the conductors are installed in accordance with Rule 12-108(1);

(b) each raceway includes an equal number of conductors from each phase, including the neutral conductor and the bonding conductor, if required; and

(c) each raceway or cable sheath is of the same material and has the same physical characteristics.";

(b) by striking out "Except for cable tray," at the beginning of Subrule (2);

(10) by striking out "either during installation or afterwards" in Rule 12-1106;

(11) by striking out Rule 12-1204;

(12) by striking out "either during installation or afterwards" in Rule 12-1404(a);

(13) by striking out Rule 12-1718(2);

(14) by replacing Rule 12-2200(7) and (8) by the following:

"(7) At least one expansion joint shall be installed in any cable tray run where the expansion of the cable tray due to the maximum probable temperature change could damage the cable tray.";

(15) by replacing Rule 12-2208 by the following:

"12-2208 Provisions for bonding

(1) Where metal supports for metal cable trays are bolted to the tray and are in good electrical contact with the grounded structural metal frame of a building, the tray shall be deemed to be bonded to ground.

(2) If Subrule (1) does not apply, metal cable tray shall be properly bonded at intervals not exceeding 15 m and the size of bonding conductors shall be based on the ampacity of the largest ungrounded conductor as specified in Rule 10-814 in the circuits carried by the cable tray.";

(8) in Section 14, by striking out Rule 14-104(2);

(9) in Section 26:

(1) by striking out Rule 26-354;

(2) by striking out Rule 26-700(13);

(3) in Rule 26-710:

(a) by adding "and" at the end of Item (m);

(b) by replacing "; and" at the end of Item (n) by ".";

(c) by striking out Item (o);

(4) in Rule 26-712:

(a) by replacing Items (iv) and (v) in Item (d) by the following:

"(iv) at least one receptacle (15 A split or 20 A T-slot) installed at each permanently fixed island counter space;

(v) at least one receptacle (15 A split or 20 A T-slot) installed at each peninsular counter space, except if the wall adjacent to the mating edge of the peninsula is equipped with a receptacle provided for in Item (iii); and";

(b) by replacing Item (g) by the following:

"(g) all receptacles of CSA configuration 5-15R and 5-20R shall be tamper-resistant receptacles and shall be so marked.";

(c) by striking out Item (h);

(5) by inserting "ground floor" before "single dwelling" in Item(a) of Rule 26-714;

(6) in Rule 26-722:

(a) by adding "and" at the end of Item (e);

(b) by replacing "; and" at the end of Item (f) by ".";

(c) by striking out Item (g);

(7) by replacing Rule 26-724(g) by the following:

"(g) Notwithstanding Item (f), the entire branch circuit shall not be provided with arc-fault protection where

(i) an outlet branch-circuit-type arc-fault circuit interrupter is installed at the first outlet on the branch circuit; and (ii) the wiring method for the portion of the branch circuit between the branch circuit overcurrent device and the first outlet consists of metal raceway or an armoured cable;

(*h*) notwithstanding Rule 8-304, the number of outlets installed on a branch circuit provided with arc-fault protection shall not exceed ten.";

(10) in Section 28:

(1) by adding the following Subrule at the end of Rule 28-204:

"(5) Where a feeder supplies electric equipment, such as a splitter, motor control centre, switchgear or switchboard, it is permitted that the overcurrent protection that supplies the feeder be determined according to the value of the rating of the circuit, provided that it does not exceed the value of the rating indicated on that equipment, unless Rule 14-104 authorizes it.";

(2) by replacing Items (a), (b) and (c) of Rule 28-604(4) by the following:

"(a) it is capable of safely making and interrupting the locked rotor current of the connected load; and

(b) it is capable of being locked in the open position.";

(11) in Section 30:

(1) by replacing Rule 30-308(4) by the following:

"(4) Each fluorescent luminaire installed in a branch circuit exceeding 150 volts-to-ground shall

(a) include a disconnecting means integrated into the luminaire, that cuts simultaneously all the circuit conductors between the branch circuit conductors and the ballast supply conductors; and

(b) bear a conspicuous, legible, and permanent marking adjacent to the disconnecting means, identifying the intended purpose.";

(2) by replacing item (b) of Rule 30-320(3) by the following:

"(b) if the requirement of Item (a) cannot be complied with, be protected by a Class A ground fault circuit interrupter and be installed inside the room without being located within the perimeter of the bath or shower.";

(3) by striking out Rules 30-500 to 30-510.

(12) in Section 32:

(1) by replacing the title of Section 32 by the following:

"Fire pumps";

(2) by replacing Rule 32-000(1) by the following:

"(1 This Section applies to the installation of fire pumps required by Chapter I Building of the Construction Code (chapter B-1.1, r. 2).";

(3) by striking out Rules 32-100 to 32-110;

(4) by replacing Rule 32-206 by the following:

"32-206 Disconnecting means and overcurrent protection (see Appendices B and G)

(1) It shall be permitted to install immediately downstream of the service box the disconnecting means and associated overcurrent protection device permitted in Chapter I Building of the Construction Code (chapter B-1.1, r. 2) and capable of interrupting the circuit of the fire pump.

(2) It shall be permitted to install downstream of the service box of the normal supply circuit, regardless of the presence or not of the disconnecting means referred to in Subrule (1), an unfused switch lockable in the OFF position and labelled in a conspicuous, legible, and permanent manner, identifying it as the fire pump disconnecting means.

(3) The unfused switch referred to in Subrule (2) shall

(*a*) be capable of safely making and interrupting the locked rotor current of the connected load;

(b) comply with the requirements of the supply authority;

(c) bear a marking indicating the need to maintain it at all times in the ON position to ensure functionality of the fire pump; and

(d) be equipped with at least one of the activation supervision devices permitted under Chapter I Building of the Construction Code (chapter B-1.1, r. 2), to signal the provisional deactivation of the fire pump.".

(13) by striking out Section 38 — Elevators, dumbwaiters, material lifts, escalators, moving walks, lifts for persons with physical disabilities, and similar equipment; (14) in Section 44, by striking out Rule 44-100;

(15) in Section 46:

(1) by striking out Rule 46-102(2);

(2) by adding the following Subrule to Rule 46-108:

"(6) Notwithstanding Subrules (4) and (5), it shall be permitted to provide power to new life safety system loads, provided that they are

(a) located in the same building and supplied from a panelboard put into place before 1 March 2011 in that same building; or

(b) supplied from a new panelboard, located in a new part of the building, provided that the panelboard is supplied by a single feeder from a panelboard put into place before 1 March 2011.";

(3) by replacing Rule 46-202(3) by the following:

"(3) Where a generator is used, it shall be

(a) of sufficient capacity to carry the load; and

(b) arranged to start automatically without failure and without undue delay upon the failure of the normal power supply to any transfer switch connected to the generator.";

(4) by striking out Rule 46-204;

(16) by striking out Section 54 — Community antenna distribution and radio and televisions installations;

(17) by striking out Section 58 — Passenger ropeways and similar equipment;

(18) in Section 60:

(1) by striking out Rule 60-108;

(2) by striking out Rules 60-500 to 60-510;

(3) by striking out Rules 60-600 to 60-604;

(**19**) in Section 62:

(1) by inserting the following definition in Rule 62-104 in alphabetical order:

"Wire mesh heating system — any heating system that uses concrete-embedded wire mesh as a heating element.";

(2) by striking out Rule 62-108(4);

(3) by inserting "Except for branch circuits supplying water heaters," at the beginning of Rule 62-114(7);

(4) by adding the following heading and Rules at the end of Section 62:

"Wire mesh heating systems

62-500 Wire mesh heating systems

Rules 62-502 to 62-506 apply to the supply and connection of wire mesh embedded in a concrete slab or concrete wall for heating, from the point of emergence of the wire mesh at the slab level. However, those rules do not apply to the wire mesh or to the part of busbars embedded in concrete.

62-502 Use

(1) Connection of wire mesh to the electrical supply if the wire mesh is installed in shower rooms, in or around swimming pools or in other locations involving similar hazards, is prohibited.

(2) If a wire mesh heating system produces electrical currents in metallic parts other than the mesh, the mesh shall be supplied only if the currents have been eliminated.

62-504 Other conductors and outlets in a heated slab

(1) Any other conductor shall be located at least 50 mm from the wire mesh and busbars and shall be considered to operate at an ambient temperature of 40 $^{\circ}$ C.

(2) Any outlet to which a lighting fixture or other heatproducing equipment is likely to be connected shall be located at least 200 mm from the wire mesh.

62-506 Transformers for wire mesh heating systems

(1) Transformers supplying wire mesh heating systems shall have a grounded electrostatic shield between the primary and secondary windings.

(2) The secondary voltage of a transformer supplying a wire mesh heating system shall not exceed 30 V measured on the secondary side of a single-phase transformer or between two phases on the secondary side of a threephase transformer.

(3) The conductors connected to the secondary side of a transformer supplying a wire mesh heating system do not require overcurrent protection."; (20) by striking out Section 64 — Renewable energy systems;

(21) in Section 66:

(1) by replacing Rule 66-000(2) and (3) by the following:

"(2) The requirements of this Section supplement or amend the general requirements of this Code.";

(2) by adding the following heading and Rules at the end of Section 66:

"Itinerant rides

66-600 Bonding

Notwithstanding Rules 66-200 and 66-202, an itinerant ride shall be permitted to be bonded to ground by one of the following means:

(a) a loop-shaped copper conductor at least equal in size to that specified in Table 16 A, but not less than No. 6 AWG, installed so as to form a loop around the ride or around the group of rides connected to the supply system of those rides; the ends of the loop shall be connected to a copper busbar whose terminals are connected to the grounded neutral conductor of the supply system. The non-current-carrying metal parts of the supply system and of the rides connected to the system shall be connected to the loop-shaped conductor by means of a copper conductor at least equal in size to that specified in Table 16 A, but not less than No. 6 AWG; or

(b) an insulated copper conductor, attached to the supply cable, at least equal in size to that specified in Table 16 A, but not less than No. 6 AWG.

66-602 Splitter

An itinerant ride shall be permitted to be connected to the supply system by means of a movable splitter provided that the splitter is waterproof and dustproof and is raised at least 25 mm from the surface on which it is installed.

66-604 Bare live parts

The cover of a box containing live parts shall be screwed shut or key-locked. Failing that, the box shall be inaccessible to the public.

66-606 Supply

A receptacle used to supply an amusement ride shall be of the locking type or the equivalent. In addition, a receptacle that does not ensure the simultaneous disconnecting of all conductors shall be inaccessible to the public.";

(3) by replacing Rule 68-304 by the following:

"68-304 Control

The electric controls of a hydromassage bathtub shall

(a) be located in the room where the bathtub is; and

(b) unless the controls are an integral part of an approved factory-built hydromassage bathtub, be equipped with an on-off switch located behind a barrier or not less than 1 m horizontally from the wall of the bathtub.";

(22) in Section 72, by adding the following Subrules at the end of Rule 72-110:

"(5) Each recreational vehicle lot equipped with sewers shall be provided with at least one receptacle of each type described in Subrule (1)(a) or (b) and (1)(c).

(6) Each recreational vehicle lot equipped with only one water outlet shall be provided with one receptacle of the type described in Subrule (1)(a) or (b).";

(23) in Section 76:

(1) in Rule 76-014 by replacing "except by special permission" by "unless an appropriate warning is displayed at all the points of interconnection or other dangerous areas";

(2) in Rule 76-016 by replacing "having CSA configuration 5-15R or 5-20R" by "of 15 A and 20 A to 125 V";

(24) in Section 86 by inserting the following Rule after Rule 86-200:

"86-202 Branch circuits for single dwellings

(1) For each new single dwelling equipped with a garage, a carport or a parking area, a conduit or cable shall be installed in anticipation of a separate branch circuit dedicated to supply electric vehicle supply equipment, in accordance with Section 12.

(2) The installation provided for in Subrule (1) shall be capable of supplying a circuit of a minimum capacity of 40 A.

(3) The installation provided for in Subrule (1) shall come from a panelboard and end in an outlet box approved for the location and intended to receive a receptacle conforming to CSA configuration 6-50R, 14-50R, L6-50R or L14-50R, located in the garage, in the carport or near the parking area of the single dwelling.";

(25) in Table 1, by replacing the allowable ampacities in the first three rows and in columns 2 (60 °C), 3 (75 °C) and 4 (90 °C) by the following:

° 20	20	20
25	25	25
40	40	40";

(26) in Table 2, by replacing the allowable ampacities in the first three rows and in columns 2 (60 °C), 3 (75 °C) and 4 (90 °C) by the following:

" 15	15	15
20	20	20
30	30	30";

(27) in Table 3, by replacing the allowable ampacities in the first three rows and in columns 2 (60 °C), 3 (75 °C) and 4 (90 °C) by the following:

" 20	20	20
30	30	30
45	45	45";

(28) in Table 4, by replacing the allowable ampacities in the first three rows and in columns 2 (60 °C), 3 (75 °C) and 4 (90 °C) by the following:

" 15	15	15	
25	25	25	
30	30	30";	

(29) by striking out Table 68;

(30) by adding the following after Table 68:
"Table 69

Minimum size of each neutral conductor for underground consumer's services of more than 600 A supplied by conductors in parallel [See Rule 4-024 (5).]

Rating of the service box A	Size of each copper neutral conductor, AWG	Size of each aluminium neutral conductor, AWG
601 to 1200	0	000
1201 to 2000	00	0000
2001 and more	000	250 kcmil
		**

(31) in Appendix B:

(1) in Section 0, by inserting the following Note in alphabetical order:

"Electrical installation

From the definition of "electrical installation", it is understood that installations, from the connecting point where the supply authority supplies the customer or from any other supply, to the connection point where the equipment receives its power to function, are electrical installations as defined in the Code. "Electrical installation" therefore means the infrastructure used to direct the electrical current to equipment requiring the current to function (appliance, equipment, specialized system) but not such equipment. The following systems in particular are not electrical installations as defined in the Code: intercommunication systems, public address systems, synchronized clock systems, visual, sound, or voice signalling systems, telephony systems, their interconnection to the telephone network, closed circuit television systems, access cards, community antennae, instrumentation and regulation systems related to heating, air conditioning, air venting and industrial processes, burglar alarm systems, fire alarm systems, and the metering equipment of the supply authority.



(2) in Section 2, by striking out the Note concerning Rule 2-026;

(3) in Section 2, by replacing the Note to Rule 2-324 by the following:

"Rule 2-324

Flowmeters are not considered to be devices equipped with a vent or relief discharge for combustible gas. The prescribed distances are measured from the combustible gas relief device and not from the appliance. An appliance may be located near arc-producing equipment provided that an airtight conduit conveys the exhaust gas beyond the prescribed distances.";

(4) in Section 2, by adding the following Note after the Note to Rule 2-400:

". ,

"Rule 2-500

The intent of this Rule is to limit as much as possible the mixing of circuits of one building with those of another so as to ensure the safety of occupants, particularly in cases of emergency or maintenance work.";

(5) in Section 4, by striking out the Note to Rule 4-006;

(6) in Section 4, by striking out the Note to Rule 4-006(4) and (5);

(7) in Section 6, by replacing "that does not exceed 200 A and 750 V, and whose supply service span length is 30 m or less," in the Note to Rule 6-112(4) by "that does not exceed 750 V";

(8) in Section 6, by inserting the following after the Note to Rule 6-206(2):

"Rule 6-300(1)(b)(ii)(B)

The joints and splices should be installed

(a) in a junction box adequately protected from mechanical damage, located at least 1 m above the ground and attached to a building or post; or

(b) with devices or material specifically approved to make underground joints and splices.

The compatibility of the conductors' material with the material of the devices used to make the joints and splices should be ensured.

Special care should be given to the location of those joints and splices to limit as much as possible the length of the shortest conductors. All the precautions necessary should also be taken regarding a possible movement of the soil (in particular frost), as specified in Rule 12-012(12).

"Rule 6-310(c)

See the Note to Rule 6-300(1)(b)(ii)(B).";

(9) in Section 8, by striking out the Note to Rule 8-002;

(10) in Section 8, by striking out the Note to Rule 8-102(3);

(11) in Section 8, by striking out the Note to Rule 8-106(10);

(12) in Section 10, by replacing the Note to Rule 10-802 by the following:

"Rule 10-802

Although copper is the most common material used to manufacture grounding conductors, other materials may also be used, such as aluminium, copper-clad steel, steelclad copper, or steel-clad aluminium. For that purpose, copper-clad aluminium is not accepted. Where materials other than copper are used, precautions should be taken, both at the terminations and all along the route as well. Most of the grounding electrical equipment available on the market is compatible with copper only. Different solutions exist to make the materials compatible with the terminations. Thermit-welding or approved adaptors are used the most.

Even if adaptors are used at the terminations to ensure longevity, documentation confirming the suitability of the material may be required, especially if there is a risk that the conductor made from a material other than copper could come into contact with dissimilar metals along its route. Subrule (2), as well as Rules 2-112 and 10-602, require that consideration be given to materials subject to galvanic action or corrosion. For instance, copper conductors in contact with aluminium are subject to galvanic action. Building covering materials and aluminium conductors in contact with masonry or earth are also subject to corrosion. Precautions should be taken at all times to ensure that deterioration from corrosion or galvanic action will be avoided all along the route. The durability of the grounding, which is essential, must be ensured at all times.";

(13) in Section 12, by inserting the following after the Note to Rule 12-108:

"Rule 12-108(2)(b)

See the Note to Rule 6-300(1)(b)(ii) (B).";

(14) in Section 26, by striking out the Note to Rules 26-700(13) and 26-712(h);

(15) in Section 26, by inserting the following after the Note to Rule 26-704:

"Rule 26-710(e)(iv)

It is understood from the expression "unfinished" that even after the installation of the wall covering (gypsum, etc.), it may be impossible to find the appropriate location for the installation of the receptacles required by Rule 26-712(a) if partitions and usable wall space have not yet been delimited. A basement is not considered to be a "fini-shed basement" if the foundation walls are finished but the ceiling is not finished or is partly finished. However, the installation of a duplex receptacle required under Rule 26-710(e)(iv) does not remove the requirement to install the receptacles for specific use already required by other rules of the Code.";

(16) in Section 26, by striking out the Note to Rule 26-710(o);

(17) in Section 26, by striking out the Note to Items (iv) and (v) of Item (d) of Rule 26-712;

(18) in Section 26, by striking out the Note to Rule 26-712(d)(v);

(19) in Section 32, by replacing the Note to Rule 32-200 by the following:

"Rule 32-200

The intent of this Rule is to select the size of the conductors so as not to compromise the integrity of their insulation when they are subject to a fault current (see Rule 32-206 and the associated Note in Appendix B).

The intent of this Rule is also to protect the feeder conductors between a fire pump and an emergency power source from fire damage.

Chapter I Building of the Construction Code (chapter B-1.1, r. 2) requires that conductors supplying life and fire safety equipment be protected against exposure to fire to ensure continued operation of this equipment for a period not less than 1 hour.

NFPA 20 also mandates protection of circuits feeding fire pumps against damage by fire.

Specific requirements pertaining to the fire resistance rating of a material or an assembly of materials can be found in Article 3.2.7.10 of Chapter I Building of the Construction Code (chapter B-1.1, r. 2) or in the appropriate municipal legislation.";

(20) in Section 32, by replacing the Note to Rule 32-206 by the following:

"Rule 32-206

Through the requirements of Chapter I Building of the Construction Code (chapter B-1.1, r. 2) related to the installation of fire pumps (NFPA 20), the intent of this Rule is to allow only a circuit breaker lockable in the closed position and identified as the fire pump disconnecting means to be installed upstream from the fire pump controller in a normal power supply circuit, or upstream from the fire pump transfer switch in an emergency power supply circuit. In Québec, as in the Canadian Electrical Code, it is permitted that the disconnecting means capable of interrupting the circuit of the fire pump, where applicable, be installed immediately downstream of the service box (or equivalent), and not only upstream.

This Rule requires that a fire pump overcurrent protection device be set to enable uninterrupted operation under fire pump starting conditions. Such overcurrent protection devices are installed upstream from a fire pump controller or upstream from a fire pump transfer switch, and have that capability whether they form part of the normal power supply circuit or the emergency power supply circuit.

A typical locked rotor current for a fire pump is at least 500% of the full load current and fire pump suppliers should be consulted to determine the specific locked rotor current for the fire pump selected for a specific application. The setting of the overcurrent protection of the circuit breaker in a normal power supply circuit should be able to carry the locked rotor current of the fire pump indefinitely. The setting of the overcurrent protection of the circuit breaker in an emergency power supply circuit (generator) should be coordinated with the integral overcurrent protection of the fire pump controller or the transfer switch in such a manner that the upstream overcurrent protection of the fire pump controller or transfer switch overcurrent protection.

Chapter I Building of the Construction Code (chapter B-1.1, r. 2), through NFPA 20, allows the bypass of the main protection of the generator by a direct connection between the emergency power supply circuit and the fire pump transfer switch. That relaxation eliminates the requirements of coordination between the main protection of the generator and the protection of the fire pump circuit, as required by Rule 46-208(1).

It should also be noted that Chapter I Building of the Construction Code (chapter B-1.1, r. 2), through NFPA 20, requires that the fire pump controller or transfer switch protection have an instantaneous trip setting of not more than 20 times the full load current. NFPA 20 also requires that the fire pump controller or transfer switch protection carry a minimum of 300% of the fire pump full load current during 8 to 20 seconds.

Lastly, Subrule (2) allows the installation downstream of the service box (or equivalent) of the normal supply circuit, regardless of the presence or not of a disconnecting means referred to in Subrule (1), of an unfused switch between the service box (or equivalent) of the normal power supply circuit and a fire pump transfer switch or controller. The activation supervision devices allowed under Chapter I Building of the Construction Code (chapter B-1.1, r. 2) (to signal the temporary deactivation of the fire pump) and referred to in Subrule (3)(d) are found in Article 9.2.3.3 of the 2010 edition of NFPA 20.";

(21) in Section 62, by striking out the Note to Rule 62-108(4);

(32) by striking out Appendix L — Engineering guidelines for determining hazardous area classifications.

DIVISION IV OFFENCES

OFFENCES

5.06. Any contravention of any provision of this Chapter, except Rule 2-008 introduced by subparagraph 4 of paragraph 2 of Rule 5.05 of this Chapter, constitutes an offence.".

2. Sections I.1 and II.1 of the Regulation respecting the application of the Building Act (chapter B-1.1, r. 1) are revoked.

3. This Regulation comes into force on 1 October 2018.

Despite the foregoing, the provisions of Chapter V Electricity of the Construction Code (chapter B-1.1, r. 2), as they read on 30 September 2018, may apply to construction work to an electrical installation that begins before 1 April 2019.

103523

Gouvernement du Québec

O.C. 723-2018, 6 June 2018

Building Act (chapter B-1.1)

Safety Code —Amendment

Regulation to amend the Safety Code

WHEREAS, under section 175 of the Building Act (chapter B-1.1), the Régie du bâtiment du Québec adopts by regulation a safety code containing safety standards for buildings, facilities intended for use by the public and installations independent of a building and their vicinity, and standards for their maintenance, use, state of repair, operation and hygiene; WHEREAS, under section 176 of the Act, the code may require manufacturers to provide instructions regarding the assembly, erection, maintenance and inspection of materials, facilities and installations;

WHEREAS, under section 176.1 of the Act, the code may, with respect to the matters to which it applies, contain provisions concerning the subjects listed in section 185 of the Act;

WHEREAS, under section 178 of the Act, the code may require observance of a technical standard drawn up by another government or by an agency empowered to draw up such standards and it may also provide that any reference it makes to other standards include subsequent amendments;

WHEREAS, under paragraph 38 of section 185 of the Act, the Board may, by regulation, adopt any other related or suppletory provision it considered necessary to give effect to the provisions of that section and of the Act;

WHEREAS the Board made the Regulation to amend the Safety Code on 17 April 2018;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Safety Code was published in Part 2 of the *Gazette officielle du Québec* of 27 September 2017 with a notice that it could be approved by the Government, with or without amendment, on the expiry of 45 days following that publication;

WHEREAS, under section 189 of the Building Act, every code or regulation of the Board is subject to approval by the Government which may approve it with or without amendment;

WHEREAS it is expedient to approve the Regulation with amendments;

IT IS ORDERED, therefore, on the recommendation of the Minister responsible for Consumer Protection and for Housing:

THAT the Regulation to amend the Safety Code, attached to this Order in Council, be approved.

ANDRÉ FORTIER, Clerk of the Conseil exécutif

Regulation to amend the Safety Code

Building Act (chapter B-1.1, ss. 175, 176, 176.1, 178 and 185, par. 38)

1. The Safety Code (chapter B-1.1, r. 3) is amended in Chapter II Electricity

(1) by replacing section 9 by the following:

"9. In this Chapter, the terms "accessible", "electrical equipment", "permanently connected equipment", "approved", "hydromassage bathtub", "therapeutic pool", "service", "circuit breaker", "ground fault circuit interrupter", "overcurrent device", "hazardous location", "readily accessible", "inaccessible", "electrical installation", "pool", "dust", "receptacle" and "alive or live" have the meaning given by Chapter V Electricity of the Construction Code (chapter B-1.1, r. 2) in force during the construction work for the electrical installation concerned.";

(2) by replacing paragraph 5 of section 22 by the following:

"(5) receptacles located in a bathroom and installed less than 1.5 m from the bathtub or shower stall. That requirement does not apply to a receptacle combined with an isolating transformer or to an outlet for a washing machine where it is located on the wall behind the machine no more than 600 mm above the floor.";

(3) by replacing section 24 by the following:

"24. All electrical equipment must comply with the regulatory provisions in force at the time of its installation, if the equipment is in the presence of flammable gases or vapours or dusts in sufficient quantity to constitute a fire or explosion hazard.".

2. This Regulation comes into force on 1 October 2018.

Gouvernement du Québec

O.C. 724-2018, 6 June 2018

Building Act (chapter B-1.1)

Professional qualification of contractors and owner-builders —Amendment

Regulation to amend the Regulation respecting the professional qualification of contractors and owner-builders

WHEREAS, under section 84 of the Building Act (chapter B-1.1), the Régie du bâtiment du Québec may, by regulation, require security from any contractor for the purpose of compensating the contractor's clients who sustain a loss as a result of a failure to carry out or the carrying out of construction work not covered by a guaranty plan referred to in section 80 of the Act;

WHEREAS, under paragraph 19.7 of section 185 of the Act, the Board may, by regulation, determine the cases in which it requires security from a contractor for the purposes of section 84 of the Act, and determine the terms and conditions applicable to, the amount and form of, and the manner of disposing of the security;

WHEREAS, under paragraph 20 of section 185 of the Act, the Board may, by regulation, determine the cases in which it collects fees for approval, authorization, revision, inspection, training, consultation, issuance of certificates of conformity, accreditation of recognized persons or bodies, and verifications, and fix such fees;

WHEREAS, under paragraph 38 of section 185 of the Act, the Board may, by regulation, adopt any other related or suppletory provision it considered necessary to give effect to the provisions of that section and of the Act;

WHEREAS the Board made the Regulation to amend the Regulation respecting the professional qualification of contractors and owner-builders on 17 April 2018;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Regulation respecting the professional qualification of contractors and owner-builders was published in Part 2 of the *Gazette officielle du Québec* of 27 December 2017 with a notice that it could be approved by the Government with or without amendment on the expiry of 45 days following that publication;

103524

WHEREAS, under section 189 of the Building Act, every code or regulation of the Board is subject to approval by the Government which may approve it with or without amendment;

WHEREAS it is expedient to approve the Regulation without amendment;

IT IS ORDERED, therefore, on the recommendation of the Minister responsible for Consumer Protection and for Housing:

THAT the Regulation to amend the Regulation respecting the professional qualification of contractors and owner-builders, attached to this Order in Council, be approved.

ANDRÉ FORTIER, Clerk of the Conseil exécutif

Regulation to amend the Regulation respecting the professional qualification of contractors and owner-builders

Building Act (chapter B-1.1, ss. 84 and 185, pars. 19.7, 20 and 38)

1. The Regulation respecting the professional qualification of contractors and owner-builders (chapter B-1.1, r. 9) is amended in section 33 by replacing "and the contractor, or the syndic, and the surety" by "and the contractor or the surety".

2. Section 34 is amended by replacing "between the client and the contractor or syndic" by "between the client and the contractor".

3. Section 37 is amended by replacing "2 years" in paragraph 2 by "3 years".

4. Section 40 is amended

(1) by replacing "and the contractor or the syndic and the surety" in subparagraph 1 of the first paragraph by "and the contractor or the surety";

(2) by replacing the second paragraph by the following:

"Despite the foregoing, clients may be compensated from the security provided for in this Division for any part of their claim for which they may not obtain compensation in execution of the security related to an itinerant merchant's permit required by the Consumer Protection Act (chapter P-40.1), or of other security issued by a person authorized to act as surety under section 29.".

- **5.** Section 41 is amended
 - (1) by replacing the first paragraph by the following:

"Where the Board receives a claim calling into question the security, the Board verifies whether the requirements of this Division are complied with, whether the claim includes any document or information necessary to determine compliance and, in the case where the claim is not accompanied by a final judgment referred to in subparagraph 1 of the first paragraph of section 40, whether the surety agrees to enter into the agreement or transaction referred to in that subparagraph. If so, the claim is considered to comply with this Division and the Board immediately opens, subject to the third paragraph of this section, a claim file on the contractor concerned, so notifies the surety and, in the case of an agreement or transaction, the syndic, if applicable. Every copy of a judgment, agreement or transaction received or entered into thereafter must be entered in the file provided that the Board considers that the claim complies with this Division.";

(2) by inserting "issued in favour of the Board" in the second paragraph after "one surety";

(3) by adding the following paragraph after the second paragraph:

"If the contractor concerned by the claim was the holder of an itinerant merchant's permit required by the Consumer Protection Act (chapter P-40.1) at the time the contract was entered into or the construction work was carried out, the Board sends to the Office de la protection du consommateur, in accordance with the Act respecting Access to documents held by public bodies and the Protection of personal information (chapter A-2.1), a copy of the documents referred to in the first paragraph, upon receipt. If the Board considers that the claim complies with this Division and the Office informs the Board that it is opening a claim file provided for in section 121 of the Regulation respecting the application of the Consumer Protection Act (chapter P-40.1, r. 3), the Board opens the claim file provided for in the first paragraph at the same time as the Office.".

6. Section 43 is amended

(1) by replacing the part preceding subparagraph 1 of the first paragraph by the following:

"At the end of each 6-month period following the opening of a claim file, the Board must verify with the Office de la protection du consommateur whether a client has been compensated from the security related to an itinerant merchant's permit required by the Consumer Protection Act (chapter P-40.1) or whether a claim file is open at the Office in respect of the client's claim. The Board must also require from any client who has filed a claim a statement attesting that the client may not be compensated, in whole or in part, from security other than the security related to the itinerant merchant's permit.

If the Board realizes that a client has been fully compensated for the loss sustained, it must deny the claim. In the other cases, the Board must,";

(2) by adding the following paragraph after the last paragraph:

"Having received the amount necessary for paying the claims and subject to section 44, the Board pays, in principal, interest and costs, the claims received during the 6-month period following the opening of the claim file. In the case of a client who is partly compensated from a security referred to in the second paragraph of section 40, the amount paid by the Board is reduced so that it cannot exceed the balance of the client's claim."

7. Section 44 is replaced by the following:

"44. If, on the date of the notice or request made under the second paragraph of section 43, the total amount of the claims exceeds the sums available to pay them, the Board pays as a priority the claims for which no claim file is open at the Office de la protection du consommateur.

In such case, the Board is to pay in full all the claims from natural persons, if the sums available are sufficient; otherwise, the Board is to pay their claims on a pro rata basis. Then, if sums are still available, the Board pays the claims from the other clients for which no claim file is open at the Office, on a pro rata basis.

If, after the payments provided for in the preceding paragraphs, sums are still available, the Board pays the claims from clients for which a claim file is open at the Office, by giving priority to the full compensation of claims from natural persons, in accordance with the second paragraph of this section, and the Board so informs the Office."

8. Section 53 is amended by replacing "under section 58.1 of the Act" in paragraph 8 by "under the security required by section 84 of the Act".

9. The provisions of this Regulation apply to claims received by the Board before 1 October 2018.

Despite the foregoing, the provisions of Division V of Chapter II of the Regulation respecting the professional qualification of contractors and owner-builders (chapter B-1.1, r. 9), as they read before 1 October 2018, continue to apply in the following cases:

(1) where the Board has received a claim that is not accompanied by a final judgment and has verified, before 1 October 2018 and in accordance with the first paragraph of section 41 of the Regulation respecting the professional qualification of contractors and owner-builders, whether the surety agrees to enter into an agreement or a transaction;

(2) where a claim file has been opened by the Board, in accordance with section 41 of the Regulation respecting the professional qualification of contractors and owner-builders, before 1 October 2018.

10. This Regulation comes into force on 1 October 2018.

103525

M.O., 2018

Order number AM 2018-005 of the Minister of Forests, Wildlife and Parks

An Act respecting the conservation and development of wildlife (chapter C-61.1)

CONCERNING the Regulation to amend the Regulation respecting hunting

THE MINISTER OF FORESTS, WILDLIFE AND PARKS,

CONSIDERING subparagraph 2 of the first paragraph of section 163 of the Act respecting the conservation and development of wildlife (chapter C-61.1), which provides that the Minister may make regulations limiting the number of licences or leases of each class for a zone, territory or place the Minister specifies, and determining the number of licences or leases of each class that a person is authorized to issue under section 54 for that zone, territory or place;

CONSIDERING the first paragraph of section 164 of the Act, which provides that a regulation made under subparagraphs 1 to 3 of the first paragraph of section 163 of the Act is not subject to the publication requirements set out in section 8 of the Regulations Act (chapter R-18.1);

CONSIDERING the making of the Regulation respecting hunting (chapter C-61.1, r. 12);

CONSIDERING that it is expedient to amend certain provisions of the Regulation;

ORDERS AS FOLLOWS:

The Regulation to amend the Regulation respecting hunting attached hereto is hereby made.

Québec, on June 7, 2018

LUC BLANCHETTE, Minister of Forests, Wildlife and Parks

Regulation to amend the Regulation respecting hunting

An Act respecting the conservation and development of wildlife (chapter C-61.1, s. 163, 1st par., subpar. 2)

1. The Regulation respecting hunting (chapter C-61.1, r. 12) is amended in Schedule II,

(1) in section 1

(*a*) by replacing the number of licences in paragraph *i* and in respect of the following areas by the following numbers:

"i. in area

Ar	ea	Number of licences
1		500
2	except the western part shown on the plan in Schedule IX	0
	the western part of Area 2 shown on the plan in Schedule IX	0
3	except the western part shown on the plan in Schedule X	0
	the western part of Area 3 shown on the plan in Schedule X, excluding the territory referred to in Schedule CCI	1,000
4		5,000
5	except the western part shown on the plan in Schedule XXXVIII	0

Are	28	Number of licences
6	except the northern part shown on the plan in Schedule XXXIX	7,500
	the northern part of Area 6 shown on the plan in Schedule XXXIX	8,500
7	except the southern part shown on the plan in Schedule CXXXIV	750
	the southern part of Area 7 shown on the plan in Schedule CXXXIV	7,000
9	except the western part shown on the plan in Schedule CXXXII	100
	the western part of Area 9 shown on the plan in Schedule CXXXII	150
10	except the western part shown on the plan in Schedule XVI	500
	the western part of Area 10 shown on the plan in Schedule XVI and Area 12	1,500
11	and the western part of Area 15 shown on the plan in Schedule CXXXIII	500
	the southwestern part of Area 13 shown on the plan in Schedule \ensuremath{CXC}	50
	the eastern part of Area 26 shown on the plan in Schedule CXCIII	0
	the part of Area 27, sector white-tailed deer, shown on the plan in Schedule CLXXXVIII except Île d'Orléans and Île au Ruau	1,650
		"·

(b) by replacing the number of licences in paragraph *ii* and in respect of the following wildlife sanctuaries by the following numbers:

"ii. in the wildlife sanctuary

Wildlife sanctuary	Number of licences		
La Vérendrye	18		
Papineau-Labelle	35		
Rouge-Matawin	0		
	>>.		

(2) in section 1.1 by replacing the number of licences in respect of the following areas by the following numbers:

"1.1. For hunting white-tailed deer, female or male with antlers less than 7 cm, all areas except Area 20 (1st killing):

Area	Number of licences
the western part of Area 5 shown on the plan in Schedule XXXVIII	6,000
8 except the southern part of the area shown on the plan in Schedule XIII and except the eastern part of the area shown on the plan in Schedule CXXXV	2,000
the southern part of Area 8 shown on the plan in Schedule XIII	4,500
the eastern part of Area 8 shown on the plan in Schedule CXXXV	3,500
	". ,

(3) in section 3

(a) by replacing the number of licences in paragraph *i* and in respect of the following area by the following number:

"i. in area

Area	Number of licences
1	4,150
	"

(b) by replacing the number of licences in paragraph *ii* and in respect of the following wildlife sanctuaries by the following numbers:

"ii. in the wildlife sanctuary

Wildlife sanctuary	Number of licences
Ashuapmushuan	46
Chic-Chocs	203
Laurentides	203
La Vérendrye	200
Mastigouche	77

Wildlife sanctuary	Number of licences
Matane	370
Papineau-Labelle	30
Port-Daniel	6
Portneuf	45
Rouge-Matawin	3
Saint-Maurice	65
	",

(c) by replacing the number of licences in paragraph *iii* and in respect of the following controlled zones by the following numbers:

"iii. in the controlled zone

Controlled zone	Number of licences
Batiscan-Neilson	56
Casault	150
Jaro, including the territory referred to in Schedule CCI	0
Lavigne	0
Lesueur	0
Maganasipi	0
Mazana	0
Mitchinamécus	0
Normandie	0
des Nymphes	0
Petawaga	55
Rapides-des-Joachims	20
Rivière-Blanche	32
Saint-Patrice	30
Wessonneau	90
	"

2. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

103535

Draft Regulations

Notice

An Act respecting collective agreement decrees (chapter D-2)

Automotive services industry – Cantons de l'Est — Amendment

Notice is hereby given, in accordance with section 5 of the Act respecting collective agreement decrees (chapter D-2), that the Minister of Labour has been petitioned by the contracting parties to amend the Decree respecting the automotive services industry in the Arthabaska, Granby, Sherbrooke and Thetford Mines regions (chapter D-2, r. 6) and that, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), the draft Decree to amend the Decree respecting the automotive services industry in the Arthabaska, Granby, Sherbrooke and Thetford Mines regions, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Decree removes a union contracting party from the contracting parties to the Decree respecting the automotive services industry in the Arthabaska, Granby, Sherbrooke and Thetford Mines regions and increases the minimum hourly wage rates of employees subject to the Decree.

The consultation period will specify the extent of the impact of the amendments sought on enterprises, in particular small and medium-sized businesses.

Further information may be obtained by contacting Janika Tardif, Policy Development Councillor, Direction des politiques du travail, Ministère du Travail, de l'Emploi et de la Solidarité sociale, 200, chemin Sainte-Foy, 5^e étage, Québec (Québec) G1R 5S1; telephone: 418 644-9471, fax: 418 643-9454, email: janika.tardif@ mtess.gouv.qc.ca.

Any person wishing to comment on the draft Decree is requested to submit written comments within the 45-day period to the Deputy Minister for Labour, Employment and Social Solidarity, 425, rue Jacques-Parizeau, 4^e étage, Québec (Québec) G1R 4Z1.

LINE BÉRUBÉ,	
Deputy Minister for Labour,	
Employment, Social Solidarity	

Decree to amend the Decree respecting the automotive services industry in the Arthabaska, Granby, Sherbrooke and Thetford Mines regions

An Act respecting collective agreement decrees (chapter D-2, ss. 4 and 6.1)

1. The Decree respecting the automotive services industry in the Arthabaska, Granby, Sherbrooke and Thetford Mines regions (chapter D-2, r. 6) is amended in section 1.02 by striking out "Union des employé(e)s des industries connexes local 1791" at the end of subsection 2.

2. Section 9.01 is replaced by the following:

"9.01. The minimum hourly wage rates are as follows:

Trades	As of [insert the date of coming into force of this Decree]	As of 1 January 2019	As of 1 January 2020	
1. Journeyman:				
А	\$23.92	\$24.52	\$25.13	
В	\$20.85	\$21.37	\$21.90	
С	\$18.89	\$19.36	\$19.85	
2. Apprentice:				
4th year	\$16.53	\$16.95	\$17.37	
3rd year	\$15.74	\$16.14	\$16.54	
2nd year	\$14.59	\$14.95	\$15.32	
1st year	\$13.37	\$13.70	\$14.04	
3. Parts Clerk:				
А	\$19.00	\$19.48	\$19.96	
В	\$17.30	\$17.73	\$18.18	
С	\$16.27	\$16.67	\$17.09	

Trades	As of [insert the date of coming into force of this Decree]	As of 1 January 2019	As of 1 January 2020	Trades	As of [insert the date of coming into force of this Decree]	As of 1 January 2019	As of 1 January 2020
4th year	\$15.41	\$15.79	\$16.19	10. Serviceman:			
3rd year	\$14.62	\$14.98	\$15.36	1st grade	\$12.67	\$12.99	\$13.31
2nd year	\$13.69	\$14.04	\$14.39	2nd grade	\$13.49	\$13.83	\$14.17
1st year	\$12.88	\$13.21	\$13.54	3rd grade	\$14.30	\$14.66	\$15.02
4. Messenger:	\$12.08	\$12.39	\$12.70	4th grade	\$15.12	\$15.50	\$15.88
5. Dismantler:				5th grade	\$16.27	\$16.67	\$17.09
1st grade	\$12.66	\$12.98	\$13.30	6th grade	\$17.38	\$17.82	\$18.26
2nd grade	\$13.48	\$13.82	\$14.16	11. Suspension Speci	alist:		
3rd grade	\$14.28	\$14.64	\$15.00	1st grade	\$13.38	\$13.71	\$14.05
6. Washer:	\$12.18	\$12.48	\$12.79	2nd grade	\$14.59	\$14.95	\$15.32
7. Semiskilled Worker:				3rd grade	\$15.74	\$16.14	\$16.54
1st grade	\$12.66	\$12.98	\$13.30	4th grade	\$16.53	\$16.95	\$17.37
2nd grade	\$13.48	\$13.82	\$14.16	5th grade	\$17.36	\$17.80	\$18.24
3rd grade	\$14.28	\$14.64	\$15.00	6th grade	\$18.40	\$18.86	\$19.33
4th grade	\$15.60	\$15.99	\$16.39	7th grade	\$19.59	\$20.08	\$20.58
8. Vendor of tires and w	heels:			12. Parts Assembler:	:		
1st grade	\$12.88	\$13.21	\$13.54	1st grade	\$12.66	\$12.98	\$13.30
2nd grade	\$13.69	\$14.04	\$14.39	2nd grade	\$13.48	\$13.82	\$14.16
3rd grade	\$14.62	\$14.98	\$15.36	3rd grade	\$14.28	\$14.64	\$15.00
4th grade	\$15.41	\$15.79	\$16.19	4th grade	\$15.12	\$15.50	\$15.88
5th grade	\$16.27	\$16.67	\$17.09	5th grade	\$16.35	\$16.76	\$17.18
6th grade	\$17.22	\$17.65	\$18.09	6th grade	\$17.72	\$18.17	\$18.62
7th grade	\$17.77	\$18.22	\$18.67	7th grade	\$19.59	\$20.08	\$20.58
9. Pump Attendant:	\$12.00	\$12.00	\$12.30				"

3. Section 14.01 is amended by replacing "1 January 2018" and "June 2017" by "31 December 2020" and "June 2020", respectively.

4. This Decree comes into force on the date of its publication in the *Gazette officielle du Québec*.

103534

Draft Regulation

Cultural Heritage Act (chapter P-9.002)

Order in Council respecting the declaration of Arvida as a heritage site

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Order in Council respecting the declaration of Arvida as a heritage site, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The purpose of the draft Order in Council is to declare the territory delimited in the Schedule as a heritage site under sections 58 and following of the Cultural Heritage Act (chapter P-9.002), under the name of Arvida heritage site.

The draft Order in Council has an impact on enterprises that will have to comply with the control measures under the Cultural Heritage Act that apply within the boundaries of the declared heritage site.

Further information on the draft Order in Council may be obtained by contacting Martin Pineault, Director, Direction générale du patrimoine et des immobilisations, Ministère de la Culture et des Communications, édifice Guy-Frégault, 225, Grande Allée Est, bloc C, rez-de-chaussée, Québec (Québec) G1R 5G5; telephone: 418 380-2352, extension 6352; email: martin.pineault@ mcc.gouv.qc.ca.

Any person wishing to comment on the matter is requested to submit written comments within the 45-day period to Dominique Malack, Acting Assistant Deputy Minister for cultural development and heritage, Ministère de la Culture et des Communications, édifice Guy-Frégault, 225, Grande Allée Est, bloc B, 1^{er} étage, Québec (Québec) G1R 5G5.

MARIE MONTPETIT,	
Minister of Culture	
and Communications	

Declaration of Arvida as a heritage site

WHEREAS the territory of the Arvida heritage site delimited in the Schedule corresponds to a sector of the former Ville d'Arvida, founded by the Aluminium Company of Canada and its president, Arthur Vining Davis, erected as a municipality in 1926, then developed in keeping with the original plans of the architect Harry Beardslee Brainerd and the engineer Hjalmar Ejnar Skougor, amended by Harold R. Wake, engineer of the company;

WHEREAS that sector bespeaks the important period of economic and industrial development that took place in several regions of Québec, in particular the Saguenay–Lac-Saint-Jean region, during the first decades of the 20th century;

WHEREAS that sector was associated to the most important place of production of aluminium in the world between the Second World War and the seventies, which earned Arvida the nickname of world aluminium capital;

WHEREAS that sector is a particularly good avantgardist example of industrial towns that were planned in Québec at the same time and includes, in particular, residential, institutional and commercial sectors;

WHEREAS that sector has several features inspired of the urban utopias of its time, which are still present today, such as the green wedge and the parks integrated into the urban fabric, the hierarchical arterial system and the downtown area around which a built environment essentially composed of pavilions unfurls;

WHEREAS that sector forms a homogenous landscape whose picturesque effect is due to a layout that enhances the topography of the site, an abundant revegetation, the evenness of the land parcel system and the built environment;

WHEREAS that sector can be distinguished by the numerous models of buildings used, which are mainly inspired by the architecture of the United States and traditional Québec architecture, and whose local character is namely expressed by the use of some aluminium components;

WHEREAS the construction of the first 270 houses in that sector in only 135 days is a technical feat and an innovative example of serial building carried out by rationalizing the processes used;

WHEREAS the knowledge, protection, enhancement and transmission of the territory of the Arvida heritage site is in the public interest by reason of its heritage value in terms of history, urban development, landscape, architecture and technology; WHEREAS the first paragraph of section 58 of the Cultural Heritage Act (chapter P-9.002) provides that the Government may, on the recommendation of the Minister of Culture and Communications who must obtain the opinion of the Conseil du patrimoine culturel du Québec, declare as a heritage site any land area the knowledge, protection, transmission or enhancement of which is in the public interest;

WHEREAS section 2 of the Cultural Heritage Act provides that "heritage site" means or designates, in the case of a heritage site referred to in section 58, a land area that is of interest for its archaeological, architectural, artistic, emblematic, ethnological, historical, identity, landscape, scientific, urbanistic or technological value;

WHEREAS, on 22 June 2017, the Minister of Culture and Communications, in accordance with sections 58 and 59 of the Cultural Heritage Act, signed a recommendation respecting the declaration of Arvida as a heritage site, of which a notice was published on 12 July 2017 in the *Gazette officielle du Québec*, Part 2, and in two newspapers in the land area concerned;

WHEREAS, in accordance with section 83 of the Cultural Heritage Act, the Conseil du patrimoine culturel du Québec held a public consultation, in the fall of 2017, on the draft declaration of Arvida as a heritage site and sent its consultation report to the Minister of Culture and Communications on 13 February 2018;

WHEREAS the Minister of Culture and Communications, in accordance with section 58 of the Cultural Heritage Act, obtained the opinion of the Conseil du patrimoine culturel du Québec, which sent a first notice pertaining to the relevance of the recommendation of declaration of the site with respect to the presence of the conditions for its application dated 26 May 2017 and a second notice pertaining to the heritage values, the proposed perimeter, the advantages of the draft declaration, the issues and problems dated 13 February 2018;

WHEREAS the first and third paragraphs of section 60 of the Cultural Heritage Act povide that an order made under section 58 must include the boundaries of the land area declared a heritage site and state the reasons for the declaration and takes effect on the date of publication in the *Gazette officielle du Québec* of the notice of recommendation;

WHEREAS section 17 of the Regulations Act (chapter R-18.1) provides that a regulation comes into force 15 days after the date of its publication in the *Gazette officielle du Québec*;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act, a draft Order in Council respecting the Declaration of Arvida as a heritage site was published in the *Gazette officielle du Québec*, Part 2, of xxx 2018 with a notice that it could be made by the Government on the expiry of 45 days following its publication;

WHEREAS it is expedient to make the draft Order in Council with or without amendment;

IT IS ORDERED, therefore, on the recommendation of the Minister of Culture and Communications:

THAT the territory delimited in the Schedule to this Order in Council be declared as a heritage site;

THAT the heritage site be designated under the name of Arvida heritage site;

THAT this Order in Council come into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec* and take effect as of 12 July 2017.

SCHEDULE

Description of the delimitation of the territory of the Arvida heritage site:

A territory located in Ville de Saguenay, Chicoutimi land division, and whose perimeter may be more precisely described as follows:

—starting from point 1 corresponding to the northeastern corner of lot 2 289 639 of the cadastre of Québec;

—thence along the northern limit of lot 2 289 574 and the southern limit of lot 2 289 575 and the western and southern limits of lot 2 289 579 to point 3 corresponding to the southeastern corner of lot 2 289 579;

-thence crossing rue Castner to point 4, which is the meeting point of lots 2 294 314 (rue Castner), 2 289 613 and 2 289 590;

—thence along the northern and northeastern limits of lot 2 289 590 to point 5, which is the meeting point of lots 2 289 613, 2 289 590 and 2 289 610;

—thence along the northwestern and southwestern limits of lot 2 289 610, the northwestern and western limits of lot 2 289 592, the western and southern limits of lot 2 289 604, the southwestern limit of lot 2 289 606, the southwestern and southeastern limits of lot 2 289 607, the southwestern limit of lot 2 289 608, the northwestern and southwestern limits of lot 2 289 602, the southwestern limit of lot 2 289 603, the northwestern, southwestern and southeastern limits of lot 2, 289 617 and the southwestern limit of lots 2 289 618, 2 289 619, 2 289 615 and 2 289 616 to point 6, which is the meeting point of lots 2 289 616, 2 289 614 and 2 294 321 (northwestern right-of-way of rue Regnault);

—thence crossing rue Regnault to the southeast to point 7, which is the meeting point of the western corner of lot 2 289 694 and the northern corner of lot 2 294 320 (rue Maxwell);

—thence southwesterly and along the southeastern right-of-way of rue Regnault (lot 2 294 321) to point 8, corresponding to the western corner of lot 2 289 714;

—thence along the southwestern limit of lot 2 289 714, the northwestern and southwestern limits of lot 2 289 716 and the southwestern limit of lots 2 289 718 to 2 289 722, crossing rue Foucault to the western point of lot 2 289 803 and along the southwestern limits of lots 2 289 803, 2 289 805, 2 289 807, 2 289 808, 2 289 809, 2 289 813, 2 289 811 and 2 289 812 to point 9, which is the meeting point of lots 2 289 810, 2 289 812 and 2 294 305 (rue Berthier);

—thence crossing rue Berthier, in a southeasterly direction to point 10, which is the meeting point of the southeastern corner of lot 2 294 305 (rue Berthier) and lot 2 289 886;

—thence along the northern and western limits of lot 2 289 886, the southern limit of lots 2 289 886, 2 289 896, 2 289 898, 2 289 899, 2 289 904 and 2 289 905 to point 11, which is the meeting point of lots 2 289 902 and 4 778 051;

—thence along the eastern limit of lot 2 289 902 to point 12, which is the intersection of lots 2 289 902, 4 778 051 and 2 481 749 (boulevard du Saguenay);

-thence along the northern limit of lots 2 481 749 and 2 294 312, to point 13, which is the meeting point of lots 2 481 750, 2 294 313 (boulevard du Saguenay) and 2 294 312 (rue Lavoisier);

-thence along the northeastern, northern and eastern limits of lot 2 294 312 (rue Lavoisier) to point 14, which is the meeting point of the southeastern corner of lot 2 294 312 (rue Lavoisier) and lot 2 288 990;

—thence along the southern and southeastern limits of lot 2 294 300 (rue Moritz) to point 15, which is the meeting point of lots 2 294 300 (rue Moritz), 2 288 989 and 2 481 739 (boulevard Mellon); -thence along the western, southern and northern limits of lot 2 288 989 to point 16, which is the meeting point of lots 2 290 614, 2 288 989 and 2 288 990;

—thence along the eastern limit of lots 2 290 614, 2 290 615, 2 290 616 and 2 290 613 to point 17, which is the meeting point of lots 2 290 613, 4 349 253 and 2 288 990;

-thence along the northern limit of lot 4 349 253 to point 18, which is the meeting point of lots 2 290 613, 2 294 267 and 4 349 253;

—thence along the western limit of lot 4 349 253 to point 19, which is the meeting point of lots 2 294 267 and 4 349 253;

— thence crossing lots 4 349 253 (railway) and 2 294 261 (railway) along the eastern edge of boulevard Mellon to point 20, which is the intersection of lots 2 293 664, 2 294 261 and 2 294 269;

—thence along the western limit of lot 2 293 664 to point 21, which is the meeting point of lots 2 293 664 and 2 294 269 (boulevard Mellon);

—thence crossing lot 2 294 269 (rue De La Salle) to point 22, which is the intersection of lot 2 294 269 with the imaginary extension of the eastern right-of-way of lot 2 851 692 (boulevard Mellon);

-thence crossing boulevard Mellon along the southern limit of lot 2 294 269 to point 23, which is the meeting point of lots 2 802 084, 4 378 919, 2 294 269 and 2 851 692;

—thence along the southern limit of lot 4 378 919 to point 24, which is the meeting point of lots 2 294 268 (rue de Neuville), 4 378 919 and 2 802 084;

—thence crossing rue de Neuville to point 25, which is the meeting point of lots 2 293 858, 5 839 173 and 2 294 268 (rue de Neuville);

— thence along the northern and western limits of lot 2 293 858, the northern limit of lots 2 293 856, 3 649 126 and 2 293 853, the northern and western limits of lot 2 293 852 and the northern limit of lots 2 293 851, 2 293 850, 2 293 849, 2 293 847, 2 293 846 and 2 293 845 to point 26, which is the meeting point of lots 2 293 845, 5 839 173 and 2 293 842;

- thence along the eastern limit of lot 2 293 842 to point 27, which is the meeting point of lots 2 293 842 and 5 839 173;

—thence along the eastern limit of lot 4 708 636 to point 29, which is the meeting point of lots 2 294 165 and 4 349 248;

—thence along the eastern and northern limits of lot 2 290 651, the northwestern limit of lot 2 290 650, the northern and western limits of lot 2 290 648 and the northern limit of lot 2 294 165 (rue Deschênes) to point 31, which is the meeting point of lots 2 481 734, 2 294 165, 2 290 640 and 4 325 311;

—thence along the eastern and northern limits of lot 2 290 640, the northeastern limit of lot 4 325 310, the southeastern and northeastern limits of lot 4 325 309, the northeastern and northwestern limits of lot 2 290 639, the northern limit of lot 4 325 307, the eastern limit of lot 2 290 632, the eastern and southern limits of lot 2 290 634 to point 32, which is the meeting point of lots 2 290 634, 4 064 739 and 4 325 311;

—thence along the northern limit of lot 2 290 634, the eastern limit of lot 2 290 633 and the southern limit of lot 2 290 635 to point 33, which is the meeting point of lots 2 290 635, 4 064 739 and 4 325 311;

—thence along the eastern limit of lots 2 290 635 and 2 290 636 and the northern limit of lot 2 290 636 to point 34, which is the meeting point of lots 2 290 636, 2 290 637 and 4 325 311;

- thence along the northeastern limit of lot 2 290 636 and the southeastern and eastern limits of lot 2 290 631 to point 35, which is the meeting point of lots 2 290 631, 2 290 637 and 4 325 311;

—thence along the eastern, northern and western limits of lot 2 290 631, the northeastern limit of lot 2 290 628 and the eastern limit of lots 2 290 624, 2 290 645 and 2 290 646 to point 36, which is the meeting point of lots 2 290 646, 2 290 647 and 4 325 311;

—thence along the eastern limit of lot 2 290 646 and across lot 2 290 647 to point 37, which is the intersection of lots 2 290 832, 2 290 647 and 4 303 409;

-thence along the eastern and northeastern limits of lot 2 290 832, the eastern and northern limits of lot 2 290 831, the northeastern limit of lot 2 290 824, the eastern limit of lots 2 290 821 and 2 290 829, the southern, eastern and northern limits of lot 2 290 833, the eastern limit of lot 2 290 827, the northeastern limit of lot 2 290 826, the eastern and northeastern limits of lot 5 443 338 and the northeastern limit of lot 5 443 337 to point 38, which is the meeting point of lots 5 443 337, 2 481 745 (boulevard du Saguenay), 2 481 746 (boulevard du Saguenay) and 4 303 409;

—thence, crossing boulevard du Saguenay to the north, along the southeastern and eastern limits of lot 2 481 745 (boulevard du Saguenay) to point 39, which is the intersection of lots 2 481 745, 2 481 746 and 4 900 594;

—thence along the northern limit of lot 2 481 745 to point 40, which is the meeting point of lots 2 481 745, 4 900 594 and 2 289 018;

-thence along the northeastern and eastern limits of lot 2 289 018 to point 41, which is the meeting point of lots 2 289 018, 2 289 021 and 4 900 594;

—thence along the southern limit of lot 2 290 025 to point 44, which is the intersection of lots 2 290 217, 2 294 314 (rue La Traverse) and 2 289 025;

—thence along the eastern limit of lot 2 289 025 to point 45, which is the intersection of lots 2 290 664, 2 289 025, 2 294 314 (rue La Traverse) and 2 294 188 (rue de Normandie);

—thence crossing lot 2 294 188 (rue de Normandie) and along the southern limits of lots 2 290 675 and 2 290 676 to point 46, which is the intersection of lots 2 290 676, 2 290 678 and 2 294 314 (rue La Traverse);

—thence along the eastern and northern limits of lot 2 290 676, the eastern limit of lots 2 290 674 and 2 290 665, the southern and eastern limits of lot 2 290 670, the eastern and northern limits of lot 3 599 716 and the eastern limit of lots 2 290 668 and 2 290 669 to point 47, which is the intersection of lots 2 290 669, 3 811 626 and 3 811 625;

—thence along the southern and eastern limits of lot 3 811 625 and the eastern limit of lots 5 172 578 and 5 172 577 to point 48, which is the intersection of lots 5 172 577, 4 570 419 and 2 289 639 (manoir du Saguenay); -thence along the southeastern and southern limits of lot 4 570 419 to the starting point 1.

The whole as shown by a red contour on a plan prepared at Ville de Saguenay by Jacques Normand, land surveyor, dated 19 April 2017 and bearing number 5658 of his minutes.

103537

Draft Regulation

An Act respecting the Government and Public Employees Retirement Plan (chapter R-10; 1990, chapter 5; 2018, chapter 4)

Sûreté du Québec

Partition and assignment of benefits accrued under the Régime de retraite des membres Amendment

Notice is hereby given, in accordance with section 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting the partition and assignment of benefits accrued under the Régime de retraite des membres de la Sûreté du Québec, appearing below, may be made by the Government on the expiry of 45 days following this publication.

In accordance with the Act respecting the implementation of recommendations of the pension committee of certain public sector pension plans and amending various legislative provisions (2018, chapter 4), the purpose of the draft Regulation is to include in the Régime de retraite des membres de la Sûreté du Québec, the special measures, introduce by the Act, so that spouses who are not married or in a civil union and had been living in a conjugal relationship may partition the benefits accrued by the member or former member under his plan as at the date on which the spouses ceased living together. It also serves to define the criteria for considering persons as spouses entitled to partition and assignment of the benefits concerned.

Further information may be obtained from Ms. Marie-Josée Tardif, notary, Direction des affaires juridiques de Retraite Québec, Place de la Cité, 2600, boulevard Laurier, 7º étage, bureau 760, Québec (Québec) G1V 4T3, telephone: 418 657-8702; email: marie-josee.tardif@retraitequebec. gouv.qc.ca.

Any person wishing to comment on the draft Regulation is asked to send his or her comments in writing before the expiry of the 45-day period mentioned above to Mr. Michel Després, President and Chief Executive Officer of Retraite Québec, Place de la Cité, 2600, boulevard Laurier, 5^e étage, Québec (Québec) GIV 4T3. Comments will be forwarded by Retraite Québec to the Minister responsible for Government Administration and Ongoing Program Review and Chair of the Conseil du trésor.

PIERRE ARCAND,

Minister responsible for Government Administration and Ongoing Program Review and Chair of the Conseil du trésor

Regulation to amend the Regulation respecting the partition and assignment of benefits accrued under the Régime de retraite des membres de la Sûreté du Québec

An Act respecting the Government and Public Employees Retirement Plan (chapter R-10; 1990, chapter 5, s. 52; 2018, chapter 4, ss. 74)

1. Section 1 of the Regulation respecting the partition and assignment of benefits accrued under the Régime de retraite des membres de la Sûreté du Québec (chapitre R-10, r. 9) is amended:

(1) by replacing subparagraph 2 of the first paragraph with the following:

"(2) in the case of married spouses, a marriage certificate and, where applicable, the date on which the spouses resumed living together;";

(2) by inserting, after subparagraph 2 of the first paragraph, the following subparagraph:

"(2.1) in the case of spouses in a civil union, a certificate of civil union;";

(3) by adding, at the end of the second paragraph, "in accordance with section 4 of the Act respecting Retraite Québec (chapter R-26.3)".

2. The Regulation is amended by inserting, after section 1, the following:

"1.1. Where a member or former member and a person of the opposite or same sex whom the member or former member publicly represents as his spouse have ceased living together and neither was married or in a civil union on the date on which they ceased living together, and provided that the spouse had been living in a conjugal relationship with the member or former member for a period of not less than one year immediately prior to the date on which they ceased living together or during the year preceding that date, and one of the following situations occurred:

- (1) a child was born or is to be born of their union,
- (2) they adopted a child together, or
- (3) one of them adopted the child of the other,

the spouses may, in accordance with section 122.1.1 of the Act respecting the Government and Public Employees Retirement Plan (chapter R-10), agree within 12 months of the date on which they ceased living together to the partition of the benefits accrued by the member or the former member under the Régime de retraite des membres de la Sûreté du Québec; such an agreement may not, however, confer on the spouse more than 50% of the value of such benefits.

For that purpose, the member or former member and the spouse are entitled to obtain, upon application made to Retraite Québec, a statement setting out the value of the benefits accrued by the member or former member under the plan, established as at the date on which they ceased living together. Any application for a statement must be signed by the member or the former member and his spouse. The application must contain the following information and be accompanied with the following documents:

(1) the name, address, Social Insurance Number and date of birth of the member or former member and of his spouse;

(2) an attestation by the member or former member and his spouse that neither was married or in a civil union on the date on which they ceased living together and, where applicable, the date of the divorce or the dissolution of the civil union and the documents attesting thereto, unless those documents have already been sent to Retraite Québec;

(3) an attestation by the member or former member and his spouse of the dates on which they began and ceased living together and, where applicable, proof that they lived in a conjugal relationship. Furthermore, if the spouses lived in a conjugal relationship for less than one year preceding the date on which they ceased living together, they must also attest that one of the situations referred to in subparagraphs 1 to 3 of the first paragraph occurred and, where applicable, provide proof thereof;

(4) the information that must be provided by the employer in his annual report, in accordance with the provisions of the Régime de retraite des membres de la Sûreté du Québec, for the year during which the assessment is determined up to the date set for that assessment, as well as for the previous year; that information must be certified by an authorized representative of the employer.

Any application made under this section is also valid for the ancillary benefits provided for in Chapter V of the Régime de retraite des membres de la Sûreté du Québec, that are administered by the Association des policières et policiers provinciaux du Québec.".

3. Section 2 is amended by adding, at the beginning of subparagraph 3 of the first paragraph, "in the case of married spouses or spouses in a civil union,".

4. Section 15 is amended:

(1) by adding, at the end of paragraph 1, ", unless the judgment has already been sent to Retraite Québec";

(2) by inserting, after paragraph 3, the following:

"(3.1) in the case of spouses referred to in the first paragraph of section 1.1, the agreement between the spouses concerning partition of the benefits accrued by the member or former member under the Régime de retraite des membres de la Sûreté du Québec, signed before a notary or attorney, or a sworn declaration signed by both spouses within 12 months following the date on which they ceased living together;".

5. Section 27 is amended by adding, at the beginning of paragraph 2, "in the case of married spouses or spouses in a civil union,".

6. The Regulation is amended by replacing the title of Division VI with "Miscellaneous and transitional provisions".

7. The Regulation is amended by inserting, after section 33, the following:

"33.1. Notwithstanding the fact that under section 1.1, spouses to which that section applies may agree, within 12 months following the date on which they ceased living together, to the partition of the benefits accrued by the member or former member under the Régime de retraite des membres de la Sûreté du Québec, such persons who ceased living together after 31 August 1990 but before *(insert the date of coming into force of this Regulation)*, may agree, in accordance with section 75 of the Act respecting the implementation of recommendations of the pension committee of certain public sector pension plans and amending various legislative provisions (2018, chapter 4), to such partition not later than 12 months following the latter date.".

8. This Regulation comes into force on (insert the date of coming into force of section 74 and 75 of chapter 4 of the Statutes of 2018).

103528

Draft Regulation

Mining Act (chapter M-13.1)

Petroleum, natural gas and underground reservoirs —Revocation

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to revoke the Regulation respecting petroleum, natural gas and underground reservoirs, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Regulation revokes the Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r. 1) following the coming into force of the Petroleum Resources Act (chapter H-4.2), the Regulation respecting petroleum exploration, production and storage licences, and the pipeline construction or use authorization, the Regulation respecting exploration, production and storage activities on land and the Regulation respecting exploration, production and storage activities in a body of water. the Petroleum Resources Act and the Regulations must come into force at the same time.

Study of the matter shows that the draft Regulation will have an impact on enterprises currently holding rights to search and produce petroleum and gas or operate an underground reservoir to the extent that they will be subject to the regulations pertaining to the Petroleum Resources Act.

Further information on the draft Regulation may be obtained by contacting Marie-Eve Bergeron, Director, Bureau des hydrocarbures, Ministère de l'Énergie et des Ressources naturelles, 5700, 4^e Avenue Ouest, bureau A-422, Québec (Québec) G1H 6R1; telephone: 418 627-6385, extension 8131; toll free: 1 800 363-7233, extension 8131; fax: 418 644-1445; email: marie-eve. bergeron@mern.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Luce Asselin, Associate Deputy Minister for Energy, Ministère de l'Énergie et des Ressources naturelles, 5700, 4° Avenue Ouest, bureau A-407, Québec (Québec) G1H 6R1.

PIERRE MOREAU, Minister of Energy and Natural Resources and Minister responsible for the Plan Nord

Regulation to revoke the Regulation respecting petroleum, natural gas and underground reservoirs

Mining Act (chapter M-13.1, s. 306)

1. The Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r. 1) is revoked.

2. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

103533

Draft Regulation

An Act respecting parental insurance (chapter A-29.011)

Premium rates under the parental insurance plan — Amendment

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting premium rates under the parental insurance plan, made by the Conseil de gestion de l'assurance parentale and appearing below, may be approved by the Government, with or without amendment, on the expiry of 45 days following this publication.

The draft Regulation decreases the premium rates applicable to employees, persons referred to in section 51 of the Act respecting parental insurance (chapter A-29.011), employers, self-employed workers and family-type resources or intermediate resources, as of 1 January 2019.

Further information may be obtained by contacting Shadi J. Wazen, Lawyer, Secretary General, Conseil de gestion de l'assurance parentale, 1122, Grande Allée Ouest, 1^{er} étage, bureau 104, Québec (Québec) G1S 1E5; telephone: 418 528-1608; fax: 418 643-6738, email: shadi.wazen@cgap.gouv.qc.ca. Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Brigitte Thériault, President and Director General of the Conseil de gestion de l'assurance parentale, 1122, Grande Allée Ouest, 1^{er} étage, bureau 104, Québec (Québec) G1S 1E5; telephone: 418 643-1052; fax: 418 643-6738.

FRANÇOIS BLAIS, Minister of Employment and Social Solidarity

Regulation to amend the Regulation respecting premium rates under the parental insurance plan

An Act respecting parental insurance (chapter A-29.011, s. 6)

1. The Regulation respecting premium rates under the parental insurance plan (chapter A-29.011, r. 5) is amended by replacing section 1 by the following:

"1. The premium rate applicable to an employee and to a person referred to in section 51 of the Act is 0.526%.

The premium rate applicable to a self-employed worker and a family-type resource or intermediate resource is 0.934%.

The premium rate applicable to an employer is 0.736%.".

2. This Regulation comes into force on 1 January 2019.

103536

Draft Regulation

An Act respecting the Pension Plan of Elected Municipal Officers (chapter R-9.3; 2018, chapter 4)

Partition and assignment of benefits accrued under the Pension Plan of Elected Municipal Officers —Amendment

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting the partition and assignment of benefits accrued under the Pension Plan of Elected Municipal Officers, appearing below, may be made by the Government on the expiry of 45 days following this publication. The purpose of the draft Regulation is to harmonize the provisions of the Regulation respecting the partition and assignment of benefits accrued under the Pension Plan of Elected Municipal Officers (chapter R-9.3, r. 2) with the provisions set out in the Act respecting the implementation of recommendations of the pension committee of certain public sector pension plans and amending various legislative provisions (2018, chapter 4) that allow spouses who are not married or in a civil union and had been living in a conjugal relationship to partition the benefits accrued under the Pension Plan by the council member or former council member as at the date on which the spouses ceased living together.

Further information may be obtained from Ms. Marie-Josée Tardif, notary, Direction des affaires juridiques de Retraite Québec, Place de la Cité, 2600, boulevard Laurier, 7^e étage, bureau 760, Québec (Québec) G1V 4T3, telephone: 418 657-8702; email: marie-josee.tardif@retraitequebec. gouv.qc.ca.

Any person wishing to comment on the draft Regulation is asked to send his or her comments in writing before the expiry of the 45-day period mentioned above to Mr. Michel Després, President and Chief Executive Officer of Retraite Québec, Place de la Cité, 2600, boulevard Laurier, 5^e étage, Québec (Québec) G1V 4T3. Comments will be forwarded by Retraite Québec to the Minister of Municipal Affairs and Land Occupancy.

MARTIN COITEUX, Minister of Municipal Affairs and Land Occupancy

Regulation to amend the Regulation respecting the partition and assignment of benefits accrued under the Pension Plan of Elected Municipal Officers

An Act respecting the Pension Plan of Elected Municipal Officers (chapter R-9.3, s. 75, 1st par., subpars. 4.1 to 4.5; 2018, chapter 4, s. 18)

1. Section 1 of the Regulation respecting the partition and assignment of benefits accrued under the Pension Plan of Elected Municipal Officers (chapter R-9.3, r. 2) is amended:

(1) by adding, at the beginning of subparagraph 2 of the first paragraph, "in the case of married spouses,";

(2) by inserting, after subparagraph 2 of the first paragraph, the following subparagraph: "(2.1) in the case of spouses in a civil union, a certificate of civil union;";

(3) by replacing subparagraph 3 of the first paragraph with the following:

"(3) written confirmation from a certified mediator to the effect that he or she has received a mandate within the context of family mediation or written confirmation from a notary to the effect that the spouses in a civil union have undertaken a joint procedure for the dissolution of their civil union or, as the case may be, the joint declaration dissolving the civil union and the notarized transaction contract, or a copy of the application for separation from bed and board, divorce, annulment of marriage or civil union, dissolution of civil union or payment of a compensatory allowance or, where applicable, a copy of the judgment disposing of such an application;";

(4) by adding, at the end of the second paragraph, "in accordance with section 4 of the Act respecting Retraite Québec (chapter R-26.3)".

2. The Regulation is amended by inserting, after section 1, the following:

"1.1. Any application for a statement referred to in section 63.1.1 of the Act must be signed by the council member or former council member and his spouse. The application must contain the following information and be accompanied with the following documents:

(1) the name, address, Social Insurance Number and date of birth of the council member or former council member and of his spouse;

(2) an attestation by the council member or former council member and his spouse that neither was married or in a civil union on the date on which they ceased living together and, where applicable, the date of the divorce or the dissolution of the civil union and the documents attesting thereto, unless those documents have already been sent to Retraite Québec;

(3) an attestation by the council member or former council member and his spouse of the dates on which they began and ceased living together and, where applicable, proof that they were in a conjugal relationship. Furthermore, if the spouses lived in a conjugal relationship for at least one year but not more than three years preceding the date on which they ceased living together, they must also attest that a child was born or is to be born of their union and, where applicable, provide proof thereof;

(4) the information that must be provided by the employer in his annual report, in accordance with section 188 of the Act respecting the Government and Public Employees Retirement Plan (chapter R-10), for the year during which the assessment is determined up to the date set for that assessment, as well as for the previous year; that information must be certified by an authorized representative of the employer.".

3. Section 2 is amended by replacing subparagraph 3 of the first paragraph with the following:

"(3) in the case of married spouses or spouses in a civil union, the benefits accrued during the period of the marriage or civil union, as well as the value of those benefits;".

4. Section 3 is amended by inserting "or civil union" in the second paragraph after "marriage".

5. Section 4 is amended by replacing "proportionately to the amounts paid in capital for their payment out of the total capital amount. Those years or parts of a year are deemed to be credited for the period of the marriage," with "as a ratio of the capital paid therefor to the total capital. The years or parts of a year are deemed to be credited for the period of the marriage."

6. Section 5 is amended:

(1) by replacing every occurrence of "comprised in the period of the marriage" with "included in the period of the marriage or civil union";

(2) by inserting "or civil union" after every occurrence of "period of the marriage".

7. Section 6 is amended by adding "or the civil union" at the end.

8. Section 7 is amended by replacing, in the French version, the first occurrence of "méthode" in the second paragraph with "valeur".

9. Section 8 is amended by inserting, after "marriage" in the second paragraph, "or civil union".

10. Section 11 is amended:

(1) by replacing paragraph 1 with the following:

"(1) the judgement of separation from bed and board, divorce, annulment of marriage or civil union, dissolution of civil union or the payment of a compensatory allowance unless the judgment has already been sent to Retraite Québec;";

(2) by adding, at the end of paragraph 2, "or the joint declaration dissolving the civil union along with the notarized transaction contract"; (3) by inserting, after paragraph 3, the following:

"(3.1) in the case of spouses referred to in the first paragraph of section 63.1.1 of the Act, the agreement between the spouses concerning partition of the benefits accrued by the council member or former council member under the Pension Plan of Elected Municipal Officers, signed before a notary or attorney, or a sworn declaration signed by both spouses within 12 months following the date on which they ceased living together;".

11. This Regulation comes into force on (insert the date of coming into force of sections 17 and 18 of chapter 4 of the Statutes of 2018).

103529

Draft Regulation

Petroleum Resources Act (chapter H-4.2)

Petroleum exploration, production and storage in a body of water

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation respecting petroleum exploration, production and storage in a body of water, appearing below, may be made by the Government on the expiry of 45 days following this publication.

This draft Regulation sets the conditions for the granting and exercise of the authorizations required for petroleum exploration, production and storage in a body of water, except a marine environment, and sets the fees payable. The draft Regulation also determines the protective and safety measures that must be implemented. In addition, it establishes the content of the permanent well or reservoir closure and site restoration plan, the time at which the work planned in the plan must be carried out, and the duration, form and terms of the related guarantee. Lastly, the draft Regulation takes into account the concerns, comments and observations received following the first publication period. Consequently, it prohibits every fracturing activity in a well whose casing head is situated in a body of water and it prohibits development activities for petroleum resources in waterways and within any urbanization perimeter and in an additional 1-km zone around it.

Study of the matter shows that this draft Regulation will have an impact on enterprises currently holding rights to explore for and produce petroleum and gas or operate an underground reservoir that will have to obtain authorizations to carry out certain activities that were not regulated, in particular the carrying out of stratigraphic surveys and reconditioning. The enterprises will also have to furnish a guarantee representing the totality of the costs for well or reservoir closure and site restoration. In addition, they will have to contend with greater accountability, in particular in respect of the information sent to the Minister of Energy and Natural Resources. The additional requirements may impose, in certain cases, a significant burden.

Lastly, the prohibition to carry out any fracturing activity in a body of water and the tightening of various other activities will have an impact on enterprises that incurred expenses in the past to carry out work with respect to the regulations then in force. Those enterprises could lose some of their related investments or see the economic interest of the affected titles reduced or disappear.

Further information on the draft Regulation may be obtained by contacting Marie-Eve Bergeron, Director, Bureau des hydrocarbures, Ministère de l'Énergie et des Ressources naturelles, 5700, 4^e Avenue Ouest, bureau A-422, Québec (Québec) G1H 6R1; telephone: 418 627-6385, extension 8131; toll free: 1 800 363-7233, extension 8131; fax: 418 644-1445; email: marie-eve.bergeron@mern. gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Luce Asselin, Associate Deputy Minister for Energy, Ministère de l'Energie et des Ressources naturelles, 5700, 4° Avenue Ouest, bureau A-407, Québec (Québec) G1H 6R1.

PIERRE MOREAU, Minister of Energy and Natural Resources and Minister responsible for the Plan Nord

Regulation respecting petroleum exploration, production and storage in a body of water

Petroleum Resources Act (chapter H-4.2. ss. 10, 26, 68, 69, 2nd par., 70, 71, 2nd par., 73, 1st and 2nd pars., 76, 1st and 2nd pars., 78, 1st and 2nd pars, 80, 84, 2nd par., 85, 88, 90, 2nd par., 91, 92, 3rd par., 93, 95, 96, 100, 2nd par., 102, 103, 2nd par., 131, 1st par., 191, 207 and 287)

CHAPTER I GENERAL

1. This Regulation establishes the conditions of exercise of the petroleum exploration, production and storage activities, while ensuring the safety of persons and property, environmental protection, and optimal recovery of the resource.

It applies to activities carried out in a body of water, except in a marine environment.

2. In this Regulation,

"activity site" means a zone grouping one or more wellbores and the land laid out in the immediate vicinity to receive the equipment and infrastructures necessary for the operations carried out in the wellbores or, in the case of a survey, the zone corresponding to the perimeter of the area of the survey; (*site des activités*)

"annular space" means a space in the shape of a ring between the outside of a casing and the wall of the wellbore or between two casing walls inserted one inside the other; (*espace annulaire*)

"bank" means sloping land, of a height equal to or greater than 4 m, having at least 1 segment with a slope whose gradient is greater than 14° (25%) over a height of 4 m; the top and base of the bank are determined by a segment with a slope whose gradient is less than 8° (14%) over a horizontal distance greater than 15 m; (*talus*)

"blowout preventer" means all the valves and devices located at the top of a well used to control formation fluids and block and monitor the well during the various activities; (*bloc obturateur* de *puits*)

"blowout prevention system" means all the control equipment of a well including in particular a blowout preventer, an accumulator and a pipe network allowing the safe flow of fluids during activities in a well; (*système anti*-éruption)

"casing head" means the top part of a wellbore that forms the interface between its buried part and the surface of the bottom of the water; (*collet*)

"casing shoe" means an annular part, generally filled with concrete installed at the bottom of a casing string that allows to guide the casing string; (*sabot de tubage*)

"casing string" means the entire casing of a wellbore composed of a number of tubing sections generally linked by threaded connections; (*colonne* de *tubage*)

"completion" means all the work carried out in a well or a section of well to allow its start up once the drilling activities are completed, excluding fracturing; (complétion)

"conductor casing" means the first casing installed at the time of the construction of a wellbore to prevent the collapse of unconsolidated formations near the surface; (*tubage conducteur*) "directional drilling" means drilling whose orientation and slope are controlled using dedicated equipment and techniques; (*forage directionnel*)

"diverter" means a device that ensures a safe flow of fluids resulting from a shallow blowout or kick that may be used where the conductor casing is installed; (*déflecteur*)

"drilling fluid" means the mud circulating in the drill rod and coming up in the annular space during drilling to discharge cuttings, cool and lubricate the bit and maintain the desired pressure in the wellbore; (*fluide de forage*)

"drilling rig" means the equipment used to drill a well which includes in particular a derrick, a winch, a rotary table, a drilling fluid pump, a blowout prevention system, and power, control and monitoring systems; (*appareil de forage*)

"drill-stem test" means an operation for collecting samples of fluids contained in rock to determine flow characteristics and measure reservoir pressures using drill stems as flow pipe in the wellbore and dedicated equipment; (essai aux tiges)

"emanation at the surface casing vent flow" means the flow of fluids from the annular space between the surface casing and an internal casing; (émanation à *l'évent* du *tu bage* de surface)

"flow-back water" means water produced by petroleum exploration and production activities that comes up to the surface of the wellbore; (*eau de reflux*)

"formation fluid" means a fluid in a natural state present in the pores, fractures, faults, caves or other porosities of the formation; (*fluide de formation*)

"gas migration" means the emanation of gas detectable on the surface, outside the farthest casing string; (*migration de gaz*)

"horizontal well" means a well whose wellbore angle, from vertical, exceeds 80°, including a section extended from the wellbore in the reservoir; (*puits horizontal*)

"injection well" means a well used to inject fluids into an underground formation; (*puits d'injection*)

"injectivity test" means a procedure used to determine the flow and pressure at which fluids may be pumped into a zone without fracturing the formation; (essai d'injectivité) "integrity" means, in the case of a wellbore, the condition that ensures containment and prevention of a blowout or migration of fluids in the underground or surface formations with the use of technical and operational solutions; (*intégrité*)

"intermediate casing" means a casing string generally installed after the surface casing and before the production casing, that offers protection against cavities and abnormal pressures of the formations traversed and that allows the use of drilling fluids of various densities necessary to control previous formations; (*tubage intermédiaire*)

"marine riser" means a large diameter tube that connects the casing head of a submerged wellbore to a floating platform to return the fluids to the surface; (*tube prolongateur*)

"measured depth" means the length of travel of the wellbore; (*profondeur mesurée*)

"observation well" means a well that is not in production and that is used to monitor the conditions of one or more geological formations, to determine the decline characteristics of a reservoir or to monitor the other wells of a reservoir, except an observation well for groundwater within the meaning of the Water Withdrawal and Protection Regulation (chapter Q-2, r. 35.2); (*puits d'observation*)

"packer" means an expendable device used to close a wellbore or isolate an annular space that allows a controlled production, injection or treatment; (garniture d'étanchéité)

"petroleum enhanced recovery" means any petroleum recovery using methods of holding the pressure on the pool, in particular by injecting fluids; (*récupération assistée d'hydrocarbures*)

"primary protective barrier" means the first protective barrier of a well constituted of one or more components that, collectively, are designed and installed to contain and isolate fluids inside a well; (*barrière de protection primaire*);

"production casing" means a casing installed to isolate the production zones and provide a duct through which the well is completed and operated; (*tubage* de production)

"production tubing" means a steel tube placed inside casings used as a duct through which fluids are routed from the production zones to the surface or, in the case of an injection well, from the surface to the production zones; (*tube de production*) "reconditioning" means major maintenance work or corrective activities on a well to modify it that require the use of a reconditioning device or other service rig; (reconditionnement)

"re-entry" means the new drilling in a well already drilled and for which the drilling rig has been released; (*réentrée*);

"secondary protective barrier" means a second protective barrier designed and installed to ensure a protection and allow control of the well in the event of a mechanical failure of the primary protective barrier; (*barrière de protection secondaire*)

"shist" means a non-metamorphic geological unit consisting of sedimentary rocks with a grain size less than 0.0625 mm and consisting mostly of clay minerals, such as the Utica Shale; (*schiste*)

"separating fluid" means any liquid used to physically separate a liquid or a specific use component from another; (*fluide de séparation*)

"spacer fluid" means fluid designed to clean the wellbore and separate the drilling fluids from the cement flurry; (*fluide de chasse*)

"surface casing" means a casing in a competent formation after the installation of the conductor casing to provide structural support for placing a diverter or a blowout prevention system and for the subsequent casing strings, prevent the walls from collapsing and protect against underground water contamination; (*tubage* de surface)

"temporary interruption" means the interruption of work for a short period between 2 activities or 2 operations; (*interruption provisoire*)

"true vertical depth" means the vertical distance from a point in the wellbore to a reference point on the surface, generally the drive bushing; (*profondeur verticale réelle*)

"usable groundwater" means groundwater whose total concentration in dissolved solids is less than 4,000 mg / l; (*eau souterraine exploitable*)

"well log" means measurement or recording based on the depth carried out in a wellbore for the inspection or characterization of a geological formation; (*diagraphie*)

"wellbore" means a well or a stratigraphic survey, including the open part; (*trou de forage*)

"wellhead" means the surface end of a well including elements to hang casings during the construction phase and a means to install production tubing and place valves and surface flow and pressure control installations in preparation for the well production phase; (*tête de puits*)

"wellhead value" means the average retail sale price of the substance extracted, excluding all taxes and less the average transportation costs from the well to the places of delivery, measuring costs and, if applicable, purification costs. (*valeur au puits*)

3. For the purposes of this Regulation, the base of the usable groundwater aquifer is set at 200 m below the surface, unless a hydrogeological study or an analysis of an adjacent wellbore shows that the deepest base of the aquifer of the usable groundwater is located at a different depth.

4. All documents that must be sent to the Minister under this Regulation must also be sent in an electronic version, in PDF.

The electronic version of the following documents must also be sent:

(1) well log raw data, in ASCII files or an equivalent version;

(2) data produced by a geographical information system software, in a shapefile.

5. The measurement units in the documents required under this Regulation must be expressed according to the International System (SI).

CHAPTER II

SAFETY AND PROTECTIVE MEASURES AND INCIDENT NOTICE

DIVISION I SAFETY AND PROTECTIVE MEASURES

6. A licence holder must ensure that the work teams are composed of a sufficient number of qualified persons and that the persons have received the training needed to successfully complete the activities planned safely and in a manner to protect the environment.

7. A licence holder must ensure that the equipment and components on the activity site are

(1) in good condition and used for the purposes specified, in accordance with the requirements of the manufacturer;

(2) free from any alteration that may endanger the safety of persons and property, and environmental protection; and

(3) entered in a list that is updated and kept on the activity site.

The licence holder must also ensure that the drilling rigs are certified according to the applicable recommended practices published by the Canadian Association of Oilwell Drilling Contractors, where applicable.

The wellhead or the blowout prevention system must be chosen and designed in accordance with the Industry Recommended Practices, IRP: #3, In Situ Heavy Oil Operations, and IRP: #5, Minimum Wellhead Requirements, published by the Drilling and Completions Committee.

The Minister may, in the case of the second and third paragraphs, accept the application of other standards if the holder demonstrates the equivalence.

8. A licence holder must ensure that vessels, platforms, navigation equipment and equipment are cleaned before their mobilization on the activity site. The cleaning concerns, in particular, the hull, tools and equipment likely to come into contact with the body of water, and the ballast and water they contain.

9. A licence holder must ensure that adequate procedures and equipment are in place to

(1) verify and control the pressures to which the equipment is submitted during the activities;

(2) detect a liquid flow, or a gas emanation or migration; and

(3) control at all times a wellbore.

10. In the case of a loss of control of a wellbore, a licence holder must close the valves of all other wellbores of the activity site until the wellbore is again controlled.

11. A licence holder must install a communication and information exchange system that ensures,

(1) during a change of shift, the transmission of any information pertaining to the conditions and mechanical or operational problems likely to have an impact on the safety of persons and property, and environmental protection;

(2) that every person on the activity site is familiar with the safety instructions and evacuation procedures in an emergency; and (3) that every person responsible for a measure under the emergency response plan provided for in subparagraph 3 of the second paragraph of section 30 is familiar with the system.

12. A licence holder must ensure that

(1) radio communications with the vessels and platforms near the drilling installation are maintained;

(2) an escape route is established from each work station and is accessible to every person present therein;

(3) the manuals and any document needed for the safe performance of the work are readily available on each vessel or platform; and

(4) a helideck of an installation is easily accessible from the work stations and any accommodation for the personnel in the installation.

13. A licence holder must ensure that any support craft is designed, constructed and maintained to fulfill its support role and to operate safely in reasonably foreseeable conditions.

A support craft may not come closer than 500 m from the installation without the consent of the authorization holder. The authorization holder must take all the measures necessary to notify the persons responsible for the vessels or aircraft present in that zone of the facilities therein and associated risks.

14. A licence holder must ensure that fuel, safetyrelated chemicals, drilling fluids, cement and other consumables necessary for the carrying out of the ongoing activities are readily available and stored on the activity site in quantities sufficient for any reasonably foreseeable emergency condition.

The licence holder must also ensure that the products used for any work, in particular, explosives, fuel, chemical substances and drilling fluids are stored, handled and transported in a manner that prevents their deterioration and ensures the safety of persons and property, and environmental protection.

15. A licence holder must ensure that the residual materials from the activities are stored, handled, transported, treated and disposed of so as to ensure the safety of persons and property, and environmental protection.

The licence holder must also ensures that the activities are carried out so as to reduce to a minimum the production of residual materials. **16.** A licence holder must ensure to carry out activities in order to eliminate or reduce to a minimum the volume of gas released into the atmosphere.

To that end, the licence holder must in particular

(1) contribute to the combustion of gases using a pilot ignition at the flare or other device, or their recovery, where possible;

(2) implement a leak inspection plan;

(3) select and install equipment according to the best practices; and

(4) prepare equipment operating procedures according to the best practices.

17. A licence holder using water for the activities following the cementing of the surface casing must ensure to prevent any corrosion in particular by microorganisms and must keep on the activity site the analysis certificate for the water used.

18. Smoking is prohibited on the activity site, except in locations designated for that purpose by a licence holder.

19. No person may access the activity site or a site where there is a temporarily closed well without the authorization of the holder of a licence, except persons authorized by law.

20. A licence holder must ensure that the activity site and access roads are kept in good condition and that no danger results from the layout of the equipment and installations.

The activity site must also be laid out and maintained so that it is accessible at all times to the emergency teams.

21. A licence holder must secure the wellbore and the activity site during a temporary interruption of activities in order to ensure the safety of persons and property, and environmental protection.

During the temporary interruption, the holder must use a wellhead that must be closed.

22. Where a well poses a risk for the safety of persons and property, and for environmental protection, a licence holder must carry out corrective activities in compliance with chapter X.

A well is considered as posing a risk if any of the following situations is detected: (1) there is an emanation at the surface casing vent flow and that emanation has one of the following characteristics:

(a) its stabilized flow is equal to or greater than $50 \text{ m}^3 \text{ day}$;

(b) the emanation is not only composed of gas;

(c) it contains hydrogen sulfide (H₂S) whose concentration is equal to or greater than $6 \mu g/m^3$ for 4 minutes;

(d) it is produced by a failure of a packer or casing;

(2) the stabilized closing pressure at the wellhead is equal to or greater than half the formation leak pressure measured at the elevation of the surface casing shoe or, if that elevation is unknown, at 11 kPa/m multiplied by the true vertical depth of the surface casing;

(3) there is a gas migration that represents a fire hazard or other risk to the safety of persons and property, and environmental protection.

23. Where a licence holder uses a wellhead, that wellhead must comply with CSA Standard Z625, Well design for petroleum and natural gas industry systems, except a storage wellhead that must comply with CSA Standard Z341, Storage of hydrocarbons in underground formations, published by the Canadian Standards Association.

24. The holder of an exploration or production licence may not, in the territory of any urbanization perimeter delimited in a land use and development plan made under the Act respecting land use planning and development (chapter A-19.1) and at less than 1,000 m from the latter, conduct geophysical surveying or geochemical surveying in water, a stratigraphic drilling and drill, re-enter and complete therein a well.

The holder of a storage licence may not, in such a territory and less than 1,000 m from the latter, conduct geophysical surveying or geochemical surveying in the ground or in water and conduct stratigraphic drilling and drill a well.

DIVISON II INCIDENT NOTICE

25. A licence holder must immediately notify the Minister where any of the following incidents occurs:

- (1) damage to the integrity of a wellbore;
- (2) a casing corrosion problem;

- (3) an unexpected loss of pressure in a wellbore;
- (4) an unexpected detection of hydrogen sulfide (H_2S) ;
- (5) a blowout;

(6) the detection of any of the situations provided for in the second paragraph of section 20;

(7) a fire or an explosion;

(8) vandalism;

(9) the triggering of the emergency response plan provided for in subparagraph 3 of the second paragraph of section 30;

(10) damage to private property;

(11) ground movement;

(12) any other event likely to have an impact on the safety of persons and property, and environmental protection.

The notice must contain the corrective measures taken by the holder or those planned with their schedules.

In the case of a corrosion problem, the holder must inform the Minister of the type of corrosion, the depth interval and the cause.

In the case of a blowout, the holder must inform the Minister of the depth, volume, duration and density of the drilling fluid necessary to control the wellbore.

In the case of damage to private property, the licence holder must also notify the owner.

In the case of ground movement, the Minister may require geotechnical expertise.

26. After having received an incident notice under section 25, the Minister may require that the licence holder send to the Minister an event report stating the facts, evaluating the consequences, listing possible causes and proposing mitigation measures and measures to prevent reoccurrence of the event.

CHAPTER III

PROVISIONS SPECIFIC TO ACTIVITY AUTHORIZATIONS AND APPROVALS

27. A licence holder must ensure that all depth measurements are taken from a single reference point. The holder must always indicate the reference point from which those measurements are taken.

Part 2

28. A licence holder applying for an authorization or an approval for an activity must, in the application submitted to the Minister, demonstrate that the planned work will be carried out according to generally recognized best practices to ensure the safety of persons and property, environmental protection and the optimal recovery of the resource.

29. A licence holder must keep a copy of authorizations and approvals on the activity site for the work period.

30. The application for authorization or approval of an activity, except the authorization for geochemical surveying and the approval of the petroleum enhanced recovery project, must be accompanied by a safety and community involvement program detailing elements likely to have an impact on the safety of persons and property.

The safety and community involvement program must include, in particular,

(1) a plan at a scale of 1:500 showing the layout of the activity site, including, in particular,

- (a) the dimensions of the site;
- (b) access roads;

(c) the actual or proposed location of the casing head and the bottom of the wellbore covered by the authorization or approval application; and

(d) existing or proposed storage equipment, installations, infrastructures and basins;

(2) a description of the mitigation measures that will be implemented to take into account the harmonization of land use and minimize disruptions for the local communities;

(3) an emergency response plan compliant with CSA Standard Z731, Emergency Preparedness and Response, published by the Canadian Standards Association;

(4) a plan for communication with the local communities revised by the monitoring committee;

(5) an estimate of the economic benefits for the region; and

(6) any other information or document deemed necessary by the Minister.

For the application for a geophysical surveying authorization, the safety and community involvement program must also include a Schedule of the road traffic, indicating the volume of trucking and the period during which it will take place and a map showing routes. However, it does not have to include the elements provided for in subparagraphs 1 and 3 of the second paragraph.

The Minister may exempt the holder from providing a safety and community involvement program if the holder demonstrates that the duration and scope of the activity do not justify such a program.

CHAPTER IV MEASUREMENT

31. A licence holder ensures that the rate of flow and the volume of the following fluids are measured:

(1) the fluid extracted from a well;

(2) the fluid injected into and withdrawn from a well;

(3) the fluid that enters, leaves, is used or is flared, vented or burned in an installation.

The measurements recorded must be expressed at a temperature of 15°C and a pressure of 101.325 kPa.

Where the measurements of the volume or flow of a fluid to be measured by the holder cannot be taken, the holder may estimate them. If so, the holder must, when they are sent to the Minister, indicate the circumstances preventing the holder from taking accurate measurements.

32. A licence holder ensures that the measurements are taken in accordance with the flow system, flow calculation procedure and flow allocation procedure.

The term "flow system" means the flow meters and auxiliary equipment attached to the flow meters, fluid sampling devices, test equipment, the master meter and meter prover used to measure and record the rate and volumes at which fluids are

(1) produced from a pool or withdrawn from an underground reservoir;

(2) injected into a pool or stored in an underground reservoir;

- (3) used as a fuel;
- (4) used for artificial lift; or
- (5) flared or transferred from an installation.

33. A licence holder must notify the Minister at least 15 days before the calibration of a meter prover or a master meter.

A copy of the calibration certificate is sent to the Minister within 30 days following the calibration.

34. A licence holder who mixes fluids from a well or a group of wells must, 30 days before measuring the production flow of the pool, notify the Minister of the method, the frequency and the duration of the measurements, indicating the manner in which the total production of each of the mixed fluids will be allocated to each of the wells.

35. Where a well goes through a number of pools or formations, a licence holder ensures that the production of each pool or formation is allocated and the injection into each pool and each formation is allocated.

The Minister may exempt the holder from the allocation where the holder demonstrates that it is technically impossible to carry out such an allocation.

CHAPTER V GEOPHYSICAL SURVEYING AUTHORIZATION

DIVISION I CONDITIONS FOR OBTAINING

AN AUTHORIZATION

36. A licence holder who wishes to obtain a geophysical surveying authorization must apply to the Minister, in writing.

37. The application must contain

(1) the name and contact information of the holder and the licence number; and

(2) the work Schedule and an estimate of the realization costs.

38. The application must be accompanied by

(1) the demonstration that the separation distances provided for in section 44 are complied with;

(2) a bathymetric map at a sufficient scale showing, in particular,

(a) the perimeter of the licence;

(b) the territory of the municipalities in which surveying is conducted, if applicable;

(c) the activity site and the survey lines, and the traverses with their nature, numbering and length; and

(d) the points of energy source and their numbering;

(3) the geophysical surveying technical program provided for in section 39, signed and sealed by a geologist, an engineer or a geophysicist;

(4) payment of the fee of \$1,030; and

(5) any other information or document deemed necessary by the Minister.

If required and based on the area of the surveying, the licence holder may, for the purposes of subparagraph 2 of the first paragraph, submit a number of maps at different scales.

39. The geophysical surveying technical program must include

(1) the name and contact information of the geologist, the engineer or the geophysicist responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the name and contact information of the enterprises charged with carrying out the data acquisition, processing and interpretation work;

(4) the name of the region in which the surveying will be conducted;

(5) a description of the geological context and the degree of maturity of the exploration in the territory concerned;

(6) the type of the proposed surveying and the energy sources used;

(7) the acquisition parameters and the objectives of the surveying including, in particular, the structures and the geological formations targeted and the investigation depth;

(8) the area covered by the surveying or the total number of linear kilometres to be surveyed;

(9) the coordinates of the ends of each survey line or the perimeter of the area of the surveying according to the NAD83 map reference system; (10) the required flexibility margin on either side of the survey line for positioning the lines indicated on the map;

(11) a chronological and detailed description of the work to be carried out;

(12) the time at which the work will be carried out;

(13) a summary description of the equipment to be used;

(14) the type and name of the vessel or platform, its registration number, the name of its owner and the estimated number of persons on board;

(15) the type of navigation equipment used and its specifications;

(16) the accuracy of the navigation and positioning systems; and

(17) the meteorological and hydrographic conditions anticipated for the work period;

(18) if applicable, the list of licences, certificates and other authorizations to be obtained;

(19) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(20) any other information or document deemed necessary by the Minister.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

40. The authorization holder must, within 12 months after the Minister granted the authorization, start the geophysical surveying work.

The work is deemed to have started as soon as the first step provided in the work Schedule is initiated.

The Minister may grant an additional time period if the holder demonstrates the need therefor.

41. The authorization holder must, at least 7 days before the start of the work, notify the Minister of the date anticipated for the start of the work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

42. The authorization holder must, at least 24 hours before, notify the Minister of the work completion date. If the geophysical surveying work is temporarily interrupted, the holder must also, as soon as possible, notify the Minister of the work resumption date.

DIVISION III

CONDITIONS OF EXERCISE

43. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by a geologist, an engineer or a geophysicist stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

(1) a change in the position of survey lines, as long as the position remains within the flexibility margin set under paragraph 10 of section 39;

(2) the cancellation of the drilling or loading of a shotpoint.

In the situations provided for in the third paragraph, the holder immediately notifies the Minister of the change to the technical program.

44. The authorization holder who uses an explosive energy source must not position the shotpoints

(1) less than 10 m from a pipe that is not made of concrete;

(2) less than 15 m from a submerged telecommunication infrastructure or any other submerged installation or infrastructure of the same type; (3) less than 32 m from a pipeline or another installation or infrastructure of the same type, the casing head of an existing wellbore or, if the charge exceeds 2 kg, less than a distance corresponding to the following formula:

 $A + B \times 4 = C$

where

A is 32 m

B is the explosive charge, in kg

C is the minimum separation distance;

(4) less than 180 m from a high-capacity dam, within the meaning of the Dam Safety Act;

(5) less than 200 m from a transmission line having a voltage equal to or greater than 69,000 V; or

(6) less than 200 m from a concrete pipe, if the explosive charge exceeds 12 kg.

The distances must be measured horizontally, in a straight line, from each energy source to the nearest point of the elements referred to in the first paragraph.

The Minister may allow the reduction of the distances if the authorization holder demonstrates to the Minister that an effective protective measure reduces risks.

45. In the case of a surveying involving the use of an air gun as an energy source, the authorization holder must ensure

(1) that, during the surveying, the air vessels, air manifolds, air lines and electrical lines and the compressor of the air gun system are regularly inspected for signs of abrasion and wear; where the compressor, a vessel, a manifold, an air line or an electrical line is defective, it must be promptly replaced or repaired if possible;

(2) where there is air pressure in the air gun, the pressure is maintained as low as is practicable but sufficiently high to ensure that the air gun remains seated and that there is no danger of accidental firing; and

(3) that, where a firing is carried out from the deck of a vessel or of a platform, the person charged with the use and maintenance of the gun is present.

46. Where more than 1 air gun is used as a seismic energy source, the authorization holder must establish a procedure for the connection of each air gun to its air line and pressure control valve.

47. Firing may be done from a vessel or a platform if the person in charge of safety has authorized it.

No firing may be done where the air gun is submerged if divers are within a radius of 1,500 m from the gun.

48. Before firing a gas exploder or an air gun, the person responsible must ensure that

(1) a siren is sounded before the firing to alert workers of an impending firing in time to allow evacuation of an area within a radius of 8 m from the firing site;

(2) not more than 1 air gun is fired at one time;

(3) before the firing, an inspection is done to ensure that the area within a radius of 8 m from the firing site is clear of unauthorized workers;

(4) the pipes and hoses connected to the gun that are subject to high pressure are secured or equipped with safety chains to prevent whipping of the pipes or hoses when air pressure is injected into them;

(5) the air pressure in the air gun is less than 3.5 MPa; and

(6) the person in charge of the vessel or platform is advised that the firing is being carried out.

49. No maintenance of the air gun is carried out until

(1) the air pressure in the air gun and the air line connected to the air gun has been completely bled off;

(2) the shuttle of the air gun can be moved freely by use of a wooden safety tool to confirm that.

50. In the case of surveying involving the use of a gas exploder as an energy source, the authorization holder must ensure that

(1) there is no welding or brazing in any area that is in close proximity to any gas cylinders or inflammable liquid tanks;

(2) gas storage areas are properly ventilated;

(3) all valves and fittings used on a gas cylinder are approved by the manufacturer of the cylinder for use on the cylinder;

(4) all equipment used for handling explosives is approved by the manufacturer of the equipment for the handling of explosives; (5) every gas cylinder and inflammable liquid tank is stored in an area set aside for that purpose and signs warning of the hazard of explosion are posted in conspicuous locations in that area; and

(6) every gas cylinder and inflammable liquid tank is protected from overheating.

51. In the case of surveying involving an electrical energy source, the authorization holder must ensure that

(1) the charging and discharging circuits of the electrical seismic energy source are equipped with circuit breakers;

(2) the electrical cables of the electrical seismic energy source are protected from damage and are adequately insulated and grounded to prevent current leakage and electrical shock; and

(3) the electrical seismic energy source, when tested, is fully immersed in water.

DIVISION IV

DAILY REPORT AND END OF ACTIVITIES REPORT

52. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day, in particular,

(1) the number of the geophysical surveying authorization;

(2) the type of surveying carried out and the energy sources used;

(3) the position and condition of the vessel or platform;

(4) the number of persons on the vessel or platform;

(5) a description, in chronological order, of the work carried out and the time required for carrying out each step of the work;

(6) the number of the lines or traverses in which the data was acquired;

(7) the number of linear kilometres acquired or the area covered, their total and the remaining quantity;

(8) work interruptions and disturbances due, in particular, to meteorological conditions and technical and operational difficulties, and their duration; (9) the operational problems encountered and the corrective measures taken or planned;

(10) the abnormal meteorological conditions that caused a work delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(d) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or platform; and

(11) any other information or document deemed necessary by the Minister.

53. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

54. The authorization holder must send to the Minister, within the period provided for in section 100 of the Petroleum Resources Act (chapter H-4.2), an end of activities report signed by a geologist, an engineer or a geophysicist including, in particular,

(1) the number of the geophysical surveying authorization;

(2) the name and contact information of the holder and the licence number;

(3) the name and contact information of the geologist, engineer or geophysicist responsible for the technical program;

(4) the type and the name of the vessel or platform used, its registration number and the name of its owner;

(5) the type of navigation equipment used and its specifications;

(6) the name of the enterprises that took part in the work and the nature of the work;

(7) the name of the region in which the surveying was carried out;

(8) the type of surveying carried out and the energy sources used;

(9) the acquisition parameters and the objectives of the surveying including in particular structures, geological formations targeted, the type of play and the investigation depth;

(10) the total number of linear kilometres acquired or the area covered by the surveying;

(11) the start and end dates of the work;

(12) the summary of the work carried out in chronological order;

(13) a summary of the abnormal meteorological conditions that caused the operation delay and the corrective measures taken;

(14) a compilation of the daily progress of the work;

(15) a bathymetric map at a sufficient scale showing

(a) the perimeter of the licence;

(b) the activity site, survey lines and traverses with their nature, numbering and length;

(c) the points of energy source and their numbering; and

(16) a description of the data acquisition parameters indicating, in particular,

(a) the spacing between the points of the energy source, the receiver points and, if applicable, between the survey lines;

(b) the characteristics of the energy sources used; and

(c) if applicable, the setting of the recording filters;

(17) a description of the data processing parameters;

(18) the adjustments made to the data during the interpretation;

(19) the following interpretation maps:

(a) in the case of seismic reflection surveying, the isochrone time structure map of the main target and, if applicable, the secondary target and the interpreted profiles; if the stratigraphy of an adjacent wellbore is known,

the holder must carry out the matching of the seismic profile nearest to the hole and indicate the correlation between the main reflectors and the stratigraphy;

(b) in the case of seismic refraction surveying, the velocity map;

(c) in the case of magnetic surveying, the map for the total magnetic field corrected and offset and the map for the residual magnetic field corrected and offset;

(d) in the case of gravimetric surveying, the maps of Bouguer anomalies and of the residual field;

(20) an analysis of each of the interpretation maps specifying the correlation between the geology and the geophysical data;

(21) if applicable, the technical reports prepared by the enterprises that carried out the data processing or interpretation;

(22) a comparative analysis of the work carried out compared with that planned in the technical program and the results obtained compared with those anticipated;

(23) a description and photographs of the equipment used and its specifications;

(24) photographs of the bottom of the water;

(25) bathymetric maps prepared from the surveyed data; and

(26) the recommendations for the continuation of the work.

If required and based on the area of the work, the holder may, for the purposes of subparagraph 15 of the first paragraph, submit a number of maps at different scales.

CHAPTER VI

STRATIGRAPHIC SURVEY AUTHORIZATION

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

55. A licence holder who wishes to obtain a stratigraphic survey authorization must apply to the Minister, in writing.

56. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the proposed stratigraphic survey; and

(3) the work Schedule and an estimate of the realization costs.

57. The application must be accompanied by

(1) a bathymetric map at a scale of 1:20,000 showing, in particular,

(*a*) the surface projection of the wellbore profile to the location of the bottom of the hole;

(b) the location of the existing wellbores within a radius of 5 km; and

(c) the demonstration that the distances provided for in sections 67 and 70 are met;

(2) the stratigraphic survey technical program provided for in section 58, signed and sealed by an engineer;

(3) payment of the fee of \$4,426; and

(4) any other information or document deemed necessary by the Minister.

58. The stratigraphic survey technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) a description and the photographs of the initial condition of the site;

(4) the demonstration that, during the positioning of the stratigraphic survey, the presence of adjacent wellbores has been taken into consideration for the safety of persons and property, environmental protection and the integrity of the stratigraphic survey;

(5) the demonstration that the presence of gas in the soil in its natural state has been taken into consideration;

(6) a chronological and detailed description of the work to be carried out;

(7) the name and contact information of the enterprises charged with carrying out the work;

(8) the type and name of the drilling installation, its registration number, the name of its owner and the estimated number of persons on board;

(9) the type of navigation equipment used and its specifications;

(10) the demonstration that the drilling installation is designed and constructed according to the generally recognized best practices;

(11) the design standards and a description of the immobilization system;

(12) the refuelling method;

(13) if applicable, the home port and the location of the land base for storing material and products necessary for the work;

(14) a lateral section of the stratigraphic survey indicating the technical elements anticipated before and after the sealing;

(15) a geological projection including

(a) a stratigraphic column indicating the thickness of the unconsolidated deposits, the geological formations, porous and permeable zones, faults and other major structures;

(b) the identification of the potential zones of fluid kicks or lost circulation;

(c) the anticipated base of the usable groundwater, if it is different from the base provided for in section 3;

(d) anticipated primary and secondary petroleum objectives; and

(e) if the seismic profile has been used, the interpreted seismic profile indicating the top of geological formations, the shotpoint nearest the location of the drilling and the location of the anticipated petroleum objectives;

(16) is applicable, the list of the proposed coring intervals;

(17) the list of pressure and leak tests, drill-stem tests, leakoff tests and all other tests planned;

(18) the list of the well logs planned;

(19) the meteorological and hydrographic conditions anticipated during the work;

(20) if applicable, a description of the ice management activities;

(21) the depth of the water at the location of the stratigraphic survey; (22) the bathymetric map of the area in which the stratigraphic survey is located and, if applicable, a mapping of the bottom of the water;

(23) a description of the nature of the surface deposits and their geotechnical characteristics;

(24) a description of the aquatic wildlife;

(25) for each of the drilling, diving and accommodation installations, a compliance certificate issued by any of the following certification authorities:

(a) the American Bureau of Shipping;

(b) the Bureau Veritas;

(c) DNV GL (Det Norske Veritas and Germanischer Lloyd);

(d) Lloyd's Register North America Inc.;

(26) a drilling program including, in particular,

(a) the type of drilling rig and equipment to be used and their specifications;

(b) the drilling fluids and spacer fluids used and their properties, and a demonstration that those fluids comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(c) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(d) the diameters of the wellbore according to the measured depth and the true vertical depth on a lateral section, to the bottom of the planned hole;

(e) a graphic projection of the formation pressure and temperature to the expected final depth;

(f) a graphic projection of the deviation of the drill path to the expected final depth;

(g) the frequency of the measurements of the deviation of the path in dip and azimuth;

(*h*) the demonstration that the planned casing strings comply with CSA Standard Z625, Well design for petroleum and natural gas industry systems, published by the Canadian Standards Association; and (*i*) a program for centralizing casings that allows to reach a minimum centralization of 75% compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee, indicating, in particular, the type of centralizers, their dimension, frequency of installation and installation;

(27) a program for cementing annular spaces in each of the casing strings compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the *Drilling and Completion Committee* and including, in particular,

(a) the diameters of the casing strings according to the measured depth and the true vertical depth;

(b) the planned height of the cement column in the annular space;

(c) the cement preparation and application methods;

(d) the planned minimum and maximum pumping flows and the pumping equipment capacity;

(e) the type of cement used, its density, its additives and their proportions, its setting time, the calculated volume and surplus percentage;

(f) if applicable, any changes to the cement required due to specific physical and chemical conditions of the environment, including, in particular, the depth of the stratigraphic survey, an abnormal pressure or temperature, a circulation loss area, salt areas, unconsolidated deposits or a corrosive environment;

(g) the methods used to prepare the wellbore for cementing and to improve fluid displacement, in particular, casing movement; and

(*h*) the method for monitoring cement circulation in the annular space;

(28) if a simulation or modelling has been carried out, a description of the simulation or modelling and the results obtained;

(29) a site sealing and restoration program including, in particular,

(*a*) the method used to demonstrate the tightness of the stratigraphic survey carried out before the sealing work;

(b) the stratigraphic survey cleaning method used before installing plugs;

(c) the type of device used and its specifications; and

(d) a cementing program compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee including, in particular,

i. for each cement plug, the intervals, the type of cement used, its density, its additives and their proportions, its setting time, the calculated volume and surplus percentage;

ii. any changes to the cement used for the plugs required due to specific physical and chemical conditions of the environment, including, in particular, the depth of the stratigraphic survey, an abnormal temperature or a corrosive environment;

iii. the method for installing each plug; and

iv. the method and frequency of the monitoring of the position of the plugs during sealing, the waiting time before the monitoring and the criteria of the acceptability of the position of the cement plugs;

(e) the method used to demonstrate that following the installation of the plugs and before the cutting of the surface casings, there is no gas emanation; and

(f) a chronological and detailed description of the site restoration work planned for maintaining the quality of the body of water and minimizing impact on wildlife, including, in particular,

i. the procedure for dismantling installations and, if applicable, the procedure for dismantling the supply cable;

ii. the rehabilitation of contaminated land;

iii. the purge of pipes; and

iv. the withdrawal of equipment and facilities;

(30) if applicable, the list of licences, certificates and other authorizations to be obtained;

(31) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(32) any other information or document deemed necessary by the Minister.

59. Before ruling on the application for authorization, the Minister may, if the Minister deems it necessary to ensure the long-term integrity of the stratigraphic

survey, require that a licence holder tests the cement in a laboratory. The test must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

The holder sends the test results to the Minister.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

60. The authorization holder must, within 12 months after the Minister granted the authorization, start the stratigraphic survey work.

The work is deemed to have started as soon as the first step provided in the work Schedule is initiated.

The Minister may grant an additional time period if the holder demonstrates the need therefor.

61. The authorization holder must, at least 7 days before, notify the Minister of the start of the following work:

(1) the mobilization to the site where the drilling rig will be located;

(2) the start of the drilling;

(3) the sealing of the stratigraphic survey.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

62. The authorization holder must, at least 24 hours before, notify the Minister of the rig release and, in the case of a temporary interruption, the holder must also notify the Minister as soon as possible of the resumption of the work.

63. The authorization holder must also, at least 24 hours before, notify the Minister of the straightening or towing of an installation.

DIVISION III CONDITIONS OF EXERCISE

64. The authorization holder must comply with the technical program.
The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

 an adjustment of less than 10% in the final depth of the stratigraphic survey resulting in a slightly different geological projection;

(2) a change in the position of the casing head of the stratigraphic survey where it remains on the activity site;

(3) the addition or cancellation of a coring section, a drill-stem test, a well log, a sample collection or a fluid sample.

In the situations provided for in the third paragraph, the holder immediately informs the Minister of the change to the technical program.

65. The authorization holder must design and construct the stratigraphic survey so as to

(1) comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(2) ensure work safety;

(3) prevent incidents in the maximum load conditions normally foreseeable during the life cycle of the stratigraphic survey;

(4) withstand potential conditions, forces and stresses;

(5) ensure a resistance sufficient for fluid kicks;

(6) protect the integrity of the groundwater and the body of water;

(7) ensure that the petroleum layers and aquifer layers are isolated one from the other;

(8) allow the characterization of the geological formations targeted; and

(9) allow activities for controlling the pressure of the bottom of the stratigraphic survey in a constant and safe manner.

66. If the water level allows, the authorization holder must, as soon as the work starts and until the site restoration work starts, install a sign at the entrance of the activity site indicating, in particular,

(1) the location of the stratigraphic survey;

(2) the holder's name and the licence number;

(3) the name and number of the stratigraphic survey appearing on the authorization;

(4) a telephone number in case of emergency;

(5) the pictograms associated with the hazardous products present on the activity site; and

(6) the indication that access to the activity site is prohibited without the holder's authorization.

67. The authorization holder may not position the casing head of a stratigraphic survey

(1) less than 100 m from a transmission line having a voltage equal to or greater than 69,000 V, a telecommunication infrastructure, a windmill, pipeline or any other installation or infrastructure of the same type;

(2) less than 100 m from a cemetery;

(3) less than 180 m from a high-capacity dam within the meaning of the Dam Safety Act;

(4) less than 200 m from a surface improvement work for sporting or recreational purposes;

(5) less than 275 m from a site classified as a heritage site entered in the cultural heritage register referred to in section 5 of the Cultural Heritage Act (chapter P-9.002);

(6) less than 300 m from any building having fewer than 3 floors or a floor area less than or equal to 10,000 m²;

(7) less than 550 m from a health and social services institution, an educational institution, a building in which childcare services are offered or any building having 3 floors or more or a floor area greater than $10,000 \text{ m}^2$;

(8) less than 1,000 m from an airport or an aerodrome; or

(9) less than 1,600 m from any underground reservoir used for petroleum storage purposes and for which the holder has no right.

The distances must be measured horizontally, in a straight line, from the casing head to the nearest point of the elements referred to in the first paragraph.

The Minister may allow the reduction of the distances if the authorization holder demonstrates to the Minister that an effective protective measure reduces risks.

The distances provided for in the first paragraph do not apply with respect to infrastructures belonging to the authorization holder or used for the holder's work.

68. The authorization holder may not position the casing head of a stratigraphic survey

(1) in lac Témiscamingue, including the mouths of other communicating watercourses;

(2) in lac des Deux Montagnes, located in the regional county municipality of Deux-Montagnes;

(3) in lac Memphrémagog;

(4) in lac Saint-Jean, mostly located in the regional county municipalities of Lac-Saint-Jean-Est and Domaine-du-Roy;

(5) in rivière des Outaouais, from lac Témiscamingue to the St. Lawrence River;

(6) in the Beauharnois canal;

(7) in the Lachine canal;

(8) in rivière des Mille Îles;

(9) in rivière des Prairies, mostly located in the regional county municipality of Les Moulins;

(10) in rivière Richelieu, mostly located in the regional county municipality of Pierre-De Saurel;

(11) in rivière Saint-Maurice, from the Shawinigan dam to the St. Lawrence River;

(12) in rivière Saguenay, from lac Saint-Jean to the St. Lawrence River; and

(13) in the St. Lawrence River.

69. The authorization holder may not drill a stratigraphic survey less than 100 m from the boundaries of the territory covered by the holder's licence. **70.** The authorization holder may not position the activity site less than 100 m from a national park or a protected area entered in the protected area register provided for in section 5 of the Natural Heritage Conservation Act (chapter C-61.01).

71. During the drilling, the authorization holder must make sure that

(1) the stratigraphic survey is drilled so as to never intersect an existing wellbore;

(2) the drilling fluids, drilling fluid system and associated monitoring equipment are designed, installed, used or maintained to provide an effective barrier against formation pressure and to allow for an adequate characterization of the geological formations investigated;

(3) the indicators and alarms associated with the monitoring equipment are installed on the drilling rig to alert onsite personnel; and

(4) adequate procedures, facilities and equipment are in place and are utilized to minimize the risk of loss of stratigraphic survey control in the event of lost circulation, fluid kicks or blowout.

72. The authorization holder must ensure that the measurements of the stratigraphic survey path deviation are taken at intervals that allow the position of the wellbore to be determined accurately and that do not exceed 150 m, unless there is a wellbore stability problem.

73. The authorization holder must protect the usable groundwater and use non-toxic substances in drilling fluids until the surface casing is cemented.

74. Where the authorization holder drills a stratigraphic survey in a region where the geology is unknown, in a region where shallow gas kicks have been documented or if it is foreseeable that a petroleum zone will be intersected, the holder must use a diverter to drill to the surface casing installation depth.

75. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

76. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains, until the end of the sealing work, a register of those inspections.

77. The authorization holder must ensure that the marine riser used

(1) furnishes access to the stratigraphic survey;

(2) isolates the stratigraphic survey from the body of water;

(3) withstands the differential pressure of the drilling fluid relative to the body of water;

(4) withstands the physical forces anticipated in the drilling program;

(5) permits the drilling fluid to be returned to the installation; and

(6) is supported in a manner that effectively compensates for the forces caused by the motion of the drilling installation.

78. During the operations for preparing and applying the cement for cementing casings and for sealing plugs, the authorization holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

79. Before proceeding with the cementing of annular spaces, the authorization holder must make sure to completely displace the drilling fluids and the mud cakes from the walls of the stratigraphic survey in accordance with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

80. During the cementing, the authorization holder must ensure that the fluid and cement returns are observed at the surface.

81. The cement used for cementing casings and for sealing plugs must reach the minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

It must also be designed and installed to protect the integrity of the layers of gas hydrates.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

82. As of the moment at which the cement has developed a gel strength and until the minimum compressive strength has been reached, the authorization holder must not carry out work that could compromise the

integrity of the cement and the holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

83. The authorization holder must demonstrate the uniform coverage of the cement behind each casing by carrying out a cement assessment sonic or ultrasonic logging or by any other method.

84. After installing and cementing a casing and before drilling out the casing shoe, the authorization holder must submit the casing to a pressure and leak test to the value required to confirm its integrity for the maximum operating pressure provided for in the technical program.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

85. Before drilling at a measured depth of more than 10 m under the shoe of any casing subsequent to the conductor casing, the authorization holder must test the integrity or the leak pressure of the geological formation.

The test must be conducted at a pressure that ensures the safety of the drilling work to the installation depth of the next casing string planned.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

86. The maximum pressure applicable to casings must be calculated so as to ensure the control of the stratigraphic survey. It must be posted on the activity site.

87. The authorization holder who conducts a drill-stem test must ensure, in particular, that

(1) the equipment used is designed to safely control the stratigraphic survey pressure, properly characterize the geological formation and protect the environment;

(2) the rated pressure of the equipment upstream of and including the testing manifold exceeds the maximum anticipated shut-in pressure; and

(3) the equipment downstream of the testing manifold is sufficiently protected against overpressure.

88. In the case of fluid kicks or during drill-stem tests, the authorization holder must collect samples and analyze the petroleum and groundwater encountered.

In the case of gas, the analyses must, in particular, identify its composition and, where necessary to differentiate a number of formations, characterize the carbon isotope ratios.

In the case of oil, the analyses must, in particular, identify its composition and characterize its viscosity and density.

In the case of groundwater, the analyses must, in particular, identify its composition in dissolved solids and petroleum and its physical characteristics, including the pH, the conductivity and the cloudiness.

The Minister may exempt the authorization holder from the requirement to collect certain samples where the Minister considers that he or she already has sufficient data to characterize the reservoir or the sealing rocks.

A holder who collects a sample must ensure to use a method preventing contamination of the sample.

89. The authorization holder who collects a sample of the drilling core must determine, in particular, the porosity, permeability, lithology and content in total organic carbon of the geological formation.

For the stratigraphic survey sections that are not cored, a cutting sample must be collected, unless the holder demonstrates that an adjacent wellbore has already been sampled and the spatial variability makes the sampling of the stratigraphic survey unnecessary.

Cutting samples must be taken at each 5-m interval in such manner as to fill

(1) a 10-ml flask of cuttings washed and dried beforehand; samples from the layer of unconsolidated deposits must not be washed; and

(2) a 500-g bag of cuttings dried beforehand.

90. Where samples necessary for analysis have been taken from a core, the authorization holder makes sure that a longitudinal slab that is not less than one half of the cross-sectional area of that core or the remaining core is submitted to the Minister.

The holder who carried out destructive tests on a core removed laterally is exempt from submitting the samples.

91. The samples collected must be packaged in durable containers designed for that purpose and properly labelled by indicating, in particular, the name of the stratigraphic survey and the measured interval or depth of the sampling.

They must be transported and stored in a manner that prevents any loss or deterioration.

92. The authorization holder submits to the Minister the samples whose analysis is completed not later than 180 days after the rig release date.

The Minister may agree to an additional period if the holder wishes to perform additional analyses. In that case, the holder submits to the Minister the samples and analysis results at the end of the agreed period.

The Minister may exempt the holder from the submission of the samples

(1) where the Minister considers that he or she has sufficient samples to adequately document the geological formations intersected by the stratigraphic survey; and

(2) where the Minister already has samples from the same horizons.

93. Before disposing of any cutting samples, drilling cores or collected fluids, the authorization holder must offer them to the Minister.

94. The authorization holder must submit to the Minister, for approval, the corrective actions to be taken where any of the following situations occurs:

(1) a cementing operation provided for in the technical program cannot be carried out;

(2) no cement return has been observed on the surface where such return was expected;

(3) a return of drilling fluids indicates that the cement height required for cementing has not been reached;

(4) there is uncertainty as to reaching the cementing goals.

95. The authorization holder keeps and maintains, for the duration of the work, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion; (6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

DIVISION IV

STRATIGRAPHIC SURVEY SEALING AND SITE RESTORATION

96. The authorization holder must seal the stratigraphic survey within 30 days after completion of the drilling.

The Minister may require that the work start before that period for safety reasons or give an additional period for its completion if the holder shows that it is necessary.

97. Before beginning the stratigraphic survey sealing, the authorization holder must conduct a pressure and leak test to ensure the tightness of all the stratigraphic survey components.

The holder may begin the sealing only if the pressure and leak test is successful. Tightness is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes. Otherwise, an incident notice must be sent to the Minister within 24 hours.

98. The authorization holder who proceeds with the sealing must ensure to seal the stratigraphic survey over its entire length.

The holder must also ensure the following:

(1) the absence of communication of fluids between the geological formations;

(2) the absence of liquid flow and gas emanation or migration;

(3) the absence of excessive pressure in the stratigraphic survey;

(4) the long-term integrity of the stratigraphic survey, while considering the petroleum development potential of the adjacent sector and the impact of future activities.

99. The authorization holder must cut the casings at a minimum of 2 m below the surface of the bottom of the water. The holder determines the depth according to local conditions such as the type of soil, washout and erosion of the environment.

The authorization holder may use explosives to cut casings if adequate protective measures are implemented.

100. The authorization holder must weld a ventilated steel cover at the top of the casings.

101. At the end of the sealing, the bottom of the water must have been cleared of any material or equipment that is not necessary and that might interfere with subsequent uses of the environment.

102. If applicable, before the demobilization of the installations, the authorization holder must ensure that the structure is free from plants and animals.

103. The authorization holder must restore the activity site as soon as the sealing work ends or the meteorological conditions allow.

The Minister may grant an additional time period for the restoration if the holder shows it is necessary. In that case, the holder must, at least 7 days before, notify the Minister, in writing, of the start of the work for restoring the site.

104. As soon as the sealing work ends, the authorization holder must mark the stratigraphic survey with a device that enables to locate it easily and on which the number of the stratigraphic survey and its geographical coordinates are indicated.

DIVISION V

DAILY REPORT AND END OF ACTIVITIES REPORT

105. The holder of an authorization must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the number of the stratigraphic survey authorization;

(2) the name of the drilling installation;

(3) the number of persons on board the drilling installation;

(4) a description, in chronological order, of the work carried out and the time required to complete each step of the work;

(5) the name of the enterprises that carried out the work;

(6) the measured depth reached during the day;

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(7) the composition of the drilling fluid and spacer fluid, and the volumes used;

(8) the operating condition of the blowout prevention system;

(9) a loss of circulation;

(10) the components used to assemble the drill strings;

(11) the specifications of the casing and its setting depth;

(12) the weight applied to the bit and its penetration rate;

(13) the measurements of the deviation of the stratigraphic survey path in dip, azimuth and depth;

(14) traces of petroleum or water detected;

(15) the type of pump used and its capacity;

(16) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(17) the well logs carried out;

(18) the observations and data related to the evaluation or characterization of the geological formation;

(19) the fluid samples collected;

(20) the results of the pressure and leak tests;

(21) the volume and composition of the gas used, released, incinerated or burned at the flare;

(22) the composition, concentration and detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(23) the operational problems encountered and the corrective measures taken or planned;

(24) the indication of any temporary work interruption and the procedure followed to secure the stratigraphic survey;

(25) the indication of any event that disrupted the progress of the work;

(26) the abnormal meteorological conditions that caused a work delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(d) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or the drilling installation; and

(27) any other information or document deemed necessary by the Minister.

106. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the sealing work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

107. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the number of the stratigraphic survey authorization;

(2) the name and contact information of the licence holder;

(3) the name and contact information of the enterprises that carried out the work;

(4) the type and name of the drilling installation, its registration number and the name of its owner;

(5) the type of navigation equipment used;

(6) the coordinates of the stratigraphic survey casing head on a plan provided by a land surveyor according to the NAD83 map reference system;

(7) the measurements of the deviation of the stratigraphic survey path in dip, azimuth and depth, and the final coordinates of the bottom of the hole;

(8) a summary of the work carried out in chronological order;

(9) the date of begging and end of the work;

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(10) a summary of the abnormal meteorological conditions that caused the work delay and the corrective measures taken;

(11) a report on the cementing operations for each of the casing strings, containing, in particular,

(a) the name and contact information of the enterprise that carried out the cementing work;

(b) the type of cementing unit used and the method for applying the cement;

(c) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(d) the cemented interval;

(e) the composition and volume of the spacer fluid and the separating fluid used;

(f) the circulation pressures;

(g) the maximum pressure reached during cementing;

(*h*) an indication that the casing check valve is functional or, if not, the propping pressure applied and the duration; and

(*i*) a description of the cement return, the quantity and the retreat; if no return is observed, a description of the corrective actions taken;

(12) the analysis results and the analysis certificates of the samples and fluid samples collected;

(13) the well logs, in particular those interpreted, scaled in true vertical depth, and the corrections made;

(14) the demonstration that the centralization of the casings complies with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(15) the measured temperature and pressure to the final depth of the stratigraphic survey;

(16) the data, recordings, results of the drill-stem tests, pressure and leak tests, leakoff tests and their interpretation;

(17) a geological description of the cuttings and drill cores, and a geotechnical description of the drill cores;

(18) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(19) the list of drill bits used, their type and the number of metres drilled by each;

(20) the type of play encountered and a comparison with a similar play;

(21) a lateral section of the stratigraphic survey after the sealing, according to the measured depth and the true vertical depth, signed and sealed by an engineer, indicating, in particular,

(a) intersected groups, geological formations, lithological contacts and faults;

(b) zones of abnormal pressure;

(c) the diameter of the wellbore and the diameters of each of the casings;

(d) the location of each of the casings;

(e) if applicable, the depth interval of the open-hole stratigraphic survey;

(f) the type of plugs used and the depth intervals of each plug; and

(g) the other equipment installed or dropped in the stratigraphic survey and not recovered;

(22) the daily tour sheets;

(23) if laboratory testing has been done on the cement after the granting of the authorization by the Minister, the properties of the cement determined in the laboratory;

(24) the technical reports prepared by the enterprises that carried out the work;

(25) a technical description of the condition of the stratigraphic survey before the sealing;

(26) in the case of the cement plugs used,

(a) the name and contact information of the enterprise that carried out the cementing work;

(b) the type of cementing unit used and the method for applying the cement;

(c) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(d) the verified position of each of the plugs; and

(e) if applicable, the analysis results and the analysis certificates of the samples collected;

(27) the cutting depth of the casings under the surface;

(28) a photograph of the ventilated steel plated welded at the top of the casings before the backfilling;

(29) a plan showing the layout of the activity site after the restoration work; and

(30) photographs of the entire restored activity site and the device installed in accordance with section 104.

CHAPTER VII DRILLING AUTHORIZATION

DRILLING AUTHORIZATIO

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

108. A licence holder who wishes to obtain a drilling authorization must apply to the Minister, in writing.

109. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the proposed well, in the case of a new well, or the name of the existing well, in the case of a re-entry; and

(3) the work Schedule and an estimate of the realization costs.

110. The application must be accompanied by

(1) a bathymetric map at a scale of 1:20,000 showing, in particular,

(a) the surface projection of the hole profile to the location of the bottom of the hole;

(b) the location of the existing wellbores within a radius of 5 km; and

(c) the demonstration that the distances provided for in sections 120 and 123 are met;

(2) the drilling technical program provided for in section 111, signed and sealed by an engineer;

(3) the permanent well or reservoir closure and site restoration plan or, if applicable, its update, and the guarantee provided for in sections 287 and 289;

(4) payment of the fee of \$4,426; and

(5) any other information or document deemed necessary by the Minister.

111. The drilling technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the demonstration that, during the positioning of the well, the regional and local geology and the presence of adjacent wellbores have been taken into consideration;

(4) the demonstration that the presence of gas in the soil in the natural state has been taken into consideration;

(5) if applicable, the list of the data that could be consulted with respect to the adjacent wellbores;

(6) the proposed classification of the well, determined according to Schedule 1;

(7) a chronological and detailed description of the work to be carried out;

(8) the name and contact information of the enterprises charged with carrying out the work;

(9) the type and name of the drilling installation, its registration number, the name of its owner and the estimated number of persons on board;

(10) the type of navigation equipment used and its specifications;

(11) the demonstration that the drilling installation is designed and constructed according to the generally recognized best practices;

(12) the design standards and a description of the immobilization system;

(13) the refuelling method;

for the work;

(14) if applicable, the home port and the location of the land base for storing material and products necessary

(15) a lateral section of the well indicating the technical elements

(16) a geological projection of the well including, in particular,

(a) a stratigraphic column indicating the thickness of the unconsolidated deposits, the geological formations, porous and permeable zones, faults and other major structures;

(b) the identification of the potential zones of fluid kicks or lost circulation;

(c) the anticipated base of the usable groundwater, if it is different from the base provided for in section 3;

(d) the anticipated primary and secondary petroleum objectives; and

(e) if the seismic profile has been used, the interpreted seismic profile indicating the top of geological formations, the shotpoint nearest the location of the drilling and the location of the anticipated petroleum objectives;

(17) if applicable, the list of the planned coring intervals;

(18) the list of pressure and leak tests, drill-stem tests, leakoff tests and all other tests planned;

(19) the list of the well logs planned;

(20) the meteorological and hydrographic conditions anticipated during the work;

(21) if applicable, a description of the ice management activities;

(22) the depth of the water at the location of the drilling;

(23) the bathymetric map of the area in which the drilling is located and, if applicable, a mapping of the bottom of the water;

(24) a description of the nature of the surface deposits and their geotechnical characteristics;

(25) a description of the aquatic wildlife;

(26) for each of the drilling, diving and accommodation installations, a compliance certificate issued by any of the following certification authorities: (a) the American Bureau of Shipping;

(b) the Bureau Veritas;

(c) DNV GL (Det Norske Veritas and Germanischer Lloyd);

(d) Lloyd's Register North America Inc.;

(27) a drilling program including, in particular,

(a) the type of drilling rig and equipment to be used and their specifications;

(b) the drilling fluids and spacer fluids used and their properties, and a demonstration that those fluids comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(c) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(d) the diameters of the wellbore according to the measured depth and the true vertical depth on a lateral section, to the bottom of the planned hole

(e) a graphic projection of the formation pressure and temperature to the expected final depth;

(f) a graphic projection of the deviation of the drill path to the expected final depth;

(g) the frequency of the measurements of the deviation of the path in dip and azimuth;

(*h*) the demonstration that the planned casing strings and tubes comply with CSA Standard Z625, Well design for petroleum and natural gas industry systems, except those installed in a storage well, which must comply with CSA Standard Z341, Storage of hydrocarbons in underground formations, published by the Canadian Standards Association;

(i) a program for centralizing casings that allows to reach a minimum centralization of 75% compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee, indicating, in particular, the type of centralizers, their dimension, frequency of installation and installation; and

(*j*) in the case of a re-entry, the evaluation of the thickness of the casing string and the calculation of the stresses to which the well may be submitted in accordance

with CSA Standard Z625, Well design for petroleum and natural gas industry systems, published by the Canadian Standards Association; for a storage well, the evaluation and calculation must comply with CSA Standard Z341, Storage of hydrocarbons in underground formations, published by the Canadian Standards Association;

(28) a program for the cementing of the annular spaces of each of the casing strings compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee and including, in particular,

(*a*) the diameters of the casing strings compared with the measured depth and the true vertical depth;

(b) the planned height of the cement column in the annular space;

(c) the cement preparation and application methods;

(d) the planned minimum and maximum pumping flows and the pumping equipment capacity;

(e) the type of cement used, its density, its additives and their proportions, its setting time, the calculated volume and surplus percentage;

(f) if applicable, any changes to the cement required due to specific physical and chemical conditions of the environment, including, in particular, the depth of the well, an abnormal pressure or temperature, a circulation loss area, salt areas, unconsolidated deposits or a corrosive environment;

(g) the methods used to prepare the well for cementing and to improve movement of the fluids, in particular, casing movement; and

(*h*) the method for monitoring cement circulation in the annular space;

(29) if a simulation or modelling has been carried out, a description of the simulation or modelling and the results obtained;

(30) if applicable, the list of licences, certificates and other authorizations to be obtained;

(31) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(32) any other information or document deemed necessary by the Minister.

Where work is planned in a temporarily closed well, the technical program must also contain the annual inspection worksheet provided for in Schedule 2.

112. Before ruling on a drilling application, Minister may, if the Minister considers it necessary to ensure the long-term integrity of the well, require that the licence holder carry out a cement test in a laboratory. The test must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

The holder sends the results of the test to the Minister.

DIVISION II TIME PERIODS AND NOTICE OF THE START OF THE WORK

113. The authorization holder must, within 12 months after the granting of the authorization by the Minister, start the drilling work.

114. The authorization holder must, at least 7 days before, notify the Minister of the date for the start of the following work:

(1) the mobilization of the site in which the drilling rig will be located;

(2) the beginning of the drilling or the re-entry.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

115. The authorization holder must, at least 24 hours before, notify the Minister of the rig release and, in case of a temporary interruption, the holder must also notify the Minister, as soon as possible, of the resumption of the work.

116. The authorization holder must also, at least 24 hours before, notify the Minister of the straightening or towing of an installation.

SECTION III CONDITIONS OF EXERCISE

117. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

(1) an adjustment of less than 10% in the final depth of the well resulting from a slightly different geological projection;

(2) a change in the position of the casing head of the well where the well remains on the activity site;

(3) the addition or cancellation of a coring section, a drill-stem test, a sample collection or a fluid sample;

(4) the addition or cancellation of a well log if, in the latter case, it is not required under section 127 or 128.

In the situations provided for in the third paragraph, the holder immediately informs the Minister of the change to the technical program.

118. The authorization holder must design and construct the well so as to

(1) comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(2) ensure work safety;

(3) prevent incidents in the maximum load conditions normally foreseeable during the life cycle of the well;

(4) withstand potential conditions, forces and stresses;

(5) ensure a resistance sufficient for fluid kicks;

(6) protect the integrity of the groundwater and the body of water;

(7) ensure that the petroleum zones and the aquifer layers are isolated from one another;

(8) allow the characterization of the geological formations targeted; and

(9) allow activities for controlling the pressure of the bottom of the wellbore in a constant and safe manner.

119. If the water level allows, the authorization holder must, as soon as the work starts and until the holder begins the work for the permanent closure of the well and the restoration of the site, install a sign near the activity site, indicating, in particular,

(1) the location of the well;

(2) the holder's name and the licence number;

(3) the name and number of the well appearing on the authorization;

(4) a telephone number in case of emergency;

(5) the pictograms associated with the hazardous products present on the activity site; and

(6) the indication that access to the activity site is prohibited without the holder's authorization.

120. The authorization holder may not position the casing head of a well

(1) less than 100 m from a transmission line having a voltage equal to or greater than 69,000 V, a telecommunication infrastructure, a windmill, a pipeline or any other installation or infrastructure of the same type;

(2) less than 100 m from a cemetery;

(3) less than 180 m from a high-capacity dam within the meaning of the Dam Safety Act;

(4) less than 200 m from a surface improvement work for sporting or recreational purposes;

(5) less than 275 m from a site classified as a heritage site entered in the cultural heritage register referred to in section 5 of the Cultural Heritage Act;

(6) less than 300 m from any building having fewer than 3 floors or a floor area less than or equal to 10,000 m²;

(7) less than 550 m from a health and social services institution, an educational institution, a building in which childcare services are offered, or any building having 3 floors or more or a floor area greater than $10,000 \text{ m}^2$;

(8) less than 1,000 m from an airport or an aerodrome; or

(9) less than 1,600 m from any underground reservoir used for petroleum storage purposes and for which the holder has no right.

The distances must be measured horizontally, in a straight line, from the casing head to the nearest point of the elements referred to in the first paragraph.

The Minister may allow the reduction of the distances if the authorization holder demonstrates to the Minister that an effective protective measure reduces risks.

The distances provided for in the first paragraph do not apply with respect to infrastructures belonging to the authorization holder or used for the holder's work.

121. The authorization holder may not position the casing head of a well

(1) in lac Témiscamingue, including the mouths of other communicating watercourses;

(2) in lac des Deux Montagnes, located in the regional county municipality of Deux-Montagnes;

(3) in lac Memphrémagog;

(4) in lac Saint-Jean, mostly located in the regional county municipalities of Lac-Saint-Jean-Est and Domaine-du-Roy;

(5) in rivière des Outaouais, from lac Témiscamingue to the St. Lawrence River;

(6) in the Beauharnois canal;

(7) in the Lachine canal;

(8) in rivière des Mille Îles;

(9) in rivière des Prairies, mostly located in the regional county municipality of Les Moulins;

(10) in rivière Richelieu, mostly located in the regional county municipality of Pierre-De Saurel;

(11) in rivière Saint-Maurice, from the Shawinigan dam to the St. Lawrence River;

(12) in rivière Saguenay, from lac Saint-Jean to the St. Lawrence River; and

(13) in the St. Lawrence River.

122. The authorization holder may not drill a well less than 100 m from the boundaries of the territory covered by the holder's licence.

123. The authorization holder may not position the activity site less than 100 m from a national park or a protected area entered in the protected area register provided for in section 5 of the Natural Heritage Conservation Act (chapter C-61.01).

124. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

125. During the drilling of a well, the authorization holder must make sure that

(1) the well is drilled so as to never intersect an existing wellbore, except if the well covered by the authorization is a relief well;

(2) the drilling fluids, drilling fluid system and associated monitoring equipment are designed, installed, used or maintained to provide an effective barrier against formation pressure and to allow for an adequate characterization of the geological formations investigated;

(3) the indicators and alarms associated with the monitoring equipment are installed on the drilling rig to alert onsite personnel; and

(4) adequate procedures, facilities and equipment are in place and are utilized to minimize the risk of loss of well control in the event of lost circulation, fluid kicks or blowout.

126. The authorization holder must ensure that the measurements of the well path deviation are taken at intervals that allow the position of the wellbore to be determined accurately and that do not exceed 150 m, unless there is a wellbore stability problem.

127. The authorization holder must carry out the well logs necessary to be able to define the lithology, porosity, type of the fluids present in each of the geological formations intersected by the surface casing to the well casing head and in depth, under the surface casing.

The holder must, in particular, carry out

(1) a gamma ray logging from the well casing head to the final depth of the wellbore;

(2) a neutron logging from 25 m under the well casing head to the base of the surface casing; and

(3) an electrical resistivity logging and a porosity logging from the base of the surface casing to the final depth of the wellbore.

In the case of an electrical resistivity or porosity logging, it must be carried out at least until a 70° angle has been reached in relation to the vertical.

The Minister may exempt the holder from the requirement to carry out certain well logs in the case of a production well or if the Minister considers that he or she already has sufficient data to characterize the reservoir or the sealing rocks.

128. The authorization holder must demonstrate the uniform coverage of the cement behind each casing by carrying out a cement assessment sonic or ultrasonic logging or by any other method.

In the case of a log in a horizontal well, it must be carried out at least until a 70° angle has been reached in relation to the vertical.

129. The authorization holder must protect the usable groundwater and use non-toxic substances in the drilling fluids until the surface casing is cemented.

130. Where the authorization holder drills a well in a region where the geology is unknown, in a region where shallow gas kicks have been documented or it is foreseeable that a petroleum zone will be intersected, the holder must use a diverter to drill to the surface casing installation depth.

131. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

132. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains, until the end of the work for the permanent closure of the well, a register of those inspections.

133. If a surface casing is installed, the authorization holder must ensure that it is inserted in a competent formation at a depth allowing for a sufficient anchoring of the well blowout preventer, ensures the control of anticipated pressures in the well and is equipped with an opening valve.

134. The authorization holder must install a conductor casing if

(1) the surface casing is laid at a true vertical depth exceeding 650 m;

(2) it is foreseeable that a petroleum zone will be intersected before reaching the laying depth of the surface casing; and

(3) an adjacent wellbore encountered groundwater flow on the surface.

The conductor casing must be set in a competent formation.

If a shallow aquifer presents artesian pressure conditions, the conductor casing must be set directly above the aquifer.

135. The authorization holder must ensure that the marine riser used

(1) furnishes access to the well;

(2) isolates the well from the body of water;

(3) withstands the differential pressure of the drilling fluid relative to the body of water;

(4) withstands the physical forces anticipated in the drilling program;

(5) permits the drilling fluid to be returned to the installation; and

(6) is supported in a manner that effectively compensates for the forces caused by the motion of the drilling installation.

136. In the case of the cementing of the surface casing, the authorization holder may not add to the cement charges or additives reducing its compressive strength.

137. In the case of the cementing of a casing, the authorization holder must determine the volume of cement required according to the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

138. Where surface casings and, if applicable, intermediate casings are subject to wear caused by the movement and rotation of the drill-stems, they must be inspected to determine their integrity, using a pressure test or a well log.

139. Before proceeding with the cementing of annular spaces, the authorization holder must make sure to completely displace the drilling fluids and remove the mud cakes from the walls of the well in accordance with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

140. During cementing, the authorization holder must ensure that surface fluids and cement returns are observed.

141. The cement used must reach a minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

It must also be designed and installed to protect the integrity of the layers of gas hydrates.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

142. As of the moment at which the cement has developed a gel strength and until the minimum compressive strength has been reached, the authorization holder must not undertake work that could compromise the integrity of the cement and the holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

143. After installing and cementing the casing and before drilling out the casing shoe, the authorization holder must submit the casing to a pressure and leak test to the value required to confirm its integrity for maximum operating pressure provided for in the technical program.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

144. Before drilling at a measured depth of more than 10 m under the shoe of any casing subsequent to the conductor casing, the authorization holder must conduct an integrity test or a leak pressure test on the geological formation.

The test must be conducted at a pressure that ensures the safety of the drilling work to the installation depth of the next casing string planned.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes. **145.** The maximum pressure applicable to the casings must be calculated to ensure control of the well. It must be posted on the activity site.

146. The authorization holder who carries out a drill-stem test must ensure, in particular, that

(1) the equipment used is designed to safely control the well pressure, properly characterize the geological formation and protect the environment;

(2) the rated pressure of the equipment upstream of and including the testing manifold exceeds the maximum anticipated shut-in pressure; and

(3) the equipment downstream of the testing manifold is sufficiently protected against overpressure.

147. In the case of fluid kicks or during drill-stem tests, the authorization holder must collect samples and must analyze the petroleum and groundwater encountered.

In the case of gas, the analyses must, in particular, identify its composition and, where necessary to differentiate a number of formations, characterize the carbon isotope ratios.

In the case of oil, the analyses must, in particular, identify its composition and characterize its viscosity and density.

In the case of groundwater, the analyses must, in particular, identify its composition in dissolved solids and petroleum and its physical characteristics, including the pH, the conductivity and the cloudiness.

The Minister may exempt the authorization holder from the requirement to collect certain samples where the Minister considers that he or she already has sufficient data to characterize the reservoir or the sealing rocks.

A holder who collects a sample must ensure to use a method preventing contamination of the sample.

148. The authorization holder who collects a sample of the drilling core must determine, in particular, the porosity, permeability, lithology and content in total organic carbon of the geological formation.

For the well sections that are not cored, a cutting sample must be collected, unless the holder demonstrates that an adjacent wellbore has already been sampled and the spatial variability makes the sampling of the stratigraphic survey unnecessary.

Cutting samples must be collected at the following intervals:

(1) every 25 m, from the top of the rock to a true vertical depth of 50 m above the shallowest anticipated petroleum objective;

(2) in the case of vertical and directional wells, every 5 m from a true vertical depth of 50 m above the shallowest anticipated petroleum objective to the final depth;

(3) in the case of horizontal wells, every 5 m from a true vertical depth of 50 m above the shallowest anticipated petroleum objective to the reaching of an 80° angle in relation to the vertical, then the interval is 10 m to the final depth.

Cutting samples must be collected in such a manner as to fill

(1) a 10-ml flask of cuttings washed and dried beforehand; samples from the layer of unconsolidated deposits must not be washed; and

(2) a 500-g bag of cuttings dried beforehand.

149. Where samples necessary for analysis have been taken from a core, the authorization holder makes sure that a longitudinal slab that is not less than one half of the cross-sectional area of that core or the remaining core is submitted to the Minister.

The holder who carried out destructive tests on a core removed laterally is exempt from submitting the samples.

150. The samples collected must be packaged in durable containers designed for that purpose and properly labelled by indicating, in particular, the name of the well and the measured interval or depth of the sampling.

They must be transported and stored in a manner that prevents any loss or deterioration.

151. The authorization holder submits to the Minister the samples whose analysis is completed not later than 90 days after the rig release date.

The Minister may agree to an additional period if the holder wishes to perform additional analyses. In that case, the holder submits to the Minister the samples and analysis results at the end of the agreed period.

The Minister may exempt the holder from the submission of the samples

(1) where the Minister considers that he or she has sufficient samples to adequately document the geological formations intersected by the well; and (2) where the Minister already has samples from the same horizons.

152. Before disposing of any cutting samples, drilling cores or collected fluids, the authorization holder must offer them to the Minister.

153. The authorization holder must submit to the Minister, for approval, the corrective actions to be taken where any of the following situations occurs:

(1) a cementing operation provided for in the technical program cannot be carried out;

(2) no cement return is observed on the surface where such return was planned;

(3) a return of drilling fluid indicates that the cement height required for cementing is not reached;

(4) there is uncertainty as to reaching the cementing goals.

154. The authorization holder keeps and maintains, for the duration of the work, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

155. An authorization holder must, in the case of an observation well, use a wellhead.

156. An authorization holder must, in the case of an observation well, send to the Minister, not later than 31 December of each year, a report signed and sealed by a geologist or an engineer containing a summary of the data collected and the frequency of the collection and the annual inspection worksheet provided for in Schedule 2.

A storage licence holder may send a synthesis report on all the observation wells drilled in the territory subject to the licence. Despite the foregoing, the holder must send an annual inspection worksheet for each well.

DIVISION IV

DAILY REPORT AND END OF ACTIVITIES REPORT

157. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the drilling authorization number;

(2) the name of the drilling installation;

(3) the number of persons on board the drilling installation;

(4) a description, in chronological order, of the work carried out and the time required for carrying out each step of the work;

(5) the name of the enterprises that carried out the work;

(6) the operating condition of the blowout prevention system;

(7) the measured depth reached during the day;

(8) the composition of the drilling fluid and the spacer fluid and the volumes used;

(9) a loss of circulation;

(10) the components used to assemble the drill strings;

(11) the specifications of the casing and its setting depth;

(12) the weight applied to the bit and its penetration rate;

(13) the measurements of the deviation of the well path in dip, azimuth and depth;

(14) traces of petroleum or water detected;

(15) the type of pump used and its capacity;

(16) the type of cement used, its density, its additives and their proportions, its setting time and the volume used; (17) the well logs carried out;

(18) the observations and data related to the evaluation or characterization of the geological formation;

(19) the fluid samples collected;

(20) the results of the pressure and leak tests;

(21) the volume and composition of the gas used, released, incinerated or burned at the flare;

(22) the composition, concentration and detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(23) the operational problems encountered and the corrective measures taken or planned;

(24) the indication of any temporary drilling work interruption and the procedure followed to secure the well;

(25) the indication of any event that disrupted the progress of the work;

(26) the abnormal meteorological conditions that caused an operation delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(*d*) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or platform; and

(27) any other information or document deemed necessary by the Minister.

158. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the drilling or re-entry work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

159. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, starting from the rig release, an end of activities report signed by an engineer including, in particular,

(1) the drilling authorization number;

(2) the name and contact information of the licence holder;

(3) the type and name of the drilling installation, its registration number and the name of its owner;

(4) the type of navigation equipment used;

(5) the name and contact information of the enterprises that carried out the work;

(6) the coordinates of the well casing head on a plan provided by a land surveyor according to the NAD83 map reference system;

(7) the measurements of the deviation of the well path in dip, azimuth and depth, and the final coordinates of the bottom of the hole;

(8) the start and end dates of the work;

(9) the summary of the work carried out in chronological order;

(10) a summary of the abnormal meteorological conditions that caused the delay and the corrective measures taken;

(11) a report on the cementing operations for each of the casing strings, containing, in particular,

(a) the name and contact information of the enterprise that carried out the cementing work;

(b) the type of cementing unit used and the method for applying the cement;

(c) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(d) the cemented interval;

(e) the composition and volume of the spacer fluid and the separating fluid used;

(f) the circulation pressures;

(g) the maximum pressure reached during cementing;

(*h*) an indication that the casing check valve is functional or, if not, the propping pressure applied and the duration; and

(i) a description of the cement return, the quantity and the retreat; if no return is observed, a description of the corrective actions taken;

(12) the analysis results and the analysis certificates of the samples and fluid samples collected;

(13) the well logs, in particular those interpreted, scaled in true vertical depth, and the corrections made;

(14) the demonstration that the centralization of the casings complies with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(15) the measured temperature and pressure to the final depth of the well;

(16) the data, recordings, results of the drill-stem tests, pressure and leak tests and other tests and their interpretation;

(17) a geological description of the cuttings and drill cores, and a geotechnical description of the drill cores;

(18) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(19) the elements and practices that the holder intends to adopt and the parameters the holder intends to adjust from a standpoint of continued improvement for the holder's future drilling work, determined in compliance with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee;

(20) the list of the drill bits used, their type and the number of metres drilled by each;

(21) a technical description of the condition of the well after the drilling;

(22) the classification of the well determined according to Schedule 1;

(23) a lateral section of the well, according to the measured depth and the true vertical depth, signed and sealed by an engineer, indicating, in particular,

(a) intersected groups, geological formations, lithological contacts and faults;

(b) zones of abnormal pressure;

(c) the diameter of the wellbore and the diameters of each of the casings;

(d) the location of each of the casings;

(e) if applicable, the depth interval of the open-hole well; and

(f) the other equipment installed or dropped in the well and not recovered;

(24) the daily tour sheets;

(25) if laboratory testing has been done on the cement after the granting of the authorization by the Minister, the properties of the cement determined in the laboratory;

(26) the technical reports prepared by the enterprises that carried out the work;

(27) the type of play encountered and a comparison with a similar play; and

(28) photographs of the entire site after the drilling work.

CHAPTER VIII COMPLETION

COMPLETION

DIVISION I CONDITIONS FOR OBTAINING AN AUTHORIZATION

160. A licence holder who wishes to obtain a completion authorization must apply to the Minister, in writing.

161. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well; and

(3) the work Schedule and an estimate of the realization costs.

162. The application must be accompanied by

(1) the completion technical program provided for in section 163, signed and sealed by an engineer;

(2) payment of the fee of \$2,555; and

(3) any other information or document deemed necessary by the Minister.

163. The completion technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the classification of the well determined according to Schedule 1;

(4) a chronological and detailed description of the work to be carried out;

(5) the name and contact information of the enterprises charged with carrying out the work;

(6) a lateral section of the well indicating the technical elements;

(7) the type of service rig, equipment, components and casings to be used and their specifications;

(8) the type and name of the drilling installation, its registration number, the name of its owner and the estimated number of persons on board;

(9) the type of navigation equipment used and its specifications;

(10) the type and name of the vessel or platform used, its registration number, the name of its owner and the estimated number of persons on board;

(11) the type of navigation equipment used and its specifications;

(12) for every drilling, diving and accommodation installation, a compliance certificate issued by any of the following certification authorities:

(a) the American Bureau of Shipping;

(b) the Bureau Veritas;

(c) DNV GL (Det Norske Veritas and Germanischer Lloyd);

(d) Lloyd's Register North America Inc.;

(13) the demonstration that the drilling installations are designed, fabricated and constructed according to the generally recognized best practices;

(14) the design standards and a description of the immobilization system;

(15) if applicable, the home port and the location of the land base for storing material and products necessary for the work;

(16) the demonstration that the equipment, components and casings may withstand the different stresses to which they will be submitted, in particular, bursting, collapse and tension stresses;

(17) the demonstration that the local and regional geology and the presence of adjacent wellbores have been taken into consideration in the preparation of the program;

(18) the measures taken to ensure the integrity of the well;

(19) the type of completion;

(20) the degree of primary, secondary or tertiary petroleum recovery;

(21) the geological formations intersected and the depth of the intervals of each of the completion operations, in true vertical depth and in measured depth;

(22) the nature, composition and concentration of the fluids used and the total volume expected during the completion work;

(23) the demonstration that the fluid injection pressure will not reach the pressure for fracturing geological formations;

(24) the anticipated volume and flow of flow-back water;

(25) if applicable, the type of packers installed and the installation depths;

(26) if applicable, a casing perforation program indicating, in particular, the number and the type of perforations;

(27) if applicable, the list of the planned well logs;

(28) if applicable, the list of expected pressure and leak tests;

(29) if applicable, the list of expected injectivity tests;

(30) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(31) the meteorological and hydrographic conditions anticipated during the work;

(32) if applicable, a description of the ice management activities;

(33) the bathymetric map of the zone;

(34) the nature of the surface deposits and a description of the aquatic wildlife;

(35) the anticipated burning activities, the reasons justifying them and an estimate of the volume of gas burned;

(36) if a simulation or modelling has been carried out, a description of the simulation or modelling and the results obtained;

(37) if applicable, the list of licences, certificates and other authorizations to be obtained;

(38) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(39) any other information or document deemed necessary by the Minister.

Where work is planned in a temporarily closed well and the depth of the wellhead under the water makes it accessible, the technical program must also contain the annual inspection worksheet provided for in Schedule 2.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

164. The authorization holder must, within 12 months after the granting of the authorization by the Minister, start the completion work.

The work is deemed to have started as soon as the first step provided in the work Schedule is initiated.

165. The authorization holder must notify the Minister, in writing, at least 7 days before the expected date for the start of the work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

166. The authorization holder must also, at least 24 hours before, notify the Minister of the straightening or towing of an installation.

DIVISION III

CONDITIONS OF EXERCISE

167. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

168. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

169. Before the start of the completion operations, the authorization holder must carry out pressure and leak tests on the casings, the strings that will be acted upon, the valve, injection and wellhead pipes and any other component that was not submitted to a pressure and leak test. The tests must be carried out at a pressure that allows confirmation of the integrity of the components where they are submitted to the maximum pressure provided for in the technical program.

The integrity is confirmed and the authorization holder may start the completion operations if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

170. The authorization holder must ensure that the pressure applied during the completion work does not exceed the test pressure.

171. The authorization holder must ensure that

(1) each completion interval is isolated from any other permeable or porous interval intersected by the well, except in the case of a commingled production;

(2) any packer is installed as close as possible to the upper level of the completion interval;

(3) no fracturing is induced to the formation during the work; and

(4) the indicators and alarms associated with the monitoring equipment are installed on the service rig to alert onsite personnel.

172. The authorization holder must install production tubing if the fluid withdrawn or injected is corrosive for the casings.

The authorization holder must design and install the casing and production tubing so as to comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

173. The cement used for cementing the production tubing must reach the minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

174. The authorization holder must ensure that the marine riser used

(1) furnishes access to the well;

(2) isolates the well from the body of water;

(3) withstands the differential pressure of the drilling fluid relative to the body of water;

(4) withstands the physical forces to which it will be submitted;

(5) permits the completion fluid to be returned to the installation; and

(6) is supported in a manner that effectively compensates for the forces caused by the motion of the drilling installation.

175. The authorization holder must, until the end of the work, keep the necessary protective barrier to withstand the pressures provided for in the technical program.

176. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

177. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps a register of those inspections and maintains it until the end of the work for the permanent closure of the well. (1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

179. Before drilling the well casing or the casing shoe, the authorization holder must wait until the cement reaches a resistance sufficient to not compromise the integrity of the well.

DIVISION IV DAILY REPORT AND END OF ACTIVITIES REPORT

180. The authorization holder must draw up a daily report on the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

- (1) the completion authorization number;
- (2) the name of the drilling installation;
- (3) the number of persons on board;

(4) a description, in chronological order, of the work carried out and the time required for carrying out each step of the work;

(5) the name of the enterprises that carry out the completion work;

(6) a summary of the meteorological conditions;

(7) the result of all the pressure and leak tests, including their duration and the initial and final test pressures;

(8) the operating condition of the blowout prevention system;

(9) the well logs carried out;

(10) the type of seals installed and the installation depths;

(11) the technical details of the perforations, in particular, the number, type and intervals;

(12) if applicable, the technical details of the completion by chemical stimulation, in particular, the intervals, concentrations and volumes of acids and additives injected, the volume of flow-back water and the flows, and the injection pressures;

(13) the composition, concentration and detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(14) the number, interval, volume of fluid, injection rate and pressure and a summary of the results of each injectivity test;

(15) the volume and composition of the gas used, released, incinerated or burned at the flare;

(16) the operational problems encountered and the corrective measures taken or planned;

(17) the indication of any event that disrupted the progress of the work;

(18) the abnormal meteorological conditions that caused an operation delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(d) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or drilling installation;

(19) if applicable, the size, distance and direction of ice;

(20) the indication of any temporary completion work interruption and the procedure followed to secure the well; and

(21) any other information deemed necessary by the Minister.

181. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the completion work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

182. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the completion authorization number;

(2) the type and name of the installation, its registration number and the name of its owner;

(3) the type of navigation equipment used;

(4) the start and end dates of the work;

(5) a summary of the work carried out according to their chronological order;

(6) a summary of the abnormal meteorological conditions that caused the operation delay and the corrective measures taken;

(7) a description of the condition of the well including a lateral section indicating the mechanical conditions of the well after the completion;

(8) the classification of the well determined according to Schedule 1;

(9) if applicable, a description of the type of completion carried out and its degree of recovery;

(10) the results of the pressure and leak tests;

(11) the intervals, the type of chemical completion, concentrations and volumes of acids and additives injected, the volume of flow-back water, injection rates and pressures;

(12) the results of the injectivity tests;

(13) the results of the other tests carried out;

(14) the interpreted well logs and the results of the related analyses and studies;

(15) if applicable, the analyses of recovered petroleum or water;

(16) the number, interval, type and pressure of each series of perforations;

(17) the volume of flow-back water;

(18) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(19) the technical reports prepared by the enterprises that carried out the work; and

(20) if applicable, the other data collected during the completion work.

CHAPTER IX

FRACTURING

183. Fracturing, in a well whose casing head is in a body of water, is prohibited.

184. Fracturing is prohibited in shist.

It is also prohibited at a true vertical depth of less than 1,000 m. Despite section 27, that depth is measured from the surface of the bottom of the water.

CHAPTER X

RECONDITIONING

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

185. A licence holder who wishes to obtain a reconditioning authorization must apply to the Minister, in writing.

186. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name, number and type of well; and

(3) the work Schedule and an estimate of the realization costs.

187. The application must be accompanied by

(1) the reconditioning technical program provided for in section 188, signed and sealed by an engineer;

(2) payment of the fee of \$4,426; and

(3) any other information or document deemed necessary by the Minister.

188. The reconditioning technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) a chronological and detailed description of the work to be carried out;

(4) the classification of the well determined according to Schedule 1;

(5) the name and contact information of the enterprises charged with carrying out the work;

(6) the type and name of the installation, its registration number, the name of its owner and the estimated number of persons on board;

(7) the type of navigation equipment used and its specifications;

(8) for every drilling, diving and accommodation installation, a compliance certificate issued by any of the following certification authorities:

(a) the American Bureau of Shipping;

(b) the Bureau Veritas;

(c) DNV GL (Det Norske Veritas and Germanischer Lloyd);

(d) Lloyd's Register North America Inc.;

(9) the design standards and a description of the immobilization system;

(10) if applicable, the home port and the location of the land base for storing material and products necessary for the work;

(11) the demonstration that the regional and local geology and the presence of adjacent wellbores have been taken into consideration;

(12) the reasons justifying the reconditioning;

(13) the purpose of the reconditioning;

(14) a lateral section of the well indicating the technical elements;

(15) the list of pressure and leak tests, and the list of other tests planned;

(16) the list of well logs planned;

(17) the type of service rig and equipment to be used and their specifications;

(18) the intervals to be the subject of reconditioning;

(19) a description of the fluids used;

(20) the pressure at the closed wellhead and the shut-in pressure of the well;

(21) the demonstration that the equipment, components and casings may withstand the different stresses to which they will be submitted, in particular, bursting, collapse and tension stresses;

(22) if applicable, a cementing program including, in particular,

(a) the type of cementing;

(b) the cementing intervals;

(c) the method for applying the cement;

(d) the type of cement, its density, its additives and their proportions, its setting time, the flow and pressure used;

(e) if applicable, the maximum pressure for injecting the cement; and

(f) if applicable, the changes to the cement required due to specific physical and chemical conditions of the environment, or to give the cement specific properties;

(23) a well integrity verification and follow-up program;

(24) any specific condition that could affect the safety of the work on the well;

(25) an evaluation of the impact of the proposed work on the optimal recovery of the resource;

(26) the meteorological and hydrographic conditions anticipated for the work period;

(27) if applicable, a description of the ice management activities;

(28) the bathymetric map of the area;

(29) the nature of the surface deposits and a description of the aquatic wildlife;

(30) the anticipated burning activities, the reasons justifying them and an estimate of the volume of gas burned;

(31) if applicable, the list of licences, certificates and other authorizations to be obtained;

(32) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(33) any other information or document deemed necessary by the Minister.

Where work is planned in a temporarily closed well and the depth of the wellhead under the water makes it accessible, the technical program must also contain the annual inspection worksheet provided for in Schedule 2.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

189. The authorization holder must, within 12 months after the granting of the authorization by the Minister, start the reconditioning.

The work is deemed to have started as soon as the first step provided in the work Schedule is initiated.

190. The authorization holder must, at least 7 days before, notify the Minister of the start date of the reconditioning.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

191. The authorization holder must also, at least 24 hours before, notify the Minister of the straightening or towing of an installation.

DIVISION III

CONDITIONS OF EXERCISE

192. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

193. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

194. The authorization holder must carry out the reconditioning so as to

(1) ensure the safety of the work;

(2) not compromise the capacity of the well to withstand potential conditions, forces and stresses;

(3) ensure a sufficient resistance to fluid kicks;

(4) protect the integrity of the usable groundwater and the body of water; and

(5) ensure that the petroleum zones and aquifer layers are isolated from one another.

195. The authorization holder must, until the end of the work, keep the necessary protective barrier to withstand the pressures provided for in the technical program.

196. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

197. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps a register of those inspections and maintains it until the end of the work for the permanent closure of the well.

198. The authorization holder must ensure that the indicators and alarms associated with the monitoring equipment are installed on the service rig to alert onsite personnel.

199. The authorization holder must ensure that the marine riser used

(1) furnishes access to the well;

(2) isolates the well from the body of water;

(3) withstands the differential pressure of the reconditioning fluid relative to the body of water;

(4) withstands the different forces to which it will be submitted;

(5) permits the completion fluid to be returned to the installation; and

(6) is supported in a manner that effectively compensates for the forces caused by the motion of the drilling installation.

200. The authorization holder keeps and maintains, for the duration of the work, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

DIVISION IV DAILY REPORT AND END OF ACTIVITIES REPORT

201. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the reconditioning authorization number;

(2) the name of the drilling installation;

(3) the number of persons on board;

(4) the elevation of the reference level and its identification;

(5) a description, in chronological order, of the work carried out and the time required for carrying out each step;

(6) the name of the enterprises carrying out the reconditioning;

(7) a summary of the meteorological conditions;

(8) the result of the pressure and leak tests, including their duration and the initial and final test pressures;

(9) the result of any other test carried out;

(10) the operating condition of the blowout prevention system;

(11) the well logs carried out;

(12) the type of packers installed and the installation depths;

(13) the volume, composition and concentration of the reconditioning fluids;

(14) the volume and composition of the gas used, released, incinerated or burned at the flare;

(15) the operational problems encountered and the corrective measures taken or planned;

(16) the indication of any event that disrupted the progress of the work;

(17) the abnormal meteorological conditions that caused a work delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(d) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or platform;

(18) the indication of any temporary interruption of the reconditioning and the procedure followed to secure the well; and

(19) any other information or document deemed necessary by the Minister.

202. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the reconditioning. If the Tuesday is a holiday, the report is sent on the first working day that follows.

203. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the reconditioning authorization number;

(2) the type and name of the installation, its registration number and the name of its owner;

(3) the type of navigation equipment used;

(4) the start and end dates of the work;

(5) a summary of the work carried out according to the chronological order;

(6) a summary of the abnormal meteorological conditions that caused a work delay and the corrective measures taken;

(7) a description of the condition of the well including a lateral section indicating the mechanical conditions of the well after the reconditioning;

(8) the classification of the well determined according to Schedule 1;

(9) the result of the pressure and leak tests, including their duration, and the initial and final test pressures;

(10) the results of any other test carried out,

(11) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(12) the interpreted well logs and the results of the related analyses and studies;

(13) the technical reports prepared by the enterprises that carried out the work; and

(14) if applicable, the other data collected during the reconditioning activities.

CHAPTER XI

PETROLEUM EXTRACTION TESTS AND TRIAL TESTS FOR THE USE OF AN UNDERGROUND RESERVOIR FOR STORAGE PURPOSES

DIVISION I

PETROLEUM EXTRACTION TEST PROGRAM

204. An exploration licence holder who wishes to carry out petroleum extraction tests must submit a petroleum extraction test technical program for the Minister's approval.

205. The test technical program must be signed and sealed by a geologist or an engineer and contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well;

(3) the planned duration of the tests and an estimate of the realization costs;

(4) the name and contact information of the geologist or engineer responsible for the tests;

(5) a chronological and detailed description of the tests to be carried out;

(6) the classification of the well determined according to Schedule 1;

(7) the name and contact information of the enterprises charged with carrying the tests;

(8) the name of the vessel or platform used, its registration number, the name of its owner and the estimated number of persons on board;

(9) the type of navigation equipment used and its specifications;

(10) the depth interval and a description of the geological formations and the zones subject to the tests;

(11) the geological, geophysical, petrophysical and hydrostatic information and the drilling results justifying the tests;

(12) a description of the current condition of the well;

(13) if a seismic profile has been used, the interpreted profile indicating the location of the zones subject to the tests;

(14) the methods planned to dispose of the substances extracted;

(15) the list of licences, certificates and other authorizations to be obtained, if applicable;

(16) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(17) any other information or document deemed necessary by the Minister.

DIVISION II

TRIAL TEST PROGRAM FOR THE USE OF AN UNDERGROUND RESERVOIR FOR STORAGE PURPOSES

206. An exploration licence holder who wishes to carry out trial tests must submit trial test technical program for the use of underground reservoirs for storage purposes for the Minister's approval.

207. The test technical program must be signed and sealed by a geologist or an engineer and contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well;

(3) the planned duration of the tests and an estimate of the realization costs;

(4) the name and contact information of the geologist or engineer responsible for the tests;

(5) a chronological and detailed description of the tests to be carried out;

(6) the classification of the well determined according to Schedule 1;

(7) the name and contact information of the enterprises charged with carrying out the tests;

(8) the type and name of the vessel or platform used, its registration number, the name of its owner and the estimated number of persons on board;

(9) the type of navigation equipment used and its specifications;

(10) a description of the underground reservoir subject to the tests;

(11) the geological, geophysical, petrophysical and hydrostatic information and the drilling results justifying the tests;

(12) a description of the current condition of the wells;

(13) at least 3 interpreted seismic profiles indicating the location in the subsurface of the underground reservoir subject to the tests and the well seismic cushioning; the Minister may exempt the holder if the holder demonstrates to the Minister the impossibility of carrying out the profiles considering the shallow depth of the reservoir;

(14) the estimated capacity of the underground reservoir on the basis of a modelling;

(15) the shut-in pressure of the underground reservoir recorded at the well subject to the tests;

(16) the nature and properties of the substances stored or disposed of in the underground reservoir during the test period;

(17) the injection method and the volume and pressure of the substances injected in the underground reservoir during the tests;

(18) the methods planned for disposing of the substances withdrawn;

(19) the list of licences, certificates and other authorizations to be obtained, if applicable;

(20) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(21) any other information or document deemed necessary by the Minister.

DIVISION III

TIME PERIODS AND NOTICE OF THE START OF THE WORK

208. An exploration licence holder who carries out petroleum extraction tests or trial tests for the use of underground reservoirs for storage purposes must, at least 7 days before the expected start date of the installation work of the equipment necessary for that purpose, notify the Minister in writing.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

DIVISION IV

CARRYING OUT OF PETROLEUM EXTRACTION TESTS AND TRIAL TESTS FOR THE USE OF UNDERGROUND RESERVOIRS FOR STORAGE PURPOSES

209. The maximum duration of a test period is 240 consecutive days for the petroleum extraction tests and 365 consecutive days for the trial tests for the use of underground reservoirs for storage purposes.

The test period begins on the first day on which an exploration licence holder carries out petroleum extraction tests or trial tests for the use of underground reservoirs for storage purposes and ends on the day on which the holder completely ceases to carry out the tests.

210. An exploration licence holder who carries out tests must comply with the test technical program approved by the Minister.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by a geologist or an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

211. An exploration licence holder who carries out tests must use

(1) a bottom safety valve that closes the well above the packer; and

(2) a wellhead equipped with a valve that may be handled remotely and can close automatically, in the case of tests in a well drilled using a floating drilling installation.

212. An exploration licence holder who carries out tests must ensure that

(1) the equipment used is designed so as to properly evaluate the formation;

(2) the equipment rated pressure upstream of and including the well testing manifold exceeds the maximum anticipated shut-in pressure; and

(3) the equipment downstream of the well testing manifold is sufficiently protected against overpressure.

213. An exploration licence holder who carries out tests must ensure that every person present at the installations has successfully completed awareness training respecting hydrogen sulfide (H2S).

214. An exploration licence holder who carries out tests keeps and maintains, for the duration of the tests, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

DIVISION V

DAILY REPORT AND TEST COMPLETION REPORT

215. An exploration licence holder who carries out petroleum extraction tests or trial tests for the use of underground reservoirs for storage purposes must draw up a daily report of the tests and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the name and contact information of the holder and the licence number;

(2) the volumes and flows of petroleum and other fluids extracted, injected, withdrawn and disposed of in the well;

(3) the volume and composition of the gas used, released, incinerated or burned at the flare;

(4) the operational problems encountered and the corrective measures taken or planned;

(5) the indication of any event that disrupted the progress of the work; and

(6) any other information or document deemed necessary by the Minister.

216. An exploration licence holder who carries out tests must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the test period. If the Tuesday is a holiday, the report is sent on the first working day that follows.

217. An exploration licence holder who carries out tests must, within 30 days after the end of the test period, send to the Minister a test completion report signed by a geologist or an engineer including, in particular,

(1) the name and contact information of the holder and the licence number;

(2) the summary of the activities related to the tests;

(3) a technical description of all the tests carried out;

(4) the results obtained during the tests, in particular,

(a) the average daily pressures registered at the wellhead;

(b) the average daily flows measured;

(c) the volumes of fluids extracted, injected, withdrawn and disposed of;

(d) in the case of petroleum extraction tests, the decline curve of the well; and

(e) in the case of trial tests for the use of underground reservoirs for storage purposes, the deliverability decline curve and the pressure rise curve;

(5) the realization cost of the tests carried out;

(6) the methods used to dispose of the substances extracted;

(7) the classification of the well determined according to Schedule 1; and

(8) the technical reports prepared by the enterprises that carried out the work.

The holder must also send to the minister in the same manner, as soon as the elements are available,

(1) in the case of petroleum extraction tests,

(a) the pressure rise curve; and

(b) for a gas well, the absolute potential flow; and

(2) the results of the analyses carried out including, in particular, the composition of the fluids extracted, injected, withdrawn and disposed of.

CHAPTER XII

SPECIFIC REQUIREMENTS RELATING TO THE PRODUCTION

DIVISION I PETROLEUM PRODUCTION TESTS

218. A production licence holder must carry out production tests for all the wells drilled for production that have not been subject to extraction tests so as to determine

(1) the nature of the fluids therein;

(2) the petroleum production capacity per day, in m³, and the volume of water associated with that production; and

(3) the new geological, hydrostatic, petrophysical and geophysical characteristics of the pool.

219. A production licence holder must measure the shut-in pressure of the pool before and after the production test.

220. A production licence holder must carry out, every 3 months, a test in normal production conditions of a maximum duration of 24 hours for each well connected to a battery to determine the petroleum and water production rate.

The holder uses the results of those tests to allocate the monthly production of the battery between the various wells connected to it, if applicable.

On the application of the holder, the Minister may reduce the frequency of the tests. The holder's application must contain

(1) the anticipated frequency of the tests and the method to be used;

(2) a summary of the accuracy of the tests;

(3) the reasons justifying the reduction of the frequency of the tests; and

(4) any other information or document deemed necessary by the Minister.

The term "battery" means the storage facilities that receive the production from one or more wells and include the equipment for separating the petroleum from the other fluids and to measure them.

221. During the tests, a production licence holder must measure the pressure interference from one well to the other.

222. A production licence holder must notify the Minister, at least 7 days before, of the date and time planned for the carrying out of the tests.

223. An exploration licence holder who carries out tests must use

(1) a bottom safety valve that closes the well above the seal; and

(2) a wellhead equipped with a valve that may be handled remotely and can close automatically, in the case of tests in a well drilled using a floating drilling installation.

224. A production licence holder who carries out tests must ensure that every person present at the installations has successfully completed awareness training respecting hydrogen sulfide (H2S).

225. A production licence holder keeps and maintains, for the duration of the tests, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation. **226.** A production licence holder must send to the Minister the results of the tests carried out and any other information deemed necessary by the Minister, within 30 days after the end of the tests.

DIVISION II

PETROLEUM ENHANCED RECOVERY

227. A production licence holder who wishes to carry out a petroleum enhanced recovery project must submit an enhanced recovery technical program for the Minister's approval.

228. The enhanced recovery technical program must be signed and sealed by an engineer and contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the wells concerned by the project;

(3) the classification of the wells determined according to Schedule 1;

(4) a map at a scale sufficient to show the area in which the project must be carried out and the boundaries of the pool;

(5) a diagram showing the wells and the well injection completion methods, if applicable;

(6) a diagram showing the injection, treatment and measuring installations and the configuration and rated working pressure of the pipes and equipment;

(7) the anticipated method for controlling corrosion in the wells, collecting pipes and surface installations;

(8) a geological and technical analysis including, in particular,

(a) a lateral section of the pool indicating the top and base of the reservoir and the distribution of the fluids;

(b) a map at a scale sufficient to show the characteristics of the reservoir, in particular, the structure of the top, the size of the pores and permeability capacity;

(c) production and total recovery forecasts;

(d) the source of the injection fluid and a demonstration of its compatibility with the rocks and fluids of the reservoir;

(e) the estimated injection rate of each of the injection wells and their injection pressure at the wellhead;

Part 2

(f) the recovery forecasts and simulation models, if applicable; and

(g) the measured or estimated pressure of the reservoir in the area of the project and the pressure of the reservoir as part of the enhanced recovery;

(9) the activities schedule, in particular, the drilling, completion and installation construction activities related to the project;

(10) if applicable, the list of licences, certificates and other authorizations to be obtained;

(11) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(12) any other information or document deemed necessary by the Minister.

229. A production licence holder who carries out a petroleum enhanced recovery project must, at least 7 days before the expected date for the start of the petroleum enhanced recovery, notify the Minister in writing.

The holder also notifies the Minister 15 days before temporarily or permanently ceasing the activities by indicating the reasons justifying the cessation.

230. The holder may start petroleum enhanced recovery if no deformity has been identified on the casings and production tubes, and if the well is clean.

CHAPTER XIII

AUTHORIZATION TO PRODUCE BRINE

231. The production of brine in a well whose casing head is in a body of water, is prohibited.

CHAPTER XIV

WELL CLOSURE

DIVISION I TEMPORARY OR PERMANENT CLOSURE AUTHORIZATION

§1. Temporary closure authorization

§§1. Conditions for obtaining an authorization

232. A licence holder must temporarily close the well on the expiry of a period of 12 consecutive months without activity in the well. The Minister may, however, grant an additional period if the holder demonstrates that exceptional circumstances warrant it.

233. On request and after analysis of the annual report provided for in section 156, the Minister may, in the case of an observation well, exempt a licence holder from the requirement to temporarily close the well for the current year where the holder demonstrates the integrity of the well and justifies its use for monitoring the pool or the underground reservoir.

234. A licence holder who must obtain a temporary well closure authorization must apply to the Minister, in writing.

235. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the well; and

(3) the work Schedule and an estimate of the realization costs.

236. The application must be accompanied by

(1) the temporary closure technical program provided for in section 237, signed and sealed by an engineer;

(2) payment of the fee of \$2,058; and

(3) any other information or document deemed necessary by the Minister.

237. The temporary closure technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the type and name of the drilling installation, its registration number, the name of its owner and the estimated number of persons on board;

(4) the classification of the risk potential of the well determined according to Schedule 3;

(5) the condition of the well before the work for the temporary closure;

(6) the classification of the well determined according to Schedule 1;

(7) a chronological and detailed description of the work to be carried out;

Part 2

(8) a description of the activity site restoration work to maintain the quality of the natural landscape, minimize impact on wildlife and harmonize the activity site with the use of the territory, and a plan presenting the wok including, in particular,

(*a*) the procedure for dismantling installations and, if applicable, the procedure for dismantling the supply cable;

- (b) the rehabilitation of contaminated land;
- (c) the purge of pipes; and
- (d) the withdrawal of equipment and facilities;
- (9) a description of the immobilization system;

(10) if applicable, the home port and the location of the land base for storing material and products necessary for the work

(11) a bathymetric map of the area in which the well is located;

(12) the name and contact information of the enterprises charged with carrying out the work;

(13) a lateral section indicating, in particular, the anticipated mechanical conditions of the well after the closure and the various geological formations intersected and their respective pressures;

(14) the type of service rig and equipment to be used and their specifications, in particular, the configuration of the wellhead and the surface casing vent flow;

(15) the demonstration that, before carrying out the work for the temporary closure, the well did not present any risks within the meaning of the second paragraph of section 22 for the safety of persons and property, and environmental protection;

(16) the type of plugs used and the anticipated depth intervals;

(17) for each cement plug, the type of cement used, its density, its additives and their proportions, its setting time, the calculated volume and surplus percentage;

(18) the method for verifying the position of the plugs;

(19) if applicable, the list of the planned well logs;

(20) the meteorological and hydrographic conditions anticipated during the work;

(21) if applicable, a description of the ice management activities;

(22) if applicable, the list of licences, certificates and other authorizations to be obtained;

(23) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(24) any other information or document deemed necessary by the Minister.

The classification provided for in subparagraph 4 of the first paragraph must be performed on the basis of the highest risk obtained according to the criteria. For a well with a number of areas, the classification must be performed on the basis of the highest risk obtained, aside from the areas that are permanently closed. If all the deep areas are permanently closed, the shallowest section of the well subject to completion must be used to determine the classification of the well that will be subject to a temporary closure.

§§2. Notice of the start of the work

238. The holder of a temporary closure authorization must, at least 7 days before, notify the Minister of the start of the work.

The work is deemed to have started as soon as the first step provided in the work Schedule is initiated.

239. The authorization holder must also, at least 24 hours before, notify the Minister of the straightening or towing of an installation.

§§3. Conditions of exercise

240. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

241. The authorization holder must, within 6 months after the granting of the authorization by the Minister, complete the temporary closure work.

242. Before starting the temporary closure work, the authorization holder must carry out a pressure and leak test of the casing at a pressure of 7 MPa.

The holder must also, if production tubing is installed, carry out a pressure and leak test of the tubing and annular spaces at a pressure of 7 MPa.

The tightness is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

If the wellhead configuration does not allow pressure and leak tests, a visual observation carried out with a onetime measurement of leakage may be carried out.

243. The authorization holder must, if the measurements may be carried out without risk to the integrity of the well, measure the shut-in pressures in all annular spaces and in the production tubing.

244. The authorization holder who temporarily closes a well must ensure

(1) that the facilities and equipment installed in the well are compatible with what is planned in the permanent well or reservoir closure and site restoration plan;

(2) that the facilities and equipment installed in the well are durable and corrosion-resistant;

(3) the absence of communication of fluids between the geological formations;

(4) the absence of leaks in joints and welds;

(5) that the valve on the surface casing vent flow pipe is open and the blowhole is not blocked;

(6) to install a hemispherical head plug or a blind flange with a needle valve to read the flow at each outlet of the wellhead, except the surface casing vent flow;

(7) if applicable, to disconnect the wellhead flow pipe; and

(8) to chain and lock the valves or remove the handles.

245. While performing the work, the authorization holder must use a wellhead or a blowout prevention system comprising at least 2 different sealing mechanisms as long as there is a risk of fluid kicks.

Despite the first paragraph, the use of a wellhead is not required if no perforation has been carried out and if the well is not an open-hole well. In that case, the holder may weld a steel plate directly on the production tubing. The plate must however permit the taking of pressure measurements in the well.

246. The blowout prevention system and the wellhead must be designed to withstand the maximum pressures provided for in the technical program.

247. The wellhead must be equipped with a device allowing easy location.

It must be protected against impact, unless the holder can demonstrate that there is no activity in the territory that may cause breakage at the wellhead.

248. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

249. The authorization holder must regularly inspect joints and structural elements of any equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps a register of those inspections and maintains it until the end of the work for the permanent closure of the well.

250. The authorization holder who observes the presence of an emanation at the surface casing vent flow using a bubble point test must also measure the emanation flow over a 24-hour period.

251. The authorization holder must, except for a well whose risk potential has been classified as low under Schedule 3, draw out the polished drill-stem from the well if it is connected to a pumpjack.

252. In the case of a well whose risk potential has been classified as moderate under Schedule 3, the authorization holder must

(1) install, at the bottom of the hole, a blow-out preventer valve and a casing plug or a support plug; and

(2) fill the well with non-saline water or with a corrosion inhibiting fluid; an anti-freeze fluid must also protect at least the first 2 m below the surface of the bottom of the water.

253. In the case of a well whose risk potential has been classified high under Schedule 3, the authorization holder must close the well in accordance with the generally recognized best practices.

254. At the end of the temporary closure work, the bottom of the water must have been cleared of any material or equipment that is not necessary and that might interfere with subsequent uses of the environment.

255. If applicable, before the demobilization of the installations, the authorization holder must ensure that the installations are free from plants and animals.

256. The authorization holder keeps and maintains, until the end of the work, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

§§4. Daily report and end of activities report

257. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the number of the temporary closure authorization;

(2) the name of the drilling installation;

(3) the number of persons on board the drilling installation;

(4) a description, in chronological order, of the work carried out and the time required for carrying out each step;

(5) the petroleum or water traces detected;

(6) the type of pump used and its capacity;

(7) in the case of any cement plugs, the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(8) the well logs carried out;

(9) if applicable, the results of pressure and leak tests;

(10) the operating condition of the blowout prevention system;

(11) the composition, concentration and a detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(12) the volume and composition of the gas used, released, incinerated or burned at the flare;

(13) the operational problems encountered and the corrective measures taken or planned;

(14) the indication of any event that disrupted the progress of the work;

(15) the abnormal meteorological conditions that caused a work delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(d) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or platform; and

(16) any other information or document deemed necessary by the Minister.

258. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the number of the temporary closure authorization;

(2) the name and contact information of the licence holder;

(3) the type and name of the drilling installation, its registration number and the name of its owner;

(4) the type of navigation equipment used;

(5) the start and end dates of the work;

(6) a summary of the work carried out according to the chronological order;

(7) a summary of the abnormal meteorological conditions that caused an operation delay and the corrective measures taken;

(8) a comparative analysis of the work carried out compared to the work provided for in the technical program;

(9) an analysis of the efficiency of the temporary closure;

(10) the well logs, in particular those interpreted, scaled in true vertical depth and the corrections made;

(11) a lateral section of the well after the temporary closure indicating, in particular,

(a) the mechanical conditions of the well after the closure; and

(b) the other equipment installed or dropped in the well and not recovered;

(12) the classification of the well determined according to Schedule 1;

(13) the type of plugs used and the depth intervals of each plug;

(14) in the case of the cement plugs, the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(15) the verified position of each of the plugs; and

(16) the completed annual inspection worksheet provided for in Schedule 2.

§§5. Annual inspection

259. After the temporary closure of the well, the drilling authorization holder must

(1) inspect the well annually and complete the annual inspection worksheet provided for in Schedule 2 if the depth of the wellhead under the water makes it accessible; the holder sends the inspection worksheet to the Minister not later than 31 December of each year; (2) ensure that the well does not present risks within the meaning of the second paragraph of section 22; and

(3) ensure the preventive maintenance of the well and the wellhead so as to prevent any incident or accident that would undermine the safety of persons and property, and environmental protection.

§2. Permanent closure authorization

§§1. Conditions for obtaining an authorization

260. A well whose risk potential has been classified as low under Schedule 3 and that has been temporarily closed for 20 years must be closed permanently.

A well whose risk potential has been classified as moderate or high under Schedule 3 and that has been temporarily closed for 10 years must be closed permanently.

The Minister may however grant an additional time period if the drilling authorization holder demonstrates to the Minister that the well is safe and that it is necessary to leave it temporarily closed.

261. A licence holder who wishes to obtain a permanent well closure authorization must apply to the Minister, in writing.

262. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the well;

(3) the meteorological and hydrographic conditions anticipated during the work;

(4) if applicable, a description of the ice management activities;

(5) if the permanent closure is carried out for a well temporarily closed, the annual inspection worksheet provided for in Schedule 2; and

(6) any other information or document deemed necessary by the Minister.

The application must be accompanied by payment of the fee of \$2,677.

263. Before ruling on the application for permanent closure, the Minister may, if the Minister deems it necessary, require that the licence holder carry out a cement test

in a laboratory. The test must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

The holder sends the results of the test to the Minister.

§§2. Time periods and notice of the start of the work

264. The authorization holder must, at least 7 days before, notify the Minister of the start of the work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

The work is deemed to have started as soon as the first step provided in the work Schedule included in the permanent well or reservoir closure and site restoration plan is initiated.

265. The authorization holder must also, at least 24 hours before, notify the Minister of the straightening or towing of an installation.

§§3. Conditions of exercise

266. The authorization holder must comply with the permanent well or reservoir closure and site restoration plan.

267. The authorization holder who closes permanently a well must ensure

(1) the absence of communication of fluids between the geological formations;

- (2) the absence of fluid emanation into the atmosphere;
- (3) the absence of excessive pressure in the entire well;

(4) the long-term integrity of the well, while considering the petroleum development potential of the adjacent sector and the impact of the activities that may be carried out in the future; and

(5) the use of durable and corrosion-resistant facilities and equipment.

268. The authorization holder must, before the permanent closure of the well, conduct a flow test at the surface casing vent flow to determine if fluid is escaping from it.

A bubble test must be conducted using a pipe submerged at 2.5 cm under the water for at least 10 minutes. If, during that period, bubbles are present, the well is considered to have flow at the surface casing vent flow.

In such a case, the holder must

(1) conduct a flow test of that flow until a stabilized flow is obtained; and

(2) close the surface casing vent flow until a stabilized pressure is obtained.

The pressure is considered to be stabilized if, over a 6-hour period, the change in pressure is less than 2 kPa/h.

269. While performing the work for permanent closure, the holder must use a wellhead, a blowout prevention system or 2 protective barriers to withstand the pressures according to the needs of the activity performed.

270. The wellhead and the blowout prevention system must be designed to withstand the maximum pressure planned in the permanent well or reservoir closure and site restoration plan.

271. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

272. The authorization holder must place a mechanical packer in the internal casing at 150 m under the bottom of the water and a cement plug must fill those 150 m.

273. The authorization holder must regularly inspect joints and structural elements of any equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains a register of those inspections until the end of the work.

274. During the operations for the preparation and installation of cement plugs, the authorization holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

275. The cement used must reach a minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.
276. As of the moment at which the cement has developed a gel strength and until the minimum compressive strength has been reached, the authorization holder must not carry out work that could compromise the integrity of the cement and the holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee.

277. The authorization holder must verify the position of the top of each of the cement plugs.

278. The authorization holder must cut the casings at 2 m below the surface of the bottom of the water. The holder determines the depth according to the local conditions such as the type of soil, washout and erosion of the environment.

The authorization holder may use explosives to cut the casings if adequate protective measures are implemented.

279. The authorization holder must weld a ventilated steel cover at the top of the casings.

280. As soon as the permanent closure work ends, the authorization holder must mark the well with a device allowing easy location of the well on which the well number and geographical coordinates are indicated.

281. At the end of the permanent closure work, the bottom of the water must have been cleared of any material or equipment that is not necessary and that might interfere with subsequent uses of the environment.

282. If applicable, before the demobilization of the installations, the holder must ensure that the installations are free from plants and animals.

283. The authorization holder keeps and maintains, until the end of the work, registers concerning

(1) the persons arriving, leaving or present on the vessel or platform;

(2) the location and movement of support craft;

(3) emergency drills and exercises carried out;

(4) operating tests of surface and subsurface safety valves;

(5) the inspections of the installation and related equipment for corrosion and erosion;

(6) daily maintenance activities; and

(7) in the case of a floating installation, all installation movements, data, observations, measurements and calculations related to the stability and station-keeping capability of the installation.

§§4. Daily report and end of activities report

284. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements that are applicable to the declared day including, in particular,

(1) the number of the permanent closure authorization;

(2) the name of the drilling installation;

(3) the number of persons on board the drilling installation;

(4) a description, in chronological order, of the work carried out and the time required for carrying out each step;

(5) the petroleum or water traces detected;

(6) the type of pump used and its capacity;

(7) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(8) the well logs carried out;

(9) the results of the pressure and leak tests;

(10) the operating condition of the blowout prevention system;

(11) the operational problems encountered and the corrective measures taken or planned;

(12) the composition, concentration and a detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(13) the volume and composition of the gas used, released, incinerated or burned at the flare;

(14) the indication of any event that disrupted the progress of the work;

(15) the abnormal meteorological conditions that caused a work delay, in particular, due to

(a) visibility;

(b) temperature variation;

(c) wind speed or direction;

(d) the height, period and direction of the waves and swells;

(e) the size, distance and direction of ice;

(f) icing; and

(g) rolling, pitch and vertical motion of the vessel or platform; and

(16) any other information or document deemed necessary by the Minister.

285. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

286. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the number of the permanent closure authorization;

(2) the name and contact information of the licence holder;

(3) the type and name of the drilling installation, its registration number and the name of its owner;

(4) the classification of the well determined according to Schedule 1;

(5) a summary of the work carried out according to the chronological order;

(6) the classification of the well determined according to Schedule 1;

(7) a summary of the abnormal meteorological conditions that caused an operation delay and the corrective measures taken;

(8) the type of device used and its specifications;

(9) the demonstration of the absence of petroleum emanation at the surface casing vent flow before the underground closure work and, if applicable, the demonstration of the absence of petroleum emanation in the casings before the closure on the surface; (10) the data, recordings and results of the pressure and leak tests and their interpretation;

(11) a demonstration of the quality of the cement bond behind the casing before the work;

(12) the method for cleaning the well used before the installation of the plugs;

(13) in the case of the cement plugs used,

(a) the type of cement used, its density, its additives and their proportions and the volume used;

(b) the method for installing the plugs;

(c) the verified position of each of the plugs; and

(d) if laboratory testing has been done on the cement after the granting of the authorization by the Minister, the properties of the cement determined in the laboratory;

(14) the nature of the fluid used to fill the space between each plug;

(15) the cutting depth of the casings below the surface;

(16) a photograph of the ventilated steel plate welded at the top of the casings before the backfilling;

(17) a lateral section of the well after the permanent closure, according to the measured depth and the true vertical depths signed and sealed by an engineer, indicating, in particular,

(a) groups, geological formations, lithological contacts and faults including, in particular,

i. the usable groundwater;

ii. thermal anomalies;

iii. the coal beds exceeding 300 mm in thickness;

iv. the permeable and porous areas having an effective porosity greater than 1% in a terrigenous bedrock and greater than 3% in a carbonate bedrock;

v. the formations that produce petroleum;

vi. the layers of abnormal pressure; and

vii. the areas of circulation loss;

(b) the location of each of the casings;

(c) the depth interval of the open-hole well;

(d) the type of plugs used and the depth intervals of each plug; and

(e) the other equipment installed or dropped in the well and not recovered;

(18) a comparative analysis of the work carried out compared to the work provided for in the permanent well or reservoir closure and site restoration plan;

(19) a plan of the layout of the site after the restoration work; and

(20) the demonstration that all the equipment and facilities have been removed from the work site.

DIVISION II

PERMANENT WELL OR RESERVOIR CLOSURE AND SITE RESTORATION PLAN

§1. Content of the plan

287. The permanent well or reservoir closure and site restoration plan must be, signed and sealed by an engineer and must contain, in particular,

(1) the name and contact information of the licence holder and the licence number;

(2) the proposed name of the well;

(3) the classification of the well determined according to Schedule 1;

(4) the type of drilling installation;

(5) the name of the drilling installation, its registration number, the name of its owner and the estimated number of persons on board;

(6) the name and contact information of the engineer responsible for the permanent well or reservoir closure and site restoration plan;

(7) the name, profession and functions of the persons who prepared or revised the plan;

(8) a description of the immobilization system;

(9) if applicable, the home port and the location of the land base for storing material and products necessary for the work

(10) a bathymetric map of the area in which the well is located;

(11) the method used to demonstrate that, prior to the permanent closure of the well or reservoir, no emanation at the surface vent has been observed over a period of 24 hours and no gas migration;

(12) a chronological and detailed description of the work to be carried out;

(13) the work schedule;

(14) a broken down estimate of the cost of the work;

(15) a description of the condition of the well including, in particular, the cemented, perforated and openhole depths;

(16) the cement evaluation method to show the uniform coverage of the cement behind the casing before the work;

(17) the type of service rig and equipment to be used and their specifications;

(18) a lateral section of the well indicating, in particular,

(a) the technical elements;

(b) the depth intervals that will be protected or isolated; and

(c) the geological formations including, in particular,

i. the usable groundwater;

ii. the thermal anomalies;

iii. the coal beds exceeding 300 mm in thickness;

iv. the formations that can potentially produce petroleum and those that produce petroleum;

v. the layers of abnormal pressure;

vi. the areas of circulation loss; and

vii. the permeable and porous areas having an effective porosity greater than 1% in a terrigenous bedrock and greater than 3% in a carbonate bedrock;

(19) the method for cleaning the well used before the installation of the plugs;

(20) the type of plugs used and the depth intervals of each plug;

(21) a cementing program complying with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completion Committee indicating, in particular,

(a) for each cement plug, the type of cement used, its density, its additives and their proportions, its setting time, the calculated volume and surplus percentage;

(b) the method for installing the plugs;

(c) if applicable, any required changes to the cement used for the plugs due to specific physical and chemical conditions of the environment, including, in particular, the depth of the well, a horizontal well, an abnormal pressure or temperature, a salt area or a corrosive environment; and

(d) the nature of the fluid used to fill the space between each plug;

(22) the method used to demonstrate that following the installation of the plugs and before the cutting of the casings at the surface, there was no gas emanation;

(23) a plan showing the extent of the activity site;

(24) the list of equipment and facilities to be removed from the work site; and

(25) a chronological and detailed description of the restoration work to maintain the quality of the body of water and minimize impact on wildlife including, in particular,

(*a*) the procedure for dismantling installations and, if applicable, the procedure for dismantling the supply cable;

- (b) the rehabilitation of contaminated land;
- (c) the purge of pipes; and
- (d) the withdrawal of equipment and facilities.

If certain elements required in the first paragraph are unknown when the holder submits the plan to the Minister in accordance with section 101 of the Act, those elements will have to be provided when the plan is revised.

288. During the revision of the plan, the authorization holder must use the number and name of the well as they appear on the drilling authorization.

§2. Guarantee

289. The guarantee provided for in section 103 of the Act must be furnished to the Minister in any of the following forms:

(1) a cheque made to the order of the Minister of Finance;

(2) bonds issued or guaranteed by Québec or another province of Canada, by Canada or by a municipality in Canada, and having a market value at least equal to the amount of the guarantee exigible; registered bonds must be submitted with a power of attorney on behalf of the Minister of Finance and, where applicable, with a resolution authorizing the person who signs the power of attorney;

(3) guaranteed investment certificates or term deposit certificates, in Canadian dollars, issued on behalf of the Minister of Finance by a bank, a savings and credit union or a trust company; deposit certificates must have a term of at least 12 months, be automatically renewable until the declaration of satisfaction of the Minister or the certificate of release under sections 112 and 114 of the Act and not include any restriction in respect of redemption during its term;

(4) an irrevocable and unconditional letter of credit issued on behalf of the Gouvernement du Québec by a bank, a savings and credit union or a trust company;

(5) a security or a guarantee policy issued on behalf of the Gouvernement du Québec by a legal person legally empowered to act in that capacity;

(6) a trust constituted in accordance with the Civil Code and meeting the following requirements:

(a) the purpose of the trust is to ensure the performance of the work provided for in the permanent well or reservoir closure and restoration site plan pursuant to sections 101 to 115 of the Act;

(b) the Minister of Finance and the licence holder referred to in section 101 of the Act are joint beneficiaries of the trust;

(c) the trustee is a bank, a savings and credit union or a trust company;

(d) the trust patrimony is comprised only of sums in cash, or of bonds or certificates of the same type as those listed in subparagraphs 2 and 3.

The financial institutions referred to in subparagraphs 3, 4 and 6 of the first paragraph must be empowered by law to carry on the activities provided for in those subparagraphs.

The guarantees referred to in subparagraphs 1 to 3 of the first paragraph are received on deposit by the Minister of Finance pursuant to the Act respecting deposits with the Bureau général de dépôts pour le Québec (chapter D-5.1). Part 2

290. In the case of a guarantee furnished according to subparagraph 3 or 6 of the first paragraph of section 289, the contract constituting the guarantee must provide the following conditions:

(1) the purpose of the guarantee is to ensure the performance of the work provided for in the permanent well or underground reservoir closure and site restoration plan pursuant to sections 101 to 115 of the Act;

(2) no person may make withdrawals or be reimbursed without having obtained the Minister's declaration of satisfaction or the certificate of release provided for in sections 112 and 114 of the Act or a reduction of the guarantee according to section 108 of the Act; the prohibition also applies to any form of compensation that could be made by the bank, the savings and credit union, the trust company or the trustee;

(3) where the second paragraph of section 111 of the Act applies, the payment of the guarantee is payable at the Minister's request;

(4) the bank, the savings and credit union, the trust company or the trustee provides the Minister with the information it possesses concerning the contract;

(5) in case of dispute, the courts of Québec are the sole competent courts;

- (6) in the case of a trust:
- (a) the trustee must be domiciled in Québec;

(b) the trustee sees to the management of the trust at the expense of the settlor or of the licence holder referred to in section 101 of the Act;

(c) the trust terminates

i. when the Minister issues the declaration of satisfaction or the certificate of release under sections 112 and 114 of the Act or when it is replaced by another guarantee complying with the requirements of this Regulation;

ii. when the Minister acts on the condition provided for in subparagraph 3° of the first paragraph of this section.

The licence holder referred to in section 101 of the Act must submit to the Minister a certified copy of the original contract.

291. In the case of a trust, interest yielded by the trust patrimony belongs to the trust. Interest kept as part of the trust patrimony must not be used as payment of the guarantee.

292. The purpose of the irrevocable and unconditional letter of credit provided for in subparagraph 4 of the first paragraph of section 289, of the security and guarantee policy provided for in subparagraph 5 of the first paragraph of that section is to guarantee payment of the cost of the work where the obligations of sections 101 to 115 of the Act are not met. The contract must have a term of at least 12 months and must include clauses providing the following conditions:

(1) in the case of non-renewal, termination, revocation or cancellation, the guarantor must notify the Minister at least 60 days before the date fixed for the expiry, termination, revocation or cancellation of the guarantee;

(2) in the case of non-renewal, termination, revocation or cancellation, the guarantor remains responsible, where the obligations of sections 101 to 115 of the Act are not met, for the payment of the cost of the work involved for the permanent well or underground reservoir closure and site restoration carried out before the date of expiry, termination, non-renewal or revocation up to the amount covered by the letter of credit, the security or guarantee policy. That responsibility must hold until the issue of the declaration of satisfaction or the certificate of release provided for in sections 112 and 114 of the Act, unless the person in question has deposited an alternative guarantee or the guarantor has deposited the amount covered by the letter of credit, the security or guarantee policy in a trust that complies with this Regulation where the Minister of Finance and the guarantor are joint beneficiaries;

(3) where applicable, the obligation is solidary, with a waiver of the benefits of discussion and division;

(4) the guarantor consents to the Minister's being able at any time after the sending of a notice of 60 days to make changes to the permanent well or underground reservoir closure and site restoration plan and waives pleading against the Minister any ground of defence pertaining to the content of the plan;

(5) where the second paragraph of section 111 of the Act applies, payment of the guarantee is exigible at the Minister's request;

(6) in the case of dispute, the courts of Québec are the sole competent courts.

The licence holder referred to in section 101 of the Act must submit to the Minister a certified copy of the original contract.

293. The guarantee furnished may be replaced at any time by another guarantee that complies with the requirements of this Regulation.

§3. Fees payable

294. The fee payable for the assessment of a permanent well or reservoir closure and site restoration plan is \$1,309.

The fee payable for the assessment of a revision of a permanent well or reservoir closure and site restoration plan is \$654.

295. The fee payable for the assessment conducted for the purpose of issuing a certificate of release under section 112 of the Act is \$587.

The fee payable for the inspections conducted for the purpose of issuing a certificate of release under the first paragraph is \$1,992 per inspection.

CHAPTER XV

FEES, MONETARY ADMINISTRATIVE PENALTIES AND OFFENCE

DIVISION I FEES

296. The fee payable by a person to whom an inspector submitted a notice of non-compliance with the provisions of the Act or this Regulation is \$500.

297. The amounts of the duties and fees payable are adjusted on 1 April of each year according to the same rate resulting from the application of section 83.3 of the Financial Administration Act (chapter A-6.001). Despite the foregoing, the amounts are not adjusted where, in the preceding year, they were fixed or increased otherwise than under that provision.

Adjusted amounts are reduced to the nearest dollar where they contain a fraction of a dollar less than \$0.50. They are increased to the nearest dollar where they contain a fraction of a dollar equal to or greater than \$0.50. The application of the rounding rule may not operate to decrease the amounts to below their pre-adjustment level.

If an adjusted amount cannot be rounded to the nearest dollar, the annual adjustments are deferred and accumulated until the amounts payable include a decimal of 0.5 or more.

The Minister publishes the result of the adjustment in Part 1 of the *Gazette officielle du Québec*.

298. The amounts of the duties, fees and royalties payable bear interest, at the rate fixed under the first paragraph of section 28 of the Tax Administration Act (chapter A-6.002), as of the thirtieth day following the date on which they are owed. Interest is capitalized monthly.

DIVISION II

MONETARY ADMINISTRATIVE PENALTIES

299. A monetary administrative penalty of an amount provided for in section 187 of the Act may be imposed on any person who contravenes any of sections 4, 5, 29, 33, 34, the first paragraph of section 40, sections 41, 42, 52, 53, the first paragraph of section 60, sections 61 to 63, 66, 88, 89, the first paragraph of section 90, section 91, the first and second paragraphs of section 92, sections 93, 105, 106, 113 to 116, 119, 147, 148, the first paragraph of section 149, section 150, the first and second paragraphs of section 151, sections 152, 156 to 158, the first paragraph of section 164, sections 165, 166, 180, 181, the first paragraph of section 189, sections 190, 191, 201, 202, 208, 215 to 217, 222, 226, 229, the first paragraph of section 238, sections 239 and 257, the first and second paragraphs of section 264 or sections 265, 284, 285 or 288.

300. A monetary administrative penalty of an amount provided for in section 188 of the Act may be imposed on any person who contravenes any of the second paragraph of section 13, sections 23, 27, 31, the first paragraph of section 32, sections 35, 43, the first paragraph of section 44, paragraphs 1 and 3 of section 45, sections 46 to 51 and 64, the first paragraph of section 67, sections 68 to 70, paragraphs 1 and 3 of section 71, sections 72 to 83, the first paragraph of section 84, the first and second paragraphs of section 85, section 86, paragraph 2 of section 87, sections 94, 95, the first paragraph of section 96, section 97, the first paragraph of section 98, sections 99, 100, 103, 104, 117, the first paragraph of section 120, sections 121 to 124, paragraphs 1 and 3 of section 125, section 126, the second paragraph of section 127, sections 128 to 132, subparagraphs 1 and 3 of the first paragraph of section 134, sections 135 to 138, 139, 140, the first paragraph of section 141, sections 142, 143, 144, 145, the first paragraph and subparagraph 2 of the second paragraph of section 146, sections 153 to 155, 167, 168, the first paragraph of section 169, section 170, paragraphs 3 and 4 of section 171, sections 172 to 178, 192, 193, 195 to 200, 204, 206, the first paragraph of section 210, paragraph 2 of section 211, sections 212, 213, 214, 218, 219, the first and second paragraphs of section 220, sections 221, 223 to 225, 227, 230 to 232, 240, 241, paragraphs 4 to 8 of section 244 or sections 245 to 256 or 259.

301. A monetary administrative penalty of an amount provided for in section 189 of the Act may be imposed on any person who contravenes any of sections 7, 8, 10 to 12, 17 to 19, 21, the first paragraph of section 22 or sections 24 to 26, 183 or 184.

DIVISION III

OFFENCE

302. Every person who contravenes any provision of this Regulation commits an offence and is liable to the fine provided for in paragraph 2 of section 199 of the Act.

CHAPTER XVI

TRANSITIONAL AND FINAL

DIVISION I

TRANSITIONAL PROVISIONS MADE UNDER SECTION 287 OF THE ACT

303. A permanent well closure authorization issued under the Mining Act (chapter M-13.1) in force on (insert the date of coming into force of this section) is deemed to be a permanent closure authorization issued under the Act.

If on (*insert the date of coming into force of this section*) the work for the permanent closure has not started, the authorization holder must provide to the Minister, in accordance with section 275 of the Act, the permanent well or reservoir closure and site restoration plan and the guarantee before starting the work.

If on (*insert the date of coming into force of this section*) the work for the permanent closure is started but not completed, the authorization holder is not required to provide to the Minister the permanent well or reservoir closure and site restoration plan and the guarantee provided for in section 275 of the Act. The holder must complete the work in accordance with the closure program submitted to the Minister under section 59 of the Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r. 1). The work must be completed not later than 1 year after (*insert the date of coming into force of this section*).

304. For the purposes of section 275 of the Act, the Minister keeps the performance guarantee submitted to the Minister under section 16 of the Regulation respecting petroleum, natural gas and underground reservoirs until the Minister has received the permanent well or reservoir closure and site restoration plan and the guarantee provided for in Chapter IV of the Act.

DIVISION II

FINAL

305. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

SCHEDULE 1

CLASSIFICATION OF WELLS

The classification of wells must include, if applicable,

- 1. the fluids in the well;
- 2. its type;
- 3. its role;
- 4. its status;
- 5. its direction;
- 6. the abundance of fluids.

Fluids in the well	Oil, gas, condensate, bitumen, CO_2 , H_2S , water, brine, water vapour, non-combustible gas or other				
Type of well	Exploration, production or storage, based on the licence held by the drilling authorization holder				
Role of the well	Well use				
Producing	Well used to extract petroleum or brine from a pool				
Injecting recovery	Well used to inject fluids in an underground formation to enhance petroleum				
Cyclical	Well used for the production and injection, alternately, on a regular basis				
Service - supply	Well used to collect the fluids necessary for the production or injection operations				
Service - storage	Well used for the injection and withdrawal of substances determined in the Regulation respecting petroleum exploration, production and storage licences, and the pipeline construction or use authorization, made by Order in Council XXXX-XXXX dated (<i>insert the date of the Order in Council</i>)				
Service – disposal	Well used as permanent location to store discharges in a reservoir				
Service - relief	Well used to intercept another well that is blowing out				
Observation	Well used to monitor the conditions of a geological formation or other wells of a reservoir or to determine the decline characteristics of a reservoir				
No role currently	Well not fulfilling any role				
Other	Well having another unidentified role				
Status of the well	State of the well at a given point in time				
Planned drilling	Well for which a drilling authorization has been granted, but whose drilling work has not yet been deemed to have started				
Activity underway	Well for which authorized work is underway				
Production	Well from which fluids are extracted				
Injection	Well in which fluids are pumped				
Temporary interruption (<i>shut-in</i>)	Well in which work is interrupted for a short period, between 2 activities or 2 operations				
Temporary closure	Well that has been temporarily closed				
Permanent closure	Well that has been permanently closed in accordance with the well or reservoir closure and site restoration plan				
Restoration	Well that has been permanently closed and whose work site has been restored to the satisfaction of the Minister in accordance with section 114 of the Act				
Cancellation	Well whose drilling authorization is revoked or expired				
Other	Well that has another unidentified status				
Direction of the well	Vertical, directional or horizontal				
Abundance of fluids	Primary, secondary, indication or trace				

SCHEDULE 2

ANNUAL INSPECTION WORKSHEET

Energie et Ressour naturelles Direction du bure 5700, 4e avenue Québec (Q Télécopieur Well number Well name Latitude N	rees C C C C C C C C C C C C C C C C C C	Licence holder Licence number NADB3 DD MIN SEC) Longitude W Pos	ANNUAL INSP TEMPORAR OBSER U	ECTION WORKSHE RILY CLOSED WELL VATION WELL UDENTIFICATION Expiry of the licence Date of inspection Time end of inspection Time end of inspection ERVENING PARTIES Compre	ET	Lot number Cadastre number Date of temporary clc YYYY/MM/ Tel. or em:	Date received by the Department sure, if applicable
A sign at the entrance	of the site indicates the ele	ements covered.	SITE SAFETY – The p	perimeter of the well is prote	ected.		
The geographical coor	dinates are accurate and a	llow easy	STATE OF THE PRE	EMISES – Safety and environn	nent		
location of the well.	unates are accurate and a	ilow easy		The site is free of residual m	aterials.		
The access leading to t	the well is tidy and safe.*			The site is free of dangerous	goods.		
The layout of the equi	pment around the well is li	mited.		A test of gas migration in the soil has been carried out.			
A wellhead is present.			WELLHEAD - IT	A surface casing vent flow is	y. present.		
All valves are chained and locked or the handles have been removed			The surface casing vent flow valve is open.				
The wellhead is free of corrosion or erosion.			The surface casing vent flow is blocked.				
The wellhead is de	signed to withstand the me	easured pressure.		Insert the flow measured at the surface casing vent flow (with the unit).			
The flow pipe is disconnected from the wellhead.			Insert the concentration of gas at the vent of the casing (with the unit)				
Each outlet is equipped with a plug or a blind flange with a needle valve to read the flow, except on the surface casing vent flow.			The emanation is only composed of gas.				
A leak is observed	in the guide tube.			Indicate the composition of the fluid at the vent.			
			If applicable, optor the r	There is a leak on the vent joints and welds.			
Pressure of the produc	ction casing:	KING OF THE FRE3SURE	Pressure of the interme	e pressures in kPa in all the annular spaces and in the production tubing. nediate casing: Pressure of the surface casing:			
Pressure of the produc	ction tubing:		Are the pressures consta	istant with respect to the last measurements?			
			REGU	LAR PREVENTIVE MAINTENAM	ICE		
Insert the date of the l	last regular preventive mai	ntenance.	YYYY/MM	The joints are leakproof.			
Insert the date planne	n carried out during the in: d for the next maintenance	spection.	YYYY/MM	I he valves are in good condition.			
inservene date planne		SPECIFIC VERIFICATIO	INS AT THE WELL (critical	elements, validation of compliance for engineering, etc.)			
			ADDIT	IONAL INFORMATION			
		INSTRUMENTATION -	Specify the instruments	used for the inspection (flow	meter gas detector et	-)	
			and the matuments	accenter the inspection (now	, so detector, et		
Type of	APPENDI f document	CES – If applicable, attach Name of	at least one photograph document	n of the protected perimeter (Description of con	rall photograph of the wellhead. tent	Number of pages
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					,		
				<u> </u>			
DECLARATION - Confirmation of the validity of the information contained in the second							
Name Signature Tel. and email Date							
Inspector:							
				1			
Inspector:							
Approver:		1					

Part 2

SCHEDULE 3

CLASSIFICATION OF A WELL'S RISK POTENTIAL

During the classification of a well's risk potential, if a well meets the criteria of the various levels of risks, the highest risk must take precedence.

Classification of the wells	Type of well	Geology	Status before the temporary closure		
Low risk	Gas well < 28,000 m ³ /day	Non-problematic geological formations	Non-problematic well Well whose pressures are controlled		
	Oil well without flow and without H_2S				
	Tube well with a content in $H_2S < 5\%$, non-perforated				
Moderate risk	Gas well \geq 28,000 m ³ /day	Problems documented and not controlled (example:			
	Oil well without flow and with a content in $H_2S \ge 5\%$	example: karsts)	communication between adjacent wells)		
	Oil well with flow				
	Injection well				
High risk	Well containing gas with a content in $H_2S \ge 5\%$	Not applicable	Not applicable		
	Sour gas wel				

103532

Draft Regulation

Petroleum Resources Act (chapter H-4.2)

Petroleum exploration, production and storage licences, and pipeline construction or use authorization

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation respecting petroleum exploration, production and storage licences, and the pipeline construction or use authorization, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Regulation sets the terms and conditions for auctioning and the conditions for awarding an exploration, production and storage licence, and determines the conditions of exercise. It also sets out the conditions for the granting and exercise of a pipeline construction or use authorization. It determines the documents and information to be sent to the Régie de l'énergie for examination as part of a petroleum production or storage project or a pipeline construction or use project. In addition, the draft Regulation sets the amount up to which a licence or a pipeline construction or use authorization holder is required, irrespective of fault, make reparation for any injury arising out of or in the course of the holder's activities, according to the environment in which the project is situated. The draft Regulation contains the terms and conditions of the Mining Act (chapter M-13.1) and the Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r. 1) concerning the petroleum and gas royalties that will apply until the adoption of a new petroleum taxation regime. Lastly, the draft Regulation takes into account the concerns, comments and observations received following the first publication period.

Study of the matter shows that this draft Regulation will have an impact on enterprises currently holding rights to explore for and produce petroleum and gas or operate an underground reservoir that will become licence holders and who will have to provide proof that they are solvent up to the amount for which they are liable for the purposes of the system, irrespective of fault. If the enterprises are responsible for an existing pipeline, they will have to prove their solvency for the amount up to which they are liable for the purposes of the no-fault regime relating to that pipeline. They will also have to pay a higher annual fee in addition to contending with greater accountability, in particular in respect of the information sent to the Minister of Energy and Natural Resources.

In addition, to foster social acceptability of the projects, licence holders will have to establish monitoring committees and send notices to municipalities, regional county municipalities and the public on the basis of the terms and conditions set in this draft Regulation. The additional requirements may impose, in certain cases, a significant burden. The impact on the public is limited to the notices that it will receive from licence holders, in particular where licences or pipeline construction or use authorizations are awarded.

Further information on the draft Regulation may be obtained by contacting Marie-Eve Bergeron, Director, Bureau des hydrocarbures, Ministère de l'Énergie et des Ressources naturelles, 5700, 4^e Avenue Ouest, bureau A-422, Québec (Québec) G1H 6R1; telephone: 418 627-6385, extension 8131; toll free: 1 800 363-7233, extension 8131; fax: 418 644-1445; email: marie-eve. bergeron@mern.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Luce Asselin, Associate Deputy Minister for Energy, Ministère de l'Energie et des Ressources naturelles, 5700, 4° Avenue Ouest, bureau A-407, Québec (Québec) G1H 6R1.

PIERRE MOREAU, Minister of Energy and Natural Resources and Minister responsible for the Plan Nord

Regulation respecting petroleum exploration, production and storage licences, and the pipeline construction or use authorization

Petroleum Resources Act

(chapter H-4.2, ss. 11, 2nd par., 17, 20, 2nd par., 25, 4th par., 27, 2nd par., 28, 4th and 5th pars., 29, 31, 1st and 3rd pars., 36 to 38, 39, 1st par., 40, 1st par., 44, 48, 1st par., 51, 2nd and 5th pars., 54, 2nd par., 57, 61, 1st par., 62, 2nd par., 63, 64, 1st par., 65, 2nd par., 66, 67, 117, 118, 2nd par., 119, 1st par., 121, 1st par., 122, 4th par., 123, 124, 126, 2nd par., 128, 1st and 3rd pars., 150, 2nd par., 152, 191, 207, pars. 1 and 4 to 6, and 287)

CHAPTER I GENERAL

1. This Regulation establishes the conditions of exercise of the exploration for petroleum or underground reservoirs, the production or storage of petroleum and the construction or use of a pipeline, while ensuring the safety or persons and property, environmental protection, and optimal recovery of the resource.

2. In this Regulation,

"drill stem test" means an operation for collecting samples of fluids contained in rock to determine flow characteristics and measure reservoir pressures using drill stems as flow pipe in the wellbore and dedicated equipment; (essai aux tiges)

"isobath" means the contour line connecting points of equal depth on a geological surface defined in relation to a reference horizontal surface; (*isobathe*)

"qualified reserves evaluator" means a natural person who is a member of a professional order recognized by law in a territory of Canada, having the required professional qualifications and experience appropriate for the estimation, evaluation and review of geological, hydraulic, petrophysical and economic data relating to reserves, of the information on the resources and related information; (évaluateur *de réserves qualifié*)

"wellhead value" means the average retail sale price of the substance extracted, excluding any tax and deduction of the transportation average costs from the well to the places of delivery, measuring costs and, if applicable, purification costs. (*valeur au puits*)

3. All documents that must be sent to the Minister under this Regulation, except bids following an auction, must also be sent in an electronic version, in PDF.

The electronic version of the following documents must also be sent:

(1) well log raw data, in ASCII files or an equivalent version;

(2) data produced by a geographical information system software, in a shapefile.

4. The measurement units in the documents required under this Regulation must be expressed according to the International System of Units (SI).

CHAPTER II

SPECIFIC PROVISIONS APPLICABLE TO PETROLEUM EXPLORATION, PRODUCTION AND STORAGE LICENCES

DIVISION I

NOTICE TO OWNERS OR LESSEES, LOCAL MUNICIPALITIES AND REGIONAL COUNTY MUNICIPALITIES

5. The licence awarding notice provided for in sections 29 and 57 of the Petroleum Resources Act (chapter H-4.2) must contain

(1) the holder's name and contact information;

(2) the licence number, date of awarding and expiry date;

(3) the date and registration number of the licence in the public register of real and immovable petroleum rights;

(4) the steps taken to establish the monitoring committee provided for in section 28 of the Act;

(5) the local municipalities and the regional county municipalities in which the territory subject to the licence is located; and

(6) the name and contact information of the person to be contacted to obtain additional information.

The holder sends the notice by mail to the owner or the lessee of the land subject to the licence. The holder also sends the notice by registered mail to the local municipalities and regional county municipalities.

6. The notice must be accompanied by a plan to scale sufficient to show the boundaries of the territory subject to the licence, those of the local municipalities and those of the regional county municipalities.

DIVISION II MONITORING COMMITTEE

7. A member of the monitoring committee is deemed not to be independent

(1) if the member has direct or indirect relations or interests of a financial or commercial nature with the licence holder;

(2) if the member is or was, during the 2 years preceding the date of appointment, employed by the holder or by one of the holder's wholly-owned subsidiaries, or if the member is related to a person holding such employment;

(3) if the member is employed by the Ministère de l'Énergie et des Ressources naturelles or by the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques; and

(4) if the member is an employee or a commissioner of the Régie de l'énergie.

For the purposes of this section, "related person" means persons connected by blood relationship, marriage, civil union, *de facto* union or adoption.

8. The term of a committee member is 2 years and may be renewed.

9. The holder must provide to the committee a copy of

(1) the holder's licence and, where applicable, acts relating to its renewal, transfer, surrender, suspension, revocation or expiry;

(2) in the case of an exploration licence, the summary of the work planned during the term of the licence provided to the Minister in accordance with paragraph 4 of section 33;

(3) in the case of a production or storage licence, the petroleum production or storage plan;

(4) the acts and the documents referred to in subparagraphs 2 to 4 of the first paragraph of section 150 of the Act and any other act or document registered in the public register of real and immovable petroleum rights;

(5) a summary of the safety and community involvement programs provided for in the Regulation respecting petroleum exploration, production and storage on land, made by Order in Council (*insert the number and the date* of the Order in Council), or the Regulation respecting petroleum exploration, production and storage in a body of water, made by Order in Council (*insert the number* and the date of the Order in Council), as the case may be; (6) the notices sent under sections 29 and 57 of the Act;

(7) the notices sent under sections 63, 67, 89, 93 and, if applicable, those sent under sections 119 and 123; and

(8) the authorizations, permits and certificates obtained by the holder and issued by an authority other than the Minister.

10. The holder provides the technical support needed by the committee, including the recourse to external expertise where required.

The holder puts at the disposal of the committee a website reserved for the committee's activities and presenting the holder's project to the local community.

11. The committee must meet at least once a year.

Not later than 15 days after each meeting, the committee sends a report of the meeting to the holder. The holder publishes the report on the website within 15 working days following its receipt.

12. Every request for information or documents by the committee to the holder must be made in writing and must concern data needed by the committee to fulfill its mandate.

Within 15 days following the receipt of the request, the holder must provide the information and documents or give reasons for refusal to do so.

13. All expenses related to the operation of the committee are assumed by the holder.

At the request of the committee and on presentation of vouchers, the holder reimburses the travel and accommodation expenses of the committee members.

14. The committee must in particular revise the holder's plan for communication with local communities.

15. The holder must publish an annual report of the committee's activities and expenses corresponding to the holder's fiscal year on the website and send it to the Minister before 30 June of each year.

The committee must draw up the portion of the report concerning its activities and send it to the holder at least 15 working days before the deadline for publishing the report.

The holder must produce the other portion of the report concerning the committee's expenses.

16. The holder of a licence who is awarded another licence is not required to establish a new monitoring committee if the territories subject to the licences are adjacent. The holder must, within 30 days following the awarding of the new licence, submit its work program to the existing monitoring committee.

The first paragraph applies up to a maximum of 5 licences.

CHAPTER III EXPLORATION LICENCE

DIVISION I AUCTION

§1. Process

§§1. List of qualified persons

17. To submit a bid as part of an auction, a person must be registered on the list of qualified persons.

The list is published on the department's website.

18. To establish the list of qualified persons, the Minister publishes a notice of opening of the list on the department's website. The notice may also be published in specialized magazines and newspapers.

The notice contains the eligibility requirements, the place where additional information may be obtained, the place chosen for receiving applications for registration and the date and time before which they must be received.

19. A person is registered on the list where the person

(1) provides the Minister with his or her name and contact information;

(2) meets the eligibility requirements provided for in the notice;

(3) provides an undertaking to prove, if the person is a successful bidder, that he or she is solvent to the amount provided for in section 160; and

(4) pays the fee of \$75.

20. A person is ineligible for the list if, in the 5 years preceding the date of his or her application for registration, a licence which the person held or for which the person held a share has been revoked.

A person registered on the list is removed from it if a licence he or she holds or for which the person holds a share is revoked.

21. The list is valid for 5 years.

22. A person not registered on the list may, during an auction process, submit an application for registration to be able to submit a bid. Sections 19 and 20 apply, with the necessary modifications.

The registration is effective for the remaining period of validity of the list.

§§2. Auction documents and submission of a bid

23. The Minister sends a notice of auction of an exploration licence to the persons registered on the list of qualified persons and publishes it on the department's website. The notice may also be published in specialized magazines and newspapers.

The notice is part of the auction documents and contains, in particular,

(1) a brief description of the licence and the territory subject to it;

(2) the designated place and date and time of the beginning of the period for receiving bids;

(3) the bid closing date and time; the period must not be less than 150 days from the beginning of the period for receiving bids;

(4) the place where the auction documents may be obtained and the time at which they will be available;

(5) the place where additional information may be obtained;

(6) the indication that the auction will be won by the person who submitted the highest eligible bid; and

(7) the conditions and rules applicable to an application for registration on the list of qualified persons during the auction process.

24. At the beginning of the period for receiving bids, the auction documents are published on the department's website. They include, in particular,

(1) a copy of the licence to be awarded;

(2) the description of the territory subject to the licence and its geology;

(3) the eligibility and compliance requirements of the bids;

(4) the procedure for opening the bids;

(5) the eligible form of the auction guarantee;

(6) the amount and the eligible form of the proof of solvency provided for in section 165 that will have to be given to the Minister before awarding the licence;

(7) the list of documents exigible from the successful bidder before the awarding of the licence; and

(8) the indication of the required fee.

25. The bidder must provide, with the bid, an auction guarantee of \$10,000 and pay a fee of \$154.

26. The eligibility and compliance requirements must specify the cases that will entail automatic rejection of a bid including, in particular,

(1) non-compliance of the bid closing date and time, failure to pay the required fee and non-compliance of the place designated for receiving bids; and

(2) the furniture of a guarantee not complying with the required form and requirements.

The compliance requirements must also indicate that the submission, by a person, of several bids for a same auction entails the automatic rejection of all the person's bids. For the purposes of this paragraph, the sending of a same bid by electronic means and on paper is deemed to be the submission of several bids.

27. The Minister may amend the auction documents by means of a supplementary agreement sent to the persons concerned by the auction and published on the department's website.

The supplementary agreement must be sent and published at least 30 days before the bid closing date; if that period is not complied with, the bid closing date must be postponed by as many days as necessary for meeting the minimum period.

§2. Selection and awarding

§§1. Selection of successful bidder

28. The Minister takes cognizance of the eligible bids in the presence of a witness on the bid closing date and time.

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The Minister then examines them by verifying their compliance.

29. If the Minister rejects a bid because it is ineligible or non-compliant, the Minister informs the bidder by mentioning the reason for the rejection not later than 15 days after the publication of the name of the successful bidder.

30. The auction is won by the bidder that submitted the highest eligible bid.

In case of a tie, the successful bidder is selected by random draw.

31. The Minister informs the successful bidder that the bidder has been selected and publishes the bidder's name and the amount of the bid on the department's website.

32. A licence may not be awarded to a bidder who made a false or misleading statement.

§§2. Awarding of licence

33. Not later than 45 days after having been informed of the selection, the successful bidder must provide to the Minister

(1) the amount tendered for the licence;

(2) the proof of solvency provided for in section 165;

(3) the process for appointing members of the monitoring committee or, if the bidder is not required to establish a new committee under section 16, identify the monitoring committee that will be consulted for that licence;

(4) a summary of the anticipated exploration work for the term of the licence specifying the objectives, nature and scope; and

(5) the payment of the annual fee payable under section 42 for the first year of the licence.

34. The Minister awards a licence when the successful bidder provides the Minister with the elements referred to in section 33 and approves the process for appointing the members of the monitoring committee.

If the successful bidder fails to provide those elements, the Minister may select a new bidder. Section 30 applies to that new selection.

35. The fee for awarding an exploration licence is \$10,000.

The auction guarantee provided by the successful bidder is kept by the Minister and is used to pay the licence awarding fee.

36. Within 30 days after the awarding of a licence, the Minister returns the guarantee to the bidders who have not won the auction.

37. The Minister may keep the auction guarantee where the successful bidder refuses to conclude the licence agreement.

DIVISION II MINIMUM WORK

38. The amount for the minimum work that an exploration licence holder must perform each year is,

(1) for the first year of the term of the licence, 100 per km² or 6,000, whichever is greater;

(2) for the second year of the term of the licence, 200 per km² or 12,000, whichever is greater;

(3) for the third year of the term of the licence, 300 per km² or 18,000, whichever is greater;

(4) for the fourth year of the term of the licence, 400 per km² or 24,000, whichever is greater;

(5) for the fifth year of the term of the licence, \$500 per km² or \$30,000, whichever is greater; and

(6) from the first renewal of the licence made pursuant to section 49, 500 per km^2 or 40,000, whichever is greater.

39. The work connected with the following activities are eligible for the calculation of the amount of minimum work:

(1) geophysical or geochemical surveying;

(2) stratigraphic survey;

(3) well drilling or reentry;

- (4) completion of a well;
- (5) fracturing of a well;
- (6) reconditioning of a well;

(7) petroleum extraction tests or using an underground reservoir;

(8) temporary closure of a well;

(9) permanent closure of a well or a reservoir;

(10) restoration of a site; and

(11) economic evaluation of a pool or a reservoir.

40. The work report referred to in the second paragraph of section 31 of the Act must contain

(1) a detailed description of the work performed during the year and the amounts broken down attributable to the work allowing to distinguish what is eligible and what is not;

(2) the result of the work and its impact on the continuation of the activities;

(3) where applicable, the amount of eligible work exceeding the amount of the required minimum work of the previous years that is carried over to the current year; the holder must identify the year in which the excess was made;

(4) where applicable, the amount of eligible work exceeding the amount of required minimum work performed in the territory of another licence that the holder wishes to apply to the licence for the current year; the holder must identify the licence from which comes the excess;

(5) where applicable, the amount of eligible work exceeding the amount of required minimum work that the holder wishes to apply to one or more other licences for the current year; the holder must identify the licences to which it wishes to apply the excess and detail the allocation between the licences;

(6) where applicable, the amount of eligible work exceeding the amount of minimum work required for the current year that could be carried over to a subsequent year; and

(7) where applicable, the amount of required minimum work that the holder should have performed in the current year and the amount paid in accordance with section 32 of the Act.

The breakdown of the amounts for the work must allow to assign a direct cost to each of the activities provided for in section 39, where applicable.

41. The report provided for in section 40 must be certified by an independent chartered professional accountant auditor.

The holder must provide the Minister, at the Minister's request, with the supporting documents for the eligible work performed during the year.

DIVISION III

ANNUAL FEE

42. The annual fee payable by the exploration licence holder is,

(1) for the first period of the term of the licence, \$51.50 per km²;

(2) from the first renewal of the licence under section 49, \$103 per km²; and

(3) from the renewal of the licence under section 50, $$257.50 \text{ per km}^2$.

DIVISION IV ANNUAL REPORT

43. The annual report provided for in section 37 of the Act must contain

(1) a summary of the work performed, signed and sealed by a geologist or an engineer;

(2) a summary of the exploration expenses incurred in the territory subject to the licence during the year;

(3) a statement in terms of exploration and evaluation assets held by the holder since the issuance of the licence in the territory subject to the licence, certified by an independent chartered professional accountant auditor;

(4) a summary of the new knowledge acquired during the year in the territory subject to the licence;

(5) where a notice of a significant or commercial discovery has been registered in the public register of real and immovable petroleum rights, the updating of the estimation of the petroleum reserves and contingent resources present in the territory subject to the licence, established in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) by an independent qualified reserves evaluator, if it has been carried out; and

(6) the status of the wells and the amount of guarantees furnished in accordance with section 103 of the Act.

Any supporting or reference document must be sent with the annual report.

44. The annual report must be accompanied by a map showing the perimeter of the area of the geophysical surveying and the geochemical surveying, the survey lines, traverses and sources of energy for the geophysical surveying, the perimeter of the area of the surveying and the sampling points for the geochemical surveying, stratigraphic surveys and drillings carried out in the territory subject to the licence, and the equipment and installations in place.

DIVISION V

DISCOVERY NOTICE

45. The notice of significant discovery provided for in section 38 of the Act must contain

(1) the name and contact information of the holder and the licence number;

(2) the well name and number;

(3) the depth interval and a description of the bearing geological formations and discovery areas;

(4) the location of the discovery;

(5) a longitudinal section of the discovery drilling indicating its position;

(6) a description of the petroleum and its relation with the bearing geological formations;

(7) the data and analyses justifying the area of petroleum accumulation;

(8) the depth of the tests conducted;

(9) an estimation of the discovered petroleum resources established in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) by an independent qualified reserves evaluator and the data and the analyses that allowed the establishment of that estimation; and

(10) the results of the extraction tests.

46. The notice of commercial discovery provided for in section 39 of the Act must contain

(1) the name and contact information of the holder and the licence number;

(2) the name and the number of the wells that allowed the discovery and the delineation of the commercial discovery area; (3) the depth interval and a description of bearing geological formations and discovery areas;

(4) the vertical projection, on the surface, of the top of the pool and isobaths of the top of the pool using sea level as a reference;

(5) a longitudinal section of the wells referred to in paragraph 2 indicating their positions;

(6) a description of the petroleum and its relation with the bearing geological formations;

(7) the data and analyses justifying the area of accumulation of the petroleum;

(8) the depth of the tests conducted; and

(9) the results of the extraction tests.

47. The notice of commercial discovery must also contain an estimate of the contingent resources and, where applicable, the petroleum reserves established in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) by an independent qualified reserves evaluator and the data and analyses that allowed the establishment of the estimate. The notice of commercial discovery must explain the nature of the contingencies that do not allow to qualify contingent reserve resources and steps that must be carried out to lift the contingencies. Should there be a calculation of the reserves, the notice of commercial discovery will have to give the risked net present value of future net revenue in accordance with Parts 1 to 3 of Form 51-101F1 of Regulation 51-101 respecting Standards of Disclosure for Oil and Gas Activities (chapter V-1.1, r. 23), with the necessary modifications, determined by an independent qualified reserves evaluator.

48. Where an exploration licence holder sends to the Minister a notice of a significant or commercial discovery, the holder sends by registered mail a copy of the notice to the local municipalities and regional county municipalities situated in the territory subject to the licence and a summary of the notice containing the information referred to in paragraphs 1, 2, 4 and 9 of section 45 or paragraphs 1, 2 and 9 of section 46.

DIVISION VI RENEWAL

49. The Minister renews an exploration licence for 1 year, not more than 5 times, provided that the holder

(1) applies for the renewal before the end of the previous term; (2) pays the annual fee payable under section 42;

(3) has complied with the Act and its regulations during the previous term;

(4) sends a summary of the work planned for the following term specifying its objective, nature and scope, signed and sealed by an engineer; and

(5) has a notice of significant discovery registered in the public register of real and immovable petroleum rights before the end of the previous term or justifies the relevance of continuing the exploration work.

50. After the fifth renewal, the Minister renews the exploration licence for a period of 8 years, provided that the holder

(1) applies for the renewal before the end of the previous term;

(2) pays the annual fee payable under section 42 for the first year of renewal;

(3) has a notice of commercial discovery registered in the public register of real and immovable petroleum rights before the end of the previous term;

(4) has complied with the Act and its regulations during the previous term; and

(5) sends a summary of the work planned for the following term specifying its objective, nature and scope, signed and sealed by an engineer.

On the expiry of the 8-year period, the Minister may authorize the extension of the licence for the period necessary for receiving the decision and authorizations provided for in the first paragraph of section 48 of the Act and the issuance of the production or storage licence.

CHAPTER IV PRODUCTION LICENCE

DIVISION I AWARDING OF A PRODUCTION LICENCE

§1. Awarding to an exploration licence holder

51. The Minister awards a production licence where the holder of an exploration licence sends to the Minister

(1) the proof of solvency provided for in section 165;

(2) a copy of the authorizations obtained in accordance with section 48 of the Act;

(3) the payment of the annual fee payable under section 68 for the first year of the licence; and

(4) the payment of the licence awarding fee of \$10,000.

52. The holder of an exploration licence sends the elements referred to in section 51 not later than 45 days after receiving the last authorization or favourable decision provided for in section 48 of the Act.

§2. Awarding by auction

53. Where a production licence is awarded by auction, sections 17 to 32 apply, with the necessary modifications.

54. In addition to informing the successful bidder in accordance with section 31, the Minister also informs the bidder having submitted the second highest bid.

The Minister returns the auction guarantee to the other bidders.

55. The successful bidder and the bidder having submitted the second highest bid must submit their production project to the Régie de l'énergie not later than 45 days after having been notified by the Minister in accordance with sections 31 and 54.

The Board takes cognizance of the project of the bidder having submitted the second highest bid only if the successful bidder does not receive a favourable decision for its project.

56. The bidder having submitted the second highest bid may, at all times, withdraw from the process by notifying the Minister and the Régie de l'énergie, in writing. The Minister then returns that bidder's auction guarantee.

57. Not later than 45 days after having received the last authorization or favourable decision provided for in section 48 of the Act, the successful bidder or, as the case may be, the bidder having submitted the second highest bid must

(1) pay the amount tendered for the licence;

(2) provide the proof of solvency provided for in section 165;

(3) provide a copy of the authorizations obtained in accordance with section 48 of the Act;

(4) provide the process for appointing the members of the monitoring committee or, if the bidder is not required to establish a new monitoring committee under the first paragraph of section 16, identify the monitoring committee that will be consulted for that licence; and (5) pay the annual fee payable under section 68 for the first year of the licence.

58. The Minister awards a production licence where the Minister receives the elements referred to in section 57 and approves the process for appointing the members of the monitoring committee, where applicable.

59. The production licence awarding fee is \$10,000.

The auction guarantee furnished by the person to whom the licence is awarded is kept by the Minister and is used to pay the licence awarding fee.

60. Within 30 days after the awarding of the licence, the Minister returns the auction guarantee to the bidder who has not obtained the licence.

61. The Minister may keep the auction guarantee where the successful bidder or, where applicable, the bidder having submitted the second highest bid refuses to conclude a licence agreement.

DIVISION II

EXAMINATION OF THE PROJECT BY THE RÉGIE DE L'ÉNERGIE

§1. Application

62. A person who wishes to obtain a production licence must send to the Régie de l'énergie the following documents and information so that the Board may rule on the production project:

(1) a general presentation of the production project including, in particular,

(a) the history of the activities already performed;

(b) the date of registration of the notice of commercial discovery in the public register of real and immovable petroleum rights;

(c) the partners, their respective interests and their technical and financial capabilities to carry out the project;

(d) a map showing the vertical projection, on the surface, of the pool and the equipment and installations required to carry out the production project;

(e) a topographic map at a scale sufficient to show

i. the perimeter of the territory that will be subject to the licence;

ii. the municipalities in the territory that will be subject to the licence;

iii. the roads included in the territory that will be subject to the licence;

iv. the public and private lands; and

v. the land and bodies of water;

(f) the schedule of the anticipated work;

(g) a general description of the progress of the installations over time;

(*h*) the list of the technical documents and data used in the preparation of the production project;

(*i*) if the project is submitted after an auction process, the summary of how any financial liabilities attributable to the anticipated activities will be resolved by specifying the means that will be taken to obtain the necessary funds and the time at which the funds will be raised;

(*j*) the list of permits, licences and authorizations required to carry out the project; and

(*k*) if applicable, a description of the amendments made to the project following conditions imposed by other departments or bodies;

(2) a report containing, in particular,

(a) an overview of the regional geology;

(b) the structural geology and the geology of the reservoir;

(c) a petrological analysis of the reservoir and the country rocks;

(d) a geophysical analysis on the geophysical data available, in particular, seismic surveys and well logs, and whose objective is to characterize the geometry of the pool and the country rocks and their physical properties;

(e) a geological modeling of the pool;

(f) a reservoir petrophysical analysis allowing in particular to establish a volumetric model that takes into account the porosity, permeability and water saturation as well as the methodology selected and the raw data used for the analysis;

(g) the results of the drill stem tests;

(h) the properties of the fluids in the reservoir;

(*i*) the pressures, volumes and temperatures in the reservoir; and

(*j*) a demonstration that the spacing of the wells allows an adequate delineation of the pool;

(3) an evaluation of the contingent resources and, where applicable, the petroleum reserves established in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) by an independent qualified reserves evaluator;

(4) a petroleum production plan including

(*a*) the detailed chronology of the activities planned during the development of the pool;

(b) the situation of the wells in order to encompass the production of the pool in its entirety;

(c) the list of factors that may affect the production project, in particular, the physical constraints and geotechnical aspects;

(d) a description of the production and transportation installations;

(e) the presentation of the technical management approach concerning contractors, suppliers and subcontracting;

(f) the pool dry-off method including, if applicable, an assisted recovery plan;

(g) the pool management and petroleum marketing strategy;

(h) a production simulation model; and

(i) the strategy for the closure of wells, dismantling of equipment and installations and restoration of the work sites;

(5) an emergency preparedness plan compliant with CSA-Z731 Standard, Emergency Preparedness and Response, published by the Canadian Standards Association;

(6) an operation and maintenance plan establishing the pool management objectives and the usual operational considerations, in particular, the tests, analyses, performance control and monitoring of the pool;

(7) an economic evaluation of the project including, in particular,

(a) the expenses incurred prior to the preparation of the production project for installations that will be used in the production phase; (b) the preparation costs of the production project;

(c) an estimate of the costs in principal of the development project, in particular, the costs for drilling, completing and fracturing wells, the cost of the installations for extraction, purification, fracturing, liquefaction, compression, measurement and transportation to the place of delivery, the closure, dismantling and site restoration costs, and indirect costs;

(d) an estimate of the operating and maintenance costs, in particular, administrative and technical support and the costs for operation, extraction, purification, fracturing, liquefaction, compression, measurement and transportation to the place of delivery and indirect costs;

(e) a presentation of production scenarios and revenue projections;

(f) an evaluation of the recovery in the pool;

(g) the contingency factors affecting the potential recovery of discovered, non-recoverable petroleum;

(*h*) a scenario for the royalties to be paid;

(i) an economic sensitivity analysis; and

(*j*) in the case of petroleum reserves, the risked net present value of future net revenue, in accordance with Parts 1 to 3 of Form 51-101F1 of Regulation 51-101 respecting Standards of Disclosure for Oil and Gas Activities (chapter V-1.1, r. 23), with the necessary modifications, determined by an independent qualified reserves evaluator;

(8) a local and regional benefit plan presenting, in particular, the projections of the expenses made in the environment, the tax implications and the related employment as well as the negative financial impact;

(9) a summary of the public consultations carried out prior to the submission of the project; and

(10) a description of the mitigation measures anticipated to harmonize the use of the territory and minimize disruptions for the local communities and on the environment.

The document required under subparagraph 2 of the first paragraph must be signed and sealed by a geologist or an engineer and the documents required under subparagraphs 4 to 6 must be signed and sealed by an engineer.

Part 2

63. As soon as the application has been submitted to the Régie de l'énergie, the person who wishes to obtain a production licence sends a notice to the Minister containing

(1) the person's name and contact information and, if the person holds an exploration licence, the licence number; and

(2) the date of filing the application with the Board and the file number.

64. During the examination of the project, the Régie de l'énergie must take into account, in particular,

(1) job creation;

(2) the estimate of the revenues for the State;

(3) the positive and negative economic impact of the project; and

(4) the project completion probability.

65. Where the Régie de l'énergie renders its decision, it must in particular rule on the overall economic relevance of the project.

§2. Amendments to the production project

66. A licence holder who wishes to amend its production project must first submit the amendment to the Régie de l'énergie .

It must contain, in particular,

(1) the presentation of the amendments to the project;

(2) an update of the documents already submitted;

(3) the difference in the costs of the project and the proportion of those costs in relation to the costs of the most recent version of the project that received a favourable decision from the Board; and

(4) the justification of any change to the nature of the most recent version of the project that received a favourable decision from the Board because of a technical change, or the reasons for which the amendment does not result in such change.

67. As soon as the holder has submitted an amendment to the Régie de l'énergie, the holder notifies the Minister.

The notice must be accompanied by the presentation of the amendments to the production project and it must include the Board's file number.

DIVISION III

ANNUAL FEE AND ROYALTIES

68. The production licence holder pays an annual fee of 361 per km^2 .

69. The royalties that the production licence holder must pay monthly are set according to the quantity of petroleum extracted declared in the monthly report provided for in section 71.

The royalties are,

(1) on petroleum extracted from the territory subject to the licence,

(a) where the average daily production per production well is 7 m^3 or less, 5% of the wellhead value;

(b) where the average daily production per production well is greater than 7 m³ and less than 30 m³,

i. 5% of the wellhead value on the first 7 m³; and

ii. 10% of the wellhead value on the excess;

(c) where the average daily production per production well is greater than 30 m^3 ,

i. 8.75% of the wellhead value on the first 30 m³; and

ii. 12.5% of the wellhead value on the excess; and

(2) on the gas extracted from the territory subject to the licence,

(a) where the average daily production per production well is greater than 84,000 m³, 10% of the wellhead value;

(b) where the average daily production per production well is greater than 84,000 m³,

i. 10% of the wellhead value on the first 84,000 m³; and

ii. 12.5% of the wellhead value on the excess.

70. The royalties must be paid in cash, or by cheque or postal money order, payable to the order of the Minister of Finance.

DIVISION IV REPORTS

§1. Monthly report

71. The production monthly report provided for in section 62 of the Act must contain, in particular,

(1) the name and contact information of the holder and the licence number;

(2) a summary of the activities in the wells and installations and of the production operations;

(3) the nature and volume of petroleum produced daily by each well and the monthly and annual accumulation of that volume;

(4) the amount of the royalties payable on the petroleum produced, by type of petroleum, including, in particular,

(a) the monthly volume of each type of petroleum produced by all the wells in the territory subject to the licence;

(b) the monthly production revenues for each type of petroleum;

(c) the measurement, transportation and purification costs;

(d) the monthly average well head value for each type of petroleum; and

(e) the total monthly amount of royalties for the petroleum produced during the year concerned.

The report must be sent within the first 20 days of the following month.

§2. Annual report

72. The annual report provided for in section 64 of the Act must include, in particular,

(1) the name and contact information of the holder and the licence number;

(2) a summary of

(a) the activities in the wells and installations in the territory subject to the licence;

(b) production operations; and

(c) the activities of the monitoring committee;

(3) a description of the equipment and installations used on the surface and in the wells;

(4) a technical analysis concerning the production characteristics and the annual monitoring data of those characteristics that includes, in particular,

(a) the results of verifications and checks carried out on the equipment and wells;

(b) the flow, type of substance and volume of the fluids and petroleum produced from or injected into the wells;

(c) the results of production tests, pressure surveys and analyses of fluids and petroleum;

(d) a description of petroleum refining processes on the production site;

(e) a copy of production loggings recorded before ceasing operation of a producing well, where applicable; and

(f) the results of other tests, measurements and well logs carried out;

(5) a description of the transactional meters for measuring for invoicing purposes and their specifications and a map locating them;

(6) the date of the last calibration of the transactional meters for measuring for invoicing purposes;

(7) the results of the shut-in pressure measurements, which must be carried out at least once a year for each well in production during the year;

(8) the nature and volume of petroleum produced daily per well and the monthly and yearly accumulation of that volume;

(9) the annual volume of each type of petroleum produced by all the wells in the territory subject to the licence;

(10) historical production data for each producing well, in the form of a curve indicating the monthly flow and the declining pressure;

(11) the annual production revenues for each type of petroleum, including the sale price, the volume sold and the person involved in the transaction;

(12) the total monthly amount of the royalties for the petroleum produced during the year concerned;

(13) the result of the annual re-evaluation of the petroleum reserves and contingent resources prepared in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) by an independent qualified reserves evaluator; and

(14) the annual review of the economic evaluation of the project submitted to the Régie de l'énergie.

Any supporting reference document must be sent with the annual report.

73. The annual report must be accompanied by a map showing the perimeter of the area of the geophysical surveying or the geochemical surveying, the survey lines, traverses and sources of energy for the geophysical surveying, the perimeter of the area of the surveying and the sampling points for the geochemical surveying, stratigraphic surveys and drillings carried out in the territory subject to the licence, and the equipment and installations in place.

DIVISION V

RENEWAL

74. The Minister renews a production licence for a 10-year period, not more than 5 times, provided that the holder

(1) pays the fee payable under section 68 for the first year of the renewal;

(2) has complied with the Act and its regulations during the previous term;

(3) demonstrates that the holder has produced petroleum for at least 24 months during the 5 years preceding the renewal application; and

(4) demonstrates that the pool development approach allows for an optimal and safe recovery of the petroleum.

After those periods, the Minister may authorize the extension of the licence term for the period the Minister determines, where the holder has applied for it in accordance with the first paragraph and demonstrates the economic relevance of the pool for the extension period.

The renewal application must be sent at least 120 days before the end of the previous term failing which the holder is liable to the monetary administrative penalty provided for in paragraph 1 of section 187 of the Act.

75. If the holder has not applied for renewal on the date of expiry of the licence, the holder must send to the Minister the annual report the holder was required to send to the Minister under section 72.

CHAPTER V STORAGE LICENCE

DIVISION I PROTECTIVE PERIMETER

76. For delimiting the territory subject to a storage licence provided for in section 11 of the Act, the protective perimeter corresponds to 10% of the maximum width of the area of the vertical projection, on the ground, of the reservoir measured at its largest point.

DIVISION II

AWARDING OF A STORAGE LICENCE

§1. Awarding to the exploration or production licence holder

77. The Minister awards a storage licence to the holder of an exploration or production licence where the holder sends to the Minister

(1) the proof of solvency provided for in section 165;

(2) a copy of the authorizations obtained in accordance with section 48 of the Act;

(3) the payment of the annual fee payable under section 97 for the first year of the licence; and

(4) the payment of the licence awarding fee of \$10,000.

78. The holder of an exploration or production licence sends the elements referred to in section 77 not later than 45 days after having received the last authorization or favourable decision provided for in section 48 of the Act.

§2. Awarding by auction

79. Where a storage licence is awarded by auction, sections 17 to 32 apply, with the necessary modifications.

80. In addition to informing the successful bidder in accordance with section 31, the Minister also informs the bidder having submitted the second highest bid.

The Minister returns the auction guarantee to the other bidders.

81. The successful bidder and the bidder having submitted the second highest bid must submit their storage project to the Régie de l'énergie not later than 45 days after having been notified by the Minister in accordance with sections 31 and 80. The Board takes cognizance of the project of the bidder having submitted the second highest bid only if the successful bidder does not receive a favourable decision on its project.

82. The bidder having submitted the second highest bid may, at all times, withdraw from the process by notifying the Minister and the Régie de l'énergie, in writing. The Minister then returns its auction guarantee.

83. Not later than 45 days after receiving the last authorization or favourable decision provided for in section 48 of the Act, the successful bidder or, where applicable, the bidder having submitted the second highest bid, must

(1) pay the amount tendered for the licence;

(2) provide the proof of solvency provided for in section 165;

(3) provide a copy of the authorizations obtained in accordance with section 48 of the Act;

(4) provide the process for appointing the members of the monitoring committee or, if the bidder is not required to establish a new monitoring committee under the first paragraph of section 16, identify the monitoring committee that will be consulted for that licence; and

(5) pay the annual fee payable under section 97 for the first year of the licence.

84. The Minister awards a storage licence where the Minister receives the elements referred to in section 83 and approves the process for appointing the members of the monitoring committee, where applicable.

85. The storage licence awarding fee is \$10,000.

The auction guarantee furnished by the licensee is kept by the Minister and is used to pay the licence awarding fee.

86. Within 30 days after awarding a licence, the Minister returns the guarantee to the person who did not obtain the licence.

87. The Minister may keep the auction guarantee where the successful bidder or, where applicable, the bidder having submitted the second highest bid refuses to conclude the licence agreement.

DIVISION III

EXAMINATION OF THE PROJECT BY THE RÉGIE DE L'ÉNERGIE

§1. Application

88. A person who wishes to obtain a storage licence must submit to the Régie de l'énergie the following documents and information so that the Board may rule on the storage project:

(1) a general presentation of the storage project including, in particular,

(a) the history of the activities already performed, which includes, in particular, in the case of an underground reservoir resulting from the drying-up of a pool, a history of the development carried out and the production;

(b) the partners, their respective interests and their technical and financial capabilities to carry out the project;

(c) a map showing the vertical projection, on the surface, of the reservoir and the equipment and installations required to carry out the storage project;

(d) a topographic map at a scale sufficient to show

i. the perimeter of the territory that will be subject to the licence;

ii. the municipalities in the territory that will be subject to the licence;

iii. the roads included in the territory that will be subject to the licence;

iv. the public and private lands; and

v. the land and bodies of water;

(e) the schedule of the anticipated work;

(f) a general description of the progress of the installations over time;

(g) the list of the technical documents and data used in the preparation of the storage project;

(*h*) if the project is submitted after an auction process, a summary of how any financial liabilities attributable to the anticipated activities will be resolved by specifying the means that will be taken to obtain the necessary funds and the time at which the funds will be raised; (*i*) the list of permits, licences and authorizations required to carry out the project; and

(*j*) if applicable, a description of the amendments made to the project following conditions imposed by other departments or bodies

(2) a report containing, in particular,

(a) an overview of the regional geology;

(b) the structural geology and the geology of the reservoir;

(c) a petrological analysis of the reservoir and the country rocks;

(d) a geophysical analysis on the geophysical data available, in particular, seismic surveys and well logs, and whose objective is to characterize the geometry of the reservoir and the country rocks and their physical properties;

(e) a geological modeling of the reservoir;

(f) a reservoir petrophysical analysis allowing, in particular, to establish a volumetric model that takes into account the porosity, permeability and water saturation as well as the methodology selected and the raw data used for the analysis;

(g) the results of the drill stem tests;

(*h*) the properties of the fluids in the reservoir;

(*i*) the pressures, volumes and temperatures in the reservoir;

(*j*) a reservoir integrity study;

(*k*) an estimate of the commercial volumetric capacity of the reservoir including the methodology justifying that calculation;

(1) a fluid behaviour modeling;

(*m*) the approach allowing to maintain pressure and production capacities; and

(n) the daily maximum injection and withdrawal rates;

(3) in the case of an underground reservoir resulting from the drying-up of a pool, a history of the production of indigenous petroleum along with an evaluation of the resource in place prior to the storage project, established in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) by an independent qualified reserves evaluator;

(4) a petroleum storage plan including, in particular

(a) the storage management strategy;

(b) the detailed chronology of the activities planned during the development of the storage reservoir and the installations and equipment required;

(c) a description of the injection and withdrawal, and transportation installations;

(d) the list of factors that may affect the storage project, in particular, the physical constraints and geotechnical aspects;

(e) the presentation of the technical management approach concerning contractors, suppliers and subcontracting;

(f) a description of the targeted market along with a storage simulation model showing the monthly volumes injected and withdrawn based on the targeted market and the anticipated income over the life of the project; and

(g) the strategy for closing wells, dismantling equipment and installations and restoration of work sites;

(5) an emergency preparedness plan compliant with CSA-Z731 Standard, Emergency Preparedness and Response, published by the Canadian Standards Association;

(6) an operation and maintenance plan including the reservoir management objectives and the usual operational considerations, in particular, the tests, analyses, performance control and monitoring of the reservoir;

(7) an economic evaluation of the project including, in particular,

(a) the expenses incurred prior to the preparation of the storage project for installations that will be used in the storage project;

(b) the preparation costs of the storage project;

(c) an estimate of the costs in principal of the development project, in particular, the costs for drilling, completing and fracturing wells, the cost of the installations for injection and withdrawal, purification, fractionation, liquefaction, compression, measurement and transportation to the place of delivery, the closure, dismantling and site restoration costs, and indirect costs;

(d) an estimate of the operating and maintenance costs, in particular, administrative and technical support, and for injection and withdrawal, purification, fractionation, liquefaction, compression, measurement and transportation to the place of delivery and indirect costs;

(e) a presentation of injection, storage and withdrawal scenarios and revenue projections;

(f) a scenario of the duties to be paid on substances withdrawn; and

(g) an economic sensitivity analysis;

(8) a local and regional benefit plan presenting in particular the projections of the expenses made in the environment and related employment as well as the negative financial impact;

(9) a summary of the public consultations carried out prior to the submission of the project; and

(10) a description of the mitigation measures anticipated to harmonize the use of the territory and minimize disruptions for the local communities and on the environment.

The document required under subparagraph 2 of the first paragraph must be signed and sealed by a geologist or an engineer and the documents required under subparagraphs 4 to 6 must be signed and sealed by an engineer.

89. As soon as the application has been submitted to the Régie de l'énergie, the person who wishes to obtain a storage licence must send a notice to the Minister containing

(1) the person's name and contact information and if the person holds an exploration or production licence, the licence number; and

(2) the date on which the application was filed with the Board and the file number.

90. When examining the project, the Régie de l'énergie must in particular take into account

(1) job creation;

(2) the estimate of the revenues for the State;

(3) the positive and negative economic impact of the project; and

(4) the project completion probability.

91. Where the Régie de l'énergie renders its decision, it must in particular rule on the overall economic relevance of the project.

§2. Amendments to the storage project

92. A licence holder who wishes to amend the storage project must first submit the amendment to the Régie de l'énergie.

It must contain, in particular,

(1) the presentation of the modifications to the project;

(2) an update of the documents already submitted;

(3) the difference in the costs of the project and the proportion of those costs in relation to the costs of the most recent version of the project that received a favourable decision from the Board; and

(4) the justification of any change to the nature of the most recent version of the project that received a favourable decision from the Board because of a technical change, or the reasons for which the amendment does not result in such change.

93. As soon as the holder has submitted an amendment to the Board, the holder notifies the Minister.

The notice must be accompanied by the presentation of the modifications to the storage project and must include the Board's file number.

DIVISION IV

SPECIAL OBLIGATIONS OF A STORAGE LICENCE HOLDER

94. A storage licence gives the holder the right to use an underground reservoir to store in it and withdraw natural gas.

95. A licence holder may not withdraw from the underground reservoir a quantity of substance greater than the quantity injected except during the permanent closure of an underground reservoir and its wells.

96. A storage licence holder must immediately notify the Minister of any change to the characteristics of the underground reservoir.

DIVISION V

ANNUAL FEES AND DUTIES ON THE SUBSTANCES WITHDRAWN

97. A storage licence holder pays an annual fee of \$361 per km².

98. The duties on the substances withdrawn that a storage licence holder must pay monthly are fixed according to the quantity of withdrawn substances declared in the monthly report provided for in section 100.

The duties are

(1) \$258 per million cubic metres on the first 50 million cubic metres withdrawn in the year;

(2) \$515 per million cubic metres on the volumes between 50 and 100 million cubic metres withdrawn in the year;

(3) \$772 per million cubic metres on the volumes between 100 and 250 million cubic metres withdrawn in the year;

(4) \$1,074 per million cubic metres for the remainder.

However, for each year, the total of the duties on the substances withdrawn may not be less than \$10,074. The last monthly payment must be adjusted upward if the total of the sums paid is lower.

99. Payment of the duties on the substances withdrawn must be in cash, or by cheque or postal money order payable to the order of the Minister of Finance.

DIVISION VI REPORTS

§1. Monthly report

100. The injection and withdrawal monthly report provided for in section 65 of the Act must contain, in particular,

(1) the name and contact information of the holder and the licence number;

(2) a summary of the activities in the wells and the installations and of the injection and withdrawal operations;

(3) the nature and volume of substances injected and withdrawn monthly per well and the annual accumulation of that volume; (4) the amount of the duties payable on the substances withdrawn that includes, in particular,

(a) the monthly volume of substances withdrawn from all the wells in the territory subject to the licence;

(b) an estimate of the volume of substances that should be withdrawn in the current year;

(c) the monthly amount of the duties paid on the substances withdrawn during the month concerned; and

(d) the total amount of the duties paid on the substances withdrawn for the current year.

The report must be sent within the first 30 days following the last day of each month.

101. The report must be accompanied, in particular, by the daily injection and withdrawal reports and the records of the official transactions with third persons concerning those activities.

§2. Annual report

102. The annual report provided for in section 67 of the Act must contain, in particular,

(1) the name and contact information of the holder and the licence number;

(2) a summary of

(a) the activities in the wells and installations in the territory subject to the licence;

(b) the injection and withdrawal operations; and

(c) the activities of the monitoring committee;

(3) a description of the transactional meters used for measuring for invoicing purposes and their specifications and a map locating them;

(4) the date of the last calibration of the transactional meters used for measuring for invoicing purposes;

(5) the nature and volume of the substances injected and withdrawn daily per well and the monthly and yearly accumulation;

(6) the amount of the duties payable on the substances withdrawn including, in particular,

(*a*) the annual volume of the substances withdrawn for all the wells in the territory subject to the licence;

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(b) the monthly amounts of the duties paid on the substances withdrawn for the year concerned; and

(c) the adjustment of the duties payable on the substances withdrawn on the basis of the real annual volume withdrawn by all the wells in the territory subject to the licence; and

(7) a projection of the substance injection and withdrawal activities for the coming year.

Any supporting or reference document must be sent with the annual report.

103. The annual report must be accompanied by a map showing the perimeter of the area of the geophysical surveying or the geochemical surveying, the survey lines, traverses and sources of energy for the geophysical surveying, the perimeter of the area of the surveying and the sampling points for the geochemical surveying, stratigraphic surveys and drillings carried out in the territory subject to the licence, and the equipment and installations in place.

DIVISION VII RENEWAL

104. The Minister renews a storage licence for a period of 10 years, not more than 5 times, provided that the holder

(1) pays the fee payable under section 97 for the first year of the renewal;

(2) has complied with the Act and its regulations during the previous term;

(3) demonstrates that the holder has injected, stored or withdrawn petroleum for at least 24 months during the last 5 years of the previous term; and

(4) demonstrates that the reservoir use approach allows the injection, storage and withdrawal of the petroleum in an optimal and safe manner.

After those periods, the Minister may authorize the extension of the licence term for the period the Minister determines, where the holder applies for it in accordance with the first paragraph and demonstrates the economic relevance of the operation of the underground reservoir for the extension period.

The renewal application must be sent at least 120 days before the end of the previous term failing which the holder is liable to the monetary administrative penalty provided for in paragraph 1 of section 187 of the Act.

105. If the holder has not applied for renewal on the date of expiry of the licence, the holder must send to the Minister the annual report the holder was required to send to the Minister under section 102.

CHAPTER VI

SURRENDER, REVOCATION AND TRANSFER OF A PETROLEUM EXPLORATION, PRODUCTION OR STORAGE LICENCE

DIVISION I

SURRENDER

106. A licence holder who wishes to surrender all or part of its right must apply to the Minister and must have obtained the declaration of satisfaction provided for in section 114 of the Act with respect to all the wells or reservoirs for which the holder is responsible situated in the territory to be surrendered.

The application must be accompanied by the payment of the fee of \$250.

107. In the case of an application for the partial surrender of an exploration right, the holder must send to the Minister an update of the summary of the exploration work filed under paragraph 4 of section 33.

108. In the case of an application for partial surrender of a production or storage right, the area of the territory to be surrendered must not be less than 2 km².

DIVISION II REVOCATION

109. A holder whose licence has been revoked by the Minister must, within 6 months of the date on which the revocation is enforceable, have permanently closed the wells for which the holder is responsible in the territory subject to the licence, in accordance with the permanent well or reservoir closure and site restoration plans.

In the case of an underground reservoir having a storage licence and its wells, the period is 24 months.

The Minister may grant an additional period if the holder demonstrates the need therefor.

Sections 297 to 314 of the Regulation respecting petroleum exploration, production and storage on land and sections 266 to 287 of the Regulation respecting petroleum exploration, production and storage in a body of water, as the case may be, apply to the closure and restoration work, with the necessary modifications.

DIVISION III TRANSFER

§1. General

110. A licence holder who wishes to transfer all or part of the licence must not have failed to fulfill the holder's obligations under the Act and its regulations.

111. A person may not obtain, by transfer, a licence or a share of the licence's right, if a licence the person holds has been revoked in the last 5 years.

§2. Transfer of licence

112. A licence transferee must apply for the transfer to the Minister, in writing.

The application must be accompanied by an update of the proof of solvency provided for in section 165 and an update of the summary of the exploration work filed under paragraph 4 of section 33, if the licence transferred is an exploration licence.

113. For each well on the land subject to the licence and that is not permanently closed, the transferee must also apply for the drilling authorization provided for in the Regulation respecting petroleum exploration, production and storage on land or the Regulation respecting petroleum exploration, production and storage in a body of water, as the case may be.

114. A transferee who wishes to modify the process for the appointment of the members of the monitoring committee must first submit a new process to the Minister for approval.

115. Once the licence transferred, the transferee must notify the owners or lessees, the local municipalities and the regional county municipalities of the transfer according to the terms and conditions provided for in section 5, with the necessary modifications.

§3. Transfer of a share of the exploration, production or storage right

116. A transferee of a share of the exploration, production or storage right must apply for the transfer to the Minister, in writing.

The application must be accompanied by

(1) the most recent annual financial statement audited by an independent auditor, if the transferee is a legal person; (2) an update of the proof of solvency provided for in section 165, if the transferee acquires the majority of shares in the exploration, production or storage right; and

(3) the designation of a representative with the Minister.

117. A designated representative works for the Minister as mandatary for all the holders of shares. The representative's name and contact information are registered in the public register of real and immovable petroleum rights. Each holder of a share is bound by the acts and omissions of the designated representative in the carrying out of the representative's mandate.

CHAPTER VII

PIPELINE CONSTRUCTION OR USE AUTHORIZATION

DIVISION I

EXAMINATION OF THE PROJECT BY THE RÉGIE DE L'ÉNERGIE

§1. Application

118. A person who wishes to obtain a pipeline construction or use authorization must submit the following documents and information to the Régie de l'énergie, for its ruling on the pipeline construction or use project:

(1) a detailed description of the project and the context justifying it;

(2) for a construction project, a pipeline construction technical program, signed and sealed by an engineer, concerning, in particular, the equipment, tools, assembly materials and the measurement, control and safety systems;

(3) a topographic map at a scale of 1:10,000 showing the actual or anticipated installations, including all its elements, the real or proposed route of the pipeline, and compliance with the distances provided for in section 131;

(4) the criteria used to determine the proposed route;

(5) a description of the location and area of the temporary work areas;

(6) the work schedule for the construction, use, maintenance and temporary or permanent shutdown of the pipeline, including, in particular, a detailed description of each activity planned; (7) a demonstration, signed and sealed by an engineer, that the design of the pipeline, including, in particular, the construction, use, maintenance and temporary or permanent shutdown work, complies with the standards provided for in section 132 and that it ensures the safety of persons and property, and environmental protection;

(8) a broken down estimate of the construction, use, maintenance and temporary or permanent shutdown work, and the income anticipated for the use of the pipeline;

(9) the list of the permits, licences and authorizations required to carry out the project;

(10) the list of the exploration, production and storage licences in force in the territory covered by the pipeline project and, where applicable, the business relationship between their holders;

(11) the partners, their respective interests and their technical and financial capacities to carry out the project;

(12) a summary of the public consultations carried out prior to the submission of the project; and

(13) a description of the mitigation measures anticipated to harmonize the use of the territory and minimize disruptions for the local communities and on the environment.

If required and based on the environments crossed by the pipeline route, the person who wishes to obtain an authorization may, for the purposes of subparagraph 3 of the first paragraph, submit a number of types of maps including a topographic map and a bathymetric map.

119. As soon as the application has been submitted to the Régie de l'énergie, the person who wishes to obtain an authorization sends a notice to the Minister containing

(1) the person's name and contact information; and

(2) the date of filing the application with the Board and the file number.

120. During the examination of the project, the Régie de l'énergie must take into account, in particular,

- (1) the project completion probability;
- (2) the positive and negative economic impact;

(3) the pipeline design, including, in particular, the construction, use, maintenance and temporary or permanent shutdown work; and

(4) the needs for the petroleum gathering and transportation in the territory covered by the project.

121. Where the Régie de l'énergie renders its decision, it must, in particular, rule on the overall economic relevance of the project, and its compliance with the generally recognized best practices.

§2. Amendments to a project

122. The authorization holder who wishes to amend a project must first submit the amendment to the Régie de l'énergie.

It must contain, in particular,

(1) the presentation of the amendments to the project;

(2) an update of the documents already submitted;

(3) the difference in the costs of the project and the proportion of those costs in relation to the costs of the most recent version of the project that received a favourable decision from the Board; and

(4) the justification of any change to the nature of the most recent version of the project that received a favourable decision from the Board because of a technical change, or the reasons for which the amendment does not result in such change.

123. As soon as the holder has submitted an amendment to the Régie de l'énergie, the holder notifies the Minister.

The notice must be accompanied by the presentation of the amendments to the project and must include the Régie de l'énergie's file number.

DIVISION II

AWARDING OF AND AMENDMENT TO AN AUTHORIZATION

124. Not later than 120 days after having obtained the last authorization necessary or the favourable decision from the Board, a person who wishes to obtain a pipeline construction or use authorization must apply to the Minister in writing.

125. The application must contain

- (1) the name and contact information of the applicant;
- (2) the proof of solvency provided for in section 165;

(3) the following documents, signed and sealed by an engineer:

(a) an integrity management program complying with CSA Standard Z662, Oil and Gas Pipeline Systems, including its appendices, published by the Canadian Standards Association;

(b) a safety and loss management program complying with Appendix A of CSA Standard Z662, Oil and Gas Pipeline Systems, published by the Canadian Standards Association;

(c) a security management program complying with CSA Standard Z246.1, Security management for petroleum and natural gas, industry systems, including its appendices, published by the Canadian Standards Association;

(d) an emergency management program complying with CSA Standard Z662, Oil and Gas Pipeline Systems, CSA Standard Z731, Emergency Preparedness and Response, and CSA Standard Z246.2, Emergency preparedness and response for petroleum and natural gas industry systems, including their appendices, published by the Canadian Standards Association;

(e) a damage prevention program for the protection of underground infrastructures complying with CSA Standard Z247, Damage prevention for the protection of underground infrastructures, including its appendices, published by the Canadian Standards Association;

(f) a plan for the restoration of temporary work areas for the pipeline;

(g) a program related to pipeline inspections before and after the start-up concerning, in particular, the pressure tests, non-destructive inspections, destructive tests and visual examinations;

(*h*) a monitoring and control program ensuring, in particular, the safety of persons, property and pipeline, and environmental protection;

(*i*) a construction, use and maintenance manual including, in particular, the methods for promoting the safety of persons and property, environmental protection and the pipeline performance; and

(*j*) a detailed plan for crossing watercourses complying with the standards provided for in section 132 and including, in particular, the techniques planned for each watercourse; (4) a safety and community involvement program detailing the elements likely to have an impact on the safety or persons and property including, particular, a description of the mitigation measures to be implemented to take into account the harmonization of the use of the territory and minimize disruptions for the local communities and on the environment;

(5) the list of references consulted, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(6) any other information or document deemed necessary by the Minister.

It must be accompanied by the documents submitted to the Régie de l'énergie for the examination of the project under section 118 and payment of the fee of \$1 per linear metre of pipeline anticipated.

Subparagraphs *a*, *b*, *c*, *d* and *e* of subparagraph 3 of the first paragraph do not apply to a construction or use application for

(1) a pipeline of less than 2 km;

(2) a pipeline located in an existing right of way used for the same purpose; and

(3) a pipeline for gathering or transporting natural gas of less than 30 cm in diameter for a pressure less than 4,000 kPa.

126. In the case of a modification to the project, as soon as the authorization holder receives a favourable decision from the Régie de l'énergie on the modification to the project submitted under section 122, the holder must provide to the Minister an update of the documents already submitted with the authorization application. It must be accompanied by the payment of the fees for the additional pipeline anticipated.

DIVISION III

NOTICE TO OWNERS OR LESSEES, LOCAL MUNICIPALITIES AND REGIONAL COUNTY MUNICIPALITIES

127. The notice for the awarding of a pipeline construction or use authorization provided for in section 124 of the Act, must contain

(1) the name and contact information of the holder;

(2) the number, date of awarding and expiry date of the authorization;

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(3) the date and registration number of the authorization in the public register of real and immovable petroleum rights;

(4) the local municipalities and regional county municipalities crossed by the pipeline; and

(5) the name and contact information of the person to be contacted to obtain additional information.

The holder sends the notice by mail to the owner or the lessee of the land crossed by the pipeline. The holder also sends the notice to the local municipalities and regional county municipalities according to the terms and conditions provided for in section 5, with the necessary modifications.

128. The notices must be accompanied by topographic or bathymetric maps at a scale sufficient to show the route of the pipeline, the limits of the territory of the local municipalities and that of the regional county municipalities crossed by the pipeline.

DIVISION IV CONDITIONS OF EXERCISE

§1. Time periods and notice of the start of the work

129. The authorization holder must start the pipeline construction work not later than 12 months after obtaining the last authorization necessary or the favourable decision from the Régie de l'énergie.

The Minister may grant an additional period for starting the construction work if the holder demonstrates the need therefor.

130. The authorization holder must, at least 7 days before, notify the Minister of the start of the following work:

(1) the layout of the temporary work areas;

(2) the placing of a pipe or any pipe network in the ground, and the elements contained in a pipe;

(3) the start-up of the pipeline;

(4) the start of the use of the pipeline;

(5) the carrying out of an inspection of the pipeline;

(6) the temporary or permanent shutdown of the pipeline.

Where the holder cannot comply with the date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

§2. Design, construction, use, maintenance and shutdown

131. The authorization holder who designs and constructs a pipeline may not place it at less than 100 m from a national park or a protected area registered in the register of protected areas provided for in section 5 of the Natural Heritage Conservation Act (chapter C-61.01)

132. The authorization holder who designs, constructs, uses, maintains or temporarily or permanently ceases to use a pipeline must ensure to comply with CSA Standard Z662, Oil and Gas Pipeline Systems, CSA Standard Z246.1, Security management for petroleum and natural gas, industry systems, CSA Standard Z246.2, Emergency preparedness and response for petroleum and natural gas industry systems, CSA Standard Z731, Emergency Preparedness and Response, and CSA Standard Z247, Damage prevention for the protection of underground infrastructures, including their appendices, published by the Canadian Standards Association.

However, in the case of a pipeline used to gather or transport petroleum for underground storage, the holder must ensure to do so in accordance with CSA Standard Z341, Storage of hydrocarbons in underground formations, including its appendices, published by the Canadian Standards Association.

133. During the pipeline construction work, the authorization holder must ensure that the persons present in the temporary work areas are informed of the practices and procedures to follow to ensure their safety.

134. The authorization holder must keep a copy of the construction, use and maintenance manual on the temporary work areas. It must be accessible at all times.

135. Pressure tests must be supervised by an engineer who is not employed by the enterprise that carried out the construction work.

136. The authorization holder must inspect the conduct of the construction work to ensure the safety of persons and property, and environmental protection.

The holder keeps and maintains, until the end of the construction work, a register of those inspections. The holder enters in the register, in particular, any incident involving the construction of the pipeline and the corrective measures taken or planned and their schedules.

137. The authorization holder ensures that the pumping or compression stations are

(1) designed so that their access is safe for the personnel;

(2) designed to allow access only to authorized persons; and

(3) provided with installations used to confine, handle and dispose of waste materials resulting from their use.

138. The authorization holder must inspect annually the pipeline to ensure the safety of persons and property, and environmental protection.

The holder keeps and maintains, until the end of the period of validity of the authorization, a register of those inspections. The holder enters in the register, in particular, cases of non-compliance and the corrective measures taken or planned and their schedules.

139. The authorization holder must, within 24 hours, notify the Minister of any incident related to the pipeline that triggers the emergency preparedness plan. The holder submits to the Minister, within 7 days of the incident, a detailed report including, in particular, the corrective measures taken or planned and their schedules.

140. The authorization holder must immediately notify the Minister of any spill or leak from the pipeline and immediately take the measures indicated in the emergency management program submitted to the Minister under subparagraph d of subparagraph 3 of the first paragraph of section 125.

141. After having received an incident notice under section 139 or 140, the Minister may request a detailed event report on, in particular, the causes of the incident. The authorization holder must entrust the preparation of the report to an expert who is not employed by the authorization holder.

142. The authorization holder must regularly inspect joints and structural elements of any equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains a register of those inspections until the permanent shutdown of pipeline.

143. After a temporary shutdown, the authorization holder must send an annual report, signed and sealed by an engineer who is not employed by the authorization holder, that shows that the shutdown, the corrosion control program and the other maintenance activities comply with CSA Standard Z662, Oil and Gas Pipeline Systems, including its appendices, published by the Canadian Standards Association.

§3. Restoration

§§1. End of construction work

144. The authorization holder must ensure that, 90 days after the end of the pipeline construction work, the temporary work areas are restored to a state allowing for the harmonization of the site with the use of the territory.

On request, the Minister may grant an additional period for the restoration if the holder demonstrates the need therefor. The holder must, at least 30 days before the end of the 90-day period, notify the Minister, in writing, of the reasons preventing the restoration within the prescribed period.

145. The authorization holder sends to the Minister, within 60 days after the end of the restoration of the temporary work areas, a report describing the activities carried out on the site, signed and sealed by an engineer who is not employed by the enterprise that carries out the restoration work. The report must be accompanied by photographs of the entire site before its layout for the construction work, during the placing of the pipe or any pipe network in the ground and after its restoration.

§§2. Permanent shutdown

146. The authorization holder must permanently shutdown the pipeline before the end of the period of validity of the authorization provided for in sections 153 and 154.

147. The authorization holder must ensure that, 12 months after the permanent shutdown of the pipeline, the site on which this pipeline is located is restored allowing its harmonization with the use of the territory.

On request, the Minister may grant an additional period for the restoration if the holder demonstrates the need therefor. The holder must, at least 30 days before the end of the 12-month period, notify the Minister, in writing, of the reasons preventing the restoration within the prescribed period.

148. The authorization holder must send to the Minister within 60 days following the end of the restoration work, a report showing that the restoration complies

with CSA Standard Z662, Oil and Gas Pipeline Systems, including its appendices, published by the Canadian Standards Association, signed and sealed by an engineer who is not employed by the enterprise who carries out the shutdown.

DIVISION V

DAILY REPORT, COMPLETION REPORT AND ANNUAL REPORT

149. The authorization holder must prepare a daily report of the construction work and keep it in the temporary work areas.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the name and contact information of the holder and the authorization number;

(2) the number of welds carried out;

(3) the number of portions of lines installed and the elements contained therein;

(4) the result of the inspections carried out;

(5) the operational problems encountered and the corrective measures taken or planned;

(6) the indication of any event that disrupted the planned progress of the work; and

(7) any other information or document deemed necessary by the Minister.

150. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the construction work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

151. The authorization holder must, within 90 days following the end of the construction work, send to the Minister a completion report signed by an engineer including, in particular,

(1) the name and contact information of the holder and the authorization number;

(2) a summary of the work carried out according to the chronological order;

(3) a technical description of the condition of the pipeline after the construction work; (4) a demonstration that the construction work has been carried out in accordance with the standards provided for in section 132 and the generally recognized best practices;

(5) the results of the pipeline inspection program, in particular, those of the pressure and leak tests, nondestructive inspections, destructive tests and visual examinations;

(6) photographs, after the construction work, of all the land subject to the work; and

(7) a topographic map at a scale of 1:10,000 showing all the elements of the pipeline.

If required and based on the environments crossed by the pipeline, the holder may, for the purposes of subparagraph 7 of the first paragraph, submit a number of types of maps including a topographic map and a bathymetric map.

152. The authorization holder must send, within 90 days of the anniversary of the granting of the authorization, an annual report including, in particular,

(1) the name and contact information of the holder and the authorization number;

(2) a summary of the operations;

(3) the results of the pipeline inspection program, in particular, those of the pressure and leak tests, nondestructive inspections, destructive tests and visual examinations;

(4) the average and maximum daily flow per type of substance and the daily, monthly and annual volume of any petroleum gathered or transported;

(5) a description and the specifications of the various meters intended for the measurement for petroleum gathering or transportation; and

(6) a financial summary of the project.

Any justification or reference document must be sent with the annual report.

DIVISION VI PERIOD OF VALIDITY AND RENEWAL

153. The period of validity of a pipeline construction or use authorization is 20 years.

Part 2

154. The Minister renews a pipeline construction or use authorization for 5-year periods provided that the holder

(1) pays renewal fees of \$0.50 per linear metre of pipeline constructed;

(2) complied with the Act and its regulations during the previous validity period; and

(3) shows that the holder has gathered or transported petroleum during the last 60 months of the previous validity period.

The renewal application must be sent at least 120 days before the end of the previous validity period failing which the holder is liable to the monetary administrative penalty provided for in paragraph 1 of section 187 of the Act.

DIVISION VII

REVOCATION AND TRANSFER OF A PIPELINE CONSTRUCTION OR USE AUTHORIZATION

§1. Revocation

155. The holder whose authorization is revoked by the Minister must, within 12 months from the date on which the revocation becomes executory, have carried out the permanent shutdown of the pipeline and the restoration of the site in which it is located.

The Minister may grant an additional period if the holder demonstrates the need therefor.

The holder then sends a report showing the shutdown complies with CSA Standard Z662, Oil and Gas Pipeline Systems, including its appendices, published by the Canadian Standards Association, signed and sealed by an engineer who is not employed by the enterprise carrying out the shutdown.

§2. Transfer

156. The holder who wishes to transfer the pipeline construction or use authorization must not be in default of complying with the obligations incumbent on the holder under of the Act and its regulations.

157. A person may not obtain by transfer a pipeline construction or use authorization, if the person held an authorization that has been revoked in the last 5 years.

158. The transferee must apply to the Minister, in writing, for the transfer.

The application must be accompanied, with the necessary modifications, by an update of the documents and information provided for in the first paragraph of section 125.

159. Once the authorization has been transferred, the transferee must notify the owners or the lessees, the municipalities and the regional county municipalities of the transfer according to the conditions set out in section 127, with the necessary modifications.

CHAPTER VIII

NO-FAULT LIABILITY REGIME

DIVISION I

AMOUNT OF THE SOLVENCY REQUIRED FOR THE PURPOSES OF THE NO-FAULT LIABILITY REGIME

§1. Petroleum exploration, production or storage licence

160. The amount up to which the holder of a petroleum exploration, production or storage licence is liable for the purposes of the no-fault liability regime is

(1) 10 million dollars where the territory subject to the licence is situated on land;

(2) 25 million dollars where the territory subject to the licence is situated in a body of water, except a marine environment;

(3) 1 billion dollars where the territory subject to the licence is situated in a lake having an area greater than $1,000 \text{ km}^2$; and

(4) 1 billion dollars where the territory subject to the licence is situated in a marine environment.

Where the territory subject to the licence is situated in more than one environment, the amount up to which the petroleum exploration, production or storage licence holder is liable for the purposes of the no-fault liability regime is determined by the Minister and corresponds to the sum of the amounts payable according to the environments calculated in proportion to the ratio of each with respect to the total territory subject to the licence.

§2. Pipeline construction or use authorization

161. The amount up to which a pipeline construction or use authorization holder is liable for the purposes of the no-fault liability regime, in the case of a pipeline used for gathering and transporting oil is

(1) where it is located on land,

(a) 10 million dollars for a pipeline whose design capacity is less than 5,000 barrels per day;

(b) 25 million dollars for a pipeline whose design capacity is between 5,000 and 14,999 barrels per day;

(c) 50 million dollars for a pipeline whose design capacity is between 15,000 and 29,999 barrels per day;

(d) 200 million for a pipeline whose design capacity is between 30,000 and 49,999 barrels per day;

(e) 300 million for a pipeline whose design capacity is between 50,000 and 250,000 barrels per day; and

(f) 1 billion dollars for a pipeline whose design capacity is greater than 250,000 barrels per day; and

(2) where it is located in a body of water,

(a) 25 million dollars for a pipeline whose design capacity is less than 5,000 barrels per day;

(b) 40 million de dollars for a pipeline whose design capacity is between 5,000 and 14,999 barrels per day;

(c) 75 million dollars for a pipeline whose design capacity is between 15,000 and 29,999 barrels per day;

(d) 200 million for a pipeline whose design capacity is between 30,000 and 49,999 barrels per day;

(e) 300 million for a pipeline whose design capacity is between 50,000 and 250,000 barrels per day; and

(f) 1 billion dollars for a pipeline whose design capacity is greater than 250,000 barrels per day or where it is located in a lake whose area is greater than 1,000 km² or in a marine environment.

162. The amount up to which a pipeline construction or use authorization holder is liable for the purposes of the no-fault liability regime, in the case of a pipeline used to gather or transport natural gas is determined according to the coefficient equivalent to multiplication of the squared outside diameter of the pipeline, measured in centimetres, by the maximum operating pressure, measured in MPa and by the length of the pipeline in km.

That amount is

(1) 10 million dollars if the coefficient is less than 150,000;

(2) 25 million dollars if the coefficient is between 150,000 and 499,999;

(3) 50 million dollars if the coefficient is between 500,000 and 1,000,000; and

(4) 200 million dollars if the coefficient is greater than 1 000 000.

However, where a pipeline used for gathering or transporting natural gas is located in a lake whose area is greater than $1,000 \text{ km}^2$ or in a marine environment, the amount is 1 billion dollars.

163. Where the pipeline is located in more than one environment, the amount up to which the pipeline construction or use authorization holder is liable for the purposes of the no-fault liability regime is determined by the Minister and corresponds to the sum of the amounts payable according to the environments under sections 161 and 162, calculated in proportion of the ratio of each with the total length of the pipeline.

164. The authorization holder who modifies the pipeline project so as to cause a revision of the amount payable under sections 161 to 163 must first notify the Minister so that the Minister may determine the new amount up to which the holder is liable for the purposes of the no-fault liability regime.

The holder then provides to the Minister an update of the proof of solvency provided for in section 165.

DIVISION II

PROOF OF SOLVENCY

165. For the purpose of demonstrating solvency to the amount provided for in sections 160 to 163, a person who wishes to obtain a licence or a pipeline construction or use authorization or the holder of a licence or of such an authorization must provide the Minister with a statement indicating the person's net assets or financing agreements entered into and demonstrating that the person is able to pay the sum concerned.

The statement must be accompanied and supported by any of the following documents or a combination of them:

(1) the most recent annual financial statement audited by an independent auditor and the last quarterly financial statements and, if the person has received a credit rating from a recognized rating organization and the rating is up to date, a document certifying that the rating is up to date;

(2) bonds issued or guaranteed by Québec or another province of Canada, by Canada or by a municipality in Canada, and having a market value at least equal to the
amount provided for in sections 160 to 163. Registered bonds must be submitted with a power of attorney on behalf of the Minister of Finance and, where applicable, with a resolution authorizing the person who signs the power of attorney;

(3) guaranteed investment certificates or term deposit certificates, in Canadian dollars, issued on behalf of the Minister of Finance by a bank, a savings and credit union or a trust company. Such certificates must have a term of at least 12 months, be automatically renewable for the term of the licence or authorization and not include any restriction in respect of redemption during its term;

(4) a promissory note payable on demand to the Minister of Finance, non-negotiable and unconditional, signed and indicating expressly the amount for which it is issued. If the promissory note is issued by a person other than the person wishing to obtain a licence or authorization, the licence or authorization holder, a bank, a savings and credit union or a trust company, it must be accompanied by the financial statements provided for in subparagraph 1 of this paragraph submitted for that person so that the Minister may ascertain the person's solvency to the amount of the promissory note;

(5) an insurance policy issued by an insurer that has received a credit rating equal to or greater than A- from an internationally recognized rating organization covering all the risks provided for in section 128 of the Act, indicating that the insurer waives the subrogation right to the Minister and the policy may be cancelled only following a notice given to the Minister at least 30 days before the cancellation date. The insurance policy must indicate the Minister as additional insured, whose liability is covered for the actions or omissions of the licence or authorization holder;

(6) an escrow agreement to which the Minister is party specifying the amount that must be furnished to the depositary and kept in an account in trust, managed according to the conditions provided for in the agreement and stipulating that the amount is payable within 5 days on request of the Minister to the legal depositary;

(7) a trust constituted in accordance with the Civil Code and meeting the following requirements:

(a) the purpose of the trust is to ensure the reparation for injury provided for in section 128 of the Act;

(b) the Minister of Finance and the licence or authorization holder are joint beneficiaries of the trust;

(c) the trustee is a bank, a savings and credit union or a trust company;

(d) the trust patrimony is comprised only of sums in cash, or of bonds or certificates of the same type as those listed in subparagraphs 2 and 3 of this paragraph;

(8) an irrevocable, non-transferable, unassignable and unconditional letter of credit issued on behalf of the Gouvernement du Québec by a bank, a savings and credit union or a trust company;

(9) a security or a guaranty contract issued on behalf of the Gouvernement du Québec by a legal person legally empowered to act in that capacity.

The financial institutions referred to in subparagraphs 3, 4, 7 and 8 of the second paragraph must be empowered by law to carry on the activities provided for in those subparagraphs.

The guarantees referred to in subparagraphs 2 and 3 of the second paragraph are received on deposit by the Minister of Finance pursuant to the Act respecting deposits with the Bureau général de dépôts pour le Québec (chapter D-5.1).

166. The declaration setting forth the net assets or financing agreements that the holder has entered into, provided for in the first paragraph of section 165, must contain, in particular,

(1) the holder's assets and total liability;

(2) a description of the holder's organizational structure and, where applicable, of any affiliated or parent company, including an organization chart showing the relationships between them; and

(3) a summary of how any financial liabilities attributable to the anticipated activities in the territory subject to the licence will be resolved by specifying the means that will be taken to obtain the necessary funds and the time at which the funds will be raised.

167. In the case of a proof of solvency provided under subparagraphs 3 and 7 of the second paragraph of section 165, the contract constituting the proof of solvency must include the following requirements:

(1) the purpose of the contract is to ensure the reparation of injury provided for in section 128 of the Act;

(2) no person may make withdrawals or be reimbursed before the expiry of the licence or the authorization. The prohibition also applies to any form of compensation that may be made by the bank, the savings and credit union, the trust company or the trustee; (3) where the holder fails to repair the injury caused, the payment is payable at the Minister's request;

(4) the bank, the savings and credit union, the trust company or the trustee provides the Minister with the information it possesses concerning the contract;

(5) in case of dispute, the courts of Québec are the sole competent courts;

(6) in the case of a trust:

(a) the trustee must be domiciled in Québec;

(b) the trustee sees to the management of the trust at the expense of the settlor or of the licence or authorization holder;

(c) the trust terminates when the Minister acts on the condition provided for in subparagraph 3 or when the licence expires.

The licence or authorization holder must submit to the Minister a certified copy of the original contract.

168. The purpose of the irrevocable and unconditional letter of credit provided for in subparagraph 8 of the second paragraph of section 165 is to ensure the reparation of injury provided for in section 128 of the Act. The contract must have a term of at least 12 months and must include clauses providing that

(1) in the case of non-renewal, termination, revocation or cancellation, the guarantor must notify the Minister at least 90 days before the date fixed for the expiry, termination, revocation or cancellation of the guarantee letter;

(2) in the case of non-renewal, termination, revocation or cancellation, the guarantor remains responsible, in case of injury, until the expiry of the licence or the autorization unless the person concerned has deposited proof of alternative solvency, repair of injury prior to the date of expiry, termination, non-renewal or revocation up to the amount covered by the letter of credit;

(3) the amount is payable within 5 days at the request of the Minister; and

(4) in case of dispute, the courts of Québec are the sole competent courts.

A certified copy of the original must be submitted to the Minister.

169. The purpose of the security and guarantee contract provided for in subparagraph 9 of the second paragraph of section 165 must ensure the reparation of injury provided for in section 128 of the Act. The contract must have a term of at least 12 months and it must include clauses providing that

(1) in the case of non-renewal, termination, revocation or cancellation, the guarantor must notify the Minister at least 60 days before the date fixed for the expiry, termination, revocation or cancellation of the guarantee;

(2) in the case of non-renewal, termination, revocation or cancellation, the guarantor remains responsible, in case of injury, until the expiry of the licence or the authorization unless the person concerned has deposited proof of alternative solvency, repair of injury prior to the date of expiry, termination, non-renewal or revocation up to the amount covered by the security or guaranty contract;

(3) if the guarantor is not a bank, savings and credit union or trust company, the security or the guarantee contract must be accompanied by the security guarantor's financial statements provided for in subparagraph 1 of the second paragraph of section 165 so that the Minister may ascertain the solvency of that person to that amount;

(4) where the licence or authorization holder fails to repair the injury caused, the payment of the amount necessary for reparation is payable at the Minister's request; and

(5) in case of dispute, the courts of Québec are the sole competent courts.

The licence or authorization holder must submit to the Minister a certified copy of the original contract.

170. Proof of solvency must remain in force for the term of the licence or the pipeline construction or use authorization under which it is required.

Proof of solvency provided may at all times be replaced by another proof of solvency compliant with the requirements of this Regulation. The licence or authorization holder immediately notifies the Minister and sends to the Minister the new proof of solvency.

171. On the anniversary date of the licence or the authorization, the holder provides to the Minister an update of the proof of solvency.

CHAPTER IX PUBLICATION OF RIGHTS

172. In addition to the rights, acts and documents provided for in section 150 of the Act, the following acts and documents must be registered in the public register of real and immovable petroleum rights:

(1) the renewal, transfer, suspension, revocation or expiry of a pipeline construction or use authorization;

(2) the name and contact information of the person designated under subparagraph 3 of the second paragraph of section 116 to represent holders of a share of the exploration, production and storage right.

173. The fees payable for the public register are

(1) \$155 for the entry of a right, act or other document provided for or determined pursuant to section 150 of the Act except the revocation or suspension by the Minster of a right or act;

(2) \$58.86 per hour, for a minimum of 30 minutes, for the search of a registered right, act or document;

(3) \$108, as management costs, for obtaining a copy of a right, act or other document that is available and may be downloaded free of charge from the register;

(4) \$0.27 per page for obtaining a copy;

(5) \$26.75 for issuing a certificate of entry of a registered right, act or document; and

(6) \$21.60 for sending by mail a copy or a certificate of entry.

Consultation of the register online is free.

CHAPTER X

FEES, MONETARY ADMINISTRATIVE PENALTIES AND OFFENCE

DIVISION I

FEES

174. The fee payable by person to whom an inspector submitted a notice of non-compliance with the provisions of the Act or this Regulation is \$500.

175. The amounts of the duties and fees payable and the minimum work required under section 38 are adjusted on 1 April of each year according to the same rate resulting from the application of section 83.3 of the Financial Administration Act (chapter A-6.001). Despite the foregoing, the amounts are not adjusted where, in the preceding year, they were fixed or increased otherwise than under that provision.

Adjusted amounts are reduced to the nearest dollar where they contain a fraction of a dollar less than \$0.50. They are increased to the nearest dollar where they contain a fraction of a dollar equal to or greater than \$0.50. The application of the rounding rule may not operate to decrease the amounts to below their pre-adjustment level.

If an adjusted amount cannot be rounded to the nearest dollar, the annual adjustments are deferred and accumulated until the amounts payable include a decimal of 0.5 or more.

The Minister publishes the result of the adjustment in Part 1 of the *Gazette officielle du Québec*.

176. The amounts of duties, fees and royalties payable bear interest, at the rate fixed under the first paragraph of section 28 of the Tax Administration Act (chapter A-6.002), as of the thirtieth day following the date on which they are owed. Interest is capitalized monthly.

DIVISION II

MONETARY ADMINISTRATIVE PENALTIES

177. A monetary administrative penalty of the amount provided for in section 187 of the Act may be imposed on any person who contravenes any of sections 3 to 6, 9, 10, the second paragraph of section 11, the second paragraph of section 12, the second paragraph of section 13, the first paragraph of section 15, the first paragraph of section 16, the second paragraph of section 41, sections 63, 67, 75, 89, 93, 96, 105, 107, 114, 115, 119, 123, 127, 128, the first paragraph of section 129, sections 130, 134, 143, 145, 148 to 150, the first paragraph of section 151 or sections 152 or 159.

178. A monetary administrative penalty of the amount provided for in section 188 of the Act may be imposed on any person who contravenes any of sections 94, 95, 126, 131, 132, 135, 136, paragraphs 2 and 3 of section 137 or sections 138, 141, 142, 144, 164, 170 or 171.

179. A monetary administrative penalty of the amount provided for in section 189 of the Act may be imposed on any person who contravenes any provisions of sections 109, 139, 140, 146, 147 or 155.

DIVISION III OFFENCE

180. Every person who contravenes any provisions of this Regulation commits an offence and is liable to the fine provided for in paragraph 2 of section 199 of the Act.

CHAPTER XI TRANSITIONAL AND FINAL

I RANSI I IONAL AND FINAL

DIVISION I

TRANSITIONAL PROVISIONS MADE UNDER SECTION 287 OF THE ACT

181. A site of a significant find and a discovery of a deposit within the meaning of the Mining Act (chapter M-13.1), recognized by the Minister before (*insert the date of coming into force of this section*) are deemed to be respectively a significant discovery and a commercial discovery within the meaning of the Act.

The holder of an exploration licence who has declared such discoveries before (*insert the date of coming into force of this section*) must have them registered in the public register of real and immovable petroleum rights before the next application for renewal of the licence.

182. A holder of an exploration, production or storage licence referred to in any of sections 269 to 271 of the Act must, within 12 months after (*insert the date of coming into force of this section*), provide to the Minister the proof of solvency provided for in section 165.

The liability insurance policy in the amount of \$1,000,000, a copy of which certified by the police has been submitted to the Minister under section 17 of the Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r.1), must remain valid until the holder provides the proof of solvency to the Minister.

183. The second paragraph of section 11 of the Act does not apply to a territory subject to a storage licence provided for in section 271 of the Act.

184. Every person who, on (*insert the date of coming into force of this section*), uses a pipeline must provide the Minister, with the necessary modifications, with the documents and information provided for in the first paragraph of section 125 and any other similar document and information under which the pipeline has been constructed.

The person must also pay the fee of \$1 per linear metre of pipeline constructed, not later than 180 days following (*insert the date of coming into force of this section*).

The Minister then grants the person a pipeline use authorization.

185. Every person who, on (*insert the date of coming into force of this section*), is responsible for a pipeline that is not used must so notify the Minister within 180 days following (*insert the date of coming into force of this section*).

The notice must contain the name and contact information of the person responsible and be accompanied by a map at a scale of 1:10,000 showing the installations and the route of the pipeline and all its elements.

186. Fees and rents collected since 1 April 2017 for an exploration licence for petroleum, natural gas and an underground reservoir, a lease to produce petroleum and natural gas and a lease to operate underground reservoirs under the Mining Act will be transferred to the Energy Transition Fund established under section 17.12.21 of the Act respecting the Ministère des Ressources naturelles et de la Faune (chapter M-25.2).

DIVISION II

FINAL

187. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette* officielle du Québec.

103530

Draft Regulation

Petroleum Resources Act (chapter H-4.2)

Petroleum exploration, production and storage on land

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation respecting petroleum exploration, production and storage on land, appearing below, may be made by the Government on the expiry of 45 days following this publication.

This draft Regulation sets the conditions for the granting and exercise of the authorizations required for petroleum exploration, production and storage on land, and sets the fees payable. The draft Regulation also determines the protective and safety measures that must be implemented. In addition, it establishes the content of the permanent well or reservoir closure and site restoration plan, the time at which the work planned in the plan must be carried out, and the duration, form and terms of the related guarantee. It also provides for conditions for the granting and exercise specific to the authorization to produce brine. Lastly, the draft Regulation takes into account the concerns, comments and observations received following the first publication period. Consequently, it prohibits every fracturing activity in shist and at less than 1,000 metres from the soil surface as well as development activities for petroleum resources on land within any urbanization perimeter and in an additional 1-km zone around it.

Study of the matter shows that this draft Regulation will have an impact on enterprises currently holding rights to explore for and produce petroleum and gas or operate an underground reservoir that will have to obtain authorizations to carry out certain activities that were not regulated, in particular the carrying out of stratigraphic surveys, fracturing and reconditioning. The enterprises will also have to furnish a guarantee representing the totality of the costs for well or reservoir closure and site restoration. In addition, they will have to contend with greater accountability, in particular in respect of the information sent to the Minister of Energy and Natural Resources. The additional requirements may impose, in certain cases, a significant burden.

Lastly, the prohibition to carry out any fracturing activity in shist and at less than 1,000 metres from the soil surface as well as development activities for petroleum resources on land within any urbanization perimeter and in an additional 1-km zone around it will have an impact on enterprises that incurred expenses in the past to carry out work with respect to the regulations then in force. Those enterprises could lose some of their related investments or see the economic interest of the affected titles reduced or disappear.

Further information on the draft Regulation may be obtained by contacting Marie-Eve Bergeron, Director, Bureau des hydrocarbures, Ministère de l'Énergie et des Ressources naturelles, 5700, 4^e Avenue Ouest, bureau A-422, Québec (Québec) G1H 6R1; telephone: 418 627-6385, extension 8131; toll free: 1 800 363-7233, extension 8131; fax: 418 644-1445; email: marie-eve. bergeron@mern.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Luce Asselin, Associate Deputy Minister for Energy, Ministère de l'Energie et des Ressources naturelles, 5700, 4° Avenue Ouest, bureau A-407, Québec (Québec) G1H 6R1.

PIERRE MOREAU, Minister of Energy and Natural Resources and Minister responsible for the Plan Nord

Regulation respecting petroleum exploration, production and storage on land

Petroleum Resources Act

(chapter H-4.2, ss. 10, 26, 68, 69, 2nd par., 70, 71, 2nd par., 73, 1st and 2nd pars., 76, 1st and 2nd pars., 78, 1st and 2nd pars, 80, 84, 2nd par., 85, 88, 90, 2nd par., 91, 92, 3rd par., 93, 95, 96, 100, 2nd par., 102, 103, 2nd par., 131, 1st par., 191, 207, pars. 1 to 5, and 287)

CHAPTER I

GENERAL

1. This Regulation establishes the conditions of exercise of the petroleum exploration, production and storage activities, while ensuring the safety of persons and property, environmental protection, and optimal recovery of the resource.

It applies to activities carried out on land.

2. In this Regulation,

"activity site" means a zone grouping one or more wellbores and the land laid out in the immediate vicinity to receive the equipment and infrastructures necessary for the operations carried out in the wellbores or, in the case of a survey, the zone corresponding to the perimeter of the area of the survey; (*site des activités*)

"annular space" means a space in the shape of a ring between the outside of a casing and the wall of the wellbore or between two casing walls inserted one inside the other; (*espace annulaire*)

"bank" means sloping land, of a height equal to or greater than 4 m, having at least 1 segment with a slope whose gradient is greater than 14° (25%) over a height of 4 m; the top and base of the bank are determined by a segment with a slope whose gradient is less than 8° (14%) over a horizontal distance greater than 15 m; (*talus*)

"blowout preventer" means all the valves and devices located at the top of a well used to control formation fluid and block and monitor the well during the various activities; (*bloc obturateur de puits*)

"blowout prevention system" means all the control equipment of a well including in particular a blowout preventer, an accumulator and a pipe network allowing the safe flow of fluids during activities in a well; (système anti-éruption) "casing head" means the top part of a wellbore that forms the interface between its buried part and the ground surface; (collet)

"casing shoe" means an annular part, generally filled with cement, attached to the bottom of a casing string that allows to guide the casing string; (*sabot de tubage*)

"casing string" means the entire casing of a wellbore composed of a number of tubing sections generally linked by threaded connections; (*colonne de tubage*)

"completion" means all the work carried out in a well or a section of well to allow its start up once the drilling activities are completed, excluding fracturing; (complétion)

"conductor casing" means the first casing installed at the time of the construction of a wellbore to prevent the collapse of unconsolidated formations near the surface; (*tubage conducteur*)

"directional drilling" means drilling whose orientation and slope are controlled using dedicated equipment and techniques; (*forage directionnel*)

"diverter" means a device that ensures a safe flow of fluids resulting from a shallow blowout or kick and that may be used where the conductor casing is installed; (*déflecteur*)

"drilling fluid" means the mud circulating in the drill rod and coming up in the annular space during drilling to discharge cuttings, cool and lubricate the bit and maintain the desired pressure in the wellbore; (*fluide de forage*)

"drilling rig" means the equipment used to drill a well which includes in particular a derrick, a winch, a rotary table, a drilling fluid pump, a blowout prevention system, and power, control and monitoring systems; (*appareil de forage*)

"drill-stem test" means an operation for collecting samples of fluids contained in rock to determine flow characteristics and measure reservoir pressures using drill stems as flow pipe in the wellbore and dedicated equipment; (essai aux tiges)

"flow-back water" means water produced by petroleum exploration and production activities that comes up to the surface of the wellbore; (*eau de reflux*)

"formation fluid" means a fluid in a natural state present in the pores, fractures, faults, caves or other porosities of the formation; (*fluide de formation*) "fracturing half-length" means the radial distance separating the well from the outside end of a fracture propagated by fracturing; (*demi-longueur de fracture*)

"fracturing test" means a procedure carried out before fracturing, which involves the injection of a fluid and allows to anticipate in particular the length of fractures, the reaction of geological units to fracturing and the confinement potential of the fracturing fluids by the geological feature and the fracturing pressure of rocks associated to a reservoir; (essai de fracturation)

"gas migration" means the emanation of gas detectable on the surface, outside the farthest casing string; (*migration de gaz*)

"horizontal well" means a well whose wellbore angle, from vertical, exceeds 80°, including a section extended in the reservoir; (*puits horizontal*)

"injection well" means a well used to inject fluids into an underground formation; (*puits d'injection*)

"injectivity test" means a procedure used to determine the flow and pressure at which fluids may be pumped into a zone without fracturing the formation; (essai d'injectivité)

"integrity" means, in the case of a wellbore, the condition that ensures containment and prevention of a blowout or migration of fluids in the underground or surface formations with the use of technical and operational solutions; (*intégrité*)

"intermediate casing" means a casing string generally installed after the surface casing and before the production casing, that offers protection against cavities and abnormal pressures of the formations traversed and that allows the use of drilling fluids of various densities necessary to control previous formations; (*tubage intermédiaire*)

"measured depth" means the length of travel of the wellbore; (*profondeur mesurée*)

"miss-fire" means any portion or remainder of a shotpoint containing explosives that have not completely detonated following blasting operations; (*raté*)

"observation well" means a well that is not in production and that is used to monitor the conditions of one or more geological formations, to determine the decline characteristics of a reservoir or to monitor the other wells of a reservoir, except an observation well for groundwater within the meaning of the Water Withdrawal and Protection Regulation (chapter Q-2, r. 35.2); (*puits d'observation*) "packer" means an expendable device used to close a wellbore or isolate an annular space that allows a controlled production, injection or treatment; (garniture d'étanchéité)

"petroleum enhanced recovery" means any petroleum recovery using methods for holding the pressure of the pool, in particular by injecting fluids; (*récupération assistée d'hydrocarbures*)

"primary protective barrier" means the first protective barrier of a well constituted of one or more components that, collectively, are designed and installed to contain and isolate fluids inside a well; (*barrière de protection primaire*);

"production casing" means a casing installed to isolate the production zones and provide a duct through which the well is completed and operated; (*tubage de production*)

"production tubing" means a steel tube placed inside casings used as a duct through which fluids are routed from the production zones to the surface or, in the case of an injection well, from the surface to the production zones; (*tube de production*)

"reconditioning" means major maintenance work or corrective activities on a well to modify it that require the use of a reconditioning device or other service rig; (reconditionnement)

"re-entry" means the new drilling in a well already drilled and for which the drilling rig has been released; (*réentrée*);

"secondary protective barrier" means a second protective barrier designed and installed to ensure a protection and allow control of the well in the event of a mechanical failure of the primary protective barrier; (*barrière de protection secondaire*)

"separating fluid" means any liquid used to physically separate a liquid or a specific use component from another; (*fluide de séparation*)

"shist" means a non-metamorphic geological unit consisting of sedimentary rocks with a grain size less than 0.0625 mm and consisting mostly of clay minerals, such as the Utica Shale; (*schiste*)

"spacer fluid" means fluid designed to clean the wellbore and separate the drilling fluids from the cement flurry; (*fluide de chasse*) "surface casing" means a casing in a competent formation after the installation of the conductor casing to provide structural support for placing a diverter or a blowout prevention system and for the subsequent casing strings, prevent the walls from collapsing and protect against underground water contamination; (*tubage de surface*)

"surface casing vent flow" means the flow of fluids from the annular space between the surface casing and the internal casing; (émanation à l'évent du tubage de surface)

"surface improvement work for sporting or recreational purposes" means a bicycle or cross-country ski trail, a snowmobile trail, a downhill skiing centre, a golf course, a baseball or soccer field, or any other facility of that type intended for sporting or recreational purposes; (ouvrage d'amélioration de la surface à des fins sportives ou récréatives)

"temporary interruption" means the interruption of work for a short period between 2 activities or 2 operations; (*interruption provisoire*)

"true vertical depth" means the vertical distance from a point in the wellbore to a reference point on the surface, generally the drive bushing; (*profondeur verticale réelle*)

"usable groundwater" means groundwater whose total concentration in dissolved solids is less than 4,000 mg / l; (*eau souterraine exploitable*)

"well log" means measurement or recording based on the depth of a characteristic of a geological formation carried out from a wellbore; (*diagraphie*)

"wellbore" means a well or a stratigraphic survey, including the open part; (*trou de forage*)

"wellhead" means the surface end of a well including elements to hang casings during the construction phase and a means to install production tubing and place valves and surface flow and pressure control installations in preparation for the well production phase; (tête de puits)

"wellhead value" means the average retail sale price of the substance extracted, excluding all taxes and less the average transportation costs from the well to the places of delivery, measuring costs and, if applicable, purification costs. (*valeur au puits*)

3. For the purposes of this Regulation, the base of the usable groundwater aquifer is set at 200 m below the surface, unless a hydrogeological study or an analysis of an adjacent wellbore shows that the deepest base of the aquifer of the usable groundwater is located at a different depth.

Part 2

4. All documents that must be sent to the Minister under this Regulation must also be sent in an electronic version, in PDF.

The electronic version of the following documents must also be sent:

(1) well log raw data, in ASCII files or an equivalent version;

(2) data produced by a geographical information system software, in a shapefile.

5. The measurement units in the documents required under this Regulation must be expressed according to the International System of Units (SI).

CHAPTER II

SAFETY AND PROTECTIVE MEASURES AND INCIDENT NOTICE

DIVISION I SAFETY AND PROTECTIVE MEASURES

6. A licence holder must ensure that the work teams are composed of a sufficient number of qualified persons and that the persons have received the training needed to successfully complete the activities planned safely and in a manner to protect the environment.

7. A licence holder must ensure that the equipment and components on the activity site are

(1) in good condition and used for the purposes specified, in accordance with the requirements of the manufacturer;

(2) free from any alteration that may endanger the safety of persons and property, and environmental protection; and

(3) entered in a list that is updated and kept on the activity site.

The licence holder must also ensure that the drilling rigs are certified according to the applicable recommended practices published by the Canadian Association of Oilwell Drilling Contractors, where applicable.

The wellhead or the blowout prevention system must be chosen and designed in accordance with the Industry Recommended Practices, IRP: #3, In Situ Heavy Oil Operations, and IRP: #5, Minimum Wellhead Requirements, published by the Drilling and Completions Committee. The Minister may, in the case of the second and third paragraphs, accept the application of other standards if the holder demonstrates the equivalence.

8. A licence holder must ensure that the equipment, vehicles and machinery are cleaned before their mobilization on the activity site.

9. A licence holder must ensure that adequate procedures and equipment are in place to

(1) verify and control the pressures to which the equipment is submitted during the activities;

(2) detect a liquid flow, or a gas emanation or migration; and

(3) control at all times a wellbore.

10. In the case of a loss of control of a wellbore, a licence holder must close the valves of all other wellbores of the activity site until the wellbore is again controlled.

11. A licence holder must install a communication and information exchange system that ensures,

(1) during a change of shift, the transmission of any information pertaining to the conditions and mechanical or operational problems likely to have an impact on the safety of persons and property, and on environmental protection;

(2) that every person on the activity site is familiar with the safety instructions and evacuation procedures in an emergency; and

(3) that every person responsible for a measure under the emergency response plan provided for in subparagraph 3 of the second paragraph of section 28 is familiar with the system.

12. A licence holder must ensure that the fuel, chemical substances related to safety, drilling fluids, cement and other consumables necessary for carrying out the activities under way are easily accessible and stored on the activity site in a quantity sufficient to meet the needs of any emergency situation normally foreseeable.

The licence holder must also ensure that the products used for all work, including explosives, fuel, chemical substances and drilling fluids are stored, handled and transported so as to prevent their deterioration and to ensure the safety of persons and property, and environmental protection. **13.** A licence holder must ensure that the residual materials from the activities are stored, handled, transported, treated and disposed of so as to ensure the safety of persons and property, and environmental protection.

The licence holder must also ensures that the activities are carried out so as to reduce to a minimum the production of residual materials.

14. A licence holder must ensure to carry out activities in order to eliminate or reduce to a minimum the volume of gas released into the atmosphere.

To that end, the licence holder must in particular

(1) contribute to the combustion of gases using a pilot ignition at the flare or other device, or their recovery, where possible;

(2) implement a leak inspection plan;

(3) select and install equipment according to the best practices; and

(4) prepare equipment operating procedures according to the best practices.

15. A licence holder using water for the activities following the cementing of the surface casing must ensure to prevent any corrosion in particular by microorganisms and must keep on the activity site the analysis certificate for the water used.

16. Smoking is prohibited on the activity site, except in locations designated for that purpose by a licence holder.

17. No person may access the activity site or a site where there is a temporarily closed well without the authorization of the holder of a licence, except persons authorized by law.

18. A licence holder must ensure that the activity site and access roads are kept in good condition and that no danger results from the layout of the equipment and installations.

The activity site must also be laid out and maintained so that it is accessible at all times to the emergency teams.

19. A licence holder must secure the wellbore and the activity site during a temporary interruption of activities in order to ensure the safety of persons and property, and environmental protection.

During the temporary interruption, the holder must use a wellhead that must be closed.

20. Where a well poses a risk for the safety of persons and property, and environmental protection, a licence holder must carry out corrective activities in compliance with chapter X.

A well is considered to pose a risk if any of the following situations is detected:

(1) there is an surface casing vent flow and that emanation has one of the following characteristics:

(a) its stabilized flow is equal to or greater than $50 \text{ m}^3 \text{ day}$;

(b) the emanation is not only composed of gas;

(c) it contains hydrogen sulfide (H_2S) whose concentration is equal to or greater than 6 $\mu g/m^3$ for 4 minutes;

(d) it is produced by a failure of a packer or casing;

(2) the stabilized closing pressure at the wellhead is equal to or greater than half the formation leak pressure measured at the elevation of the surface casing shoe or, if that elevation is unknown, at 11 kPa/m multiplied by the true vertical depth of the surface casing.

(3) there is a gas migration that represents a fire hazard or other risk to the safety of persons and property, and to environmental protection.

21. Where a licence holder uses a wellhead, that wellhead must comply with CSA Standard Z625, Well design for petroleum and natural gas industry systems, except a storage wellhead that must comply with CSA Standard Z341, Storage of hydrocarbons in underground formations, published by the Canadian Standards Association.

22. The holder of an exploration or production licence or an authorization to produce brine may not, in the territory of any urbanization perimeter delimited in a land use and development plan made under the Act respecting land use planning and development (chapter A-19.1) and at less than 1,000 m from the latter, conduct geophysical surveying or geochemical surveying in the ground, a stratigraphic drilling and drill, re-enter and complete therein a well.

The holder of a storage licence may not, in such a territory and less than 1,000 m from the latter, conduct geophysical surveying or geochemical surveying in the ground, conduct stratigraphic drilling and drill a well and fracture a well therein.

DIVISON II

INCIDENT NOTICE

23. A licence holder must immediately notify the Minister where any of the following incidents occurs:

- (1) damage to the integrity of a wellbore;
- (2) a casing corrosion problem;
- (3) an unexpected loss of pressure in a wellbore;
- (4) an unexpected detection of hydrogen sulfide (H_2S) ;
- (5) a blowout;

(6) the detection of any of the situations provided for in the second paragraph of section 20;

(7) a fire or an explosion;

(8) vandalism;

(9) the triggering of the emergency response plan provided for in subparagraph 3 of the second paragraph of section 28;

- (10) damage to private property;
- (11) ground movement;

(12) any other event likely to have an impact on the safety of persons and property, or environmental protection.

The notice must contain the corrective measures taken by the holder or those planned with their schedules.

In the case of a corrosion problem, the holder must inform the Minister of the type of corrosion, the depth interval and the cause.

In the case of a blowout, the holder must inform the Minister of the depth, volume, duration and density of the drilling fluid necessary to control the wellbore.

In the case of damage to private property, the licence holder must also notify the owner.

In the case of ground movement, the Minister may require geotechnical expertise.

24. After having received an incident notice under section 23, the Minister may require that the licence holder send to the Minister an event report stating the facts,

evaluating the consequences, listing possible causes and proposing mitigation measures and measures to prevent reoccurrence of the event.

CHAPTER III PROVISIONS SPECIFIC TO ACTIVITY AUTHORIZATIONS AND APPROVALS

25. A licence holder must ensure that all depth measurements are taken from a single reference point. The holder must always indicate the reference point from which those measurements are taken.

26. A licence holder applying for an authorization or an approval for an activity must, in the application submitted to the Minister, demonstrate that the planned work will be carried out according to generally recognized best practices to ensure the safety of persons and property, environmental protection and the optimal recovery of the resource.

27. A licence holder must keep a copy of authorizations and approvals on the activity site for the work period.

28. The application for authorization or approval of an activity, except the authorization for geochemical surveying and the approval of the petroleum enhanced recovery project, must be accompanied by a safety and community involvement program detailing elements likely to have an impact on the safety of persons and property.

The safety and community involvement program must include, in particular,

(1) a plan at a scale of 1:500 showing the layout of the activity site, including, in particular,

(a) the dimensions of the site;

(b) access roads;

(c) the actual or proposed location of the casing head and the bottom of the wellbore covered by the authorization or approval application; and

(d) existing or proposed storage equipment, installations, infrastructures and basins;

(2) a description of the mitigation measures anticipated to harmonize the use of the territory and minimize disruptions for the local communities;

(3) an emergency response plan compliant with CSA Standard Z731, Emergency Preparedness and Response, published by the Canadian Standards Association; (4) a plan for communication with the local communities revised by the monitoring committee;

(5) an estimate of the economic benefits for the region; and

(6) any other information or document deemed necessary by the Minister.

For the application for a geophysical surveying authorization, the safety and community involvement program must also include a schedule of the road traffic, indicating the volume of trucking and the period during which it will take place and a map showing routes. However, it does not have to include the elements provided for in subparagraphs 1 and 4 of the second paragraph.

The Minister may exempt the holder from providing a safety and community involvement program if the holder demonstrates that the duration and scope of the activity do not justify such a program.

CHAPTER IV

MEASUREMENT

29. A licence holder ensures that the rate of flow and the volume of the following fluids are measured:

(1) the fluid extracted from a well;

(2) the fluid injected into and withdrawn from a well;

(3) the fluid that enters, leaves, is used or is flared, vented, burned or disposed of in an installation.

The measurements recorded must be expressed at a temperature of 15° C and a pressure of 101.325 kPa.

Where the measurements of the volume or flow of a fluid to be measured by the holder cannot be taken, the holder may estimate them. If so, the holder must, when they are sent to the Minister, indicate the circumstances preventing the holder from taking accurate measurements.

30. A licence holder ensures that the measurements are taken in accordance with the flow system, flow calculation procedure and flow allocation procedure.

The term "flow system" means the flow meters and auxiliary equipment attached to the flow meters, fluid sampling devices, production test equipment, the master meter and meter prover used to measure and record the rate and volumes at which fluids are

(1) produced from a pool or withdrawn from an underground reservoir; (2) injected into a pool or stored in an underground reservoir;

(3) used as a fuel;

(4) used for artificial lift; or

(5) flared or transferred from an installation.

31. A licence holder must notify the Minister at least 15 days before the calibration of a meter prover or a master meter.

A copy of the calibration certificate is sent to the Minister within 30 days following the calibration.

32. A licence holder who mixes fluids from a well or a group of wells must, 30 days before measuring the production flow of the pool, notify the Minister of the method, the frequency and the duration of the measurements, indicating the manner in which the total production of each of the mixed fluids will be allocated to each of the wells.

33. Where a well goes through a number of pools or formations, a licence holder ensures that the production of each pool or formation is allocated and the injection into each pool and each formation is allocated.

The Minister may exempt the holder from the allocation where the holder demonstrates that it is technically impossible to carry out such an allocation.

CHAPTER V

GEOPHYSICAL OR GEOCHEMICAL SURVEYING AUTHORIZATION

DIVISION I

AUTHORIZATION FOR GEOPHYSICAL SURVEYING

§1. Conditions for obtaining an authorization

34. A licence holder who wishes to obtain a geophysical surveying authorization must apply to the Minister in writing.

35. The application must contain

(1) the name and contact information of the holder and the licence number; and

 $(2)\;$ the work schedule and an estimate of the realization costs.

36. The application must be accompanied by

(1) the demonstration that the separation distances provided for in section 43 are complied with;

(2) a topographic map at a sufficient scale showing, in particular,

(a) the perimeter of the licence;

(b) the territory of the municipalities in which surveying is conducted;

(c) the roads comprised in the perimeter of the licence;

(d) the activity site and the survey lines, and the traverses with their nature, numbering and length;

(e) the points of energy source and their numbering;

(f) public and private land;

(g) if applicable, the existing line cutting up to 400 m from the activity site;

(h) if applicable, the campsite or the helicopter platform; and

(i) in the case of an aerial survey, the flight plan;

(3) the geophysical surveying technical program provided for in section 37, signed and sealed by a geologist, an engineer or a geophysicist;

(4) payment of the fee of \$1,030; and

(5) any other information or document deemed necessary by the Minister.

If required and based on the area of the surveying, the licence holder may, for the purposes of subparagraph 2 of the first paragraph, submit a number of maps at different scales.

37. The geophysical surveying technical program must include

(1) the name and contact information of the geologist, engineer or geophysicist responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the name and contact information of the enterprises charged with carrying out the data acquisition, processing and interpretation work; (4) the name of the region in which the surveying will be conducted;

(5) a description of the geological context and the degree of maturity of the exploration in the territory concerned;

(6) the type of the proposed surveying and the energy sources used;

(7) the acquisition parameters and the objectives of the surveying including, in particular, the structures, the geological formations targeted and the investigation depth;

(8) the area covered by the surveying or the total number of linear kilometres to be surveyed;

(9) the coordinates of the ends of each survey line or the activity site according to the NAD83 map reference system;

(10) the required flexibility margin on either side of the survey line for positioning the lines indicated on the map;

(11) a chronological and detailed description of the work to be carried out;

(12) the time at which the work will be carried out;

(13) a summary description of the equipment to be used;

(14) in the case of a surveying involving an explosive energy source,

(a) a description of the training or certificates of the workers who will load explosives in the shotpoints and fire them;

(b) the type of explosive substance; and

(c) the charge, in kilograms, to be detonated and, if it is greater than 20 kg, a technical demonstration that justifies exceeding that limit;

(15) in the case of a surveying involving the drilling of a shotpoint,

(a) he depth of the shotpoint and, if it is greater than 12 m, a technical demonstration that justifies exceeding that limit; and

(b) the method for sealing the shotpoint;

(16) if applicable, the list of licences, certificates and other authorizations to be obtained;

(17) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(18) any other information or document deemed necessary by the Minister.

§2. Time periods and notice of the start of the work

38. The authorization holder must, within 12 months after the Minister granted the authorization, start the geophysical surveying work.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

The Minister may grant an additional period if the holder demonstrates the need therefor.

39. The authorization holder must, at least 7 days before the start of the work, notify the Minister of the date anticipated for the start of the work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

40. The authorization holder must, at least 24 hours before, notify the Minister of the work completion date. If the geophysical surveying work is temporarily interrupted, the holder must also, as soon as possible, notify the Minister of the work resumption date.

§3. Conditions of exercise

41. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by a geologist, an engineer or a geophysicist stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

(1) a change in the position of survey lines, as long as the position remains within the flexibility margin set under paragraph 10 of section 37;

(2) the cancellation of the drilling or loading of a shotpoint.

In the situations provided for in the third paragraph, the holder immediately notifies the Minister of the change to the technical program.

42. The authorization holder must, during the work, install a sign on each motorized equipment, except aircraft, indicating

(1) the holder's name and the licence number;

(2) the number of the geophysical surveying authorization; and

(3) the type of surveying carried out.

43. The authorization holder who uses an explosive energy source must not position the shotpoints in the right of way of a public highway within the meaning of the Highway Safety Code (chapter C-24.2), a multi-purpose road within the meaning of the Sustainable Forest Development Act (chapter A-18.1), a mining road within the meaning of the Mining Act (chapter M-13.1) and a road within the meaning of section 138 of the Petroleum Resources Act (chapter H-4.2). The holder must also not position them

(1) less than 10 m from a survey marker or a pipe that is not made of concrete;

(2) less than 15 m from a buried telecommunication infrastructure or any other buried installation or infrastructure of the same type or a wastewater treatment system and a holding tank;

(3) less than 30 m from a railway;

(4) less than 32 m from a pipeline or another installation or infrastructure of the same type, the casing head of an existing wellbore or, if the charge exceeds 2 kg, less than a distance corresponding to the following formula:

 $A + B \times 4 = C$ where

A is 32 m

B is the explosive charge, in kg

C is the minimum separation distance;

(5) less than 100 m from a cemetery;

(6) less than 180 m from a building with a concrete foundation or a concrete pipe if the explosive charge does not exceed 12 kg;

(7) less than 180 m from a high-capacity dam, within the meaning of the Dam Safety Act (chapter S-3.1.01);

(8) less than 200 m from a site for withdrawing water for the purposes of human consumption or food processing or from a transmission line having a voltage equal to or greater than 69,000 V; or

(9) less than 200 m from a building with a concrete foundation or a concrete pipe, if the explosive charge exceeds 12 kg.

The authorization holder who uses a non-explosive energy source at the surface must not position the energy source

(1) less than 2 m from a buried telecommunication infrastructure or any other buried installation or infrastructure of the same type;

(2) less than 10 m from a survey marker or a pipe that is not made of concrete;

(3) less than 15 m from a pipeline or other installation or infrastructure of the same type, the casing head of an existing wellbore, a septic tank or a railway;

(4) less than 50 m from a cemetery, a building with a concrete foundation, a concrete pipe or a high-capacity dam within the meaning of the Dam Safety Act; or

(5) less than 200 m from a transmission line having a voltage equal to or greater than 69,000 V.

The distances must be measured horizontally, in a straight line, from each energy source to the nearest point of the elements referred to in the first and second paragraphs.

If the individual points of the energy source cannot be located precisely, the minimum distances must be measured from the survey line to the nearest point of the elements referred to in the first and second paragraphs.

The Minister may allow the reduction of the distances if the authorization holder demonstrates to the Minister that an effective protective measure reduces risks.

44. Where a surveying requires drilling, the authorization holder must protect usable groundwater and use non-toxic substances when drilling and sealing shotpoints.

45. Where a surveying involves an explosive energy source, the authorization holder keeps and maintains, until the end of the blasting operations, a register of all the numbers of the holes drilled and of those loaded with explosives.

46. The authorization holder must ensure that a hole loaded with explosives is monitored until

(1) the mouth is packed with drill cuttings or a material that ensures an impervious and durable sealing;

(2) an indicator marking its location and indicating the surveying authorization number is installed;

(3) the wire connected to the explosive charge is solidly attached on the surface and the excess wire is rolled around the indicator; and

(4) the remaining drill cuttings are levelled uniformly around the shotpoint.

47. The authorization holder must comply with the following firing procedure:

(1) before proceeding with the firing, the person responsible for the blasting must ensure that the persons present have taken shelter;

(2) the following sound signals must be emitted with a siren of at least 120 decibels:

(*a*) immediately before blasting, 12 short horn signals at one-second intervals;

(b) 30 seconds must elapse between the last warning signal and the time of firing;

(c) after blasting, once the blasting area is safe, one continuous 15-second horn signal must announce that work may be resumed in the area;

(3) the person responsible for the blasting must make sure that workers take shelter outside the blasting area before the first signal and that they remain there until the 15-second signal is sounded;

(4) a code of sound signals reserved for blasting ope-rations must be written in coloured letters 150 mm high, against a contrasting background, on a board 1.2 m high by 2.4 m wide, placed at all points of access to the blasting site.

48. Any explosive charge that misfired must not be extracted, but must be blasted again during the same work shift.

During the repriming or refiring, the authorization holder must make sure that

(1) the untamping of the mouth is done by the person who loaded and fired the shotpoint, unless the person is unable to do so;

(2) during all untamping, repriming and firing operations, only the person responsible for the operations is present in the blasting area; and

(3) the material used for untamping and the shotpoint and inserted in it is made of non-ferrous materials.

If dynamite has been used as explosive charge, it is prohibited to untamp a shotpoint unless a tamping plug is placed between the explosive charge and tamping at the time the shotpoint is loaded. The tamping plug must consist of paper or any other solid non-ferrous material, have a thickness of 100 mm, brightly-coloured and contrasting with the colour of the packaging of the explosive and the tamping material used. During untamping of a shotpoint, the tamping plug and the explosives must not have been subjected to stress or shock. When the tamping plug is reached, untamping must be stopped; a primer must then be placed on the contact of the tamping plug and the hole must be restemmed.

If the repriming or refiring operation is impossible, the explosives that are not dynamite must be extracted in accordance with a procedure drawn up by an engineer, taking into account the types of explosives and the manufacturer's instructions and the physical environmental conditions. The procedure must be kept at all times on the activity site.

49. Where, during drilling or the blasting of a shotpoint, groundwater flows to the surface or where the presence of gas is detected, the authorization holder must

(1) interrupt the shotpoint drilling work in progress;

(2) make sure that no explosive charge is placed in adjacent shotpoints during the drilling; and

(3) stop the water or gas flow by sealing the shotpoint so that the fluid is confined in its initial zone, with a material that ensures an impervious and durable sealing.

Where the drilling of a shotpoint is completed and the explosive charge is already inserted when groundwater flows to the surface or the presence of gas is detected, the holder must blast according to the procedure provided for in the technical program before stopping the water or gas flow by sealing the shotpoint in accordance with subparagraph 3 of the first paragraph.

To continue drilling work, the holder must move or reduce the depth of the drilling of adjacent shotpoints to prevent new groundwater flows to the surface or another gas kick.

50. In the case of surveying involving an explosive energy source, the authorization holder must, immediately after the firing,

(1) cut the excess of the wire connected to the charge detonated at ground level or in the shotpoint;

(2) seal the shotpoint by tamping, up to the surface, at least 1 m of drill cuttings or equivalent material; and

(3) level the remaining drill cuttings around the shotpoint.

If the ground around the shotpoint collapsed, the holder must put the site back to its initial level. The backfill material must be of the same type as the soil.

51. The authorization holder must collect all residual materials, facilities and equipment, and restore the activity site as soon as the work ends or as soon as the meteorological conditions allow.

§4. Daily report and end of activities report

52. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day, in particular,

(1) the number of the geophysical surveying authorization;

(2) the type of surveying carried out and the energy sources used;

(3) a description, in chronological order, of the work carried out and the time required to carry out each step of the work;

(4) the number of the lines or traverses in which the data was acquired;

(5) the number of linear kilometres acquired or the area covered, their total and the remaining quantity;

(6) work interruptions and disturbances due, in particular, to meteorological conditions and technical and operational difficulties, and their duration; (7) the operational problems encountered and the corrective measures taken or planned; and

(8) any other information or document deemed necessary by the Minister.

53. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

54. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by a geologist, an engineer or a geophysicist including, in particular,

(1) the number of the geophysical surveying authorization;

(2) the name and contact information of the holder and the licence number;

(3) the name and contact information of the geologist, engineer or geophysicist responsible for the technical program;

(4) the name of the enterprises that took part in the work and the nature of the work;

(5) the name of the region in which the surveying was carried out;

(6) the type of surveying carried out and the energy sources used;

(7) the acquisition parameters and the objectives of the surveying including in particular structures, geological formations targeted, the type of play and the investigation depth;

(8) the total number of linear kilometres acquired or the area covered by the surveying;

(9) the start and end dates of the work;

(10) the summary of the work carried out in chronological order;

(11) a compilation of the daily progress of the work;

(12) a topographic map at a sufficient scale showing

(a) the perimeter of the licence;

(b) the activity site, survey lines and traverses with their nature, numbering and length;

 $(\!c\!)$ the points of energy source and their numbering; and

(d) the roads included in the perimeter of the licence;

(13) a description of the data acquisition parameters indicating, in particular,

(a) the spacing between the points of the energy source, the receiver points and, if applicable, between the survey lines;

(b) the characteristics of the energy source used; and

(c) if applicable, the setting of the recording filters;

(14) a description of the data processing parameters;

(15) the adjustments made to the data during the interpretation;

(16) the following interpretation maps:

(a) in the case of seismic reflection surveying, the time structure map and the isochrone map of the main target and, if applicable, the secondary target and the interpreted profiles; if the stratigraphy of an adjacent wellbore is known, the holder must carry out the matching of the seismic profile nearest to the hole and indicate the correlation between the main reflectors and the stratigraphy;

(b) in the case of seismic refraction surveying, the velocity map;

(c) in the case of magnetic surveying, the map for the total magnetic field corrected and offset and the map for the residual magnetic field corrected and offset;

(d) in the case of gravimetric surveying, the maps of Bouguer anomalies and of the residual field;

(e) in the case of spectrometric surveying, a map of the natural petroleum spill areas on the surface and, if applicable, a map of the anomalies in potassium, uranium and thorium;

(f) in the case of electrical resistivity surveying, a map or a profile of the apparent resistivity including, if applicable, potential faults, the depth of zones and their thickness;

(17) an analysis of each of the interpretation maps specifying the correlation between the geology and the geophysical data;

(18) if applicable, the technical reports drawn up by the enterprises that carried out the data processing or interpretation; Part 2

(19) a comparative analysis of the work carried out compared with that planned in the technical program and the results obtained compared with those anticipated;

(20) a description and photographs of the equipment used and their specifications;

(21) in the case of a surveying involving an explosive energy source, the coordinates of all misfirings according to the NAD83 map reference system and a description of the corrective measures taken;

(22) in the case of a surveying involving the drilling of a shotpoint, the coordinates of the holes in which there is a groundwater spill on the surface or a gas kick according to the NAD83 map reference system and a description of the corrective measures taken; and

(23) the recommendations for the continuation of the work.

If required and based on the area of the surveying, the holder may, for the purposes of subparagraph 12 of the first paragraph, submit a number of maps at different scales.

§5. Notice to the Minister

55. The authorization holder must, within 24 hours, notify the Minister where a firing has misfired and in the cases referred to in section 49.

The notice must indicate the corrective measures taken by the holder or those planned with their schedules.

56. After having received a notice under section 55, the Minister may require from the authorization holder that the holder submits an event report stating the facts, evaluating the consequences, listing possible causes and proposing mitigation measures and measures to prevent reoccurrence of the event.

SECTION II

GEOCHEMICAL SURVEYING AUTHORIZATION

§1. Conditions for obtaining an authorization

57. A licence holder who wishes to obtain a geochemical surveying authorization must apply to the Minister in writing.

58. The application must contain

(1) the name and contact information of the holder and the licence number; and

(2) the work schedule and an estimate of the realization costs.

59. The application must be accompanied by

(1) a topographic map at a sufficient scale showing, in particular,

(a) the perimeter of the licence;

(b) the activity site;

(c) the sampling points; and

(d) public and private land;

(2) the geochemical surveying technical program provided for in section 60, signed and sealed by a geologist or an engineer;

(3) payment of the fee of \$1,030; and

(4) any other information or document deemed necessary by the Minister.

If required and based on the area of the work, the licence holder may, for the purposes of subparagraph 1 of the first paragraph, submit a number of maps at different scales.

60. The geochemical surveying technical program must contain

(1) the name and contact information of the geologist or the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the name and contact information of the enterprises charged with carrying out the data acquisition, processing and interpretation work;

(4) the name of the region in which the surveying will be carried out;

(5) a description of the geological context and the degree of maturity of the exploration in the territory concerned;

(6) the type of surveying proposed;

(7) the objectives of the surveying including, in particular, the acquisition parameters and the type of analyses planned; (8) a chronological and detailed description of the work to be carried out;

(9) the area covered by the surveying;

(10) the number of samples and the expected percentage of loss;

(11) the spacing interval between the sampling points;

(12) the depth of the sample collection; and

(13) the sampling, collection, transportation and analysis protocol;

(14) if applicable, the list of licences, certificates and other authorizations to be obtained;

(15) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(16) any other information or document deemed necessary by the Minister.

§2. Time periods and notice of the start of the work

61. The authorization holder must, within 12 months after the Minister granted the authorization, start the geochemical surveying work.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

The Minister may grant an additional period if the holder demonstrates the need therefor.

62. The authorization holder must, at least 7 days before the start of the work, notify the Minister of the date anticipated for the start of the work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

63. The authorization holder must, at least 24 hours before, notify the Minister of the work completion date. If the geochemical surveying work is temporarily interrupted, the holder must also, as soon as possible, notify the Minister of the work resumption date.

§3. Conditions of exercise

64. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by a geologist or an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

(1) an adjustment in the position of the sampling points;

(2) a variation in the quantity of sampling points.

In the situations provided for in the third paragraph, the holder immediately notifies the Minister of the change to the technical program.

65. The authorization holder must, during the work, install a sign on each motorized equipment, except aircraft, indicating, in particular,

(1) the holder's name and the licence number;

(2) the number of the geochemical surveying authorization; and

(3) the type of surveying carried out.

66. The authorization holder who plans on leaving samples on the surveying site must make sure to protect the integrity of the data, facilities and equipment.

67. The authorization holder must restore the activity site as soon as the work ends or as soon as the meteorological conditions allow.

§4. Daily report and end of activities report

68. The authorization holder must draw up a daily report of the work and keep it on the activity site

The daily report must contain all the elements applicable to the declared day, in particular,

(1) the number of the geochemical surveying authorization;

(2) the type of surveying carried out;

(3) a description, in chronological order, of the work carried out and the time required to carry out each step of the work;

(4) the numbers of the sampling points and data acquisition modules, their depths and theirs GPS coordinates;

(5) if applicable, the discovery of a natural seepage;

(6) work interruptions and disturbances due in particular to meteorological conditions and technical and operational difficulties, and their duration;

(7) the operational problems encountered and the corrective measures taken or planned; and

(8) any other information or document deemed necessary by the Minister.

69. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

70. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by a geologist or an engineer including, in particular,

(1) the number of the geochemical surveying authorization;

(2) the name and contact information of the licence holder and the licence number;

(3) the name and contact information of the geologist or engineer responsible for the technical program;

(4) the name of the enterprises that took part in the work and the nature of the work;

(5) the name of the region in which the surveying was carried out;

(6) the type of surveying carried out;

(7) the objectives of the surveying including, in particular, the acquisition parameters and the type of analyses;

(8) the number of samples collected and the percentage of actual loss;

(9) the depth of the sample collection;

(10) the area covered by the surveying;

(11) the start and end dates of the work;

(12) the summary of the work carried out in chronological order;

(13) a compilation of the daily progress of the work;

(14) a topographic map at a sufficient scale showing, in particular,

(a) the perimeter of the licence;

(b) the activity site;

(c) the numbered sampling points; and

(d) private and public land;

(15) the list of the numbered sampling points and their GPS coordinates;

(16) a description of the data processing parameters;

(17) an interpretation map for gas sampling showing the spatial variation of the distribution of the gas concentrations showing anomalies;

(18) an analysis of the interpretation map specifying the correlations between the geology and the geochemical data;

(19) if applicable, the technical reports drawn up by the enterprises that carried out the data processing or interpretation;

(20) a comparative analysis of the work carried out compared with that planned in the technical program and the results obtained compared with those anticipated;

(21) if applicable, the interpretation of the results obtained in connection with the other geological and geophysical data available;

(22) if applicable, the type of petroleum anticipated in the targets identified by the surveying;

(23) if applicable, the discovery of a natural seepage;

(24) a description and photographs of the equipment used and their specifications; and

 $\left(25\right)\,$ the recommendations for the continuation of the work.

If required and based on the area of the work, the holder may, for the purposes of subparagraph 14 of the first paragraph, submit a number of maps at different scales.

CHAPTER VI

STRATIGRAPHIC SURVEY AUTHORIZATION

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

71. A licence holder who wishes to obtain a stratigraphic survey authorization must apply to the Minister in writing.

72. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the proposed stratigraphic survey; and

(3) the work schedule and an estimate of the realization costs.

73. The application must be accompanied by

(1) a topographic map at a scale of 1:20,000 showing, in particular,

(*a*) the surface projection of the wellbore profile to the location of the bottom of the hole;

(b) the location of the existing wellbores within a radius of 5 km; and

(c) the demonstration that the distances provided for in sections 83 and 85 are met;

(2) the stratigraphic survey technical program provided for in section 74, signed and sealed by an engineer;

(3) payment of the fee of \$4,426; and

(4) any other information or document deemed necessary by the Minister.

74. The stratigraphic survey technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) a description and the photographs of the initial condition of the site;

(4) the demonstration that, during the positioning of the stratigraphic survey, the presence of adjacent wellbores has been taken into consideration for the safety of persons and property, environmental protection and the integrity of the stratigraphic survey;

(5) the demonstration that the presence of gas in the soil in its natural state has been taken into consideration;

(6) a chronological and detailed description of the work to be carried out;

(7) the name and contact information of the enterprises charged with carrying out the work;

(8) a lateral section of the stratigraphic survey indicating the technical elements anticipated before and after the sealing;

(9) a geological projection including

(a) a stratigraphic column indicating the thickness of the unconsolidated deposits, the geological formations, porous and permeable zones, faults and other major structures;

(b) the identification of the potential zones of fluid kicks or lost circulation;

(c) the anticipated base of the usable groundwater, if it is different from the base provided for in section 3;

(d) anticipated primary and secondary petroleum objectives; and

(e) if the seismic profile has been used, the interpreted seismic profile indicating the top of geological formations, the shotpoint nearest the location of the drilling and the location of the anticipated petroleum objectives;

(10) if applicable, the list of the proposed coring intervals;

(11) the list of pressure and leak tests, drill-stem tests, leakoff test and all other tests planned;

(12) the list of the well logs planned;

(13) a drilling program including, in particular,

(a) the type of drilling rig and equipment to be used and their specifications;

(b) the drilling fluids and spacer fluids used and their properties, and a demonstration that those fluids comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(c) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(d) the diameters of the wellbore according to the measured depth and the true vertical depth on a lateral section, to the bottom of the planned hole;

(e) a graphic projection of the formation pressure and temperature to the expected final depth;

(f) a graphic projection of the deviation of the drill path to the expected final depth;

(g) the frequency of the measurements of the deviation of the path in dip and azimuth;

(*h*) the demonstration that the casing strings comply with CSA Standard Z625, Well design for petroleum and natural gas industry systems, published by the Canadian Standards Association; and

(*i*) a program for centralizing casings that allows to reach a minimum centralization of 75% compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee, indicating, in particular, the type of centralizers, their dimension, frequency of installation and installation;

(14) a program for cementing annular spaces in each of the casing strings compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee and including, in particular,

(a) the diameters of the casing strings according to the measured depth and the true vertical depth;

(b) the planned height of the cement column in the annular space;

(c) the cement preparation and application methods;

(d) the planned minimum and maximum pumping flows and the pumping equipment capacity;

(e) the type of cement used, its density, its additives and their proportions, its setting time, calculated volume and surplus percentage; (f) if applicable, any changes to the cement required due to specific physical and chemical conditions of the environment, including, in particular, the depth of the stratigraphic survey, an abnormal pressure or temperature, a circulation loss area, salt areas, unconsolidated deposits or a corrosive environment;

(g) the methods used to prepare the wellbore for cementing and to improve fluid displacement, in particular, casing movement; and

(*h*) the method for monitoring cement circulation in the annular space;

(15) if a simulation or modelling has been carried out, a description of the simulation or modelling and the results obtained;

(16) a site sealing and restoration program including, in particular,

(*a*) the method used to demonstrate the tightness of the stratigraphic survey carried out before the sealing work;

(b) the stratigraphic survey cleaning method used before installing plugs;

(c) the type of device used and its specifications; and

(d) a cementing program compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee including, in particular,

i. for each cement plug, the intervals, the type of cement used, its density, its additives and their proportions, its setting time, calculated volume and surplus percentage;

ii. any changes to the cement used for the plugs required due to specific physical and chemical conditions of the environment, including, in particular, the depth of the stratigraphic survey, an abnormal temperature or a corrosive environment;

iii. the method for installing each plug; and

iv. the method and frequency of the monitoring of the position of the plugs during sealing, the waiting time before the monitoring and the criteria of the acceptability of the position of the cement plugs;

(e) the method used to demonstrate that following the installation of the plugs and before the cutting of the surface casings, there is no gas emanation;

(f) a description of the activity site restoration work planned for maintaining the quality of the natural landscapes, minimizing impact on wildlife, and harmonizing the activity site with the use of the territory, and a plan presenting the work including, in particular,

i. the procedure for dismantling installations and, if applicable, the procedure for dismantling the supply cable;

ii. the rehabilitation of contaminated land;

iii. the purge of pipes; and

iv. the withdrawal of equipment and facilities;

(17) if applicable, the list of licences, certificates and other authorizations to be obtained;

(18) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(19) any other information or document deemed necessary by the Minister.

75. The holder may not position the activity site in a zone potentially exposed to ground movement particularly identified in accordance with government mapping available. If such mapping is not available, the holder may not position the activity site at less than a horizontal distance that corresponds to twice the height of a bank, measured in relation to the top and base of the bank.

Despite the foregoing, a licence holder may position an activity site in an area potentially exposed to ground movement if the holder provides the Minister, with the application, geotechnical expertise that

(1) assesses the stability of the activity site and confirms that the wellbore will not be threatened by a landslide;

(2) confirms that the expected activity does not act as a triggering factor by destabilizing the activity site and adjacent land; and

(3) confirms that the subsequent activities on the activity site do not constitute an aggravating factor by unduly reducing the safety coefficients

Where applicable, the geotechnical expertise must include recommendations on the precautions to take and the protective measures necessary to maintain at all times the stability of the activity site and the security of the area being examined. **76.** Before ruling on the application for authorization, the Minister may, if the Minister deems it necessary to ensure the long-term integrity of the stratigraphic survey, require that the licence holder tests the cement in a laboratory. The test must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

The holder sends the test results to the Minister.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

77. The authorization holder must, within 12 months after the Minister granted the authorization, start the stratigraphic survey work.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

The Minister may grant an additional period if the holder demonstrates the need therefor.

78. The authorization holder must, at least 7 days before, notify the Minister of the start of the following work:

(1) the preparation of the site where the drilling rig will be located;

(2) the start of the drilling;

(3) the sealing of the stratigraphic survey.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

79. The authorization holder must, at least 24 hours before, notify the Minister of the rig release and, in the case of a temporary interruption, the holder must also notify the Minister as soon as possible of the resumption of the work.

DIVISION III CONDITIONS OF EXERCISE

80. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

(1) an adjustment of less than 10% in the final depth of the stratigraphic survey resulting from a slightly different geological projection;

(2) a change in the position of the casing head where it remains on the activity site;

(3) the addition or cancellation of a coring section, a drill-stem test, a well log, a sample collection or a fluid sample.

In the situations provided for in the third paragraph, the holder immediately notifies the Minister of the change to the technical program.

81. The authorization holder must design and build the stratigraphic survey so as to

(1) comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(2) ensure work safety;

(3) prevent incidents in the maximum load conditions normally foreseeable during the life cycle of the stratigraphic survey;

(4) withstand potential conditions, forces and stresses;

(5) ensure a resistance sufficient for fluid kicks;

(6) protect the integrity of the groundwater;

(7) allow the characterization of the geological formations targeted; and

(8) allow activities for controlling the pressure of the bottom of the stratigraphic survey in a constant and safe manner.

82. The authorization holder must, as soon as the work starts and until the site restoration work is undertaken, install a sign at the entrance of the activity site indicating, in particular,

(1) the location of the stratigraphic survey;

(2) the holder's name and the licence number;

(3) the name and number of the stratigraphic survey appearing on the authorization;

(4) a telephone number in case of emergency;

(5) the pictograms associated with the hazardous products present on the activity site; and

(6) the indication that access to the activity site is prohibited without the holder's authorization.

83. The authorization holder may not position the casing head of a stratigraphic survey

(1) less than 40 m from a public highway within the meaning of the Highway Safety Code or a railway;

(2) less than 100 m from a transmission line having a voltage equal to or greater than 69,000 V, a telecommunication infrastructure, a windmill, pipeline or any other installation or infrastructure of the same type;

(3) less than 100 m from a cemetery;

(4) less than 180 m from a high-capacity dam within the meaning of the Dam Safety Act;

(6) less than 200 m from a surface improvement work for sporting or recreational purposes;

(7) less than 275 m from a site classified as a heritage site entered in the cultural heritage register referred to in section 5 of the Cultural Heritage Act (chapter P-9.002);

(8) less than 300 m from any building having fewer than 3 floors or a floor area less than or equal to 10,000 m²;

(9) less than 550 m from a health and social services institution, an educational institution, a building in which childcare services are offered or any building having 3 floors or more or a floor area greater than $10,000 \text{ m}^2$;

(10) less than 1,000 m from an airport or an aerodrome; or (11) less than 1,600 m from any underground reservoir used for petroleum storage purposes and for which the holder has no right.

The distances must be measured horizontally, in a straight line, from the casing head to the nearest point of the elements referred to in the first paragraph.

The Minister may allow the reduction of the distances if the authorization holder demonstrates to the Minister that an effective protective measure reduces risks.

The distances provided for in the first paragraph do not apply with respect to infrastructures belonging to the authorization holder or used for the holder's work.

84. The authorization holder may not drill a stratigraphic survey less than 100 m from the boundaries of the territory covered by the holder's licence.

85. The authorization holder may not position the activity site less than 100 m from a national park or a protected area entered in the protected area register provided for in section 5 of the Natural Heritage Conservation Act (chapter C-61.01).

86. During the drilling, the authorization holder must make sure that

(1) the stratigraphic survey is drilled so as to never intersect an existing wellbore;

(2) the drilling fluids, drilling fluid system and associated monitoring equipment are designed, installed, used or maintained to provide an effective barrier against formation pressure and to allow for an adequate characterization of the geological formations investigated;

(3) the indicators and alarms associated with the monitoring equipment are installed on the drilling rig to alert onsite personnel; and

(4) adequate procedures, facilities and equipment are in place and are utilized to minimize the risk of loss of stratigraphic survey control in the event of lost circulation, fluid kicks or blowout.

87. The authorization holder must ensure that the measurements of the stratigraphic survey path deviation are taken at intervals that allow the position of the wellbore to be determined accurately and that do not exceed 150 m, unless there is a wellbore stability problem.

88. The authorization holder must protect the usable groundwater and use non-toxic substances in drilling fluids until the surface casing is cemented.

89. Where the authorization holder drills a stratigraphic survey in a region where the geology is unknown, in a region where shallow gas kicks have been documented or if it is foreseeable that a petroleum zone will be intersected, the holder must use a diverter to drill to the surface casing installation depth.

90. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

91. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains, until the end of the sealing work, a register of those inspections.

92. During the operations for preparing and applying the cement for cementing casings and for sealing plugs, the authorization holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

93. Before proceeding with the cementing of annular spaces, the authorization holder must make sure to completely displace the drilling fluids and remove the mud cakes from the walls of the stratigraphic survey in accordance with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

94. During the cementing, the authorization holder must ensure that the fluid and cement returns are observed at the surface.

95. The cement used for cementing casings and for sealing plugs must reach the minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

96. As of the moment at which the cement has developed a gel strength and until the minimum compressive strength has been reached, the authorization holder must not carry out work that could compromise the integrity of the cement and the holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

97. The authorization holder must demonstrate the uniform coverage of the cement behind each casing by carrying out a cement assessment sonic or ultrasonic logging or by any other method.

98. After installing and cementing a casing and before drilling out the casing shoe, the authorization holder must submit the casing to a pressure and leak test to the value required to confirm its integrity for the maximum operating pressure provided for in the technical program.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

99. Before drilling at a measured depth of more than 10 m under the shoe of any casing subsequent to the conductor casing, the authorization holder must test the integrity or the leak pressure of the geological formation.

The test must be conducted at a pressure that ensures the safety of the drilling work to the installation depth of the next casing string planned.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

100. The maximum pressure applicable to casings must be calculated so as to ensure the control of the stratigraphic survey. It must be posted on the activity site.

101. The authorization holder who conducts a drill-stem test must ensure, in particular, that

(1) the equipment used is designed to safely control the stratigraphic survey pressure, properly characterize the geological formation and protect the environment;

(2) the rated pressure of the equipment upstream of and including the testing manifold exceeds the maximum anticipated shut-in pressure; and

(3) the equipment downstream of the testing manifold is sufficiently protected against overpressure.

102. In the case of fluid kicks or during drill-stem tests, the authorization holder must collect samples and analyze the petroleum and groundwater encountered.

In the case of gas, the analyses must, in particular, identify its composition and, where necessary to differentiate a number of formations, characterize the carbon isotope ratios. In the case of oil, the analyses must, in particular, identify its composition and characterize its viscosity and density.

In the case of groundwater, the analyses must, in particular, identify its composition in dissolved solids and petroleum and its physical characteristics, including the pH, the conductivity and the cloudiness.

The Minister may exempt the authorization holder from the requirement to collect certain samples where the Minister considers that he or she already has sufficient data to characterize the reservoir or the sealing rocks.

A holder who collects a sample must ensure to use a method preventing contamination of the sample.

103. The authorization holder who collects a sample of the drilling core must determine, in particular, the porosity, permeability, lithology and content in total organic carbon of the geological formation.

For the stratigraphic survey sections that are not cored, a cutting sample must be collected, unless the holder demonstrates that an adjacent wellbore has already been sampled and the spatial variability makes the sampling of the stratigraphic survey unnecessary.

Cutting samples must be taken at each 5-m interval in such manner as to fill

(1) a 10-ml flask of cuttings washed and dried beforehand; samples from the layer of unconsolidated deposits must not be washed; and

(2) a 500-g bag of cuttings dried beforehand.

104. Where samples necessary for analysis have been taken from a core, the authorization holder makes sure that a longitudinal slab that is not less than one half of the cross-sectional area of that core or the remaining core is submitted to the Minister.

The holder who carried out destructive tests on a core removed laterally is exempt from submitting the samples.

105. The samples collected must be stored in durable containers designed for that purpose and properly labelled by indicating, in particular, the name of the stratigraphic survey and the measured interval or depth of the sampling.

They must be transported and stored in a manner that prevents any loss or deterioration.

106. The authorization holder submits to the Minister the samples whose analysis is completed not later than 180 days after the rig release date.

The Minister may agree to an additional period if the holder wishes to perform additional analyses. In that case, the holder submits to the Minister the samples and analysis results at the end of the agreed period.

The Minister may exempt the holder from the submission of the samples

(1) where the Minister considers that he or she has sufficient samples to adequately document the geological formations intersected by the stratigraphic survey; and

(2) where the Minister already has samples from the same horizons.

107. Before disposing of any cutting samples, drilling cores or collected fluids, the authorization holder must offer them to the Minister.

108. The authorization holder must submit to the Minister, for approval, the corrective actions to be taken where any of the following situations occurs:

(1) a cementing operation provided for in the technical program cannot be carried out;

(2) no cement return has been observed on the surface where such return was expected;

(3) a drilling fluid return indicates that the cement height required for cementing has not been reached;

(4) there is uncertainty as to reaching the cementing goals.

DIVISION IV

STRATIGRAPHIC SURVEYSEALING AND SITE RESTORATION

109. The authorization holder must seal the stratigraphic survey within 30 days after completion of the drilling.

The Minister may require that the work start before that period for safety reasons or give an additional period for its completion if the holder shows that it is necessary.

110. Before beginning the stratigraphic survey sealing, the authorization holder must conduct a pressure and leak test to ensure the tightness of all the stratigraphic survey components.

The holder may begin the sealing only if the pressure and leak test is successful. Tightness is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes. Otherwise, an incident notice must be sent to the Minister within 24 hours.

111. The authorization holder who proceeds with the sealing must ensure to seal the stratigraphic survey over its entire length.

The holder must also ensure the following:

(1) the absence of communication of fluids between the geological formations;

(2) the absence of liquid flow and gas emanation or migration;

(3) the absence of excessive pressure in the stratigraphic survey;

(4) the long-term integrity of the stratigraphic survey, while considering the petroleum development potential of the adjacent sector and the impact of future activities.

112. The authorization holder must cut the casings at 1 m below the surface.

Where it is justified by agricultural activities, the holder may, with the Minister's authorization, cut the casings at 1.6 m below the surface.

113. The authorization holder must weld a ventilated steel cover at the top of the casings.

114. The authorization holder must restore the activity site as soon as the sealing work ends or the meteorological conditions allow.

The Minister may grant an additional time period for the restoration if the holder shows it is necessary. In that case, the holder must, at least 7 days before, notify the Minister, in writing, of the start of the work for restoring the site.

115. As soon as the sealing work ends, the authorization holder must mark the stratigraphic survey with a steel plate at least 150 mm wide and 300 mm high indicating, in relief, the number of the stratigraphic survey and its geographical coordinates.

The plate must be fixed 1.5 m above the surface of the ground using a metal rod welded to the outside casing of the stratigraphic survey.

Where it is justified by the use of the territory, the holder may, with the Minister's authorization, position the plate as close as possible to the stratigraphic survey and indicate the distance at which the stratigraphic survey is located and its azimuth.

DIVISION V

DAILY REPORT AND END OF ACTIVITIES REPORT

116. The holder an authorization must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the number of the stratigraphic survey authorization;

(2) a description, in chronological order, of the work carried out and the time required for completing each step of the work;

(3) the name of the enterprises that carried out the work;

(4) the measured depth reached during the day;

(5) the composition of the drilling fluid and spacer fluid, and the volumes used;

(6) the operating condition of the blowout prevention system;

(7) a loss of circulation;

(8) the components used to assemble the strings;

(9) the specifications of the casing and its setting depth;

(10) the weight applied to the bit and its penetration rate;

(11) the measurements of the deviation of the stratigraphic survey path in dip, azimuth and depth;

(12) traces of petroleum or water detected;

(13) the type of pump used and its capacity;

(14) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(15) the well logs carried out;

(16) the observations and data related to the evaluation or characterization of the geological formation;

(17) the fluid samples collected;

(18) the results of the pressure and leak tests;

(19) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(20) the composition, concentration and detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(21) the operational problems encountered and the corrective measures taken or planned;

(22) the indication of any temporary work interruption and the procedure followed to secure the stratigraphic survey;

(23) the indication of any event that disrupted the progress of the work; and

(24) any other information or document deemed necessary by the Minister.

117. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the sealing work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

118. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the number of the stratigraphic survey authorization;

(2) the name and contact information of the licence holder;

(3) the name and contact information of the enterprises that carried out the work;

(4) the coordinates of the stratigraphic survey casing head on a plan provided by a land surveyor according to the NAD83 map reference system;

(5) the measurements of the deviation of the stratigraphic survey path in dip, azimuth and depth, and the final coordinates of the bottom of the hole;

(6) a summary of the work carried out in chronological order;

(7) the date of the beginning and the end of work;

(8) a report on the cementing operations for each of the casing strings, containing, in particular,

(a) the name and contact information of the enterprise that carried out the cementing work;

(b) the type of cementing unit used and the method for applying the cement;

(c) the type of cement used, its density, its additives and their proportions, the setting time and the volume used;

(d) the cemented interval;

(e) the composition and volume of the spacer fluid and the separating fluid used;

(f) the circulation pressures;

(g) the maximum pressure reached during cementing;

(*h*) an indication that the casing check valve is functional or, if not, the propping pressure applied and the duration;

(*i*) a description of the cement return, the quantity and the retreat; if no return is observed, a description of the corrective actions taken;

(9) the analysis results and the analysis certificates of the samples and fluid samples collected;

(10) the well logs, in particular those interpreted, scaled in true vertical depth, and the corrections made;

(11) the demonstration that the centralization of the casings complies with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(12) the measured temperature and pressure to the final depth of the stratigraphic survey;

(13) the data, recordings, results of the drill-stem tests, pressure and leak tests, leakoff test and their interpretation;

(14) a geological description of the cuttings and drill cores, and a geotechnical description of the drill cores;

(15) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(16) the list of drill bits used, their type and the number of metres drilled by each;

(17) the type of play encountered and a comparison with a similar play;

(18) a lateral section of the stratigraphic survey after the sealing, according to the measured depth and the true vertical depth, signed and sealed by an engineer, indicating, in particular,

(a) intersected groups, geological formations, lithological contacts and faults;

(b) zones of abnormal pressure;

(c) the diameter of the wellbore and the diameters of each casing;

(d) the location of each of the casings;

(e) if applicable, the depth interval of the open stratigraphic survey;

(f) the type of plugs used and the depth intervals of each plug; and

(g) the other equipment installed or dropped in the stratigraphic survey and not recovered;

(19) the daily tour sheets;

(20) if laboratory testing has been done on the cement after the granting of the authorization, the properties of the cement determined in the laboratory;

(21) the technical reports prepared by the enterprises that carried out the work;

(22) a technical description of the condition of the stratigraphic survey before the sealing;

(23) in the case of the cement plugs used,

(*a*) the name and contact information of the enterprise that carried out the cementing work;

(b) the type of cementing unit used and the method for applying the cement;

(c) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(d) the verified position of each of the plugs; and

(e) if applicable, the analysis results and the analysis certificates of the samples collected;

(24) the cutting depth of the casings under the surface;

(25) a photograph of the ventilated steel plated welded at the top of the casings before the backfilling;

(26) a plan showing the layout of the activity site after the restoration work; and

(27) photographs of the entire restored activity site and of the plate installed in accordance with section 115.

CHAPTER VII

DRILLING AUTHORIZATION

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

119. A licence holder who wishes to obtain a drilling authorization must apply to the Minister in writing.

120. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the proposed well, in the case of a new well, or the name of the existing well, in the case of a re-entry; and

(3) the work schedule and an estimate of the realization costs.

121. The application must be accompanied by

(1) a topographic map at a scale of 1:20,000 showing, in particular,

(*a*) the surface projection of the hole profile to the location of the bottom of the hole;

(b) the location of the existing wellbores within a radius of 5 km; and

(c) the demonstration that the distances provided for in sections 131 to 133 are met;

(2) the drilling technical program provided for in section 122, signed and sealed by an engineer;

(3) the permanent well or reservoir closure and site restoration plan or, if applicable, its update, and the guarantee provided for in sections 314 and 316;

(4) payment of the fee of \$4,426; and

(5) any other information or document deemed necessary by the Minister.

122. The drilling technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the demonstration that, during the positioning of the well, the regional and local geology, and the presence of adjacent wellbores have been taken into consideration;

(4) the demonstration that the presence of gas in the soil in its natural state has been taken into consideration;

(5) if applicable, the list of the data that could be consulted with respect to the adjacent wellbores;

(6) the proposed classification of the well, determined according to Schedule 1;

(7) a chronological and detailed description of the work to be carried out;

(8) the name and contact information of the enterprises charged with carrying out the work;

(9) a lateral section of the well indicating the technical elements;

(10) a geological projection including, in particular,

(a) a stratigraphic column indicating the thickness of the unconsolidated deposits, the geological formations, porous and permeable zones, faults and other major structures;

(b) the identification of the potential zones of fluid kicks or lost circulation;

(c) the anticipated base of the usable groundwater, if it is different from the base provided for in section 3;

(d) the anticipated primary and secondary petroleum objectives; and

(e) if the seismic profile has been used, the interpreted seismic profile indicating the top of geological formations, the shotpoint nearest the location of the drilling and the location of the anticipated petroleum objectives;

(11) if applicable, the list of the planned coring intervals;

(12) the list of pressure and leak tests, drill-stem tests, leakoff test and all other tests planned;

(13) the list of the well logs planned;

(14) a drilling program including, in particular,

(*a*) the type of drilling rig and equipment to be used and their specifications;

(b) the drilling fluids and spacer fluids used and their properties, and a demonstration that those fluids comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(c) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(d) the diameters of the wellbore according to the measured depth and the true vertical depth on a lateral section, to the bottom of the planned hole;

(e) a graphic projection of the formation pressure and temperature to the expected final depth;

(f) a calculation of the planned fracturing gradient;

(g) a graphic projection of the deviation of the drill path to the expected final depth;

(*h*) the frequency of the measurements of the deviation of the path in dip and azimuth;

(*i*) the demonstration that the planned casing strings and tubes comply with CSA Standard Z625, Well design for petroleum and natural gas industry systems, except those installed in a storage well, which must comply with CSA Standard Z341, Storage of hydrocarbons in underground formations, published by the Canadian Standards Association;

(*j*) a program for centralizing casings that allows to reach a minimum centralization of 75% compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee, indicating, in particular, the type of centralizers, their dimension, frequency of installation and installation; and

(k) in the case of a re-entry, the evaluation of the thickness of the casing string and the calculation of the stresses to which the well may be submitted, performed in accordance with CSA Standard Z625, Well design for petroleum and natural gas industry systems, published

by the Canadian Standards Association; for a storage well, the evaluation and calculation must comply with CSA Standard Z341, Storage of hydrocarbons in underground formations, published by the Canadian Standards Association;

(15) a program for the cementing of the annular spaces of each of the casing strings compliant with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee and including, in particular,

(*a*) the diameters of the casing strings compared with the measured depth and the true vertical depth;

(b) the planned height of the cement column in the annular space;

(c) the cement preparation and application methods;

(d) the planned minimum and maximum pumping flows and the pumping equipment capacity;

(e) the type of cement used, its density, its additives and their proportions, its setting time, the calculated volume and surplus percentage;

(f) if applicable, any changes to the cement required due to specific physical and chemical conditions of the environment, including, in particular, the depth of the well, an abnormal pressure or temperature, a circulation loss area, salt areas, unconsolidated deposits or a corrosive environment;

(g) the methods used to prepare the well for cementing and to improve movement of the fluids, in particular, casing movement; and

(*h*) the method for monitoring cement circulation in the annular space;

(16) if a simulation or modelling has been carried out, a description of the simulation or modelling and the results obtained;

(17) if applicable, the list of licences, certificates and other authorizations to be obtained;

(18) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(19) any other information or document deemed necessary by the Minister. Where work is planned in a temporarily closed well, the technical program must also contain the annual inspection

worksheet provided for in Schedule 2.

123. The holder may not position the activity site in a zone potentially exposed to ground movement particularly identified in accordance with government mapping available. If such mapping is not available, the holder may not position the activity site at less than a horizontal distance that corresponds to twice the height of a bank, measured in relation to the top and base of the bank.

Despite the foregoing, a licence holder may position an activity site in an area potentially exposed to ground movement if the holder provides the Minister, with the application, the geotechnical expertise provided for in section 75, with the necessary modifications.

124. Before ruling on a drilling application, Minister may, if the Minister considers it necessary to ensure the long-term integrity of the well, require that the licence holder carry out a cement test in a laboratory. The test must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

The holder sends the results of the test to the Minister.

DIVISION II TIME PERIODS AND NOTICE OF THE START OF THE WORK

125. The authorization holder must, within 12 months after the granting of the authorization by the Minister, start the drilling work.

126. The authorization holder must, at least 7 days before, notify the Minister of the date for the start of the following work:

(1) if applicable, the preparation of the site in which the drilling rig will be located;

(2) the beginning of the drilling or the re-entry.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed. **127.** The authorization holder must, at least 24 hours before, notify the Minister of the rig release and, in case of a temporary interruption, the holder must also notify the Minister as soon as possible within the same period of the resumption of the work.

SECTION III

CONDITIONS OF EXERCISE

128. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

A supplementary agreement to the technical program is not required in the following cases:

(1) an adjustment of less than 10% in the final depth of the well resulting from a slightly different geological projection;

(2) a change in the position of the casing head of the well where the well remains on the activity site;

(3) the addition or cancellation of a coring section, a drill-stem test, a sample collection or a fluid sample;

(4) the addition or cancellation of a well log if, in the latter case, it is not required under section 137 or 138.

In the situations provided for in the third paragraph, the holder immediately notifies the Minister of the change to the technical program.

129. The authorization holder must design and construct the well so as to

(1) comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(2) ensure work safety;

(3) prevent incidents in the maximum load conditions normally foreseeable during the life cycle of well;

(4) withstand potential conditions, forces and stresses;

(5) ensure a resistance sufficient for fluid kicks;

(6) protect the integrity of the groundwater;

(7) ensure that the petroleum zones and the aquifer layers are isolated from one another;

(8) allow the characterization of the geological formations targeted; and

(9) allow activities for controlling the pressure of the bottom of the wellbore in a constant and safe manner.

130. The authorization holder must, as soon as the work starts and until the holder begins the work for the permanent closure of the well and the restoration of the site, install a sign at the entrance to the site, indicating, in particular,

(1) the location of the well;

(2) the holder's name and the licence number;

(3) the name and number of the well appearing on the authorization;

(4) a telephone number in case of emergency;

(5) the pictograms associated with the hazardous products present on the activity site; and

(6) the indication that access to the activity site is prohibited without the holder's authorization.

131. The authorization holder may not position the casing head of a well or, in the case of a re-entry, drill in a well whose casing head is situated

(1) less than 40 m from a public highway within the meaning of the Highway Safety Code or a railway;

(2) less than 100 m from a transmission line having a voltage equal to or greater than 69,000 V, a telecommunication infrastructure, a windmill, a pipeline or any other installation or infrastructure of the same type;

(3) less than 100 m from a cemetery;

(4) less than 180 m from a high-capacity dam within the meaning of the Dam Safety Act;

(5) less than 200 m from a surface improvement work for sporting or recreational purposes;

(6) less than 275 m from a site classified as a heritage site entered in the cultural heritage register referred to in section 5 of the Cultural Heritage Act;

(7) less than 300 m from any building having fewer than 3 floors or a floor area less than or equal to 10,000 m²;

(8) less than 550 m from a health and social services institution, an educational institution, a building in which childcare services are offered, or any building having 3 floors or more or a floor area greater than 10,000 m²;

(9) less than 1,000 m from an airport or an aerodrome; or

(10) less than 1,600 m from any underground reservoir used for petroleum storage purposes and for which the holder has no right.

The distances must be measured horizontally, in a straight line, from the casing head to the nearest point of the elements referred to in the first paragraph.

The Minister may allow the reduction of the distances if the authorization holder demonstrates to the Minister that an effective protective measure reduces risks.

The distances provided for in the first paragraph do not apply with respect to infrastructures belonging to the authorization holder or used for the holder's work.

132. The authorization holder may not drill a well less than 100 m from the boundaries of the territory covered by the holder's licence.

133. The authorization holder may not position the activity site less than 100 m from a national park or a protected area entered in the register of protected areas provided for in section 5 of the Natural Heritage Conservation Act.

134. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

135. During the drilling of a well, the authorization holder must make sure that

(1) the well is drilled so as to never intersect an existing wellbore, except if the well covered by the authorization is a relief well;

(2) the drilling fluids, drilling fluid system and associated monitoring equipment are designed, installed, used or maintained to provide an effective barrier against formation pressure and to allow for an adequate characterization of the geological formations investigated; (3) the indicators and alarms associated with the monitoring equipment are installed on the drilling rig to alert onsite personnel; and

(4) adequate procedures, facilities and equipment are in place and are utilized to minimize the risk of loss of well control in the event of lost circulation, fluid kicks or blowout.

136. The authorization holder must ensure that the measurements of the well path deviation are taken at intervals that allow the position of the wellbore to be determined accurately and that do not exceed 150 m, unless there is a wellbore stability problem.

137. The authorization holder must carry out the well logs necessary to be able to define the lithology, porosity, type of the fluids present in each of the geological formations intersected by the surface casing to the well casing head and in depth, under the surface casing.

The holder must, in particular, carry out

(1) a gamma ray logging from the well casing head to the final depth of the wellbore;

(2) a neutron logging from 25 m under the well casing head to the base of the surface casing; and

(3) an electrical resistivity logging and a porosity logging from the base of the surface casing to the final depth of the wellbore.

In the case of an electrical resistivity or porosity logging, it must be carried out at least until a 70° angle has been reached in relation to the vertical.

The Minister may exempt the holder from the requirement to carry out certain well logs in the case of a production well or if the Minister considers that he or she already has sufficient data to characterize the reservoir or the sealing rocks.

138. The authorization holder must demonstrate the uniform coverage of the cement behind each casing by carrying out a cement assessment sonic or ultrasonic logging or by any other method.

In the case of a log in a horizontal well, it must be carried out at least until a 70° angle has been reached in relation to the vertical.

139. The authorization holder must protect the usable groundwater and use non-toxic substances in the drilling fluids until the surface casing is cemented.

140. Where the authorization holder drills a well in a region where the geology is unknown, in a region where shallow gas kicks have been documented or it is foreseeable that a petroleum zone will be intersected, the holder must use a diverter to drill to the surface casing installation depth.

141. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

142. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains, until the end of the work for the permanent closure of the well, a register of those inspections.

143. If a surface casing is installed, the authorization holder must ensure that it is inserted in a competent formation at a depth allowing for a sufficient anchoring of the well blowout preventer, ensures the control of anticipated pressures in the well and is equipped with an opening valve.

144. The authorization holder must install a conductor casing if

(1) the surface casing is laid at a true vertical depth exceeding 650 m;

(2) it is foreseeable that a petroleum zone will be intersected before reaching the laying depth of the surface casing;

(3) an adjacent wellbore or a shotpoint encountered groundwater flow on the surface; and

(4) the well is located less than 100 m from a body of water.

The conductor casing must be fixed in a competent formation.

If a shallow aquifer presents artesian pressure conditions, the conductor casing must be fixed directly above the aquifer.

145. In the case of the cementing of the surface casing, the authorization holder may not add to the cement charges or additives reducing its compressive strength.

146. In the case of the cementing of a casing, the authorization holder must determine the volume of cement required according to the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

147. Where surface casings and, if applicable, intermediate casings are subject to wear caused by the movement and rotation of the drill-stems, they must be inspected to determine their integrity, using a pressure test or a well log.

148. Before proceeding with the cementing of annular spaces, the authorization holder must make sure to completely displace the drilling fluids and remove the mud cakes from the walls of the well according to the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

149. During cementing, the authorization holder must ensure that surface fluid and cement returns are observed.

150. The cement used must reach a minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

151. As of the moment at which the cement has developed a gel strength and until the minimum compressive strength has been reached, the authorization holder must not undertake work that could compromise the integrity of the cement and the holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

152. After installing and cementing the casing and before drilling out the casing shoe, the authorization holder must submit the casing to a pressure and leak test to the value required to confirm its integrity for maximum operating pressure provided for in the technical program.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

153. Before drilling at a measured depth of more than 10 m under the shoe of any casing subsequent to the conductor casing, the authorization holder must conduct an integrity test or a leak pressure test on the geological formation.

The test must be conducted at a pressure that allows the safety of the drilling work to the installation depth of the next casing string planned.

The integrity is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

154. The maximum pressure applicable to the casings must be calculated to ensure control of the well. It must be posted on the activity site.

155. The authorization holder who conducts a drill-stem test must ensure, in particular, that

(1) the equipment used is designed to safely control the well pressure, properly characterize the geological formation and protect the environment;

(2) the rated pressure of the equipment upstream of and including the testing manifold exceeds the maximum anticipated shut-in pressure; and

(3) the equipment downstream of the testing manifold is sufficiently protected against overpressure.

156. In the case of fluid kicks or during drill-stem tests, the authorization holder must collect samples and must analyze the petroleum and groundwater encountered.

In the case of gas, the analyses must, in particular, identify its composition and, where necessary to differentiate a number of formations, characterize the carbon isotope ratios.

In the case of oil, the analyses must, in particular, identify its composition and characterize its viscosity and density.

In the case of groundwater, the analyses must, in particular, identify its composition in dissolved solids and petroleum and its physical characteristics, including the pH, the conductivity and the cloudiness.

The Minister may exempt the authorization holder from the requirement to collect certain samples where the Minister considers that he or she already has sufficient data to characterize the reservoir or the sealing rocks.

A holder who collects a sample must use a method preventing contamination of the sample.

157. The authorization holder who collects a sample of the drilling core must determine, in particular, the porosity, permeability, lithology and content in total organic carbon of the geological formation.

For the well sections that are not cored, a cutting sample must be collected, unless the holder demonstrates that an adjacent wellbore has already been sampled and the spatial variability makes the sampling of the stratigraphic survey unnecessary.

Cutting samples must be collected at the following intervals:

(1) every 25 m, from the top of the rock to a true vertical depth of 50 m above the shallowest anticipated petroleum objective;

(2) in the case of vertical and directional wells, every 5 m from a true vertical depth of 50 m above the shallowest anticipated petroleum objective to the final depth;

(3) in the case of horizontal wells, every 5 m from a true vertical depth of 50 m above the shallowest anticipated petroleum objective to the reaching of an 80° angle in relation to to the vertical, then the interval is 10 m to the final depth.

Cutting samples must be collected in such a manner as to fill

(1) a 10-ml flask of cuttings washed and dried beforehand; samples from the layer of unconsolidated deposits must not be washed; and

(2) a 500-g bag of cuttings dried beforehand.

158. Where samples necessary for analysis have been taken from a core, the authorization holder makes sure that a longitudinal slab that is not less than one half of the cross-sectional area of that core or the remaining core is submitted to the Minister.

The holder who carried out destructive tests on a core removed laterally is exempt from submitting the samples.

159. The samples collected must be stored in durable containers designed for that purpose and properly labelled by indicating, in particular, the name of the well and the measured interval or depth of the sampling.

They must be transported and stored in a manner that prevents any loss or deterioration.

160. The authorization holder submits to the Minister the samples whose analysis is completed not later than 90 days after the rig release date.

The Minister may agree to an additional period if the holder wishes to perform additional analyses. In that case, the holder submits to the Minister the samples and analysis results at the end of the agreed period.

The Minister may exempt the holder from the submission of the samples

(1) where the Minister considers that he or she has sufficient samples to adequately document the geological formations intersected by the well; and

(2) where the Minister already has samples from the same horizons.

161. Before disposing of any cutting samples, drilling cores or collected fluids, the authorization holder must offer them to the Minister.

162. The authorization holder must submit to the Minister, for approval, the corrective actions to be taken where any of the following situations occurs:

(1) a cementing operation provided for in the technical program cannot be carried out;

(2) no cement return is observed on the surface where such return was planned;

(3) a return of drilling fluid indicates that the cement height required for cementing is not reached;

(4) there is uncertainty as to reaching the cementing goals.

163. An authorization holder must, in the case of an observation well, use a wellhead.

164. An authorization holder must, in the case of an observation well, send to the Minister, not later than 31 December of each year, a report signed and sealed by a geologist or an engineer containing a summary of the data collected and the frequency of the collection as well as the annual inspection worksheet provided for in Schedule 2.

A storage licence holder may send a synthesis report on all the observation wells drilled in the territory subject to the licence. Despite the foregoing, the holder must send an annual inspection worksheet for each well.

DIVISION IV

DAILY REPORT AND END OF ACTIVITIES REPORT

165. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the drilling authorization number;

(2) a description, in chronological order, of the work carried out and the time required to carry out each step of the work;

(3) the name of the enterprises that carried out the work;

(4) the measured depth reached during the day;

(5) the composition of the drilling fluid and the spacer fluid and the volumes used;

(6) the working condition of the blowout prevention system;

(7) a loss of circulation;

(8) the components used to assemble the drill strings;

(9) the specifications of the casing and its setting depth;

(10) the weight applied to the bit and its penetration rate;

(11) the measurements of the deviation of the well path in dip, azimuth and depth;

(12) traces of petroleum or water detected;

(13) the type of pump used and its capacity;

(14) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(15) the well logs carried out;

(16) the observations and data related to the evaluation or characterization of the geological formation;

(17) the fluid samples collected;

(18) the results of the pressure and leak tests;

(19) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(20) the composition, concentration and detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(21) the operational problems encountered and the corrective measures taken or planned;

(22) the indication of any temporary work interruption and the procedure followed to secure the well;

(23) the indication of any event that disrupted the progress of the work; and

(24) any other information or document deemed necessary by the Minister.

166. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the drilling or re-entry work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

167. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, starting from the rig release, an end of activities report signed by an engineer including, in particular,

(1) the drilling authorization number;

(2) the name and contact information of the licence holder;

(3) the name and contact information of the enterprises that carried out the work;

(4) the coordinates of the well casing head on a plan provided by a land surveyor according to the NAD83 map reference system;

(5) the measurements of the deviation of the well path in dip, azimuth and depth, and the final coordinates of the bottom of the hole;

(6) the start and end dates of the work;

(7) a summary of the work carried out in chronological order;

(8) a report on the cementing operations for each of the casing strings, containing, in particular,

(a) the name and contact information of the enterprise that carried out the cementing work;

(b) the type of cementing unit used and the method for applying the cement;

(c) the type of cement used, its density, its additives and their proportions, the setting time and the volume used;
(d) the cemented interval;

(e) the composition and volume of the spacer fluid and the separating fluid used;

(f) the circulation pressures;

(g) the maximum pressure reached during cementing;

(*h*) an indication that the casing check valve is functional or, if not, the propping pressure applied and the duration; and

(*i*) a description of the cement return, the quantity and the retreat; if no return is observed, a description of the corrective actions taken;

(9) the analysis results and the analysis certificates of the samples and fluid samples collected;

(10) the well logs, in particular those interpreted, scaled in true vertical depth, and the corrections made;

(11) the demonstration that the centralization of the casings complies with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(12) the measured temperature and pressure to the final depth of the well;

(13) the data, recordings, results of the drill-stem tests, pressure and leak tests and other tests and their interpretation;

(14) a geological description of the cuttings and drill cores, and a geotechnical description of the drill cores;

(15) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(16) the elements and practices that the holder intends to adopt and the parameters the holder intends to adjust from a standpoint of continued improvement for the holder's future drilling work, determined in compliance with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee;

(17) the list of the drill bits used, their type and the number of metres drilled by each;

(18) a technical description of the condition of the well after the drilling;

(19) the well classification determined according to Schedule 1;

(20) a lateral section of the well, according to the measured depth and the true vertical depth, signed and sealed by an engineer, indicating, in particular,

(*a*) intersected groups, geological formations, lithological contacts and faults;

(b) zones of abnormal pressure;

(c) the diameter of the wellbore and the diameters of each of the casings;

(d) the location of each of the casings;

(e) if applicable, the depth interval of the open-hole well; and

(f) the other equipment installed or dropped in the well and not recovered;

(21) the daily tour sheets;

(22) if laboratory testing has been done on the cement after the granting of the authorization, the properties of the cement determined in the laboratory;

(23) the technical reports prepared by the enterprises that carried out the work;

(24) the type of play encountered and a comparison with a similar play; and

(25) photographs of the entire site after the drilling work.

CHAPTER VIII COMPLETION

DIVISION I CONDITIONS FOR OBTAINING AN AUTHORIZATION

168. A licence holder who wishes to obtain a completion authorization must apply to the Minister in writing.

169. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well; and

(3) the work schedule and an estimate of the realization costs.

170. The application must be accompanied by

(1) the completion technical program provided for in section 171, signed and sealed by an engineer;

(2) payment of the fee of \$2,555; and

(3) any other information or document deemed necessary by the Minister.

171. The completion technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the well classification determined according to Schedule 1;

(4) a chronological and detailed description of the work to be carried out;

(5) the name and contact information of the enterprises charged with carrying out the work;

(6) a lateral section of the well indicating the technical elements;

(7) the type of service rig, equipment, components and casings to be used and their specifications;

(8) the demonstration that the equipment, components and casings may withstand the different stresses to which they will be submitted, in particular, bursting, collapse and tension stresses;

(9) the demonstration that the local and regional geology and the presence of adjacent wellbores have been taken into consideration in the preparation of the program;

(10) the measures taken to ensure the integrity of the well;

(11) the type of completion;

(12) the degree of primary, secondary or tertiary petroleum recovery;

(13) the geological formations intersected and the depth of the intervals of each of the completion operations, in true vertical depth and in measured depth;

(14) the nature, composition and concentration of the fluids used and the total volume expected during the completion work; (15) the demonstration that the fluid injection pressure will not reach the pressure for fracturing geological formations;

(16) the anticipated volume and flow of flow-back water;

(17) if applicable, the type of packers installed and the installation depths;

(18) if applicable, a casing perforation program indicating, in particular, the number and the type of perforations;

(19) if applicable, the list of the planned well logs;

(20) if applicable, the list of expected pressure and leak tests;

(21) if applicable, the list of expected injectivity tests;

(22) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(23) if a simulation or modelling has been carried out, a description of the simulation or modelling and the results obtained;

(24) if applicable, the list of licences, certificates and other authorizations to be obtained;

(25) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(26) any other information or document deemed necessary by the Minister.

Where work is planned in a temporarily closed well, the technical program must also contain the annual inspection worksheet provided for in Schedule 2.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

172. The authorization holder must, within 12 months after the granting of the authorization by the Minister, start the completion work.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

173. The authorization holder must notify the Minister, in writing, at least 7 days before the expected date for the start of the work

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

DIVISION III

CONDITIONS OF EXERCISE

174. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

175. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

176. Before the start of the completion operations, the authorization holder must carry out pressure and leak tests on the casings, the strings that will be acted upon, the valve, injection and wellhead pipes and any other component that was not submitted to a pressure and leak test. The tests must be carried out at a pressure that allows confirmation of the integrity of the components where they are submitted to the maximum pressure provided for in the technical program.

The integrity is confirmed and the authorization holder may start the completion operations if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

177. The authorization holder must ensure that the pressure applied during the completion work does not exceed the test pressure.

178. The authorization holder must ensure that

(1) each completion interval is isolated from any other permeable or porous interval intersected by the well, except in the case of a commingled production;

(2) any packer is installed as close as possible to the upper level of the completion interval;

(3) no fracturing is induced to the formation during the work; and

(4) the indicators and alarms associated with the monitoring equipment are installed on the service rig to alert onsite personnel.

179. The authorization holder must install production tubing if the fluid withdrawn or injected is corrosive for the casings.

The authorization holder must design and install the casing and production tubing so as to comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

180. The cement used for cementing the production tubing must reach the minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

181. The authorization holder must, until the end of the work, keep the necessary protective barrier to withstand the pressures provided for in the technical program.

182. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

183. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains a register of those inspections until the end of the work for the permanent closure of the well.

184. Before drilling the well casing or the casing shoe, the authorization holder must wait until the cement reaches a resistance sufficient to not compromise the integrity of the well.

DIVISION IV

DAILY REPORT AND END OF ACTIVITIES REPORT

185. The authorization holder must draw up a daily report on the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the completion authorization number;

(2) a description, in chronological order, of the work carried out and the time required to carry out each step of the work;

(3) the name of the enterprises that carry out the completion work;

(4) a summary of the meteorological conditions;

(5) the result of all the pressure and leak tests, including their duration and the initial and final test pressures;

(6) the working condition of the blowout prevention system;

(7) the well logs carried out;

(8) the type of packers installed and the installation depths;

(9) the technical details of the perforations, in particular, the number, type and intervals;

(10) if applicable, the technical details of the completion by chemical stimulation, if applicable, in particular, the intervals, concentrations and volumes of acids and additives injected, the volume of flow-back water and the flows, and the injection pressures;

(11) the composition, concentration and detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(12) the number, interval, volume of fluid, injection rate and pressure and a summary of the results of each injectivity test;

(13) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(14) the operational problems encountered and the corrective measures taken or planned;

(15) the indication of any event that disrupted the planned progress of the work;

(16) the indication of any temporary work interruption and the procedure followed to secure the well; and

(17) any other information or document deemed necessary by the Minister.

186. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the completion work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

187. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the completion authorization number;

(2) the start and end dates of the work;

(3) a summary of the work carried out according to their chronological order;

(4) a description of the condition of the well including a lateral section indicating the mechanical conditions of the well after the completion;

(5) the classification of the well determined according to Schedule 1;

(6) if applicable, a description of the type of completion carried out and its degree of recovery;

(7) the results of the pressure and leak tests;

(8) the intervals, the type of chemical completion, concentrations and volumes of acids and additives injected, the volume of flow-back water and injection rates and pressures;

(9) the results of the injectivity tests;

(10) the results of the other tests carried out;

(11) the interpreted well logs and the results of the related analyses and studies;

(12) if applicable, the analyses of recovered petroleum or water;

(13) the number, interval, type and pressure of each series of perforations;

(14) the volume of flow-back water;

(15) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(16) the technical reports prepared by the enterprises that carried out the work; and

(17) if applicable, the other data collected during the completion work.

CHAPTER IX

FRACTURING

DIVISION I CONDITIONS FOR OBTAINING AN AUTHORIZATION

188. A licence holder who wishes to obtain a fracturing authorization must apply to the Minister in writing.

189. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well; and

(3) the work schedule and an estimate of the realization costs.

190. The application must be accompanied by

(1) the fracturing technical program provided for in section 191, signed and sealed by an engineer;

(2) payment of the fee of \$2,555; and

(3) any other information or document deemed necessary by the Minister.

191. The fracturing technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the name and contact information of the enterprises charged with carrying out the work;

(4) a chronological and detailed description of the work to be carried out;

(5) the classification of the well determined according to Schedule 1;

(6) a lateral section of the well indicating the technical elements;

(7) an interpreted logging of the quality of the cement bond or any other equivalent analysis of the evaluation of the production tubing or the intermediate casing, from the shallowest zone targeted containing petroleum to the top of the cement, that shows that the hydraulic isolation has been obtained;

(8) the list of well logs planned;

(9) the list of pressure and leak tests and any other tests planned;

(10) the list of fracturing tests planned, or the reasons why they are not required;

(11) the type of service rig, equipment, components and casings to be used and their specifications;

(12) an evaluation of well integrity compliant with the Industry Recommended Practice, IRP: # 24, Fracture stimulation, published by the Drilling and Completions Committee indicating, in particular,

(a) the identification of the primary protective barrier and, if applicable, the secondary protective barrier;

(b) the maximum pressure to be used to avoid compromising the integrity of the well; and

(c) that the equipment, components and casings may withstand the conditions, forces and stresses to which they will be submitted;

(13) a description of the fracturing intervals expected, in particular, the location of the perforations, in true vertical depth and measured depth;

(14) the number of planned stages;

(15) the nature and total volume of the fracturing fluids anticipated at each step;

(16) the pressures and fluid flows anticipated for pumping at each step;

(17) the type of fractures;

(18) the quantity of energy used for pumping at each fracturing step;

(19) a fracturing parameter monitoring program including, in particular,

(a) the surface injection pressure;

(b) the fluid flow;

(c) the concentration of proppant; and

(d) if applicable, the pressure in the annular space between the primary and secondary protective barriers;

(20) a well integrity monitoring program including, in particular,

(*a*) the changes in the well characteristics likely to indicate a weakness of the casings or any other aspect of the well integrity necessary for the isolation of the usable groundwater;

(b) a well casing corrosion monitoring program; and

(c) the analyses to be carried out concerning the flows of the surface casing vent and the migration of the gas;

(21) the following information concerning the fracturing fluids used:

(a) the commercial name of all the additives and their function;

(b) the maximum concentration of each additive and of each additive in the fracturing fluid;

(22) an evaluation of the risks related to the presence of additives in the fracturing fluids and the practices and operational audits provided for the management of the risks and including, in particular,

(a) the physical, chemical and toxicological properties of the additives in the fracturing fluid;

(b) the classification of the additives based on their chemical ingredients and their potential impact on the safety and health of persons;

(c) the identification of the additives for which specific verifications or practices are required to reduce the risks on the safety and health of persons and on the environment; and

(d) the nature of the specific verifications and practices planned;

(23) an evaluation of the propagation of the fractures including, in particular, an analysis of the communication potential between the stimulated well and the adjacent drilling holes carried out in compliance with the Industry Recommended Practice, IRP: # 24, Fracture stimulation, published by the Drilling and Completions Committee, by using the relevant data to which the holder has access;

(24) an evaluation of the capacity of the geological formations located between the petroleum zone and the base of the usable groundwater aquifer to act as a confining layer and contain the effects of the fracturing, or the reasons why it is not required; if applicable, the evaluation must contain, in particular,

(a) an analysis of the mobility of the fracturing fluid in the zone located between the fracturing intervals planned and the base of the usable groundwater aquifer;

(b) a simulation of the fracture pattern and the location of the faults; and

(c) an analysis distance covering double the half length of the fracture planned on the entire depth of the wellbore;

(25) a seismicity analysis based, in particular, on

(*a*) the normal local and regional seismic activity determined from the historical data available;

(b) the pre-existing geological constraints near the fracturing work contemplated;

(c) the evaluation of the risk of seismicity induced by the fracturing work; and

(d) the evaluation of the probability that an earthquake of a 2.0 magnitude or more occurs;

(26) the measures planned for the management of petroleum, formation fluids, drilling fluids, chemical substances and other discharges;

(27) a summary of the results of any fracturing simulation or modelling carried out;

(28) if applicable, the list of licences, certificates and other authorizations to be obtained;

(29) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(30) any other information or document deemed necessary by the Minister. Where the holder observes a probability of an induced seismicity of a 2.0 magnitude or more, the technical program must also contain a plan for the monitoring, mitigation and response to the induced seismicity including, in particular,

(1) a quality and quantity monitoring plan that covers a radius of 10 km from the fracturing zone allowing the detection of an earthquake of a 2.0 magnitude or more including, in particular,

(a) a map of the temporary or permanent seismic monitoring equipment stations;

(b) the specifications of the seismic monitoring equipment, the data transmission method and their accuracy in measuring the location, depth and magnitude of a seismic activity;

(c) the monitoring procedure, identification of the persons responsible and the speed of the detection and location of an earthquake and the communication of the information; and

(d) a monitoring period comprised between the start of the work and the shortest of the following periods:

i. 60 days after the end of the fracturing work;

ii. the end of the return of the flow-back water to the surface; and

(2) the measures applicable if the recorded magnitude of the induced seismic activity exceeds those provided for in section 206.

Where work is planned in a temporarily closed well, the technical program must also contain the annual inspection worksheet provided for in Schedule 2.

192. If a licence holder applies for a fracturing authorization 5 years or more after the initial cementing of the well casing, the holder must also provide in the technical program a demonstration that the cementing of the well and casings used are in good condition, in particular, to preserve the integrity of the well during the fracturing work.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

193. The authorization holder must, within 12 months after the granting of the authorization, start the fracturing work.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

194. The authorization holder must, at least 7 days before, notify the Minister of the start of the fracturing work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

DIVISION III

CONDITIONS OF EXERCISE

195. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

196. Fracturing is prohibited in shist.

It is also prohibited at a true vertical depth of less than 1,000 m. Despite section 25, that depth is measured from the soil surface.

197. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

198. The casings, components and equipment used by the authorization holder must be designed, built, tested, maintained or used so as to ensure the integrity of the well during the fracturing work.

The surface casing and the cement around it are not protective barriers and must not be exposed to pressures created by the fracturing work.

199. Before the start of the fracturing operations, the authorization holder must carry out pressure and leak tests on the casings, the strings that will be acted upon, the

valve, injection and wellhead pipes and any other component that will be acted upon that was not submitted to a pressure and leak test. The tests must be carried out at a pressure that allows confirmation of the integrity of the components where they are submitted to the maximum pressure provided for in the technical program.

The integrity is confirmed and the holder may begin the fracturing operations if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

200. Before the start of the fracturing operations, the authorization holder must carry out at least 1 fracturing test.

The Minister may exempt the holder from that requirement if the holder demonstrates to the Minister that a test in the same geological formation has already been carried out in the same conditions.

201. The authorization holder must use, until the temporary or permanent stop of the fracturing work, a blowout prevention system comprising at least 2 different sealing mechanisms or a wellhead designed to withstand the anticipated pressures.

202. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

203. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps a register of those inspections and maintains it until the end of the work for the permanent closure of the well.

204. The authorization holder must ensure that the indicators and alarms associated with the monitoring equipment are installed on the service rig to alert onsite personnel.

205. The authorization holder must, if applicable, keep the plan for the monitoring, mitigation and response to an induced seismicity at all times on the activity site.

206. If an earthquake of a 2.0 magnitude or more is detected and the epicentre is located within a radius of 10 km from the fracturing zone, the authorization holder must implement a monitoring, mitigation and response plan so as to eliminate or reduce the possibility of other seismic events resulting from the fracturing operations.

If an earthquake of a 4.0 magnitude or more is detected and the epicentre is located within a radius of 10 km from the fracturing zone, the holder must immediately interrupt the fracturing work and secure the well.

The holder immediately sends an incident notice to the Minister along with a microseismic characterization of the fracturing.

207. Following an interruption provided for in the second paragraph of section 206, the authorization holder who wishes to resume fracturing work must submit to the Minister, for approval, a supplementary agreement to the holder's technical program to reduce future induced seismicity at a local magnitude of less than 4.0.

The holder resumes the work when the holder implements the corrective measures to the Minister's satisfaction.

DIVISION IV

DAILY REPORT AND END OF ACTIVITIES REPORT

208. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the fracturing authorization number;

(2) the elevation of the reference level and its identification;

(3) a description, in chronological order, of the work carried out and the time required for carrying out each step;

(4) the name of the enterprises carrying out the fracturing work;

(5) a summary of the meteorological conditions;

(6) the result of the pressure and leak tests, including the duration and the initial and final test pressures;

(7) the working condition of the blowout prevention system;

(8) the well logs carried out;

(9) the type of packers installed and the installation depths;

(10) the composition, concentration and a detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(11) the volume, duration, flow and composition of the flow-back water;

(12) the number, interval, volume of fluid, injection flow and pressure and a summary of the results of the fracturing tests;

(13) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(14) the operational problems encountered and the corrective measures taken or planned;

(15) the indication of any event that disrupted the planned progress of the work;

(16) the indication of any temporary interruption of the fracturing work and the procedure followed to secure the well; and

(17) any other information or document deemed necessary by the Minister.

209. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the fracturing work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

210. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the fracturing authorization number;

(2) the start and end dates of the work;

(3) a summary of the work carried out according to the chronological order;

(4) a description of the condition of the well including a lateral section indicating the mechanical conditions of the well after the fracturing;

(5) the classification of the well determined according to Schedule 1;

(6) the result of the pressure and leak tests, including their duration, and the initial and final test pressures;

(7) the results of the fracturing tests including, in particular,

(a) the number and duration of the tests;

(b) the volumes and flows of the injected fluid per test;

(c) the measured pressure on the surface and at the bottom of the well;

(d) the test interval, in metre of measured depth;

(e) the extension and orientation measurements of the induced fractures:

(f) the formation temperature;

(g) the indication of the presence of flow-back water or a fracture that closed up by natural leakage;

(*h*) the indication of any problem encountered and its potential impact on the test results;

(i) the interpretation and analysis of the test results, including, in particular,

i. the measured constraints;

ii. a description and justification of the analysis and interpretation techniques; and

iii. the identification and analysis of any unexpected result; and

(j) the raw test data, in particular,

i. the date of the test;

ii. the test depth, in metre of measured depth;

iii. the test data, including the time elapsed, the wellhead pressure, the pressure at the bottom of the well, the injection flow, the blow-back pressure and the temperature, specifying if the date was measured or calculated; and

iv. the list of horizons likely to stop the propagation of fractures;

(8) the number, interval, type and pressure of each series of perforations;

(9) the start and end dates of each fracturing step;

(10) the maximum and average processing flow of each fracturing step;

(11) the maximum and average processing pressure of each fracturing step;

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(12) the duration of the return of the flow-back water to the surface, the total volume recovered, the average flow and the composition;

(13) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(14) the flow-back volume estimating the volume of injected fluid and the volume that remained in the formation;

(15) if applicable, the interpreted well logs and the results of the related analyses and studies;

(16) if applicable, the analyses of the petroleum or water recovered;

(17) the data collected during the fracturing work, in particular, the fracturing parameter monitoring data;

(18) if applicable, the raw and interpreted seismic monitoring data;

(19) the comparative analysis of the reaction of the geological formations compared to the reaction anticipated;

(20) the technical reports prepared by the enterprises that carried out the work;

(21) the follow-up after an incident referred to in sections 211 and 212; and

(22) if applicable, the other data collected during the fracturing activities.

DIVISION V

NOTICE TO THE MINISTER

211. The authorization holder must immediately notify the Minister where any of the following incidents occurs:

(1) the maximum pressure provided for in the technical program is exceeded;

(2) the volume of fluid rising to the surface exceeds the volume anticipated;

(3) the holder has reasons to suspect a flaw in the casing or the casing cement, or the absence of isolation of a source of usable groundwater aquifer.

212. When the authorization holder observes an involuntary entry of any formation fluid inside an adjacent wellbore, the authorization holder must immediately notify the person responsible for the wellbore and the Minister.

CHAPTER X

RECONDITIONING

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

213. A licence holder who wishes to obtain a reconditioning authorization must apply to the Minister in writing.

214. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the well name, number and type; and

(3) the work schedule and an estimate of the realization costs.

215. The application must be accompanied by

(1) the reconditioning technical program provided for in section 216, signed and sealed by an engineer;

(2) payment of the fee of \$4,426; and

(3) any other information or document deemed necessary by the Minister.

216. The reconditioning technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) a chronological and detailed description of the work to be carried out;

(4) the classification of the well determined according to Schedule 1;

(5) the name and contact information of the enterprises charged with carrying out the work;

(6) the demonstration that the regional and local geology and the presence of adjacent wellbores have been taken into consideration;

(7) the reasons justifying the reconditioning;

(8) the purpose of the reconditioning;

(9) a lateral section of the well indicating the technical elements;

(10) the list of pressure and leak tests, and the list of other tests planned;

(11) the list of well logs planned;

(12) the type of service rig and equipment to be used and their specifications;

(13) the intervals to be the subject of reconditioning;

(14) a description of the fluids used;

(15) the pressure at the closed wellhead and the shut-in pressure of the well;

(16) the demonstration that the equipment, components and casings may withstand the different stresses to which they will be submitted, in particular, bursting, collapse and tension stresses;

(17) if applicable, a cementing program including, in particular,

(a) the type of cementing;

(b) the cementing intervals;

(c) the method for applying the cement;

(d) the type of cement, its density, its additives and their proportions, the setting time, the flow and pressure used;

(e) if applicable, the maximum pressure for injecting the cement; and

(f) if applicable, the changes to the cement required, if applicable, due to specific physical and chemical conditions of the environment, or to give the cement specific properties;

(18) a well integrity verification and follow-up program;

(19) any specific condition that could affect the safety of the work on the well;

(20) an evaluation of the impact of the proposed work on the optimal recovery of the resource;

(21) if applicable, the list of licences, certificates and other authorizations to be obtained;

(22) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(23) any other information or document deemed necessary by the Minister.

Where work is planned in a temporarily closed well, the technical program must also contain the annual inspection worksheet provided for in Schedule 2.

DIVISION II

TIME PERIODS AND NOTICE OF THE START OF THE WORK

217. The authorization holder must, within 12 months after the granting of the authorization by the Minister, start the reconditioning.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

218. The authorization holder must, at least 7 days before, notify the Minister of the start date of the reconditioning.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

DIVISION III

CONDITIONS OF EXERCISE

219. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

220. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

221. The authorization holder must carry out the reconditioning so as to

(1) ensure the safety of the work;

(2) not compromise the capacity of the well to withstand potential conditions, forces and stresses;

(3) ensure a sufficient resistance to fluid kicks;

(4) protect the integrity of the usable groundwater; and

(5) ensure that the petroleum zones and the aquifer layers are isolated from one another.

222. The authorization holder must, until the end of the work, keep the necessary protective barrier to withstand the pressures provided for in the technical program.

223. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

224. The authorization holder must regularly inspect joints and structural elements of every equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains a register of those inspections until the end of the work for the permanent closure of the well.

225. The authorization holder must ensure that the indicators and alarms associated with the monitoring equipment are installed on the service rig to alert onsite personnel.

DIVISION IV DAILY REPORT AND END

OF ACTIVITIES REPORT

226. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the reconditioning authorization number;

(2) the elevation of the reference level and its identification;

(3) a description, in chronological order, of the work carried out and the time required for carrying out each step;

(4) the name of the enterprises carrying out the reconditioning;

(5) a summary of the meteorological conditions;

(6) the result of the pressure and leak tests, including the duration and the initial and final test pressures;

(7) the result of any other test carried out;

(8) the working condition of the blowout prevention system;

(9) the well logs carried out;

(10) the type of packers installed and the installation depths;

(11) the volume, composition and concentration of the reconditioning fluids;

(12) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(13) the operational problems encountered and the corrective measures taken or planned;

(14) the indication of any event that disrupted the progress of the work;

(15) the indication of any temporary interruption of the reconditioning work and the procedure followed to secure the well; and

(16) any other information or document deemed necessary by the Minister.

227. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the reconditioning work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

228. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the reconditioning authorization number;

(2) the start and end dates of the work

(3) a summary of the work carried out according to the chronological order;

(4) a description of the condition of the well including a lateral section indicating the mechanical conditions of the well after the reconditioning;

(5) the classification of the well determined according to Schedule 1;

(6) the result of the pressure and leak tests, including their duration, and the initial and final test pressures;

(7) the result of any other test carried out;

(8) a comparative analysis of the work carried out compared with that provided for in the technical program and the results obtained compared with those anticipated;

(9) the interpreted well logs and the results of the related analyses and studies;

(10) the technical reports prepared by the enterprises that carried out the work; and

(11) if applicable, the other data collected during the reconditioning activities.

CHAPTER XI

PETROLEUM EXTRACTION TESTS AND USE OF AN UNDERGROUND RESERVOIR FOR STORAGE PURPOSES

DIVISION I

PETROLEUM EXTRACTION TEST PROGRAM

229. An exploration licence holder who wishes to carry out petroleum extraction tests must submit a petroleum extraction test technical program for the Minister's approval.

230. The test technical program must be signed and sealed by a geologist or an engineer and contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well;

(3) the planned duration of the tests and an estimate of the realization costs;

(4) the name and contact information of the geologist or engineer responsible for the tests;

(5) a chronological and detailed description of the tests to be carried out;

(6) the classification of the well determined according to Schedule 1;

(7) the name and contact information of the enterprises charged with carrying the tests;

(8) the depth interval and a description of the geological formations and the zones subject to the tests;

(9) the geological, geophysical, petrophysical and hydrostatic information and the drilling results justifying the tests;

(10) a description of the current condition of the well;

(11) if a seismic profile has been used, the interpreted profile indicating the location of the zones subject to the tests;

(12) the methods planned to dispose of the substances extracted;

(13) the list of licences, certificates and other authorizations to be obtained, if applicable;

(14) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(15) any other information or document deemed necessary by the Minister.

DIVISION II

TRIAL TEST PROGRAM FOR THE USE OF AN UNDERGROUND RESERVOIR FOR STORAGE PURPOSES

231. An exploration licence holder who wishes to carry out trial tests must submit a trial test technical program for the use of underground reservoirs for storage purposes for the Minister's approval.

232. The test technical program must be signed and sealed by a geologist or an engineer and contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well;

(3) the planned duration of the tests and an estimate of the realization costs;

(4) the name and contact information of the geologist or engineer responsible for the tests;

(5) a chronological and detailed description of the tests to be carried out;

(6) the classification of the well determined according to Schedule 1;

(7) the name and contact information of the enterprises charged with carrying out the tests;

(8) a description of the underground reservoir subject to the tests;

(9) the geological, geophysical, petrophysical and hydrostatic information and the drilling results justifying the tests;

(10) a description of the current condition of the wells;

(11) at least 3 interpreted seismic profiles indicating the location in the subsurface of the underground reservoir subject to the tests and the well seismic cushioning; the Minister may exempt the holder if the holder demonstrates to the Minister the impossibility of carrying out the profiles considering the shallow depth of the reservoir;

(12) the estimated capacity of the underground reservoir on the basis of a modelling;

(13) the shut-in pressure of the underground reservoir recorded at the well subject to the tests;

(14) the nature and properties of the substances stored or disposed of in the underground reservoir during the test period;

(15) the injection method and the volume and pressure of the substances injected in the underground reservoir during the tests;

(16) the methods planned for disposing of the substances withdrawn;

(17) the list of licences, certificates and other authorizations to be obtained, if applicable;

(18) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(19) any other information or document deemed necessary by the Minister.

DIVISION III

TIME PERIODS AND NOTICE OF THE START OF THE WORK

233. An exploration licence holder who carries out petroleum extraction tests or trial tests for the use of underground reservoirs for storage purposes must, at least 7 days before the expected start date of the installation work of the equipment necessary for that purpose, notify the Minister in writing.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

DIVISION IV

CARRYING OUT OF PETROLEUM EXTRACTION TESTS AND TRIAL TESTS FOR THE USE OF UNDERGROUND RESERVOIRS FOR STORAGE PURPOSES

234. The maximum duration of a test period is 240 consecutive days for the petroleum extraction tests and 365 consecutive days for the trial tests for the use of underground reservoirs for storage purposes.

The test period begins on the first day on which an exploration licence holder carries out petroleum extraction tests or trial tests for the use of underground reservoirs for storage purposes and ends on the day on which the holder completely ceases to carry out the tests.

235. An exploration licence holder who carries out tests must comply with the test technical program approved by the Minister.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by a geologist or an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency. **236.** An exploration licence holder who carries out tests must ensure that

(1) the equipment used is designed so as to properly evaluate the formation;

(2) the equipment rated pressure upstream of and including the well testing manifold exceeds the maximum anticipated shut-in pressure; and

(3) the equipment downstream of the well testing manifold is sufficiently protected against overpressure.

DIVISION V

DAILY REPORT AND TEST END REPORT

237. An exploration licence holder who carries out petroleum extraction tests or trial tests for the use of underground reservoirs for storage purposes must draw up a daily report of the tests and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the name and contact information of the holder and the licence number;

(2) the volumes and flows of petroleum and other fluids extracted, injected, withdrawn and disposed of in the well;

(3) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(4) the operational problems encountered and the corrective measures taken or planned;

(5) the indication of any event that disrupted the progress of the work; and

(6) any other information or document deemed necessary by the Minister.

238. An exploration licence holder who carries out tests must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the test period. If the Tuesday is a holiday, the report is sent on the first working day that follows.

239. An exploration licence holder who carries out tests must, within 30 days after the end of the test period, send to the Minister a test end of activities report signed by a geologist or an engineer including, in particular,

(1) the name and contact information of the holder and the licence number;

(2) a summary of the activities related to the tests;

(3) a technical description of all the tests carried out;

(4) the results obtained during the tests, in particular,

(a) the average daily pressures registered at the wellhead;

(b) the average daily flows measured;

(c) the volumes of fluids extracted, injected, withdrawn and disposed of;

(d) in the case of petroleum extraction tests, the decline curve of the well; and

(e) in the case of trial tests for the use of underground reservoirs for storage purposes, the deliverability decline curve and the pressure rise curve;

(5) the realization cost of the tests carried out;

(6) the methods used to dispose of the substances extracted;

(7) the classification of the well determined according to Schedule 1; and

(8) the technical reports prepared by the enterprises that carried out the work.

The holder must also send to the Minister in the same manner,

(1) in the case of petroleum extraction tests,

(a) the pressure rise curve;

(b) for a gas well, the absolute potential flow;

(2) the results of the analyses carried out including, in particular, the composition of the fluids extracted, injected, withdrawn and disposed of.

CHAPTER XII

SPECIFIC REQUIREMENTS RELATING TO THE PRODUCTION

DIVISION I PETROLEUM PRODUCTION TESTS

240. A production licence holder must carry out production tests for all the wells drilled for production that have not been subject to extraction tests so as to determine

(1) the nature of the fluids therein;

(2) the petroleum production capacity per day, in m^3 , and the volume of water associated with that production; and

(3) the new geological, hydrostatic, petrophysical and geophysical characteristics of the pool.

241. A production licence holder must measure the shut-in pressure of the pool before and after the production test.

242. A production licence holder must carry out, every 3 months, a test in normal production conditions of a maximum duration of 24 hours for each well connected to a battery to determine the petroleum and water production rate.

The holder uses the results of those tests to allocate the monthly production of the battery between the various wells connected to it, if applicable.

On the application of the holder, the Minister may reduce the frequency of the tests. The holder's application must contain

(1) the anticipated frequency of the tests and the method to be used;

(2) a summary of the accuracy of the tests;

(3) the reasons justifying the reduction of the frequency of the tests; and

(4) any other information or document deemed necessary by the Minister.

The term "battery" means the storage facilities that receive the production from one or more wells and include the equipment for separating the petroleum from the other fluids and to measure them.

243. During the tests, a production licence holder must measure the pressure interference from one well to the other.

244. A production licence holder must notify the Minister, at least 7 days before, of the date and time planned for the carrying out of the tests.

245. A production licence holder must send to the Minister the results of the tests carried out and any other information deemed necessary by the Minister, within 30 days after the end of the tests.

DIVISION II

PETROLEUM ENHANCED RECOVERY

246. A production licence holder who wishes to carry out a petroleum enhanced recovery project must submit an enhanced recovery technical program for the Minister's approval.

247. The enhanced recovery technical program must be signed and sealed by an engineer and contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the wells concerned by the project;

(3) the classification of the wells determined according to Schedule 1;

(4) a map at a scale sufficient to show the area in which the project must be carried out and the boundaries of the pool;

(5) if applicable, a diagram showing the wells and the well injection completion methods;

(6) a diagram showing the injection, treatment and measuring installations and the configuration and rated working pressure of the pipes and equipment;

(7) the anticipated method for controlling corrosion in the wells, collecting pipes and surface installations;

(8) a geological and technical analysis including, in particular,

(a) a lateral section of the pool indicating the top and base of the reservoir and the distribution of the fluids;

(b) a map at a scale sufficient to show the characteristics of the reservoir, in particular, the structure of the top, the size of the pores and permeability capacity;

(c) production and total recovery forecasts;

(d) the source of the injection fluid and a demonstration of its compatibility with the rocks and fluids of the reservoir;

(e) the estimated injection rate of each of the injection wells and their injection pressure at the wellhead;

(f) if applicable, the recovery forecasts and simulation models; and

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(g) the measured or estimated pressure of the reservoir in the area of the project and the pressure of the reservoir as part of the enhanced recovery;

(9) the activities schedule, in particular, the drilling, completion and installation construction activities related to the project;

(10) the list of licences, certificates and other authorizations to be obtained, if applicable;

(11) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(12) any other information or document deemed necessary by the Minister.

248. A production licence holder who carries out a petroleum enhanced recovery project must, at least 15 days before the expected date for the start of the petroleum enhanced recovery, notify the Minister in writing.

The holder also notifies the Minister 7 days before temporarily or permanently ceasing the activities by indicating the reasons justifying the cessation.

249. The holder may start petroleum enhanced recovery if no deformity has been identified on the casings and production tubes, and if the well is clean.

CHAPTER XIII

AUTHORIZATION TO PRODUCE BRINE

DIVISION I

CONDITIONS FOR OBTAINING AN AUTHORIZATION

250. A licence holder who wishes to obtain an authorization to produce brine must apply to the Minister in writing.

251. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name and number of the well; and

(3) the work schedule and an estimate of the realization costs.

252. The application must be accompanied by

(1) the brine production program provided for in section 253, signed and sealed by an engineer;

(2) payment of the fee of \$2,500;

(3) payment of the annual fee payable under section 260 for the first year; and

(4) any other information or document deemed necessary by the Minister.

253. The brine production program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the name and contact information of the enterprises charged with carrying out the work;

(4) a lateral section of the well indicating the technical elements;

(5) a general presentation of the production project including, in particular,

(*a*) a description of the manner in which the well will have to be adapted and the related installations planned;

(b) if applicable, a description of the manner in which the brine will be treated, delivered and transported; and

(c) a general description of the progress of the installations over time;

(6) an economic evaluation of the project including, in particular,

(a) the market targeted, including the anticipated uses;

(b) an estimate of the production and its market value; and

(c) an estimate of the royalties to be paid;

(7) the characterization of the brine including, in particular,

(a) a brine analysis certificate prepared from a characterization sampling performed by a hydrogeologist pertaining, in particular, to its pH, conductivity, turbidity, salinity, content in sodium, calcium, magnesium, potassium, hydrogen sulfide (H_2S), radon, methane, lead, mercury and arsenic, its content in chloride ion, bromide ion, sulfate ion and carbonate ion, and its content in petroleum; and (b) the temperature of the brine at the well outlet;

(8) a brine production, storage and transportation program including, in particular,

(a) the process by which the brine will be extracted;

(b) the brine treatment method, in particular, its filtering and degassing, and the addition of additives;

(c) if applicable, the brine storage method including, in particular,

i. the type of tanks and lines to be used and their technical parameters; and

ii. the resistance to corrosion of the equipment; and

(d) the means of transportation and delivery of the brine;

(9) if applicable, the list of licences, certificates and other authorizations to be obtained;

(10) the list of references used during the preparation of the production program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(11) any other information or document deemed necessary by the Minister.

Where work is planned in a temporarily closed well, the technical program must also contain the annual inspection worksheet for temporarily closed wells provided for in Schedule 2.

DIVISION II TIME PERIODS AND WORK NOTICE

254. The authorization holder must, within 24 months after the granting of the authorization by the Minister, start the production of brine.

255. The authorization holder must notify the Minister, in writing, at least 14 days before the expected start date for the construction of the infrastructures necessary for the production and at least 30 days before the start date of the production.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 14 or 30 days of the first notice of delay, as the case may be, or of the holder's intent not to proceed.

DIVISION III

CONDITIONS OF EXERCISE

256. The authorization holder must comply with the brine production program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the brine production program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

257. If work is planned in a temporarily closed well, the authorization holder must, before carrying out the work, inspect the premises and the wellhead, maintain the wellhead and conduct a pressure and tightness test on the wellhead and the casings.

258. The authorization holder must, as soon as the work starts, add on the sign installed in accordance with section 130, an indication that it is a well containing brine.

259. The authorization holder must regularly inspect joints, structural elements and every equipment used for the extraction, treatment, storage and transportation of the brine to ensure the safe operation of the equipment.

The holder keeps a register of those inspections and maintains it until the end of the work for the permanent closure of the well.

260. The annual fee payable by an authorization holder is \$722.

261. The Minister renews an authorization for a 5-year period, provided that the holder

(1) pays the annual fee payable under section 260 for the first year of renewal;

(2) complied with the provisions of the Act and its regulations during the previous term;

(3) demonstrates that he or she produced brine for at least 24 months during the previous term; and

(4) demonstrates that the use approach allows optimal recovery of the brine.

The renewal application must be sent at least 60 days before the end of the previous term, failing which the holder is liable to the monetary administrative penalty provided for in paragraph 1 of section 187 of the Act. **262.** An authorization to produce brine is transferable only in the case of the transfer of the licence of the authorization holder.

263. A person who wishes to obtain an authorization to produce brine already granted must apply to the Minister, in writing, at the same time as the application for the transfer of the licence.

If applicable, the application must be accompanied by a supplementary agreement to the brine production program.

DIVISION IV

MONTHLY REPORTS AND ROYALTIES

264. The authorization holder must draw up a monthly report of the work and keep it on the activity site.

The monthly report must contain, in particular,

(1) the number of the authorization to produce brine;

(2) the volume of brine extracted during the month, in m^3 ;

(3) the number of production days;

(4) the monthly and cumulative costs for production, transportation and purification and the average retail selling price;

(5) the wellhead value of the brine extracted;

(6) the calculation of the royalty in accordance with section 266;

(7) the operational problems encountered and the corrective measures taken or planned;

(8) the indication of any event that disrupted the progress of the work; and

(9) any other information or document deemed necessary by the Minister .

265. The authorization holder must send to the Minister, within the 25 first days of the following month, the monthly report, until the end of the period of validity of the authorization.

The monthly report is accompanied by the payment of the royalties on the brine extracted during the month concerned. **266.** The authorization holder pays the following monthly royalties for the brine extracted from the well:

(1) where the average daily production of the well is 300 m^3 or less, 5% of the well head value of the brine extracted;

(2) where the average daily production of the well is greater 300 m³ but less than 1,000 m³,

(a) 5% of the well head value of the brine extracted for the first 300 m^3 ; and

(b) 10% of the well head value of the brine extracted on the excess; and

(3) where the average daily production of the well is greater than $1,000 \text{ m}^3$,

(a) 8.75% of the well head value of the brine extracted for the first 1,000 m³; and

(b) 12.5% of the well head value on the excess.

267. The royalties must be paid in cash, or by cheque or postal money order payable to the order of the Minister of Finance.

CHAPTER XIV WELL CLOSURE

DIVISION I

TEMPORARY OR PERMANENT CLOSURE AUTHORIZATION

§1. Temporary closure authorization

§§1. Conditions for obtaining an authorization

268. A licence holder must temporarily close the well on the expiry of a period of 12 consecutive months without activity in the well. The Minister may, however, grant an additional period if the holder demonstrated that exceptional circumstances warrant it.

269. On request and after analysis of the annual report provided for in section 164, the Minister may, in the case of an observation well, exempt a licence holder from the requirement to temporarily close the well for the current year where the holder demonstrates the integrity of the well and justifies its use for monitoring the pool or the underground reservoir.

270. A licence holder who must obtain a temporary well closure authorization must apply to the Minister in writing.

271. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the well; and

(3) the work schedule and an estimate of the realization costs.

272. The application must be accompanied by

(1) the temporary closure technical program provided for in section 273, signed and sealed by an engineer;

(2) payment of the fee of \$2,058; and

(3) any other information or document deemed necessary by the Minister.

273. The temporary closure technical program must contain

(1) the name and contact information of the engineer responsible for the technical program;

(2) the name, profession and functions of the persons who prepared or revised the program;

(3) the classification of the risk potential of the well determined according to Schedule 3;

(4) the condition of the well before the work for the temporary closure;

(5) the classification of the well determined according to Schedule 1;

(6) a chronological and detailed description of the work to be carried out;

(7) a description of the activity site restoration work to maintain the quality of the natural landscape, minimize impact on wildlife and harmonize the activity site with the use of the territory, and a plan presenting the wok including, in particular,

(*a*) the procedure for dismantling installations and, if applicable, the procedure for dismantling the supply cable;

(b) the rehabilitation of contaminated land;

(c) the purge of pipes; and

(d) the withdrawal of equipment and facilities;

(8) the name and contact information of the enterprises charged with carrying out the work;

(9) a lateral section indicating, in particular, the anticipated mechanical conditions of the well after the closure and the various geological formations intersected and their respective pressures;

(10) the type of service rig and equipment to be used and their specifications, in particular, the configuration of the wellhead and the surface casing vent flow;

(11) the demonstration that, before carrying out the work for the temporary closure, the well did not present any risk within the meaning of the second paragraph of section 18 for the safety of persons and property, and environmental protection;

(12) the type of plugs used and the anticipated depth intervals;

(13) for each cement plug, the type of cement used, its density, its additives and their proportions, the setting time, calculated volume and surplus percentage;

(14) the method for verifying the position of the plugs;

(15) if applicable, the list of the planned well logs;

(16) if applicable, the list of licences, certificates and other authorizations to be obtained;

(17) the list of references used during the preparation of the technical program, in particular, the standards from recognized organizations and guidelines from other Canadian jurisdictions; and

(18) any other information or document deemed necessary by the Minister.

The classification provided for in subparagraph 3 of the first paragraph must be performed on the basis of the highest risk obtained according to the criteria. For a well with a number of areas, the classification must be performed on the basis of the highest risk obtained, aside from the areas that are permanently closed. If all the deep areas are permanently closed, the shallowest section of the well subject to completion must be used to determine the classification of the well that will be subject to a temporary closure.

§§2. Notice of the start of the work

274. The holder of a temporary closure authorization must, at least 7 days before, notify the Minister of the start of the work.

The work is deemed to have started as soon as the first step provided in the work schedule is initiated.

§§3. Conditions of exercise

275. The authorization holder must comply with the technical program.

The holder may modify the program by sending to the Minister a supplementary agreement signed and sealed by an engineer stating the nature of the modification and the reasons justifying it. The supplementary agreement must be sent to the Minister before carrying out the work covered by the agreement. If it is urgent to modify the technical program for safety or work quality purposes, the holder must immediately send the agreement to the Minister and justify the urgency.

276. The authorization holder must, within 6 months after the granting of the authorization by the Minister, complete the temporary closure work.

277. Before starting the temporary closure work, the authorization holder must carry out a pressure and leak test of the casing at a pressure of 7 MPa.

The holder must also, if production tubing is installed, carry out a pressure and leak test of the tubing and annular spaces at a pressure of 7 MPa.

The tightness is confirmed if the stabilized pressure is at least 90% of the pressure applied over a minimum interval of 10 minutes.

If the wellhead configuration does not allow pressure and leak tests, a visual observation carried out with a onetime measurement of leakage may be carried out.

278. The authorization holder must, if the measurements may be carried out without risk to the integrity of the well, measure the shut-in pressures in all annular spaces and in the production tubing.

279. The authorization holder who temporarily closes a well must ensure

(1) that the facilities and equipment installed in the well are compatible with what is planned in the permanent well or reservoir closure and site restoration plan;

(2) that the facilities and equipment installed in the well are durable and corrosion-resistant;

(3) the absence of communication of fluids between the geological formations;

(4) the absence of leaks in joints and welds;

(5) that the valve on the surface casing vent flow pipe is open and the vent is not blocked;

(6) to install a hemispherical head plug or a blind flange with a needle valve to read the flow at each outlet of the wellhead, except the surface casing vent flow;

 $(7)\;$ if applicable, to disconnect the wellhead flow pipe; and

(8) to chain and lock the valves or remove the handles.

280. While performing the work, the authorization holder must use a wellhead or a blowout prevention system comprising at least 2 different sealing mechanisms as long as there is a risk of fluid kicks.

Despite the first paragraph, the use of a wellhead is not required if no perforation has been carried out and if the well is not an open-hole well. In that case, the holder may weld a steel plate directly on the production tubing. The plate must however permit the taking of pressure measurements in the well.

281. The blowout prevention system and the wellhead must be designed to withstand the maximum pressures provided for in the technical program.

282. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired.

283. The authorization holder must regularly inspect joints and structural elements of any equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains a register of those inspections and maintains it until the end of the work for the permanent closure of the well.

284. The authorization holder who observes the presence of an surface casing vent flow using a bubble point test must also measure the emanation flow over a 24-hour period.

285. The authorization holder must, except for a well whose risk potential has been classified as low under Schedule 3, draw out the polished drill-stem from the well if it is connected to a pumpjack.

286. In the case of a well whose risk potential has been classified as moderate under Schedule 3, the authorization holder must

(1) install, at the bottom of the hole, a blow-out preventer valve and a casing plug or a support plug; and

(2) fill the well with non-saline water or with a corrosion inhibiting fluid; an anti-freeze fluid must also protect at least the first 2 m below the surface.

287. In the case of a well whose risk potential has been classified high under Schedule 3, the authorization holder must close the well in accordance with the generally recognized best practices.

288. At the end of the work, the authorization holder must protect the wellhead with a protective fence solidly anchored in the ground, having a perimeter of at least 12 m and a height of at least 2.5 m.

The installation must include a gate with a lock permitting access to the wellhead for monitoring and inspection purposes.

The land must have been leveled around the well.

§§4. Daily report and end of activities report

289. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements applicable to the declared day including, in particular,

(1) the number of the temporary closure authorization;

(2) a description, in chronological order, of the work carried out and the time required for carrying out each step;

(3) the petroleum or water traces detected;

(4) the type of pump used and its capacity;

(5) in the case of any cement plugs, the type of cement used, its density, its additives and their proportions, the setting time and the volume used;

(6) the well logs carried out;

(7) if applicable, the results of pressure and leak tests;

(8) the working condition of the blowout prevention system;

(9) the composition, concentration and a detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(10) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(11) the operational problems encountered and the corrective measures taken or planned;

(12) the indication of any event that disrupted the progress of the work; and

(13) any other information or document deemed necessary by the Minister.

290. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the number of the temporary closure authorization;

(2) the name and contact information of the licence holder;

(3) the start and end dates of the work;

(4) a summary of the work carried out according to the chronological order;

(5) a comparative analysis of the work carried out compared to the work provided for in the technical program;

(6) an analysis of the efficiency of the temporary closure;

(7) the well logs, in particular those interpreted, scaled in true vertical depth and the corrections made;

(8) a lateral section of the well after the temporary closure indicating, in particular,

(a) the mechanical conditions of the well after the closure; and

(b) the other equipment installed or dropped in the well and not recovered;

(9) the classification of the well determined according to Schedule 1;

(10) the type of plugs used and the depth intervals of each plug;

(11) in the case of the cement plugs, the type of cement used, its density, its additives and their proportions, the setting time and the volume used;

(12) the verified position of each of the plugs; and

(13) the completed annual inspection worksheet provided for in Schedule 2.

§§5. Annual inspection

291. After the temporary closure of the well, the drilling authorization holder must

(1) inspect the well annually and complete the annual inspection worksheet provided for in Schedule 2; the holder sends the grid to the Minister not later than 31 December of each year;

(2) ensure that the well does not present any risk within the meaning of the second paragraph of section 20; and

(3) ensure the preventive maintenance of the well and the wellhead so as to prevent any incident or accident that would undermine the safety of persons and property, and environmental protection.

§2. Permanent closure authorization

§§1. Conditions for obtaining an authorization

292. A well whose risk potential has been classified as low under Schedule 3 and that has been temporarily closed for 20 years must be closed permanently.

A well whose risk potential has been classified as moderate or high under Schedule 3 and that has been temporarily closed for 10 years must be closed permanently.

The Minister may however grant an additional time period if the drilling authorization holder demonstrates to the Minister that the well is safe and that it is necessary to leave it temporarily closed.

293. A licence holder who wishes to obtain a permanent well closure authorization must apply to the Minister in writing.

294. The application must contain

(1) the name and contact information of the holder and the licence number;

(2) the name of the well;

(3) if the permanent closure is carried out for a well temporarily closed, the annual inspection worksheet provided for in Schedule 2; and

(4) any other information or document deemed necessary by the Minister.

The application must be accompanied by payment of the fee of \$2,677.

295. Before ruling on the application for permanent closure, the Minister may, if the Minister deems it necessary, require that the licence holder carry out a cement test in a laboratory. The test must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

The holder sends the results of the test to the Minister.

§§2. Time periods and notice of the start of the work

296. The authorization holder must, at least 7 days before, notify the Minister of the start of the work.

Where the holder cannot comply with the starting date, the holder must as soon as possible notify the Minister, in writing, indicating the reasons justifying the delay. The holder must also notify the Minister, in writing, of the new expected date for the start of the work if the date is expected within 7 days of the first notice of delay or of the holder's intent not to proceed.

The work is deemed to have started as soon as the first step provided in the work schedule included in the permanent well or reservoir closure and site restoration plan is initiated.

§§3. Conditions of exercise

297. The authorization holder must comply with the permanent well or reservoir closure and site restoration plan.

298. The authorization holder who closes permanently a well must ensure

(1) the absence of communication of fluids between the geological formations;

(2) the absence of fluid emanation into the atmosphere;

(3) the absence of excessive pressure in the entire well;

(4) the long-term integrity of the well, while considering the petroleum development potential of the adjacent sector and the impact of the activities that may be carried out in the future; and (5) the use of durable and corrosion-resistant facilities and equipment.

299. The authorization holder must, before the permanent closure of the well, conduct a flow test at the surface casing vent flow to determine if fluid is escaping from it.

A bubble test must be conducted using a pipe submerged at 2.5 cm under the water for at least 10 minutes. If, during that period, bubbles are present, the well is considered to have flow at the surface casing vent flow.

In such a case, the holder must

(1) conduct a flow test of that flow until a stabilized flow is obtained; and

(2) close the surface casing vent flow until a stabilized flow is obtained.

The pressure is considered to be stabilized if, over a 6-hour period, the change in pressure is less than 2 kPa/h.

300. While performing the work for permanent closure, the holder must use a wellhead, a blowout prevention system or 2 protective barriers to withstand the pressures according to the needs of the activity performed.

301. The wellhead and the blowout prevention system must be designed to withstand the maximum pressure planned in the permanent well or reservoir closure and site restoration plan.

302. The authorization holder must verify daily the blowout prevention system to make sure it works well. If a system component is defective, work must be suspended until the component is repaired

303. The authorization holder must regularly inspect joints and structural elements of any equipment used to control the pressure to ensure the safe operation of the equipment.

The holder keeps and maintains a register of those inspections until the end of the work.

304. During the operations for the preparation and installation of cement plugs, the authorization holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

305. The cement used must reach a minimum compressive strength of 3,500 kPa after 36 hours of hardening at the temperature of the shallowest formation to be covered.

The authorization holder must restrict the cement shrinkage process and limit to the minimum the risk of formation of a micro-annular space.

306. As of the moment at which the cement has developed a gel strength and until the minimum compressive strength has been reached, the authorization holder must not carry out work that could compromise the integrity of the cement and the holder must comply with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee.

307. The authorization holder must verify the position of the top of each of the cement plugs.

308. The authorization holder must cut the casings at 1 m below the surface.

Where it is justified by agricultural activities, the holder must, with the Minister's authorization, cut the casings at 1.6 m below the surface.

309. The authorization holder must weld a ventilated steel cover at the top of the casings.

310. As soon as the permanent closure work ends, the authorization holder must mark the well with a steel plate at least 150 mm wide and 300 mm high indicating, in relief, the name of the well and its geographical coordinates.

The plate must be fixed 1.5 m above the surface of the ground using a metal rod welded to the outside casing of the well.

Where it is justified by the use of the territory, the holder may, with the Minister's authorization, position the plate as close as possible to the well and indicate the distance at which the well is located and its azimuth.

§§4. Daily report and end of activities report

311. The authorization holder must draw up a daily report of the work and keep it on the activity site.

The daily report must contain all the elements that are applicable to the declared day including, in particular,

(1) the number of the permanent closure authorization;

(2) a description, in chronological order, of the work carried out and the time required to carry out each step;

(3) the petroleum or water traces detected;

(4) the type of pump used and its capacity;

(5) the type of cement used, its density, its additives and their proportions, the setting time and the volume used;

(6) the well logs carried out;

(7) the results of the pressure and leak tests;

(8) the working condition of the blowout prevention system;

(9) the operational problems encountered and the corrective measures taken or planned;

(10) the composition, concentration and a detailed assessment of all the products identified in the technical program that are stored or used on the activity site;

(11) the volume and composition of the gas used, released, incinerated or burnt at the flare;

(12) the indication of any event that disrupted the progress of the work; and

(13) any other information or document deemed necessary by the Minister.

312. The authorization holder must send to the Minister, every Tuesday, the daily reports of the preceding week until the end of the work. If the Tuesday is a holiday, the report is sent on the first working day that follows.

313. The authorization holder must send to the Minister, within the period provided for in section 100 of the Act, an end of activities report signed by an engineer including, in particular,

(1) the number of the permanent closure authorization;

(2) the name and contact information of the licence holder;

(3) the start and end dates of the work;

(4) a summary of the work carried out according to the chronological order;

(5) the classification of the well determined according to Schedule 1;

(6) the type of device used and its specifications;

(7) the demonstration of the absence of petroleum surface casing vent flow before the underground closure work and, if applicable, the demonstration of the absence of petroleum emanation in the casings before the closure on the surface;

(8) the data, recordings and results of the pressure and leak tests and their interpretation;

(9) a demonstration of the quality of the cement bond behind the casing before the work;

(10) the method for cleaning the well used before the installation of the plugs;

(11) in the case of the cement plugs used,

(a) the type of cement used, its density, its additives and their proportions, its setting time and the volume used;

(b) the method for installing the plugs;

(c) the verified position of each of the plugs; and

(d) if laboratory testing has been done on the cement after the granting of the authorization, the properties of the cement determined in the laboratory;

(12) the nature of the fluid used to fill the space between each plug;

(13) the cutting depth of the casings below the surface;

(14) a photograph of the ventilated steel plate welded at the top of the casings before the backfilling;

(15) a lateral section of the well after the permanent closure, according to the measured depth and the true vertical depths signed and sealed by an engineer, indicating, in particular,

(*a*) groups, geological formations, lithological contacts and faults including, in particular,

i. the usable groundwater;

ii. thermal anomalies;

iii. the coal beds exceeding 300 mm in thickness;

iv. the permeable and porous areas having an effective porosity greater than 1% in a terrigenous bedrock and greater than 3% in a carbonate bedrock;

v. the formations that produce petroleum;

vi. the layers of abnormal pressure; and

vii. the areas of circulation loss;

(b) the location of each of the casings;

(c) the depth interval of an open-hole well;

(d) the type of plugs used and the depth intervals of each plug; and

(e) the other equipment installed or dropped in the well and not recovered;

(16) a comparative analysis of the work carried out compared to the work provided for in the permanent well or reservoir closure and site restoration plan;

(17) a plan of the layout of the site after the restoration work; and

(18) photographs of the entire site restored.

DIVISION II

PERMANENT WELL OR RESERVOIR CLOSURE AND SITE RESTORATION PLAN

§1. Content of the plan

314. The permanent well or reservoir closure and site restoration plan must be signed and sealed by an engineer and must contain, in particular,

(1) the name and contact information of the licence holder and the licence number;

(2) the proposed name of the well;

(3) the classification of the well determined according to Schedule 1;

(4) the name and contact information of the engineer responsible for the permanent well or reservoir closure and site restoration plan;

(5) the name, profession and functions of the persons who prepared or revised the plan;

(6) a description and photographs of the condition of the site before the drilling;

(7) the method used to demonstrate that, prior to the permanent closure of the well or reservoir, no emanation at the surface vent has been observed over a period of 24 hours and no gas migration;

(8) a chronological and detailed description of the work to carry out;

(9) the work schedule;

(10) a broken down estimate of the cost of the work;

(11) a description of the condition of the well including, in particular, the cemented, perforated and openhole depths;

(12) the cement evaluation method to show the uniform coverage of the cement behind the casing before the work;

(13) the type of service rig and equipment to be used and their specifications;

(14) a lateral section of the well indicating, in particular,

(a) the technical elements;

(b) the depth intervals that will be protected or isolated; and

(c) the geological formations including, in particular,

i. the usable groundwater;

ii. the thermal anomalies;

iii. the coal beds exceeding 300 mm in thickness;

iv. the formations that can potentially produce petroleum and those that produce petroleum;

v. the layers of abnormal pressure;

vi. the areas of circulation loss; and

vii. the permeable and porous areas having an effective porosity greater than 1% in a terrigenous bedrock and greater than 3% in a carbonate bedrock;

(15) the method for cleaning the well used before the installation of the plugs;

(16) the type of plugs used and the depth intervals of each plug;

(17) a cementing program complying with the Industry Recommended Practice, IRP: # 25, Primary Cementing, published by the Drilling and Completions Committee indicating, in particular,

(a) for each cement plug, the type of cement used, its density, its additives and their proportions, the setting time, calculated volume and surplus percentage;

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(b) the method for installing the plugs;

(c) if applicable, any required changes to the cement used for the plugs due to specific physical and chemical conditions of the environment, including, in particular, the depth of the well, a horizontal well, an abnormal pressure or temperature, a salt area or a corrosive environment; and

(d) the nature of the fluid used to fill the space between each plug;

(18) the method used to demonstrate that following the installation of the plugs and before the cutting of the casings at the surface, there was no gas emanation;

(19) a plan showing the extent of the activity site;

(20) a chronological and detailed description of the restoration work to maintain the natural landscapes, minimize impact on wildlife, and harmonize the site with the use of the territory including, in particular,

(a) the removal of the holes for storing drill-stems and other equipment;

- (b) the levelling of the ground around the well;
- (c) the draining of the retention ponds;
- (d) the filling or levelling of the ponds;
- (e) the rehabilitation of contaminated land;
- (f) the purge of pipes;
- (g) the withdrawal of the equipment and facilities; and
- (h) revegetation; and
- (21) the surface drainage after the work.

If certain elements required in the first paragraph are unknown when the holder submits the plan to the Minister in accordance with section 101 of the Act, those elements will have to be provided when the plan is revised.

315. During the revision of the plan, the authorization holder must use the number and name of the well as they appear on the drilling authorization.

§2. Guarantee

316. The guarantee provided for in section 103 of the Act must be furnished to the Minister in any of the following forms:

(1) a cheque made to the order of the Minister of Finance;

(2) bonds issued or guaranteed by Québec or another province of Canada, by Canada or by a municipality in Canada, and having a market value at least equal to the amount of the guarantee exigible; registered bonds must be submitted with a power of attorney on behalf of the Minister of Finance and, where applicable, with a resolution authorizing the person who signs the power of attorney;

(3) guaranteed investment certificates or term deposit certificates, in Canadian dollars, issued on behalf of the Minister of Finance by a bank, a savings and credit union or a trust company; deposit certificates must have a term of at least 12 months, be automatically renewable until the declaration of satisfaction of the Minister or the certificate of release under sections 112 and 114 of the Act and not include any restriction in respect of redemption during its term;

(4) an irrevocable and unconditional letter of credit issued on behalf of the Gouvernement du Québec by a bank, a savings and credit union or a trust company;

(5) a security or a guarantee policy issued on behalf of the Gouvernement du Québec by a legal person legally empowered to act in that capacity;

(6) a trust constituted in accordance with the Civil Code and meeting the following requirements:

(*a*) the purpose of the trust is to ensure the performance of the work provided for in the permanent well or reservoir closure and restoration site plan pursuant to sections 101 to 115 of the Act;

(b) the Minister of Finance and the licence holder referred to in section 101 of the Act are joint beneficia-ries of the trust;

(c) the trustee is a bank, a savings and credit union or a trust company;

(d) the trust patrimony is comprised only of sums in cash, or of bonds or certificates of the same type as those listed in subparagraphs 2 and 3.

The financial institutions referred to in subparagraphs 3, 4 and 6 of the first paragraph must be empowered by law to carry on the activities provided for in those subparagraphs.

The guarantees referred to in subparagraphs 1 to 3 of the first paragraph are received on deposit by the Minister of Finance pursuant to the Act respecting deposits with the Bureau général de dépôts pour le Québec (chapter D-5.1). **317.** In the case of a guarantee furnished according to subparagraph 3 or 6 of the first paragraph of section 316, the contract constituting the guarantee must provide the following conditions:

(1) the purpose of the guarantee is to ensure the performance of the work provided for in the permanent well or underground reservoir closure and site restoration plan pursuant to sections 101 to 115 of the Act;

(2) no person may make withdrawals or be reimbursed without having obtained the Minister's declaration of satisfaction or the certificate of release provided for in sections 112 and 114 of the Act or a reduction of the guarantee according to section 108 of the Act; the prohibition also applies to any form of compensation that could be made by the bank, the savings and credit union, the trust company or the trustee;

(3) where the second paragraph of section 111 of the Act applies, the payment of the guarantee is payable at the Minister's request;

(4) the bank, the savings and credit union, the trust company or the trustee provides the Minister with the information it possesses concerning the contract;

(5) in case of dispute, the courts of Québec are the sole competent courts;

(6) in the case of a trust:

(a) the trustee must be domiciled in Québec;

(b) the trustee sees to the management of the trust at the expense of the settlor or of the licence holder referred to in section 101 of the Act;

(c) the trust terminates

i. when the Minister issues the declaration of satisfaction or the certificate of release provided for in sections 112 and 114 of the Act or when it is replaced by another guarantee complying with the requirements of this Regulation;

ii. when the Minister acts on the condition provided for in subparagraph 3 of the first paragraph of this section.

The licence holder referred to in section 101 of the Act must submit to the Minister a certified copy of the original contract.

318. In the case of a trust, interest yielded by the trust patrimony belongs to the trust. Interest kept as part of the trust patrimony must not be used as payment of the guarantee.

319. The purpose of the irrevocable and unconditional letter of credit provided for in subparagraph 4 of the first paragraph of section 316, of the security or guarantee policy provided for in subparagraph 5 of the first paragraph of that section is to guarantee payment of the cost of the work where the obligations of sections 101 to 115 of the Act are not met. The contract must have a term of at least 12 months and must include clauses providing the following conditions:

(1) in the case of non-renewal, termination, revocation or cancellation, the guarantor must notify the Minister at least 60 days before the date fixed for the expiry, termination, revocation or cancellation of the guarantee;

(2) in the case of non-renewal, termination, revocation or cancellation, the guarantor remains responsible, where the obligations of sections 101 to 115 of the Act are not met, for the payment of the cost of the work involved for the permanent well or underground reservoir closure or site restoration carried out before the date of expiry, termination, non-renewal or revocation up to the amount covered by the letter of credit, the security or guarantee policy. That responsibility must hold until the issue of the declaration of satisfaction or the certificate of release provided for in sections 112 and 114 of the Act, unless the person in question has deposited an alternative guarantee or the guarantor has deposited the amount covered by the letter of credit, the security or guarantee policy in a trust that complies with this Regulation where the Minister of Finance and the guarantor are joint beneficiaries;

(3) if applicable, the obligation is solidary, with a waiver of the benefits of discussion and division;

(4) the guarantor consents to the Minister's being able at any time after the sending of a notice of 60 days to make changes to the permanent well or underground reservoir closure and site restoration plan and waives pleading against the Minister any ground of defence pertaining to the content of the plan;

(5) where the second paragraph of section 111 of the Act applies, payment of the guarantee is exigible at the Minister's request;

(6) in the case of dispute, the courts of Québec are the sole competent courts.

The licence holder referred to in section 101 of the Act must submit to the Minister a certified copy of the original contract.

320. The guarantee furnished may be replaced at any time by another guarantee that complies with the requirements of this Regulation.

§3. Fees payable

321. The fee payable for the assessment of a permanent well or reservoir closure and site restoration plan is \$1,309.

The fee payable for the assessment of a revision of a permanent well or reservoir closure and site restoration plan is \$654.

322. The fee payable for the assessment conducted for the purpose of issuing a certificate of release under section 112 of the Act is \$587.

The fee payable for the inspections conducted for the purpose of issuing a certificate of release under the first paragraph is \$996 per inspection.

CHAPTER XV

FEES, MONETARY ADMINISTRATIVE PENALTIES AND OFFENCE

DIVISION I

FEES

323. The fee payable by a person to whom an inspector submitted a written notice of non-compliance with the provisions of the Act or this Regulation is \$500.

324. The amounts of the duties and fees payable are adjusted on 1 April of each year according to the same rate resulting from the application of section 83.3 of the Financial Administration Act (chapter A-6.001). Despite the foregoing, the amounts are not adjusted where, in the preceding year, they were fixed or increased otherwise than under that provision.

Adjusted amounts are reduced to the nearest dollar where they contain a fraction of a dollar less than \$0.50. They are increased to the nearest dollar where they contain a fraction of a dollar equal to or greater than \$0.50. The application of the rounding rule may not operate to decrease the amounts to below their pre-adjustment level.

If an adjusted amount cannot be rounded to the nearest dollar, the annual adjustments are deferred and accumulated until the amounts payable include a decimal of 0.5 or more.

The Minister publishes the result of the adjustment in Part 1 of the *Gazette officielle du Québec*.

325. The amounts of duties, fees and royalties payable bear interest, at the rate fixed under the first paragraph of section 28 of the Tax Administration Act (chapter A-6.002), as of the thirtieth day following the date on which they are owed. Interest is capitalized monthly.

DIVISION II

MONETARY ADMINISTRATIVE PENALTIES

326. A monetary administrative penalty of an amount provided for in section 187 of the Act may be imposed on any person who contravenes any of sections 4, 5, 27, 31, 32, the first paragraph of section 38, sections 39, 40, 42, 45, 51 to 53, the first paragraph of section 61, sections 62, 63, 65 to 69, the first paragraph of section 77, sections 78, 79, 82, 102, 103, the first paragraph of section 104, section 105, the first and second paragraphs of section 106, sections 107, 115 to 117, 125 to 127, 130, 156, 157, the first paragraph of section 158, section 159, the first and second paragraphs of section 160, sections 161, 164 to 166, the first paragraph of section 172, sections 173, 185, 186, the first paragraph of section 193, sections 194, 208, 209, the first paragraph of section 217, sections 218, 226, 227, 233, 237 to 239, 244, 245, 248, 254, 255, 258, 264, the first paragraph of section 274, section 289, the first and second paragraphs of section 296 or sections 311, 312 or 315.

327. A monetary administrative penalty of an amount provided for in section 188 of the Act may be imposed on any person who contravenes any of sections 21, 25, 29, the first paragraph of section 30, section 33, 41, the first and second paragraphs of section 43, sections 44, 49, 50, 64, 80, the first paragraph of section 83, section 84, 85, paragraphs 1 and 3 of section 86, sections 87 to 97, the first paragraph of section 98, the first paragraph of section 99, section 100, paragraph 2 of section 101, section 108, the first paragraph of section 109, section 110, the first paragraph of section 111, sections 112 to 114, 128, the first paragraph of section 131, sections 132 to 134, paragraphs 1 and 3 of section 135, section 136, the second paragraph of section 137, sections 138 to 142, subparagraphs 1, 3 and 4 of the first paragraph of section 144, sections 145 to 151, the first paragraph of section 152, the first and second paragraphs of section 153, section 154, paragraph 2 of section 155, sections 162, 163, 167, 174, 175, the first paragraph of section 176, 177, paragraphs 3 and 4 of section 178, sections 179 to 183, 195, 197, the first paragraph of section 199, the first paragraph of section 200, sections 201 to 205, 219, 220, 222 to 225, 229, 231, the first paragraph of section 234, section 235, paragraph 2 of section 236, section 240, 241, the first and second paragraphs of section 242, sections 243, 246, 256, 257, 259, 268, 275, 276, the first, second and fourth paragraphs of section 277, paragraphs 4 to 8 of section 279, and sections 280 to 288.

328. A monetary administrative penalty of an amount provided for in section 189 of the Act may be imposed on any person who contravenes any of sections 7, 8, 10, 11, 15 to 17, 19, the first paragraph of section 20 or sections 22, 24, 46 to 48, 55, 56, 196, 206, 207, 211 or 212.

DIVISION III

OFFENCE

329. Every person who contravenes any provision of this Regulation commits an offence and is liable to the fine provided for in paragraph 2 of section 199 of the Act.

CHAPTER XVI

TRANSITIONAL AND FINAL

DIVISION I

TRANSITIONAL PROVISIONS MADE UNDER SECTION 287 OF THE ACT

330. The authorization to produce brine referred to in the first paragraph of section 272 of the Act is deemed to be issued for each of the wells for which the holder has started to produce brine on (*insert the date of coming into force of this section*).

331. A permanent well closure authorization issued under the Mining Act (chapter M-13.1) in force on (*insert the date of coming into force of this section*) is deemed to be a permanent closure authorization issued under the Act.

If on (*insert the date of coming into force of this section*) the work for the permanent closure has not started, the authorization holder must provide to the Minister, in accordance with section 275 of the Act, the permanent well or reservoir closure and site restoration plan and the guarantee before starting the work.

If on (*insert the date of coming into force of this section*) the work for the permanent closure is started but not completed, the authorization holder is not required to provide to the Minister the permanent well or reservoir closure and site restoration plan and the guarantee provided for in section 275 of the Act. The holder must complete the work in accordance with the closure program submitted to the Minister under section 59 of the Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r. 1). The work must be completed not later than 1 year after (*insert the date of coming into force of this section*).

332. For the purposes of section 275 of the Act, the Minister keeps the performance guarantee submitted to the Minister under section 16 of the Regulation respecting petroleum, natural gas and underground reservoirs until the Minister has received the permanent well or reservoir closure and site restoration plan and the guarantee provided for in Chapter IV of the Act.

DIVISION II

FINAL

333. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

SCHEDULE 1

CLASSIFICATION OF WELLS

The classification of wells must include, if applicable

- 1. the fluids in the well;
- 2. its type;
- 3. its role;
- 4. its status;
- 5. its direction;
- 6. the abundance of fluids.

Fluids in the well	Oil, gas, condensate, bitumen, CO ₂ , H ₂ S, water, brine, water vapour, non-combustible gas or other		
Type of well	Exploration, production or storage, based on the licence held by the drilling authorization holder		
Role of the well	Well use		
Producing	Well used to extract petroleum or brine from a pool		
Injecting	Well used to inject fluids in an underground formation to enhance petroleum recovery		
Cyclical	Well used for the production and injection, alternately, on a regular basis		
Service - supply	Well used to collect the fluids necessary for the production or injection operations		
Service - storage	Well used for the injection and withdrawal of substances determined in the Regulation respecting petroleum exploration, production and storage licences, and the pipeline construction or use authorization, made by Order in Council XXXX-XXXX dated (<i>insert the date of the Order in Council</i>)		
Service – disposal	Well used as permanent location to store discharges in the reservoir		
Service - relief	Well used to intersect another well that is blowing out		
Observation	Well used to monitor the conditions of a geological formation or other wells of a reservoir or to determine the decline characteristics of a reservoir		
No role currently	Well not fulfilling any role		
Other	Well having another unidentified role		
Status of the well	State of the well at a given point in time		
Planned drilling	Well for which a drilling authorization has been granted, but whose drilling work has not yet been deemed to have started		
Activity underway	Well for which authorized work is underway		
Production	Well from which fluids are extracted		
Injection	Well into which fluids are pumped		
Temporary interruption (<i>shut-in</i>)	Well in which work is interrupted for a short period, between 2 activities or 2 operations		
Temporary closure	Well that has been temporarily closed		
Permanent closure	Well that has been permanently closed, in accordance with the well or reservoir closure and site restoration plan		
Restoration	Well that has been permanently closed and whose work site has been restored to the satisfaction of the Minister in accordance with section 114 of the Act		
Cancellation	Well whose drilling authorization is revoked or expired		
Other	Well that has another unidentified status		
Direction of the well	Vertical, directional or horizontal		
Abundance of fluids	Primary, secondary, indication or trace		

SCHEDULE 2

ANNUAL INSPECTION WORKSHEET

Energie et Ressource: MUEVEIles Québec Direction du bureau 5700, 4a exenue ou Québec (Québe Télécopieur : 4: Well number Well name Latitude N Nam	s des hydrocarbures est bureau A-422 ec) G1H 6R1 18-644-1445 Location of the well (/	ANNUAL INSPECTION WORKSHEET TEMPORARILY CLOSED WELL OBSERVATION WELL UBSERVATION WELL Usence holder Expiry of the licence YYYY/MM/DD Cadastre number Usence number Date of inspection YYYY/MM/DD Cadastre number JAD83 DD MIN SEC) Time start of inspection YYYY/MM/DD Cadastre number UBS DD MIN SEC) Time start of inspection YYYY/MM/DD Cadastre number MAD83 DD MIN SEC) Time end of inspection YYYY/MM/DD Cadastre number UNTERVENING PARTIES YYY/MM/DD Cadastre number INTERVENING PARTIES YYY/MM/DD Cadastre number			Date received by the Department sure, if applicable		
	ha an		SITE SAFETY – The p	perimeter of the well is prote	ected.		
A sign at the entrance of t	ne site indicates the ele	ments covered.					
			STATE OF THE PRE	MISES – Safety and environm	nent		
The geographical coordination of the well.	ates are accurate and all	ow easy		The site is free of residual m	aterials.		
The access leading to the	well is tidy and safe.*			The site is free of dangerous	goods.		
The layout of the equipme	ent around the well is lin	nited.		A test of gas migration in th	e soil has been carried o	ut.	
A wellbead is present			WELLHEAD – If a	applicable, check the integrit A surface casing yent flow is	ty.		
All valves are chained a	and locked or the handle	es have		The surface casing vent flow valve is open.			
The wellhead is free of	corrosion or erosion.			The surface casing vent f	low is blocked.		
The wellhead is design	ed to withstand the me	asured pressure.		Insert the flow measured at the surface casing vent flow (with the unit).			
The flow pipe is discon	nected from the wellhe	ad.		Insert the concentration of gas at the vent of the casing (with the unit)			
Each outlet is equipped with a plug or a blind flange with a needle valve to read the flow, except on the surface casing vent flow.		lange with a needle asing vent flow.		The emanation is only composed of gas.			
A leak is observed in th	ne guide tube.			Indicate the composition of the fluid at the vent.			
	ANNUAL MONITO	RING OF THE PRESSURE -	If applicable, enter the p	pressures in kPa in all the annular spaces and in the production tubing.			
Pressure of the production	n casing:		Pressure of the intermed	rediate casing: Pressure of the surface casing:			
Pressure of the production	n tubing:		Are the pressures consta	ant with respect to the last m	easurements?		
Incort the date of the last	rogular proventive main	tonanco	REGU	LAR PREVENTIVE MAINTENAI	NCE		
Maintenance has been ca	rried out during the ins	pection.	TTTT/IVIIVI	The valves are in good condition.			
Insert the date planned fo	r the next maintenance		YYYY/MM	If repairs are required, indicate the nature of the repairs and the date planned for the work.			
		SPECIFIC VERIFICATIO	NS AT THE WELL (critical	elements, validation of comp	liance for engineering, e	tc.)	
			ADDIT	IONAL INFORMATION			
		INSTRUMENTATION -	Specify the instruments	used for the inspection (flow	meter, gas detector, etc).	
	4.00		and a second		Color allocation		
Type of do	APPENDIC cument	LES — IT applicable, attach Name of	document	Description of content		Number of pages	
Name of accurrence invalle of the			besuption of content				
		DECLARATI	ON - Confirmation of the	validity of the information co	ntained in the report		
Nam	e	Sign	ature	Tel. and email		Date	
Inspector:							
Inspector:							
Approver:							

SCHEDULE 3

CLASSIFICATION OF A WELL'S RISK POTENTIAL

During the classification of a well's risk potential, if a well meets the criteria of the various levels of risks, the highest risk must take precedence.

Classification of the wells	Type of well	Geology	Status before the temporary closure	
Low risk	Gas well < 28,000 m ³ /day	Non-problematic geological formations	Non-problematic well Well whose pressures are controlled	
	Oil well without flow and without H_2S			
	Tube well with a content in $H_2S < 5\%$, non-perforated			
Moderate risk	Gas well \geq 28,000 m ³ /day	Problematic geological	Problems documented and not	
	Oil well without flow (example: karsts) and with a content in $H_2S \ge 5\%$		communication between adjacent wells)	
	Oil well with flow			
	Injection well			
High risk	Well containing gas with a content in $H_2S \ge 5\%$	Not applicable	Not applicable	
	Sour gas well			
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Abbreviations: A: Abrogated, N: New, M: Modified

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