

Regulation respecting the quality of drinking water

Environment Quality Act

(R.S.Q., c. Q-2, s. 31, pars. e, *h.1* and *h.2*, ss. 45, 45.2, par. *a*, s. 46, pars. *a, b, d, m, o, o.1* and *o.2*, s. 87, pars. *a* and *b*, ss. 109.1 and 124.1)

CHAPTER I

General

1. For the purposes of this Regulation,

- (1) "enterprise" means any establishment where a commercial, industrial, agricultural, professional or institutional activity is carried on, excluding educational institutions, houses of detention, health and social services institutions and tourist establishments;
- (2) "educational institution" means any institution providing preschool, elementary or secondary education and governed by the Education Act (R.S.Q., c. I-13.3) or by the Education Act for Cree, Inuit and Naskapi Native Persons (R.S.Q., c. I-14), a private educational institution governed by the Act respecting private education (R.S.Q., c. E-9.1), an institution whose instructional program is the subject of an international agreement within the meaning of the Act respecting the Ministère des Relations internationales (R.S.Q., c. M-25.1.1), a general and vocational college, a university, a research institute, a superior school or an educational institution of which more than one-half of the operating expenditures are paid out of the appropriations voted by the National Assembly. For the purposes of this Regulation, childcare centres, day care centres, stop-over centres and nursery schools governed by the Act respecting childcare centres and childcare services (R.S.Q., c. C-8.2) are deemed to be educational institutions;
- (3) "house of detention" means any establishment used for the detention of persons and governed by the Act respecting correctional services (R.S.Q., c. S-4.01);
- (4) "health and social services institution" means any health and social services institution governed by the Act respecting health services and social services (R.S.Q., c. S-4.2) or by the Act respecting health services and social services for Cree Native persons (R.S.Q., c. S-5). For the purposes of this Regulation, any other place where lodging services are provided for senior citizens or for any users entrusted by a public institution governed by any of the aforementioned acts is also a health and social services institution;
- (5) "tourist establishment" means any establishment which offers to the public, in return for

payment, sleeping accommodations, restaurant services or camping sites. For the purposes of this Regulation, tourist information offices, rest areas and leisure establishments open to the public are deemed to be tourist establishments;

- (6) "person in charge of a distribution system" means the owner or operator of a system; and
 - (7) "distribution system" means mains or a system of mains used for supplying drinking water to human beings. In the case of an immovable connected to a waterworks system, any mains supplying that immovable and located downstream from the shut-off valve serving the immovable shall be excluded.
2. The provisions of this Regulation do not apply to water whose use or distribution is governed by the Food Products Act (R.S.Q., c. P-29).
 3. Drinking water must, where it is put at the disposal of a user, comply with the standards of quality defined in Schedule 1.

CHAPTER II

Filtration and disinfection

4. The provisions of this Chapter do not apply to a distribution system that supplies only:
 - (1) one residence
 - (2) one or several enterprises;
 - (3) one residence and one or several enterprises.
5. Water supplied by a distribution system must have undergone, before being supplied, a continuous filtration and disinfection treatment if it comes in whole or in part from surface water or from groundwater whose microbiological quality is likely to be altered by surface water because of the non-permeability of collection or storage facilities.

The treatment prescribed by this section must be able to eliminate at least 99.99% of viruses, 99.9% of *Giardia* cysts and 99% of *Cryptosporidium* oocysts.

Notwithstanding the foregoing, the filtration treatment is not mandatory where raw water that supplies the distribution system meets the following conditions:

- (1) its turbidity is lower than or equal to 5 NTU (nephelometric turbidity unit), subject to the provisions of subparagraph 2 below;

- (2) during at least 90 consecutive days, one sample of water per week is collected and, in at least 90% of those samples,
- the turbidity of water is lower than 1 NTU;
 - its content in total organic carbon is lower than or equal to 3 mg/L; and
 - less than 20 fecal coliform bacteria and less than 100 total coliforms per 100 millilitres of water collected are counted;
- (3) the quality of that water is not likely to be altered by contaminants from wastewater collection or treatment systems, or from agricultural activities such as the storing or spreading of livestock waste.
6. Any continuous disinfection treatment facility of water supplied by a distribution system must, if it comes from groundwater, be able to eliminate at least 99.99% of viruses.
7. Water supplied by a distribution system must, if it comes from groundwater for which the analyses carried out pursuant to section 13 or 39 revealed the presence of fecal contamination, have undergone, before being supplied, a continuous disinfection treatment.
8. Where the water supplied by a distribution system is continuously chlorinated, it shall, at the outlet of the treatment facility or, where that facility has a disinfected water reservoir, at the outlet of that reservoir, have a content of free residual chlorine of at least 0.3 mg/L.

If disinfection is carried out by means of a process other than chlorination, that process shall, under the same conditions, provide a residual disinfection potential at least equivalent to that which would be obtained by chlorination.

The provisions of this section do not apply to a distribution system that supplies only one building.

9. Any distribution system that supplies disinfected water must be equipped with standby equipment to ensure disinfection in case of emergency, particularly if the main treatment facility breaks down.

CHAPTER III

Quality control of drinking water

Division I

Water supplied by distribution systems

10. The provisions of this Division do not apply to a distribution system that supplies 20 persons or less.

They do not apply to a distribution system that supplies only one or several enterprises.

§1. Bacteriological control

11. The person in charge of a distribution system must, for the control of total coliform bacteria and fecal coliform bacteria or *Escherichia coli* bacteria, collect or have samples of the water supplied collected according to the frequency determined in the following table:

Users	Minimum number of samples to collect or to have collected per month
21 to 8000 persons	8
8001 to 100 000 persons	1 per 1000 persons
100 001 persons and more	100 + 1 per group of 10 000 persons exceeding 100 000 persons

The samples to be collected pursuant to the first paragraph must be collected from the tap of different users, after the water has run for at least five minutes on the same day of sampling. In addition, the water thus collected must not have undergone treatment by means of an individual device.

Where possible, those samples shall be spread in equal numbers over each of the weeks in the month.

12. At least 50% of the samples prescribed by section 11 must be collected at the outermost limits of the distribution system and have as its object the analysis of facultatively aerobic or anaerobic heterotrophic bacteria, in addition to total coliform bacteria and fecal coliform bacteria or *Escherichia coli* bacteria.

The provisions of this section do not apply to a distribution system that supplies only one building.

13. Where the water supplied by a distribution system comes in whole or in part from non-disinfected and vulnerable groundwater, the person in charge of the distribution system is also bound, to control *Escherichia coli* bacteria, enterococci bacteria and coliphage viruses, to collect or have at least one sample of raw water that supplies the distribution system collected every month.

For the purposes of this section, groundwater is considered vulnerable where the following conditions are met:

- (1) after the assessment according to the DRASTIC method, that groundwater has a vulnerability number greater than 100 within the perimeters of the protected supply area

of the collection site, established on the basis of a migration time of groundwater of 550 days for a virological protection and 200 days for a bacteriological protection;

- (2) within the aforementioned protection perimeters, there are works or activities likely to alter the microbiological quality of that water.

§2. Physical and chemical control

Control of inorganic substances

14. The person in charge of a distribution system must, for the control of inorganic substances referred to in Schedule 1 (excluding nitrates, chloramines, bromates and antimony), collect or have at least one sample of the water supplied collected annually between July 1st and October 1st.

He must also, for the control of nitrates, collect or have at least one sample of the water supplied collected annually during each of the quarters beginning respectively on January 1st, April 1st, July 1st and October 1st, with a minimum interval of two months between samplings.

15. Where the water supplied by a distribution system is subject to ozonation, the person in charge of the system must, to control bromates, collect or have at least one sample of the water supplied collected annually between July 1st and October 1st.

If the water supplied is disinfected with chloramines, the person in charge of the distribution system must also collect or have at least one sample of the water collected for the purposes of measuring, during the sampling, the concentration of chloramines and enter the results in the analysis report prescribed by the Minister of the Environment.

16. The sampling methods provided for in the second paragraph of section 11 shall apply to the samples prescribed under sections 14 and 15, which must be collected at the central point of the distribution system.

17. For each of the samples collected pursuant to the second paragraph of section 14, the person in charge of the distribution system must, at the time of the sampling, measure the pH of the water and enter the results in the analysis report prescribed by the Minister of the Environment.

Control of organic substances

18. The person in charge of a distribution system that supplies chlorinated water must, for the control of trihalomethanes referred to in Schedule 1, collect or have at least one sample of the water supplied collected annually, during each of the quarters beginning respectively on January 1st, April 1st, July 1st and October 1st, with a minimum interval of two months between samplings.

Notwithstanding the preceding paragraph, if the aforementioned system supplies only a tourist establishment, a health and social services institution, an educational institution or a house of detention, the person in charge of the system is bound to make only one sampling of the water supplied per year, between July 1st and October 1st to control trihalomethanes.

19. The person in charge of a distribution system that supplies more than 5000 persons must, for the control of organic substances referred to in Schedule 2, collect or have at least one sample of the water supplied collected annually during each of the quarters beginning on January 1st, April 1st, July 1st and October 1st, with a minimum interval of two months between samplings.
20. The sampling methods provided for in the second paragraph of section 11 shall apply to the samples prescribed under sections 18 and 19, which must be collected at the outermost limits of the distribution system.

Control of turbidity

21. The person in charge of a distribution system must, for turbidity control purposes, collect or have at least one sample of the water supplied collected per month.

The sampling methods provided for in the second paragraph of section 11 shall apply to the samples prescribed above, which must be collected at the central point of the distribution system.

§3. Disinfection control

22. Any continuous disinfection treatment facility of the water supplied by a distribution system must be equipped with a continuous measuring device of the free residual disinfectant, installed at the outlet of the facility or, where the facility has a disinfected water reservoir, at the outlet of that reservoir; the device must be equipped with an alarm system in case of breakdown or defect of the facility or noncompliance with the prescriptions of section 8.

It must also, if the water supplied is subject to an ultraviolet radiation disinfection treatment, be equipped with a safety device designed to indicate any reduction of the intensity of lamps below the required level.

In addition, any disinfection treatment facility that treats water supplied by a distribution system referred to in section 5 must be equipped with a continuous measuring device of the turbidity of the water installed after each filter or, in the absence of filtration, at the outlet of that facility; the device must be equipped with an alarm system in case of noncompliance with the prescriptions of this Regulation related to turbidity.

The owner or operator of the disinfection treatment facility must enter daily in a register, for each four-hour period, the lowest content of free residual disinfectant measured during that

period, a measure of the flow rate of the water as well as, in the case referred to in the third paragraph, a measure of the turbidity. He must also measure daily, and enter in the register, the pH and water temperature in a sample collected at the outlet of the treatment facility or, where the facility has a disinfected water reservoir, at the outlet of that reservoir. The date on which those measures were taken and the names of the persons who took them must also appear in the register. The register shall be preserved and kept at the disposal of the Minister of the Environment for at least five years.

The provisions of the first, third and fourth paragraphs do not apply to a distribution system that supplies only a health and social services institution, an educational institution, a house of detention or a tourist establishment.

- 23.** The person in charge of a distribution system that supplies disinfected water must, during each sampling carried out pursuant to section 11, measure the quantity of free residual disinfectant in a water sample collected for that purpose and enter the result in the analysis report prescribed by the Minister of the Environment.

The provisions of this section do not apply to a distribution system that supplies only one building.

- 24.** Where the analysis of a sample of disinfected water coming from a distribution system referred to in section 5 and collected pursuant to section 21 shows that the turbidity of that water exceeds 0.5 NTU (nephelometric turbidity unit), the person in charge of the distribution system is bound, as soon as he is informed, either

- to check, using the register constituted under section 22, the measures of turbidity carried out during the period of 30 consecutive days that preceded the sampling or, if he is not the owner or operator of the treatment facility, request that the owner or operator do the aforementioned checking which must be done without delay; or
- to notify the Minister of the Environment of that excess and to check if the disinfection treatment has the effectiveness required by section 5, second paragraph, where he is exempted from the obligations prescribed by the first, third and fourth paragraphs of section 22.

- 25.** Where the analysis of a disinfected water sample coming from a distribution system referred to in section 6 and collected pursuant to section 21 shows that the turbidity of the water exceeds 1 NTU (nephelometric turbidity unit), the person in charge of that system must, as soon as he is informed thereof, notify the Minister of the Environment of that excess and check if the disinfection treatment has the effectiveness required by section 6.

Division II

Water supplied by tank truck

26. The provisions of Division I are applicable, *mutatis mutandis*, to drinking water supplied by tank truck to more than 20 persons. Thus, the owner or operator of a tank truck is bound by the same obligations as those devolving upon the person in charge of a distribution system under the aforementioned provisions. The samples prescribed by those provisions shall be collected at the outlet of the tank; section 12 does not apply to the water supplied by tank truck.
27. Drinking water supplied by tank truck must have undergone a chlorination treatment before being put at the disposal of a user.

In addition, the water contained in the tank must at all times have a concentration of free residual chlorine equal to or greater than 0.2 mg/L.

28. The owner or operator of a tank truck who supplies drinking water must, at least once a day, measure the quantity of free residual chlorine in a water sample collected at the outlet of the tank.

In addition, he shall keep an up-to-date register in which the date and results of the measurements prescribed above are entered along with the names of the persons who took them. That data shall be preserved and kept at the disposal of the Minister for a minimum period of five years.

29. The tank of a vehicle used to supply drinking water may not be used to transport other materials likely to contaminate that water.

Division III

Methods, analyses and results

30. The water samples prescribed by the provisions of this Regulation must be collected and preserved in accordance with the methods described in the document entitled *Methods for Taking and Preserving Samples for the Application of the Regulation respecting the quality of drinking water* and published by the Ministère de l'Environnement.

Anyone who collects or has a water sample collected pursuant to this Regulation must certify that the sampling and preservation of that sample complies with the requirements prescribed under the Regulation. That certification shall be preserved and kept at the disposal of the Minister of the Environment for at least five years.

31. The water samples collected pursuant to subparagraph 2 of the third paragraph of section 5, sections 11 to 14, the first paragraph of section 15, sections 18 to 21, 26, 27, 39, 40 and 42 shall be sent, for analysis purposes, to laboratories accredited by the Minister of the Environment under section 118.6 of the Environment Quality Act. The analysis reports prescribed by the Minister shall also be sent with those samples.

32. The water samples collected pursuant to the second paragraph of section 15, section 17, the fourth paragraph of section 22, section 23 and the first paragraph of section 28 must be analysed in accordance with the methods described in the *Standard Methods for the Examination of Water and Wastewater* published by the American Water Works Association, the Water Environment Federation and the American Public Health Association.

The person who carries out the analysis of one of those samples shall certify that the analysis complies with the aforementioned methods; that certification shall be preserved and kept at the disposal of the Minister of the Environment, for at least five years.

33. The laboratory shall send to the Minister of the Environment, by electronic means and on the record prescribed by the Minister, the results of the analyses of the water samples referred to in section 31 and the data entered in the analysis reports received under that section, within ten days of the sampling in the case of samples for the control of microorganisms, free residual disinfectant or turbidity or, in the case of samples for the control of other parameters, within 60 days of the sampling.

Chapter IV

Noncompliance of water with the standards of quality

34. The provisions of the second paragraph of section 35 and sections 36 to 41 do not apply to a distribution system that supplies only one residence.
35. The laboratory that analyses a water sample must immediately inform the person in charge of the distribution system in question or, as the case may be, the owner or operator of the tank truck, of any result revealing that the water at the disposal of a user does not comply with any of the standards of quality defined in Schedule 1 or contains total coliform bacteria.

The laboratory must immediately inform the Minister of the Environment and the public health director of the region in question of any result showing noncompliance with a standard of quality defined in Schedule 1.

36. Where the water at the disposal of a user does not comply with any of the standards of quality established in Schedule 1, the person in charge of the distribution system or, as the case may be, the owner or operator of the tank truck from where the water comes must, as soon as he is informed thereof, notify the Minister of the Environment and the public health director of the region in question of the measures taken to remedy the situation and, where applicable, to protect the users from any risks involved.

If the water contains fecal coliform bacteria or *Escherichia coli* bacteria, the person in charge of the distribution system or the owner or operator of the tank truck is also bound to notify the users in question, as soon as he is informed thereof, through the media or by forwarding

individual written notices, that the water at their disposal is unfit for consumption and that precautions must be taken, in particular, boiling the water for at least one minute before drinking it. If, among the users in question, there are health and social services institutions or educational institutions, they must be notified individually. The Minister of Agriculture, Fisheries and Food, responsible under the Food Products Act for protecting the health and safety of consumers, must also be notified thereof as soon as possible.

The notices to be given to users shall be given at least once every two weeks and until it is shown, in accordance with section 39, that the water supplied is free from total coliform bacteria and complies with the standards of quality determined in Schedule 1 with respect to other analysed microorganisms. The person in charge of the distribution system or the owner or operator of the tank truck must send immediately to the Minister of the Environment and to the public health director a written notice stating that the notices to be given to users were given according to the methods prescribed.

For the purposes of this section, “users in question” means, in the case of a distribution system, all those persons who, considering the hydraulic features of the system, are likely to be supplied with contaminated water.

37. Where another distribution system is connected to his system and where users of that system are also likely to be supplied with contaminated water, or a tank truck is supplied with drinking water directly by his system, the person in charge of the distribution system referred to in the first or second paragraph of section 36 must also immediately notify the person in charge of that other system or, as the case may be, the owner or operator of the vehicle of the problem.
38. The person in charge of an educational institution, a health and social services institution or a tourist establishment supplied by a distribution system or by a tank truck that was subject to a notice given pursuant to the second paragraph of section 36 must, as soon as he is informed that the water at the disposal of users is unfit for consumption, post a notice everywhere in the institution where the water is made available for consumption purposes and interrupt any water service from drinking fountains supplied with contaminated water.

If the distribution system or the tank truck that is subject to a notice given pursuant to the second paragraph of section 36 supplies a house of detention or an enterprise, the person in charge of that house or enterprise must, as soon as he is aware of the notice, notify the users thereof within the house or enterprise.

39. Where the analysis of a sample collected from a distribution system or tank truck shows that the water contains *Escherichia coli* bacteria or that it does not comply with one of the parameters set out in Schedule 1 respecting other bacteria, the person in charge of the distribution system or the owner or operator of the vehicle is bound to collect or have the minimum number of samples of the water supplied collected, during two consecutive days, as provided for in the table below for bacteriological control purposes.

Users in question	Minimum number of samples to collect or to have collected per day
5000 persons or less	4
5001 to 20 000 persons	1 per 1000 persons
20 001 persons and more	20

In the case of disinfected water, he must also measure in each of the collected samples the quantity of free residual disinfectant and enter the result of those measures in the report prescribed by the Minister.

In the case of non-disinfected water for which analyses revealed the presence of fecal coliform bacteria or *Escherichia coli* bacteria, at least two samples of raw groundwater that supplies the system must be collected per day during two consecutive days, for the purposes of checking the presence of *Escherichia coli* bacteria and enterococci bacteria.

The sampling methods provided for in the second paragraph of section 11 shall apply to the sampling prescribed by the first paragraph. Where the person in charge of the distribution system or the owner or operator of the tank truck from which the water sample comes does not have access by road to an accredited laboratory, the sampling prescribed by this section may be carried out during the same day provided that there is an interval of at least two hours between each sampling. The water samples collected under this section may not be taken into account for the purposes of the sampling prescribed by section 11.

Water supplied by the distribution system or tank truck referred to in the first paragraph may be considered as complying again with the bacteriological parameters indicated in Schedule 1 only if the analysis of the samples collected under that paragraph has shown a complete absence of total coliform bacteria and compliance of the water with the aforementioned parameters regarding other analyzed bacteria.

- 40.** Where the analysis of a sample collected in a distribution system or a tank truck shows that the water does not comply with any of the parameters set out in Schedule 1 respecting organic substances (excluding trihalomethanes) or inorganic substances, radioactive substances or activities, pH or turbidity, the person in charge of the distribution system or the owner or operator of the vehicle is bound to collect or have at least one sample of the water supplied collected during two consecutive days to control those parameters.

Water supplied by that distribution system or vehicle may be considered as complying again with the aforementioned parameters only if the analysis of the samples collected has shown that compliance.

The sampling methods provided for in the second paragraph of section 11 shall apply to the

samples prescribed by the first paragraph of this section, which must be collected in the central part of the distribution system. The provisions of the fourth paragraph of section 39 shall also apply, *mutatis mutandis*. Finally, the water samples collected under this section may not be taken into account for the purposes of the sampling prescribed by sections 14, 15 and 21.

41. As soon as the water supplied by a distribution system or tank truck that was subject to a notice given pursuant to section 36 is in compliance again with the standards of quality set out in Schedule 1, the person in charge of the system or the owner or operator of the vehicle shall so inform any person or institution that had to be notified by him under that section, following the same methods as those prescribed by that section.
42. If he has reasons to suspect that the water supplied does not comply with the standards of quality set out in Schedule 1, the person in charge of the distribution system or, as the case may be, the owner or operator of the tank truck is bound to take as soon as possible the appropriate measures to check adequately the quality of that water.

CHAPTER V

Competence required

43. The provisions of this Chapter do not apply to a distribution system or tank truck that supplies only:
 - (1) one residence
 - (2) one or several enterprises;
 - (3) one residence and one or several enterprises.
44. Only competent persons may be in charge of the operation of a distribution system, a collection facility of water supplied by that system and a filtration or disinfection treatment facility of that water.

Within the meaning of this section, “competent persons” means persons who hold a diploma, certificate or other attestation issued in matters of drinking water purification or treatment recognized by the Minister of Education or by Emploi-Québec or by the Minister responsible therefor. The attestations issued for the purposes of this section, excluding the diplomas obtained from the Minister of the Environment, shall be renewed every five years.

The competence obligation prescribed by this section also applies to persons who supply drinking water by tank truck.

CHAPTER VI

Penal

45. Any person, in contravention of section 3, who puts at the disposal of a user drinking water that does not comply with the standards of quality set out in Schedule 1 is liable

(1) to a fine of \$1000 to \$20 000 in the case of a natural person;

(2) to a fine of \$2000 to \$40 000 in the case of a legal person.

46. In the case of a contravention of any of the provisions of sections 5 to 9, 24, 27, 29, 36, 42 and 44, the owner or operator of the distribution system, disinfection treatment facility or tank truck, as the case may be, is liable to the fines provided for in section 45.

The person who enters false or inaccurate data in the register or report referred to in sections 22, 23, 28 and 39 or who omits to enter therein the data prescribed by those sections is liable to the same fines.

47. Any offence against section 35 or 38 makes the offender liable to the fines provided for in section 45.

48. Any person who commits an offence against the provisions of this Regulation and not covered by sections 45 to 47 is liable

(1) to a fine of \$500 to \$10 000 in the case of a natural person; and

(2) to a fine of \$1000 to \$20 000 in the case of a legal person.

49. In the case of a subsequent offence, the fines provided for in sections 45 to 48 shall be doubled.

CHAPTER VII

Miscellaneous and final

50. This Regulation applies in particular to immovables included in reserved areas and agricultural zones established under the Act respecting the preservation of agricultural land and agricultural activities (R.S.Q., c. P-41.1).

51. This Regulation replaces the Drinking Water Regulation made by Order in Council 1158-84 dated 16 May 1984.

52. In the regulatory provisions listed below, reference to the Drinking Water Regulation made by Order in Council 1158-84 dated 16 May 1984 shall be replaced by a reference to the Regulation respecting the quality of drinking water made by Order in Council (*enter the number and date of the Order in Council that made this Regulation*):

- (1) in the definition of the expression "water intake" in section 1 of the Regulation respecting standards of forest management for forests in the public domain, made by Order in Council 498-96 dated 24 April 1996;
- (2) in the definitions of the expression "drinking water" in sections 1.1.1, 5.1.1 and 5.6.1 of the Regulation respecting food (R.R.Q., 1981, c. P-29, r. 1);
- (3) in the definition of the expression "drinking water" in section 1 of the Regulation respecting the quality of dairy products, made by Order in Council 183-88 dated 10 February 1988; and
- (4) in section 28 of the Regulation respecting waterworks and sewer services (R.R.Q., 1981, c. Q-2, r. 7).

53. The distribution systems whose water supplied on the date of coming into force of this Regulation comes in whole or in part from surface water and is not subject to any treatment including flocculation, slow filtration or membrane filtration shall be exempted from the application of the provisions of section 5 for a maximum period of one year.

The persons in charge of those systems will have to, however, within three months of the coming into force of this Regulation, provide the Minister of the Environment with a description of the measures that will be implemented, accompanied by an implementation schedule, in order to guarantee that those systems will meet the requirements contemplated in section 5 no later than the expiry of the one-year period provided for above.

The exemption from which a distribution system benefits under the first paragraph will cease however to apply if the system is subject to a notice given pursuant to section 36.

54. The Minister of the Environment must, no later than on 15 June 2006, and thereafter every five years, draw up a report to the Government on the implementation of this Regulation, in particular on the opportunity to change the standards of quality of drinking water considering the scientific and technical knowledge of the time.

That report shall be available to the public no less than fifteen days after it has been sent to the Government.

55. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*, except section 44 which will take effect upon the expiry of the twelfth month following the coming into force of this Regulation.

SCHEDULE 1

Standards of quality of drinking water

1. Microbiological parameters

- (a) Water collected for microbiological analysis purposes must be free from pathogenic organisms and indicator organisms of fecal contamination, such as fecal coliform bacteria, *Escherichia coli* bacteria, enterococci bacteria and coliphage viruses;
- (b) Water must not contain more than 10 total coliforms per 100 millilitres of water collected where a technique is used to count them;
- (c) Where, pursuant to section 11, 21 water samples or more are collected over a period of 30 consecutive days, at least 90% of the samples must be free from total coliform bacteria;
- (d) Where, pursuant to section 11, less than 21 water samples are collected over a period of 30 consecutive days, only one of the samples may contain total coliform bacteria;
- (e) Water must not contain more than 200 atypical colonies per membrane where the membrane filtration technique is used to count total coliforms;
- (f) Water must not contain bacteria in such quantity that they may not be identified nor counted where the membrane filtration technique is used to count total coliforms and fecal coliform bacteria in 100 millilitres of water collected;
- (g) Water must not contain more than 500 facultatively aerobic or anaerobic heterotrophic bacteria per millilitre of water collected, after incubation at 35°C for 48 hours.

2. Parameters respecting inorganic substances

Water must not contain inorganic substances in a concentration greater than those indicated in the table below:

Inorganic substances	Maximum concentration (mg/L)
Antimony	0.006
Arsenic (As)	0.025
Barium (Ba)	1
Boron (B)	5
Bromates	0.010
Cadmium (Cd)	0.005
Chloramines	3
Cyanides (CN)	0.2
Fluorides (F)	1.5
Lead (Pb)	0.01
Nitrates + nitrites (expressed as N)	10
Nitrites (expressed as N)	1
Mercury (Hg)	0.001
Selenium (Se)	0.01
Total chromium (Cr)	0.05
Uranium (U)	0.02

3. Parameters respecting organic substances

Water must not contain organic substances in a concentration greater than those indicated in the following tables:

Pesticides	Maximum concentration ($\mu\text{g/L}$)
Aldicarb and its metabolites	9
Aldrin and dieldrin	0.7
Atrazine and its metabolites	5
Azinphos-methyl	20
Bendiocarb	40
Bromoxynil	5
Carbaryl	90
Carbofuran	90
Chlorpyrifos	90
Cyanazine	10
Diazinon	20
Dicamba	120
2,4-dichlorophenoxyacetic acid (2,4-D)	100
Diclofop-methyl	9
Dimethoate	20
Dinoseb	10
Diquat	70
Diuron	150
Glyphosate	280
Malathion	190
Methoxychlor	900
Metolachlor	50
Metribuzin	80
Paraquat in (dichlorides)	10
Parathion	50
Phorate	2
Picloram	190
Simazine	10
Terbufos	1
Trifluralin	45

Other organic substances	Maximum concentration (µg/L)
Benzene	5
Benzo(a)pyrene	0.01
Carbon tetrachloride	5
1,1-dichloroethylene	14
1,2-dichlorobenzene	200
1,4-dichlorobenzene	5
1,2-dichloroethane	5
Dichloromethane	50
2,4-dichlorophenol	900
Monochlorobenzene	80
Nitrilotriacetic acid (NTA)	400
Pentachlorophenol	60
Tetrachloroethylene	30
2,3,4,6-tetrachlorophenol	100
2,4,6-trichlorophenol	5
Trichloroethylene	50
Vinyl chloride	2

Other organic substances	Maximum annual average concentration (µg/L)
Total trihalomethanes (chloroform, bromodichloromethane, chlorodibromomethane and bromoform)	80

4. Parameters respecting radioactive substances

Water must not contain radioactive substances in a concentration greater than those indicated in the following table:

Radioactive substances or activities	Maximum concentration (Bq/L)
Cesium-137	10
Gross alpha activity	0.1
Gross beta activity	1
Iodine-131	6
Radium-226	0.6
Strontium-90	5
Tritium	7000

5. Parameters respecting pH

The pH of water must not be greater than 8.5 nor less than 6.5.

6. Parameters respecting turbidity

The turbidity of water must be less than or equal to 5 NTU (nephelometric turbidity units).

In addition, in the case of filtered or disinfected water, the turbidity must not exceed 0.5 NTU in more than 5% of the measures entered in the register pursuant to section 22 over a period of 30 consecutive days; notwithstanding the preceding, the limit of 0.5 NTU will be either increased to 1 NTU if filtration is carried out by means of a slow filtration process or with diatomaceous earth, or decreased to 0.1 NTU if it is carried out by means of a membrane filtration process.

SCHEDULE 2

(section 19)

ORGANIC SUBSTANCES

PESTICIDES
Atrazine and its metabolites
Azinphos-methyl
Bromoxynil
Carbaryl
Carbofuran
Chlorpyrifos
Cyanazine
Diazinon
Dicamba
2,4-dichlorophenoxyacetic acid (2,4-D)
Dimethoate
Diquat
Diuron
Glyphosate
Malathion
Methoxychlor
Metolachlor
Metribuzin
Paraquat (in dichlorides)
Parathion
Phorate
Picloram
Simazine
Terbufos
Trifluralin
OTHER ORGANIC SUBSTANCES
Benzene
Benzo(a)pyrene
Carbon tetrachloride
1,1-dichloroethylene
1,2-dichlorobenzene
1,4-dichlorobenzene
1,2-dichloroethane
Dichloromethane
2,4-dichlorophenol
Monochlorobenzene
Pentachlorophenol
Tetrachloroethylene
2,3,4,6-tetrachlorophenol
2,4,6-trichlorophenol
Trichloroethylene
Vinyl chloride