Regulations and other Acts

Gouvernement du Québec

O.C. 70-2012, 8 February 2012

Environment Quality Act (R.S.Q., c. Q-2)

Quality of drinking water

— Amendment

Regulation to amend the Regulation respecting the quality of drinking water

WHEREAS, under subparagraphs e, h.1, h.2, j and l of the first paragraph of section 31, section 45, paragraph a of section 45.2, paragraphs a, b, d, i, m, o.1, o.2, p and s of section 46 and section 115.34 of the Environment Quality Act (R.S.Q., c. Q-2), the Government may make regulations on the matters set forth therein;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (R.S.Q., c. R-18.1) and section 124 of the Environment Quality Act, a draft of the Regulation to amend the Regulation respecting the quality of drinking water was published in Part 2 of the *Gazette officielle du Québec* of 24 November 2010 with a notice that it could be made by the Government on the expiry of 60 days following that publication;

WHEREAS it is expedient to make the Regulation with amendments;

IT IS ORDERED, therefore, on the recommendation of the Minister of Sustainable Development, Environment and Parks:

THAT the Regulation to amend the Regulation respecting the quality of drinking water, attached to this Order in Council, be made.

GILLES PAQUIN, Clerk of the Conseil exécutif

Regulation to amend the Regulation respecting the quality of drinking water

Environment Quality Act (R.S.Q., c. Q-2, s. 31, 1st par., subpars. *e*, *h*.1, *h*.2, *j* and *l*, s. 45, s. 45.2, par. *a*, s. 46, pars. *a*, *b*, *d*, *i*, *m*, *o*.1, *o*.2, *p* and *s*, subpar. 2.5 and s. 115.34)

- **1.** The Regulation respecting the quality of drinking water (c. Q-2, r. 40) is amended in the first paragraph of section 1
- (1) by inserting the following definitions in alphabetical order:

""Minister" means the Minister of Sustainable Development, Environment and Parks; (ministre)

"professional" means a professional, within the meaning of section 1 of the Professional Code (R.S.Q., c. C-26), whose order governs the practice of a professional activity referred to in this Regulation. This definition also includes any person legally authorized to practise that activity in Québec; (professionnel)

"raw water" means water collected to supply a drinking water distribution system and that has not undergone a potabilisation treatment; (eau brute)

"seasonal tourist establishment" means a tourist establishment whose usual opening period does not exceed 300 consecutive days per regular operating year; (établissement touristique saisonnier)";

(2) by replacing the definition of "tourist establishment" by the following:

""tourist establishment" means an establishment which offers to the public restaurant services or sleeping accommodations, including the rental of camping spaces.

For the purposes of this Regulation, tourist information offices, museums, ski stations, holiday camps, outdoor recreation areas, public beaches, rest areas, golf courses, marinas and sites with guided tourist visits are deemed to be tourist establishments. (établissement touristique)";

(3) by replacing the definition of "person in charge of a distribution system" by the following:

""person in charge" means the operator or owner; (responsable)";

(4) by replacing the definition of "distribution system" by the following:

""distribution system" means mains, a system of mains or any facility or equipment used to catch or store or to distribute water intended for human consumption, also called "waterworks system". A distribution system includes facilities or equipment used to treat water. This definition does not include, in the case of a building connected to a waterworks system, all mains supplying the building and located within the property limit. (système de distribution)

For the purposes of this Regulation, facilities used to supply water to an establishment referred to in section 1.4 whose supply source is independent from a distribution system are deemed to be a distribution system.".

2. The following is inserted after section 1:

- "1.1. It is understood that every requirement prescribed by a provision of this Regulation relating to the layout, operation and maintenance of a water distribution system or tank truck used to distribute water, including quality control of the water supplied, is incumbent on the person in charge of the distribution system concerned or, where applicable, of the tank truck concerned, unless the context indicates otherwise or the provision so entrusts the responsibility to another person.
- **1.2.** When a provision of this Regulation requires that water undergo a disinfection treatment, that treatment must be administered in a way that ensures at all times or, as the case may be, during the period prescribed by the provision, a constant presence of the disinfectant at the concentration, level or rate fixed by that provision, or, in the absence of such parameters, at a concentration, level or rate sufficient to ensure the elimination of pathogenic microorganisms with an effectiveness at least equal to the elimination percentage provided for in that provision.
- **1.3.** Every document, declaration or notice the communication or sending of which is prescribed by a provision of this Regulation must be sent to the Minister by registered mail, certified mail or any other means providing proof of receipt.

- **1.4.** The following are public, commercial and industrial establishments referred to in the first paragraph of section 45 of the Environment Quality Act (R.S.Q., c. Q-2), to the extent that they are referred to in this Regulation:
 - enterprises;
 - correctional facilities;
 - health and social services institutions:
 - tourist establishments;
 - educational institutions.".

3. Section 2 is replaced by the following:

"2. The provisions of this Regulation are neither applicable to water referred to in the second paragraph of section 1 of the Food Products Act (R.S.Q., c. P-29), nor to water whose use or distribution is governed by the Act respecting the Société des alcools du Québec (R.S.Q., c. S-13)."

4. Section 3 is replaced by the following:

"3. Any person who makes water intended for human consumption available to users must ensure that the water meets the standards of quality of drinking water defined in Schedule 1.

In particular, the person in charge of a distribution system for water intended for human consumption, as well as a person in charge of a tank truck that supplies water for the same purposes, must ensure that the water meets the quality standards referred to in the first paragraph.

Water that is brought by a distribution system or facility to the supply valve to which users have access is deemed to be made available to users. If the water is brought by a tank truck, it is deemed to be made available to users from the moment the water is delivered.".

5. Section 4 is amended

- (1) by adding "one of the following users" in the part preceding subparagraph 1 of the first paragraph after "only";
 - (2) by replacing the second paragraph by the following:

"The provisions become applicable to a distribution system referred to in subparagraph 2 of the first paragraph, from the earliest of the following dates occurring after 8 March 2012:

- (1) the date on which a water treatment facility is installed; or
- (2) the date of the first modification to the treatment facilities that treat the water.".

6. Section 5 is amended

(1) by replacing the first paragraph by the following:

"Water made available to users must have undergone a filtration and disinfection treatment if it originates in whole or in part from surface water or from groundwater whose microbiological quality is likely to be altered by surface water. Groundwater that receives surface water migrating into the soil under such conditions that the soil cannot act as a filtering element of microbiological contaminants is deemed to be likely to be altered by surface water.";

- (2) by replacing "99%" in the second paragraph by "99.9%";
- (3) by replacing "fewer than 20 fecal coliform bacteria" in subparagraph 2 of the third paragraph by "15 *Escherichia coli* bacteria or less";
- (4) by replacing subparagraph 3 of the third paragraph by the following:
- "(3) the quality of the water is not likely to be altered, in respect of one of the parameters provided for in paragraph 1, 2 or 2.1, by contaminants from a source of contamination located upstream from the water catchment site.".

7. The following is inserted after section 5:

"5.1. The filtration and disinfection treatment prescribed in the first paragraph of section 5 must, according to the average number of *Escherichia coli* bacteria per 100 mL of sampled raw water, ensure a proven rate of effectiveness in the elimination of pathogenic microorganisms present in raw water at least equal to the percentage indicated in the following table for each category of microorganisms:

Average number of Escherichia coli bacteria (per 100 mL of sampled raw water)	Category of pathogenic microorganisms	Elimination percentage
	Virus	99.99%
≤ 15	Giardia cyst Cryptosporidium oocyst	99.9% 99.9%
	Virus	99.999%
$> 15 \text{ and} \le 150$	Giardia cyst	99.99%
	Cryptosporidium oocyst	99.9%
	Virus	99.9999%
$> 150 \text{ and} \le 1,500$	Giardia cyst	99.999%
	Cryptosporidium oocyst	99.99%
	Virus	99.99999%
> 1,500	Giardia cyst	99.9999%
	Cryptosporidium oocyst	99.999%

For the purposes of this section, the average number of *Escherichia coli* bacteria is established on the basis of the arithmetical average of the number of bacteria appearing in the analysis results over 12 consecutive months corresponding to the highest average observed within a reference period comprised of the last 36 months.".

8. Sections 6 and 7 are replaced by the following:

"6. Water made available to users by a distribution system supplied exclusively with raw groundwater must, if analyses revealed the presence, in at least 2 samples of raw water, of *Escherichia coli*, enterococci bacteria, F-specific coliphage viruses, pathogenic microorganisms or indicator microorganisms of fecal contamination, have undergone a disinfection treatment whose proven rate of virus elimination effectiveness is at least 99.99%.

In addition, the person in charge of a distribution system who makes such water available to users must ensure by means of a prepared notice signed by a professional that the equipment in place is in good working order and makes it possible to reach the rate of virus elimination effectiveness provided for in the first paragraph. The notice must be made available to the Minister for a period of 10 years, from the date it is signed.

This section does not apply to equipment used to add disinfectant in the distribution facility.".

9. Section 8 is replaced by the following:

- "8. When a provision of this Regulation requires that water undergo a disinfection treatment, that treatment must be administered in a way that ensures, at the outlet of the treatment facility, a residual disinfectant content at least equal to the highest of the concentrations provided for in the following subparagraphs:
- (1) a concentration of free residual chlorine of 0.3 mg/L or a concentration of chloramines of 1 mg/L, depending which disinfectant is used; or
- (2) a concentration of residual disinfectant that makes it possible to reach a pathogenic microorganism elimination effectiveness at least equal to the elimination percentage provided for in section 5, 5.1 or 6.

This section does not apply to the addition of disinfectant in the distribution facility or to a distribution system that supplies only one building.".

10. Section 9 is replaced by the following:

"9. Every system or facility used to disinfect water pursuant to section 5, 5.1 or 6 of this Regulation must be equipped with standby disinfection equipment that will ensure the disinfection treatment should the main treatment system or facility break down or stop.

This section does not apply to the addition of disinfectant to the disinfection systems or facilities of a distribution system serving only one building.".

11. The first paragraph of section 9.1 is replaced by the following:

"Where, for the purpose of ensuring compliance with section 5, 5.1 or 6 or compliance with the quality standards set out in Schedule 1, the person in charge of a distribution system installs a treatment facility in a building to supply water to that building, that person must, if not the owner of the building, obtain the right to have access to that treatment facility for maintenance and water quality control. That access right must be in writing. Each party to the contract must be in possession of a copy, keep it for at least 2 years after its date of expiry and make it available to the Minister during that period."

12. The following is inserted after section 9.1:

"9.2. In the treatment of water intended for human consumption, no person may use a chemical product that is not certified to ANSI/NSF Standard 60, Drinking Water Treatment Chemicals Health Effects, published by the American organization NSF International and by the American National Standards Institute.

That prohibition does not apply to the use of a chemical product made on the premises and entirely composed of chemical products certified under the standard referred to in the first paragraph.".

13. Section 10 is replaced by the following:

- "10. The provisions of this Division do not apply to a distribution system that supplies only one of the following users:
 - (1) 20 persons or less;
 - (2) one or more enterprises;
 - (3) 20 persons or less and one or more enterprises.".

14. Section 10.1 is replaced by the following:

"10.1. Every person in charge of a distribution system referred to in this Division must send to the Minister, within 30 days of the putting into service of the facility, a signed declaration containing the information provided for in Schedule 3. A modified declaration must be sent to the Minister when a facility modification that may have an effect on one of the parameters referred to in the initial declaration is made, within 30 days of the facility modification or the putting back into service of the facility if the modification made requires the service to be interrupted.".

15. Section 11 is amended

- (1) by striking out "fecal coliform bacteria or" in the first paragraph;
 - (2) by striking out the second paragraph.

16. The following is inserted after section 12:

"12.1. Where a distribution system of a municipality also supplies water to another distribution system, serving less than 500 persons and whose person in charge is not a municipality, the obligations in sections 11, 14.1, 18, 21, 39 and 40 are incumbent on that municipality for the whole system as long as they are interconnected.

It is also incumbent on the municipality, if the analyses made show the presence of *Escherichia coli* bacteria in the water, to notify the person in charge of that other system. It is incumbent on the person in charge of the distribution system that is thus supplied by a distribution system of a municipality to notify the users concerned in accordance with the requirements of section 36 and to

take the corrective measures to remedy the situation. For that purpose, the person in charge of such a distribution system must provide the person in charge of the supplying distribution system with the contact information where the person in charge may be reached or the contact information of a qualified person designated by the person in charge.

In addition, it is incumbent on the person in charge of the distribution system, that is thus supplied by a distribution system of a municipality, to make sampling points that comply with the provisions of this Regulation accessible to the employees or representatives of the municipality, for the purposes of the sampling of the water supplied.

For the purposes of the first paragraph, the number of users of the distribution system thus supplied is added to the number of users of the supplying distribution system.".

17. Section 14 is replaced by the following:

"14. The person in charge of a distribution system must, to control the inorganic substances listed in Schedule 1, except bromates, chloramines, chlorites and chlorates, nitrites, lead and copper, collect or have collected samples from the water supplied, in accordance with the terms and conditions provided for in the following table for each type of distribution system and substances:

Substances	Type of distribution system	Minimum number of samples	Sampling period
	Number of users		
Substances listed in Schedule I, except lead, copper, chloramines, bromates, chlorites, chlorates, nitrates + nitrites, and nitrites	≥21	1	Annually, between 1 July and 1 October
Nitrates + nitrites	≥21	1	During each quarter beginning respectively on 1 January, 1 April, 1 July and 1 October, with a minimum interval of 2 months between the sampling dates.

For the purposes of this section, if the distribution service is not in service from 1 July to 1 October, the samples required may be taken during any other period where the system is in service, despite the provisions of the above table.

This section does not apply to a distribution system that is supplied by another distribution system subject to the control of the inorganic substances referred to in the above table, as long as both distribution systems are interconnected.

14.1. The person in charge of a distribution system must, to control lead and copper, collect or have collected samples from the water supplied, in accordance with the terms and conditions provided for in the following table for each type of distribution system:

Substances	Type of distribution system	Minimum number of samples	Sampling period
	Number of users		
Lead	≥ 21 and ≤ 500	2	Annually, between
Copper $\geq 501 \text{ and } \leq 5,000$		5	1 July and 1 October
\geq 5,001 and \leq 20,000		10	
\geq 20,001 and \leq 50.		20	
	\geq 50,001 and \leq 100,000	30	
	≥ 100,001	50	•

For the purposes of this section, if the distribution system is not in service from 1 July to 1 October, the required samples may be taken during any other period where the system is in service, despite the provisions of the above table.

If the distribution system only serves tourist establishments, the minimum number of samples required to control lead and copper is one sample, despite the provisions of the above table.".

18. Section 15 is replaced by the following:

"15. The person in charge of a distribution system of a type referred to in Column 1 of the following table must, to control the substance indicated in Column 2, collect or have collected samples from the water supplied, at the minimum rate of at least 1 sample during each quarter beginning respectively on 1 January, 1 April, 1 July and 1 October of each year, with a minimum interval of 2 months between samplings.

Column 1	Column 2
Type of distribution system	Substances
Water treated by ozonation	Bromates
Water treated by chlorine dioxide	Chlorites, chlorates

This section does not apply to the distribution facilities of such a distribution system that are supplied by another distribution system subject to the control of substances referred to in the first paragraph, as long as both systems are interconnected.".

- **19.** Section 16 is struck out.
- **20.** Section 17 is replaced by the following:
- "17. For each of the samples collected for the purpose of testing for the nitrites and nitrates provided for in section 14, the person in charge of the distribution system referred to in section 5 must, at the time of the sampling, measure the pH of the water and enter the results in an analysis request form that complies with the model provided by the Minister.".
- **21.** The following is inserted after section 17:
- "17.1. If the analysis of at least 2 samples of the water made available to users, including 1 sample collected pursuant to the first paragraph of section 17, shows that the pH value is less than 6.5 or greater than 8.5, the person in charge of the distribution system must, as soon as possible, notify the Minister and the public health director of the region concerned during business hours and inform them of the measures taken or to be taken to remedy the situation."

22. Section 18 is amended

(1) by replacing the first paragraph by the following:

"The person in charge of a distribution system that supplies chlorinated water must, for the purpose of testing for the trihalomethanes referred to in Schedule 1, collect or have collected, during a single week for each of the quarters beginning respectively on 1 January, 1 April, 1 July and 1 October, samples of the water supplied, with a minimum interval of 2 months between sampling weeks.

The sampling prescribed in the first paragraph must include the minimum number of samples provided for in the following table for each type of distribution system:

Type of distribution system	Minimum number of samples	
Number of users		
$\geq 21 \text{ and } \leq 5,000$	1	
\geq 5,001 and \leq 100,000	4	
≥ 100,001	8	
	27.	

(2) by striking out the third paragraph.

23. Section 19 is amended

- (1) by inserting "pesticides and other" in the first paragraph after "control of";
- (2) by inserting the following paragraph after the first paragraph:

"Where the analyses of the water samples collected pursuant to the first paragraph show that the concentration of every substance referred to in Schedule 2 is lower than 80% of the maximum concentration prescribed for each substance by Schedule 1, the person in charge of the distribution system must collect or have collected samples only once every 3 years, as long as the concentration of each substance is maintained at that level. As soon as one of the substances referred to in Schedule 2 shows a concentration that is not lower than 80% of the maximum concentration provided for in that Schedule, the samples must be taken in accordance with the provisions of the first paragraph."

- **24.** Section 20 is struck out.
- **25.** Section 21 is amended by striking out the second paragraph.
- **26.** The following is inserted after section 21:
- "\$2.1. Control of the degree of representativeness of samples
- 21.0.1. Subject to the sampling points whose location is prescribed by a provision of this Regulation, the person in charge of the distribution system or facility must ensure that the sampling points where samples are collected enable to obtain data representative of the quality of water for the whole network. The person in charge must also make available to the Minister, for a minimum period of 5 years, a copy of the plan showing the location of sampling points and indicating, where applicable, the civic numbers of the buildings concerned, accompanied

by a document explaining how the sampling points were determined, including a description of the characteristics of each sampling point. The location plan must, in addition, identify the sectors whose hydraulic features allow to have any water contamination of the distribution system or facility confined to it.".

- **27.** The following is inserted after the heading of subdivision 3 of Division I of Chapter III:
- **"21.1.** Treatment facilities supplied exclusively with groundwater in which the analyses of at least 2 samples have revealed the presence of no *Escherichia coli* bacteria or enterococci bacteria, no F-specific coliphage viruses, pathogenic microorganisms or indicator microorganisms of fecal contamination are excluded from the application of sections 22 and 22.1.

Raw water in oxidation and disinfection treatment facilities referred to in the first paragraph must be the subject of a monthly sampling to test for the presence of *Escherichia coli* bacteria and enterococci bacteria, except if the person in charge of those facilities meets the requirements provided for in sections 22 and 22.1 and provided that those facilities make it possible to reach a rate of virus elimination effectiveness equal to or greater than 99.99%.".

28. Section 22 is amended

- (1) by replacing "continuous disinfection treatment facility (ozone, chlorine dioxide, chorine, chloramines)" in the first paragraph by "disinfection treatment facility";
- (2) by inserting "the person in charge or a person designated by the person in charge" in the first paragraph after "of warning";
- (3) by striking out "continuous" in the second paragraph before "ultraviolet radiation";
- (4) by striking out "continuous" in the third paragraph before "disinfection";
 - (5) by replacing the fourth paragraph by the following:

"The person in charge of a distribution system supplying water to 20,000 persons or less that has a disinfection treatment facility must, for the purposes of the first paragraph and for each 4-hour period, enter each day in a record the lowest concentration of free residual disinfectant measured in that period, the measurement of water volume and flow rate in the disinfection reserve or reserves corresponding to the lowest free residual disinfectant concentration and, in the case referred to in the

third paragraph, the measurement of turbidity. Where chloramines are used, the person in charge must enter each day in the record the lowest concentration of combined residual disinfectant. The water temperature must also be measured by the person in charge and entered in the record each day, as must the water pH if chlorine is used as a disinfectant. The date and the names of the persons taking the measurements must also be entered in the record. The person in charge must sign the record, keep it for a minimum period of 5 years from the date of the last entry and make it available to the Minister.";

(6) by replacing the fifth paragraph by the following:

"Every water disinfection treatment facility forming part of a distribution system supplying water to more than 20,000 persons must have a continuous calculation software that enables to determine the elimination rate reached by the facility of the viruses and other microorganisms referred to in sections 5, 5.1 and 6. It must also have an alarm capable of warning at all times the person in charge or the person designated by the person in charge that the facility does not reach the elimination rate of viruses and other microorganisms prescribed by those sections. In addition, the person in charge of such a facility is required to keep and make available to the Minister, for a minimum period of 5 years, the data used for the calculation of the elimination rate of viruses and other microorganisms reached. The data kept must show the elimination rate reached by the facility by at least 1 reading for each 15-minute period.";

- (7) by striking out the sixth paragraph.
- **29.** The following is inserted after section 22:

"22.0.1. The person in charge of a distribution system serving more than 1,000 persons with water that originates in whole or in part from surface water or groundwater whose microbiological quality is likely to be altered by surface water must collect or have collected a sample of raw water so that the number of *Escherichia coli* bacteria may be checked according to the frequency determined in the following table:

Users concerned	Sampling frequency	
\geq 1,001 and \leq 5,000	At least once a month	
≥ 5,001	At least once a week	

This section does not apply to territories located north of the 55th parallel.".

30. Section 22.1 is amended

- (1) by striking out "continuous" in the part preceding paragraph 1 before "disinfection";
- (2) by striking out "continuous" in paragraph 2 before "disinfection".

31. Section 23 is replaced by the following:

"23. The person in charge of a distribution system that supplies chlorinated water must, during each sampling collected pursuant to section 11, measure the concentration of free residual disinfectant in a water sample collected for that purpose and enter the result in the analysis request form that complies with the model provided by the Minister. Where the water supplied is chloraminated water, the person in charge must measure the concentrations of free and total residual disinfectant."

32. Section 26 is amended

(1) by replacing the first paragraph by the following:

"The provisions of Chapter II and those of Division 1 of this Chapter, except those of sections 12 and 14.1, apply, with the necessary modifications, to the water intended for human consumption supplied by a tank truck to more than 20 persons. Therefore, the person in charge of the tank truck is bound by the same obligations as those incumbent on the person in charge of a distribution system under the above-mentioned provisions. The samples to be collected under those provisions are collected at the outlet of the tank.";

- (2) by replacing "18 and 19" in the second paragraph by "18";
- (3) by striking out "the owner or operator of" in the second paragraph.
- **33.** Section 27 is amended by replacing the first paragraph by the following:

"The person in charge of a tank truck that supplies water intended for human consumption must ensure that the water used to fill the tank complies with the standards of quality set out in Schedule 1. The person in charge must also ensure that all the water transfer operations are performed under such sanitary conditions that the water quality is not affected."

34. Section 28 is amended

(1) by replacing "owner or operator" in the first paragraph by "person in charge";

- (2) by replacing "2 years" in the second paragraph by "5 years".
- **35.** Section 29 is replaced by the following:
- **"29.** The tank of a vehicle used to supply water intended for human consumption may not be used or have been used to transport substances unfit for human consumption.

If the tank is used or has been used to transport substances other than water, the person in charge of the tank must ensure that the tank is first cleaned and disinfected, as well as the pipes, pumps and other equipment that were used to transfer those substances, before being assigned to the transportation of water intended for human consumption.

In addition, the tank must have been designed or adapted for the transportation of water intended for human consumption and be kept in a state of maintenance, cleanliness and salubrity that is not likely to contaminate the water during transportation or transfer.".

36. Section 30 is amended

(1) by replacing the first paragraph by the following:

"Every person who is bound by a provision of this Regulation to collect or have collected a water sample for analysis purposes must ensure that the samples are collected and kept in accordance with the provisions of Schedule 4. That person must also ensure that the samples are shipped to the analytical laboratory as soon as possible.";

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

"Every person who collects a water sample pursuant to this Regulation must sign the analysis request form that complies with the model provided by the Minister to certify that the sampling, preservation and sending of the sample to the laboratory accredited by the Minister under section 118.6 of the Environment Quality Act (R.S.Q., c. Q-2) have taken place in compliance with the provisions of this Regulation."

37. Section 31 is amended

- (1) by striking out "section 6" in the first paragraph;
- (2) by replacing "14, the first paragraph of section 15, sections 18 to 21, 26, 39, 40 and 42" in the first paragraph by "14.1, the first paragraph of section 15, sections 18 to 21.1, 22.0.1, 26, 39, 40, 42 and 53.0.1";

- (3) by striking out "of Sustainable Development, Environment and Parks" in the first paragraph;
 - (4) by inserting the following after the first paragraph:

"When there is no laboratory accredited for the analysis of a substance referred to in Schedule 1, the water samples collected pursuant to this Regulation must, for analysis purposes, despite the provisions of the first paragraph, be sent to a laboratory that complies with standard ISO/CEI 17025, General requirements for the competence of testing and calibration laboratories, disseminated jointly by the International Organization for Standardization and the International Electrotechnical Commission."

38. Section 32 is amended

(1) by replacing the first paragraph by the following:

"The water samples collected pursuant to section 17, section 17.1, the fourth paragraph of section 22, section 22.1, section 23, section 27 or the first paragraph of section 28 must be analyzed in accordance with the methods described in the latest version of the Standard Methods for the Examination of Water and Wastewater, published by the American Water Works Association (AWWA), the Water Environment Federation and the American Public Health Association (APHA).";

(2) by striking out "of Sustainable Development, Environment and Parks" in the second paragraph.

39. Section 33 is amended

- (1) by striking out "of Sustainable Development, Environment and Parks";
- (2) by replacing "free residual disinfectant" by "residual disinfectant concentration";
 - (3) by adding the following at the end:

"Where the laboratory analyzes a greater number of water samples from a distribution system than the number of samples required by the provisions of this Regulation, the laboratory is required to send to the Minister the results of the analyses of all the samples collected.

Every person in charge of a distribution system or a tank truck referred to in this Regulation must keep and make available to the Minister a copy of every analysis report by an accredited laboratory of a water sample from that system or tank truck for 2 years from the date of the analysis report."

40. Section 34 is amended by replacing "third paragraph" in the first paragraph by "second, third and fourth paragraphs".

41. Section 35 is replaced by the following:

"35. The laboratory that analyzes water made available to users or carries out an analysis pursuant to section 21.1 must immediately communicate the results to the person in charge of the distribution system or, as the case may be, the person in charge of the tank truck where the sample was collected, where the result of the analysis shows the presence of one of the following microorganisms:

- fecal coliform bacteria:
- Escherichia coli bacteria;
- enterococci bacteria:
- F-specific coliphage viruses;
- pathogenic microorganisms or indicator microorganisms of fecal contamination.

The laboratory must immediately communicate to the Minister, the Minister of Agriculture, Fisheries and Food and the public health director of the region concerned the result of any analysis showing the presence of one of the microorganisms referred to in the first paragraph.

If the analysis made by the laboratory shows that the water sample collected contains one of the following microorganisms or substances, the laboratory must communicate as soon as possible during business hours to the persons referred to in the first paragraph, the Minister and the public health director of the region concerned the result of its analysis:

- total coliform bacteria;
- trihalomethanes in concentration greater than 80 $\mu g/L;$
- haloacetic acids in concentration greater than $60 \mu g/L$.

The analysis result, pursuant to the second paragraph, must be communicated to the Minister by telephone and electronic mail during business hours or by telephone to the Service d'Urgence-Environnement outside business hours.

Where an analysis result shows that a water sample does not comply with one of the other standards of quality set out in Schedule 1, the laboratory is required to send, as soon as possible during business hours, the result of its analysis to the person in charge of the distribution system or, as the case may be, of the tank truck from where the sample originates, to the Minister and the public health director of the region concerned.".

42. Section 35.1 is replaced by the following:

"35.1. In the event of a failure of the coagulation system, the sedimentation system, the filtering system, the disinfection system or the entire treatment system, the person in charge must immediately inform the Minister and indicate to the Minister the action taken or to be taken to remedy the situation.

The person in charge of a distribution system that has a disinfection treatment facility who, pursuant to section 22 or 22.1, notices that the standards set out in section 8 or in section 5 of Schedule 1 are not complied with or who, in the case of a treatment facility referred to in the fifth paragraph of section 22, notices an elimination rate of microorganisms lower than the rates provided for in section 5 or 5.1, must immediately take remedial measures and so inform the Minister as soon as possible during business hours.

Where the failure is likely to compromise compliance with the water quality standards, the person in charge of the distribution system referred to in the first or second paragraph must immediately inform the system's users that the water is considered unfit for consumption. The person in charge must also inform the public health director of the region concerned.".

43. Section 36 is amended

(1) by replacing the first paragraph by the following:

"Where the water available to users does not comply with any of the standards of quality set out in Schedule 1 or contains more than $80~\mu g/L$ of trihalomethanes or $60~\mu g/L$ of haloacetic acids, the person in charge of the distribution system or, as the case may be, of the tank truck from where the water originates must, on being so informed, notify the Minister and the public health director of the region concerned of the measures taken or to be taken to remedy the situation and, where applicable, to protect users from any risks involved. Where the water does not comply with the lead-related standard, the notice must be sent as soon as possible during business hours and mention the measures that the person in charge has taken or intends to take to locate the lead pipes of the

distribution system. Where the water was collected from a distribution system that is supplied by a distribution system referred to in section 12.1, the person in charge of the supplying distribution system must, on being informed of the analysis results, also notify the person in charge of the distribution system that is supplied by the supplying distribution system. The latter is required to notify the Minister of the measures taken or to be taken to remedy the situation.";

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

"If the water contains fecal coliform bacteria or *Escherichia coli* bacteria, the person in charge of the distribution system or, as the case may be, of the tank truck is also required on being so informed to notify the users concerned using the media, by sending individual written notices or by any other appropriate means to reach the users concerned, that the water at their disposal is unfit for human consumption and of the precautions to be taken. Where the users concerned include health and social services institutions, educational institutions or correctional facilities, they must be notified individually.";

(3) by replacing the third paragraph by the following:

"In the case of a distribution system serving exclusively an enterprise, an educational institution, a correctional facility, a health and social services institution or a tourist establishment, the notice referred to in the second paragraph is given as provided in section 38.";

(4) by replacing the last sentence of the fourth paragraph by the following:

"The person in charge of the distribution system or, as the case may be, the person in charge of the tank truck must immediately send to the Minister and the public health director a signed declaration whereby the person in charge declares that the notices prescribed by this section were given in accordance with the terms and conditions provided therein by indicating the dates of the notices, the sectors concerned and the method used to give the notices."

44. The following is inserted after section 36:

"36.1. The notice prescribed by the provisions of the second paragraph of section 36 must include a requirement to boil water for at least 1 minute before ingesting it and warn users of the danger of using unboiled water to prepare beverages and food, wash fruit and vegetables to be eaten raw, make ice cubes and brush their teeth."

45. Section 37 is amended

- (1) by replacing "contaminated water" in the first sentence by "water that does not meet one of the parameters set out in Schedule 1";
- (2) by replacing "owner or operator" in the first sentence by "person in charge".
- **46.** Section 38 is amended by replacing "with the contaminated water" in the first paragraph by "by the distribution system or tank truck.".

47. Section 39 is amended

(1) by replacing the first paragraph by the following:

"If the water available to users that originates from a distribution system or tank truck does not comply with one of the bacterial parameters set out in Schedule 1, or if a distribution system is supplied by another distribution system for which a boil advisory has been issued pursuant to section 36, the person in charge of the system or the person in charge of the tank truck is required, over 2 days separated by less than 72 hours, to collect or have collected the minimum number of samples as determined in the table below:

Users concerned	Minimum number of samples per day	
<u>≤ 200</u>	1	
\geq 201 and \leq 500	2	
\geq 501 and \geq 5,000	4	
\geq 5,001 and \geq 20,000	1 per 1,000 persons	
≥ 20,001	20	

- (2) by replacing "the analysis request form furnished" in the second paragraph by "an analysis request form that complies with the model provided";
- (3) by adding the following at the end of the second paragraph:

"If the water is disinfected using chloramines, the person in charge must also measure, in each sample collected, the quantity of free and total residual disinfectant and enter the result on the form.";

(4) by inserting "as soon as possible as of the time the person in charge is informed of such presence" in the third paragraph after "per day";

- (5) by striking out the first sentence of the fourth paragraph;
- (6) by replacing "owner or operator" in the second sentence of the fourth paragraph by "person in charge";
- (7) by inserting the following after the first sentence of the last paragraph:

"If a distribution system is supplied by another distribution system, the water supplied by the first distribution system may be considered to be in compliance with the above-mentioned standards again only if the analysis of water samples collected from the supplying distribution system shows that the water supplied meets those standards.":

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

"The samples collected pursuant to this section are subtracted, for the sampling month in which they are collected, from the minimum number of samples that the person in charge must collect each month under section 11, provided the samples were collected in accordance with the requirements of that section.".

48. Section 39.1 is replaced by the following:

"39.1. If raw water contamination is detected pursuant to section 13, 21.1 or 39 or non-disinfected water reveals the presence of fecal contamination, the person in charge of the system must immediately notify the Minister and the public health director of the region concerned and indicate to them the measures taken or to be taken to remedy the situation.

Should the analysis of a sample of raw water collected in accordance with section 39 show the presence of *Escherichia coli* bacteria or enterococci bacteria, F-specific coliphage viruses, pathogenic microorganisms or indicator microorganisms of fecal contamination, the advisory to boil water before ingesting it or to take any other precautionary measure must be maintained as long as the necessary remedial measures are not taken.".

49. Section 40 is amended

- (1) by replacing "owner or operator" in the first paragraph by "person in charge";
- (2) by inserting "and in the case of an exceedance of the standard of quality of drinking water relating to lead" in the first paragraph after "quarterly sampling";

(3) by striking out the first sentence of the third paragraph.

50. Section 41 is replaced by the following:

"41. As soon as the analysis of the samples collected in accordance with sections 39 and 40 shows that the water supplied by a distribution system or a tank truck that was the subject of a notice given pursuant to section 36 is again in compliance with the standards of quality set out in Schedule 1 and is free from total coliform bacteria, the person in charge of the system or tank truck must, in accordance with the terms and conditions in that section, so notify any person or institution that had to be notified by the person in charge."

51. Section 42 is replaced by the following:

"42. Where the person in charge of a distribution system or, as the case may be, the person in charge of a tank truck has reasons to suspect that the water intended for human consumption available to users does not comply with any of the standards of quality set out in Schedule 1 or section 17.1, the person in charge must immediately collect or have collected the water samples necessary for testing the water and have them analyzed.

The person in charge must also take appropriate measures to test for the presence and concentration of radioactive substances as soon as the person in charge has reasons to suspect that the water made available to users has a gross alpha activity greater than 0.5 Bq/L or a beta activity greater than 1 Bq/L.".

- **52.** The following is inserted after the heading of Chapter V:
- **"42.1.** In this Chapter, "certificate of qualification" and "competency certificate" mean the document issued respectively by the Minister of Employment and Social Solidarity or the Commission de la construction du Québec certifying that the person identified therein and holding the certificate has successfully completed professional training valid for the relevant class of facilities, authorizing the person to perform the operations, monitoring or work provided for in sections 44 to 44.0.2 on that class of facilities."
- **53.** The following paragraph is added at the end of section 43:

"The provisions do not apply either, from 8 March 2012 to 8 March 2013, to a distribution system whose person in charge is not a municipality.".

54. Section 44 is replaced by the following:

"44. All the duties relating to the operation and monitoring of a catchment, treatment or distribution facility for water intended for human consumption, including the duties relating to the supply of such water by a tank truck, must be carried out by a certified person or under the supervision of such a person.

If the installation or tank truck referred to in the first paragraph is under the responsibility of a municipality and serves at least 1 residence, all the duties relating to the operation and monitoring of such a facility or, as the case may be, to the supply of water by such a tank truck, must be carried out by a certified person.

All maintenance and repair work on a distribution facility of water intended for human consumption, as well as all the stages involved in putting distribution facilities into service after repair or extension work, must be performed by a certified person or under the immediate supervision of such a person.

For the purposes of the first, second and third paragraphs of this section, a person is certified in respect of the relevant class of facilities referred to in those provisions if the person

- (1) holds a diploma, a certificate or an attestation stating that the person has successfully completed training in the treatment and distribution of drinking water for the relevant class of facilities that is recognized by the Minister of Education, Recreation and Sports; or
- (2) holds a certificate of qualification or attestation of experience stating that the person has successfully completed training as drinking water operator for the relevant class of facilities given under a training program established by the Minister of Employment and Social Solidarity under section 29.1 of the Act respecting workforce vocational training and qualification (R.S.Q., c. F-5).

For the purposes of the third paragraph, a person who holds a competency certificate issued by the Commission de la construction du Québec and stating that the person has successfully completed training as water system worker provided by the Commission is also a certified person.

A person who holds a diploma, a certificate, an attestation or a certificate of qualification issued in Canada but outside Québec attesting that the person has successfully completed, for the relevant class of facilities, training equivalent to any training described in the fourth and fifth paragraphs and recognized by the competent authorities of another province or a territory of Canada, is also a certified person for the operations or monitoring referred to in the first and second paragraphs or for work referred to in the third paragraph.

A person who holds a diploma, a certificate, an attestation or a certificate of qualification issued outside Canada, in the territory of a State that is a party with the Gouvernement du Québec to an agreement for the mutual recognition of vocational qualifications applicable to that class of facilities, attesting that the person has successfully completed, for the relevant class of facilities, training equivalent to any training described in the fourth and fifth paragraphs, is also a certified person.

The certification requirement or supervision required by a certified person also applies to any person that is put in charge, by the person in charge of the distribution system or a person under the latter person's authority, of collecting water for analysis, unless the person is employed by a laboratory accredited for sampling purposes by the Minister under section 118.6 of the Environment Quality Act.".

55. The following is inserted after section 44:

"44.0.1. A person must, when performing an operation, monitoring or work for which section 44 prescribes a certification requirement or, as the case may be, where such person supervises another person who performs such an operation, monitoring or work, carry a valid certificate of qualification issued by the Minister of Employment and Social Solidarity under a training and qualification program established under section 29.1 of the Act respecting workforce vocational training and qualification or, as the case may be, a competency certificate issued by the Commission de la construction du Québec, corresponding to the class of facilities or work for which the person is certified, and show the certificate upon request.

If the person referred to in the first paragraph holds a diploma, a certificate, an attestation or a certificate of qualification issued outside Québec, the person must carry and show upon request a valid certificate of qualification for the relevant class of facilities, issued by the Minister of Employment and Social Solidarity, or in the case of a water system worker, a competency certificate issued by the Commission de la construction du Québec.

44.0.2. Every person who employs a person who performs a task related to the operation and monitoring of a facility, excluding a municipal facility, for the catchment, treatment or distribution of water intended for human consumption serving at least 1 residence, must ensure

that the person is certified within the meaning of the fourth, sixth or seventh paragraph of section 44, unless the person acts under the supervision of another person that is known to be certified under the same provisions. The foregoing also applies where the facility is a municipal facility that serves no residence.

If the facility in question is a municipal facility and serves at least 1 residence, the person must ensure that the person who performs a task related to the operation and monitoring of that facility is certified within the meaning of the fourth, sixth or seventh paragraph of section 44, whether or not the person is under the supervision of a certified person within the meaning of those provisions.

The person must also ensure that any person employed to perform or to immediately supervise any work or act referred to in the third paragraph of section 44 is a certified person within the meaning of the fourth, fifth, sixth or seventh paragraph of section 44.

A person other than the person in charge of a laboratory accredited for sampling purposes under section 118.6 of the Environment Quality Act who employs a person to collect water samples from a facility described in the first paragraph of section 44 must ensure that the person is certified within the meaning of the fourth, sixth or seventh paragraph of section 44, except if that person acts under the supervision of another person for whom the person who employed that person ensured that the person is also certified within the meaning of the same provisions.

It is incumbent on the person who must, under this section, ensure that the person employed or to whom a task is entrusted is certified to obtain a copy of the certificates of qualification or competency certificates referred to in section 44.0.1, to keep them for a period of 2 years and make them available to the Minister during that period of time.".

56. The heading of Chapter V.1 is replaced by the following:

"SPECIAL PROVISIONS APPLICABLE TO WATER SUPPLIED BY A DISTRIBUTION SYSTEM OR A TANK TRUCK TO CERTAIN TOURIST ESTABLISHMENTS".

57. Section 44.1 is replaced by the following:

"44.1. Despite section 3 of this Regulation, the person in charge of a distribution system or, as the case may be, the person in charge of a tank truck may supply, for

personal hygiene purposes, water that does not meet the standards of quality set out in Schedule 1, as of the date of receipt by the Minister of a written notice informing that the water is not intended to be used as drinking water, provided that the system or tank truck serves one of the following establishments, exclusively:

- (1) a seasonal tourist establishment;
- (2) a tourist establishment located in
- the territory not organized into a local municipality, including the unorganized territory amalgamated with one of the municipalities of Rouyn-Noranda, La Tuque or Senneterre, as it was delimited the day before the amalgamation;
 - a territory inaccessible by roads;
- the James Bay territory as described in the schedule to the James Bay Region Development and Municipal Organization Act (R.S.Q., c. D-8.2);
 - the territory located north of the 55th parallel; or
- the territory of Municipalité de Côte-Nord-du-Golfedu-Saint-Laurent, the municipalities of Blanc-Sablon, Bonne-Espérance, Gros-Mécatina and Saint-Augustin, and the territory of any other municipality constituted under the Act respecting the municipal reorganization of the territory of Municipalité de Côte-Nord-du-Golfedu-Saint-Laurent (1988, c. 55, amended by 1996, c. 2).

From the date of receipt of the notice by the Minister, the person in charge is subject only to the obligations provided for in this Chapter.".

58. Section 44.2 is replaced by the following:

"44.2. The person in charge of a distribution system or, as the case may be, of a tank truck referred to in section 44.1 must install and maintain in place or, if that person is not the owner of the establishment where the water is supplied, ensure that the person in charge of the establishment installs and maintains in place, at taps to which users have access, pictograms to inform them that the water is not drinkable. The pictograms must measure at least 10 cm by 10 cm and show a glass of water placed in a red circle crossed by an oblique red line. They must be placed so as to be visible at all times and be manufactured in a way that prevents alterations.

Where such pictograms are installed in a building that includes premises intended for storage, display or commercial preparation of food governed by the Food Products Act (R.S.Q., c. P-29), the person in charge of the

distribution system or tank truck or, as the case may be, the person in charge of the establishment must immediately so inform the Minister of Agriculture, Fisheries and Food.".

59. Section 44.3 is amended

- (1) by replacing "of a seasonal tourist establishment" in the first paragraph by "of a distribution system or tank truck referred to in section 44.1";
- (2) by striking out "of Sustainable Development, Environment and Parks" in the last sentence of the second paragraph;
- (3) by replacing "2" in the last sentence of the second paragraph by "5".

60. Section 44.4 is amended

- (1) by striking out "of Sustainable Development, Environment and Parks" in the first sentence;
- (2) by replacing "of the seasonal tourist establishment" in the last sentence by "of a distribution system or tank truck referred to in section 44.1" and "2" by "5";
 - (3) by adding the following paragraph at the end:

"The laboratory which, at the request of the person in charge of the distribution system or tank truck, analyzes the water samples collected pursuant to section 44.3 is, within the scope of such mandate, subject only to the obligations provided for in this Chapter.".

61. Section 44.5 is amended

- (1) by replacing "the seasonal tourist establishment" in the first sentence by "a distribution system or, as the case may be, of a tank truck";
- (2) by replacing "of Sustainable Development, Environment and Parks" in the second sentence by "and the public health director of the region concerned";
 - (3) by striking out the last sentence.
- **62.** Section 45 is amended by inserting ", does not ensure that they are installed, or does not maintain or ensure that they are maintained in place" in the part preceding paragraph 1 after "required pictograms".

63. Section 46 is amended

(1) by replacing "9.1" in the first paragraph by "9.2, 17";

- (2) by inserting "29.1," in the first paragraph after "29";
- (3) by inserting "36.1," in the first paragraph after "36";
- (4) by replacing "owner or operator" in the first paragraph by "person in charge";
- (5) by inserting "21.0.1," in subparagraph 1 of the second paragraph after "10.1";
- (6) by replacing "and the second paragraph of section 44.3" in subparagraph 1 of the second paragraph by ", the second paragraph of section 44.3, section 53.2 and the first paragraph of section 53.3";
- (7) by adding the following at the end of subparagraph 2 of the second paragraph:
 - ", 44.0.1 or 44.0.2".

64. Section 47 is replaced by the following:

- **"47.** Any offence against sections 22.0.1, 35, 35.1 or 38 makes the offender liable to the fines provided for in section 45.".
- **65.** Section 47.1 is amended in the part preceding paragraph 1
 - (1) by replacing "14, 15" by "12.1, 14 to 15";
- (2) by inserting "the second paragraph of section 21.0.1, section 22.0.1" after "21".

66. Section 53 is amended

- (1) by striking out "and intermunicipal boards" in the second paragraph;
 - (2) by replacing the third paragraph by the following:

"In addition, the persons in charge of the systems referred to in the first paragraph must send to the Minister, not later than 60 days after the end of the work, an attestation from a professional to the effect that the work carried out enables the systems to meet the requirements of section 5.".

67. Section 53.0.1 is amended

- (1) by inserting the following in the first paragraph after "53":
- ", to the extent that they serve 20 persons or more for the non-exclusive use of enterprises,";

- (2) by striking out "and intermunicipal boards" in the first paragraph;
- (3) by replacing "for testing for the presence of" in the first paragraph by "for counting";
- (4) by replacing "an engineer who is a member of the Ordre des ingénieurs du Québec" in the second paragraph by "a professional".
- **68.** Section 53.1 is struck out.
- **69.** The following is inserted after section 53.1:
- "53.2. The person in charge of a water treatment facility serving more than 5,000 persons and at least 1 residence must hold, not later than 8 March 2017, and thereafter every 5 years, an attestation from a professional, to the effect that the treatment facilities meet the requirements of sections 5, 5.1, 6, 8, 9, 9.1 and 22 of this Regulation. The attestation must be made available to the Minister for at least 5 years.
- **53.3.** The person in charge of a distribution system or a tank truck serving more than 20 persons and at least 1 residence must, not later than 31 March of each year, have completed a report on the quality of water intended for human consumption supplied from 1 January to 31 December of the preceding year. The report must indicate the minimum number of samples that must be collected under this Regulation, the number of samples collected for each parameter and the number of samples analyzed by an accredited laboratory during that period. The report must indicate, for each exceedance observed over the standards, the parameter in question, the place in question, the maximum authorized concentration, the concentration measured and, where applicable, the measures taken by the person in charge to remedy the situation.

The report must be kept for a minimum period of 5 years by the person in charge of the distribution system or tank truck and a copy must be made available to the Minister upon request. The person in charge must also provide copies to the water users, upon request.

If the distribution system or tank truck is under the responsibility of a municipality, a copy of the report must also be posted in the office of the municipality. If the municipality has a newsletter or a website, it must also post in its newsletter or online on its website a notice stating that the municipality has drawn up the report on the quality of drinking water provided for in this section, specifying the place where users may obtain it.".

70. Section 54 is amended

- (1) by striking out "of Sustainable Development, Environment and Parks";
- (2) by replacing "15 June 2006" in the first paragraph by the following:
 - "8 March 2020".

71. Schedule 1 is replaced by the following:

"SCHEDULE 1

STANDARDS OF QUALITY OF DRINKING WATER (s. 3)

1. Microbiological parameters

- (a) Water collected for microbiological analysis purposes must be free from pathogenic microorganisms and indicator microorganisms of fecal contamination, such as *Escherichia coli* bacteria, enterococci bacteria and F-specific coliphage viruses;
- (b) Water must not contain more than 10 total coliforms per 100 mL of water collected where a technique is used to count them;
- (c) Where, pursuant to section 11 of this Regulation, 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 of this Regulation, 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 coliform bacteria;
- (f) Water must not contain bacteria in such quantity that they may not be identified or counted where the membrane filtration technique is used to count total coliform bacteria and *Escherichia coli* bacteria in 100 mL of water collected.

2. Parameters respecting inorganic substances

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

Maximum concentration (mg/L)
0.006
0.010
1.0
5.0
0.010
0.005
3.0
0.8
0.8
0.050
1.0
0.20
1.50
0.010
0.001
10.0
1.0
0.010
0.020

3. Parameters respecting organic substances

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

Maximum concentration (μg/L)
7
0.7
3.5
17
27
3.5
70
70

(4 -11 24-1-1)4	
(4-chloro-2-methylphenoxy) acetic acid also referred to as MCPA	30
Chlorpyrifos	70
Cyanazine	9
Diazinon	14
Dicamba	85
Diclofop-methyl	7
2,4-dichlorophenoxyacetic acid also referred to as 2,4-D	70
Dimethoate	14
Dinoseb	7
Diquat	50
Diuron	110
Glyphosate	210
Malathion	140
Methoxychlor	700
Metolachlor	35
Metribuzin	60
Paraquat (in dichlorides)	7
Parathion	35
Phorate	1.4
Picloram	140
Simazine	9
Terbufos	0.5
Trifluralin	35
Other organic substances	$Maximum\ concentration\ (\mu g/L)$
Benzene	0.5
Benzo (a) pyrene	0.01
Carbon tetrachloride	5
1,2-dichlorobenzene	150
1,4- dichlorobenzene	5
1,2-dichloroethane	5
1,1-dichloroethylene	10
Dichloromethane	50

2,4-Dichlorophenol	700
Microcystins (expessed as microcystin-LR toxic equivalents) (2)	1.5
Monochlorobenzene	60
Nitrilotriacetic acid (NTA)	280
Pentachlorophenol	42
Tetrachloroethylene	25
2,3,4,6-tetrachlorophenol	70
Trichloroethylene	5
2,4,6-trichlorophenol	5
Vinyl chloride	2
Other organic substances	Maximum average concentration calculated over 4 quarters (µg/L)
Haloacetic acids (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid and dibromoacetic acid) ⁽³⁾	60
Total trihalomethanes (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) ⁽³⁾	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	Maximum concentration (Bq/L)
Cesium-137	10
Iodine-131	6
Lead-210	0.2
Radium-226	0.5
Strontium-90	5
Tritium	7,000

5. Parameters respecting turbidity

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

5.1.	Treatment	facilities	covered by	the th	ird para	graph
of sect	ion 22		•		-	

Column 1	Column 2	Column 3 Limit Value (NTU)	
Process	Limit value over a period of 30 days (NTU)		
Coagulated, filtrated and disinfected water	0.3 in 95% of measurements (4)(5)	1.0 ⁽⁵⁾	
Slow filtration or with diatomaceous earth	1.0 in 95% of measurements (4)	3.0	
Membrane filtration	0.1 in 95% of measurements (4)	0.2	
Other filtration, or exclusion of filtration under section 5	Average of 1.0 ⁽⁶⁾	5.0	

5.2. Treatment facilities covered by paragraph 3 of section 22.1

Column 1	Column 2	Column 3 Limit Value (NTU)	
Process	Limit value over a period of 30 days (NTU)		
Coagulated, filtrated and disinfected water	0.3 in 95% of measurements ⁽⁵⁾	1.0(5)	
Slow filtration or with diatomaceous earth	1.0 in 95 % of measurements	3.0	
Membrane filtration	0.2 in 95% of measurements	0.3	
Other filtration, or exclusion of filtration under section 5	Average of 1.0 ⁽⁶⁾	5.0	

⁽¹⁾ For the purposes of this Schedule, chloramine concentration is the difference between the measurements of total residual chlorine and free residual chlorine.

⁽²⁾ The concentrations of microcystin-LA, microcystin-RR, microcystin-YR and microcystin-YM must be converted using the equivalence factors below and then be added to the microcystin-LR concentrations:

Variant microcystins	Equivalence factor
Microcystin-LA	1.0
Microcystin-RR	0.1
Microcystin-YR	1.0
Microcystin-YM	1.0

- (3) For the purpose of calculating the concentration of total trihalomethanes and haloacetic acids, the person in charge must identify the maximum concentration obtained during the quarter and calculate the average of the maximum values obtained for 4 consecutive quarters.
- (4) That limit value may be exceeded in 5% of measurements, but without exceeding 12 consecutive hours; the result may at no time exceed the limit value provided for in Column 3 of the table.
- (5) That limit value may be increased to 0.5 NTU in 95% of measurements if the percentage of elimination of pathogenic microorganisms provided for in section 5 or 5.1 is fully ensured by the disinfection treatment downstream of the filtration; the result must at no time exceed the value of 5.0 NTU.
- (6) That average is calculated by means of data collected at each filter.".
- **72.** Schedule 2 is amended by striking out the following organic substances in the part of the table concerning pesticides:
 - "Azinphos-methyl";
 "Bromoxynil";
 "Cyanazine";
 "Dimethoate";
 "Malathion";
 "Methoxychlor";
 "Parathion";
 "Phorate";
 "Terbufos".
- **73.** Schedule 3 is amended
 - (1) by replacing the title by the following:

"INFORMATION PROVIDED IN THE DECLARATION BY THE PERSON IN CHARGE OF A DISTRIBUTION SYSTEM";

- (2) by replacing "facility" wherever it appears in the third and seventeenth dashes by "system";
 - (3) by replacing the thirteenth dash by the following:
 - "- Water treated with chlorine dioxide: yes/no
- Water disinfected with a virus elimination effectiveness equal to or greater than 99.99%: yes/no

- Oxidized water: yes/no; if yes, type of oxidizer used
 - Record kept pursuant to section 22 or 22.1: yes/no";
- (4) by replacing "by another distribution facility" in the fifteenth dash by "by another distribution system".
- **74.** The following Schedule is added at the end:

"SCHEDULE 4

STANDARDS OF COLLECTION AND PRESERVATION OF WATER SAMPLES (s. 30)

TITLE I

STANDARDS OF COLLECTION OF SAMPLES

CHAPTER I

STANDARDS APPLICABLE TO THE COLLECTION OF WATER SAMPLES OTHER THAN RAW WATER

DIVISION I

GENERAL STANDARDS APPLICABLE TO ALL COLLECTIONS OF SAMPLES OF WATER INTENDED FOR HUMAN CONSUMPTION

- 1. Every sample collector who, for the purposes of this Regulation, collects samples of water intended for human consumption must
- (1) wash and dry their hands before collecting any sample;
- (2) subject to sections 2 to 7 of this Schedule, collect the sample in a place representative of the quality of the water of the distribution system located at the centre of the distribution facility;
- (3) collect the sample from a tap that is accessible to users or from a tap intended for sampling;
- (4) collect the sample from a tap located inside a building or in a location protected from wind and bad weather;
- (5) collect the sample from a tap that is not connected to an individual treatment appliance or system, except if that appliance is installed in each building in accordance with section 9.1 of this Regulation, in which case the sample must be collected from a tap downstream of the treatment;

- (6) use only sampling containers provided by a laboratory accredited by the Minister, except in the case of a measurement of residual chlorine or pH performed on the premises;
- (7) collect the sample from the cold water tap by ensuring that the hot water tap is kept closed during sampling;
- (8) let the tap run on moderate pressure for at least 5 minutes before collecting a sample; where the tap used has a valve that controls both cold and hot water, first let the hot water run for at least 2 minutes before letting the cold water run;
- (9) carefully and tightly seal containers after sampling.

In addition, no sample collector may

- (1) use outside taps that are used to connect watering hoses;
- (2) use mixing valves that provide controlled water temperature;
- (3) let water overflow the container used for sampling;
- (4) rinse containers provided by a laboratory before sampling;
- (5) use metal sampling devices if the sampling is intended for metal analyses.

DIVISION II

SPECIAL STANDARDS APPLICABLE TO THE COLLECTION OF WATER SAMPLES INTENDED FOR A MICROBIOLOGICAL ANALYSIS

- 2. Every sample collector who, for the purposes of this Regulation, collects water samples intended for a microbiological analysis must
- (1) remove any accessory of the spout used for sampling, such as a vent, screen or rose head. If it cannot be removed, the sampling must be done from another tap that does not have such an accessory or whose accessory has been removed:
- (2) clean the outside and inside of the spout using a single-use piece of paper or absorbent textile with commercial bleach:

- (3) collect, after letting the tap run in the manner provided for in subparagraph 8 of the first paragraph of section 1 of this Schedule, samples in sterile containers, provided by a laboratory accredited by the Minister, leaving an empty space of at least 2.5 cm between the surface of the liquid and the lid;
- (4) make sure not to contaminate the container's neck or lid during handling and minimize exposure of the container to open air during sampling.

DIVISION III

SPECIAL STANDARDS APPLICABLE TO THE COLLECTION OF WATER SAMPLES INTENDED FOR THE ANALYSIS OF LEAD AND COPPER

- 3. The water samples provided for in section 14.1, to control lead and copper, must be collected in accordance with the following standards:
- (1) the samples must be collected from the tap of a single-family dwelling or a residential building with less than 8 dwellings where piping or the service entrance is manufactured in lead or likely to be in lead;
- (2) where all the buildings or dwellings referred to in paragraph 1 were sampled in the last 5 years or where no such building or dwelling may be located, the samples must then be collected from the tap of residential buildings whose piping has lead solders or is likely to contain such metal:
- (3) where the distribution system serves educational institutions or health and social services institutions providing services to children 6 years of age or under, those institutions must be included in the sampling sites referred to in paragraphs 1 and 2. The samplings must be collected in accordance with the following:
- at least 1 of the samples provided for in section 14.1 must be collected in such an institution;
- no additional samples may be collected if such institutions have more than 10% of the samples provided for in section 14.1;
- despite the preceding requirements, each institution must not be sampled more than once every 5 years.
- 4. The samples collected pursuant to section 14.1 must be collected at various civic addresses from year to year if their number so allows. A single sample must be collected per residence or institution.

The following precautions must be taken during sampling:

- if a tap has a vent, screen or rose head, it should not be removed;
- if possible, the samples must be collected from the cold water tap in the kitchen or the cold water tap most frequently used to supply drinking water.

DIVISION IV

SPECIAL STANDARDS APPLICABLE TO THE COLLECTION OF WATER SAMPLES INTENDED FOR THE ANALYSIS OF ORGANIC SUBSTANCES

- 5. Every sample collector who, for the purposes of this Regulation, collects water samples intended for the analysis of organic substances must
- (1) collect samples in containers provided by a laboratory accredited by the Minister, leaving no empty space between the surface of the liquid and the lid;
 - (2) store samples away from light;
- (3) except for haloacetic acids, perform the sampling in a site at the end of the distribution system.

In addition, no sample collector may

- (1) smoke while collecting or transporting samples;
- (2) use an insect repellent product;
- (3) perform samplings immediately after handling fuel;
- (4) collect water samples in a bathroom that may contain chemical deodorants whose composition is identical to an organic compound that is being measured.
- 6. When collecting samples intended for the analysis of a parameter provided for in the "Other organic substances" division of the table relating to the preservation standards of organic substances, the sample collector must remove the lid from the control container, commonly called "field blank", which accompanies the container used for collecting samples. The control container and the sampling container must remain open for an equal time.

During that time, the sterile water content of the control container must not be changed or altered. Once their lid is back into place, the sampling container and the control are sent together to the analytical laboratory.

DIVISION V

STANDARDS APPLICABLE TO THE COLLECTION OF WATER SAMPLES FROM A TANK TRUCK

7. Where water samples from a tank truck are collected in a site located at the 55th parallel or further south, the samples must be collected at the outlet of the tank. Where the samples are collected in a site located north of the 55th parallel, the samples must be collected at the outlet of the tank where the tank truck is supplied with water.

DIVISION VI

STANDARD APPLICABLE TO THE COLLECTION OF WATER SAMPLES INTENDED TO CHECK THE RETURN TO COMPLIANCE FOLLOWING AN EXCEEDANCE OF STANDARDS

8. Where water samples are collected for the purpose of checking the return of the water to compliance with a microbiological standard, no sample may be collected before at least 48 hours have elapsed after raw water has been disinfected or the distribution facility has been superchlorinated.

DIVISION VII

STANDARDS APPLICABLE TO ANALYSES OF PH AND RESIDUAL CHLORINE PERFORMED BY THE SAMPLE COLLECTOR ON THE TREATED SAMPLING SITE

- 9. Every sample collector who, for the purposes of this Regulation, collects water samples to measure the pH or residual chlorine rate must
- (1) prepare sampling containers so as to be free of any contaminant;
- (2) perform the required measurement on the actual premises of the sampling and immediately before or after the sampling intended to be analyzed by a laboratory accredited by the Minister;
- (3) perform the required measurement using an appliance offering an appropriate precision level, in accordance with section 32 of this Regulation.

In addition, no sample collector may use, for the purposes of these measurements, containers intended for sampling for microbiological analysis purposes likely to contain sodium thiosulfate.

CHAPTER II

STANDARDS APPLICABLE TO ALL RAW WATER SAMPLES

DIVISION I

GENERAL STANDARDS

- 10. Every sample collector who, for the purposes of the provisions concerning the quality of raw water, collects raw water samples must
- (1) use a tap located inside a building or in a location protected from wind and bad weather;
- (2) use only sampling containers provided by a laboratory accredited by the Minister;
 - (3) carefully and tightly seal containers after sampling.

In addition, no sample collector may

- (1) rinse containers provided by a laboratory before sampling;
 - (2) let water overflow the container used for sampling.

DIVISION II

SPECIAL STANDARDS APPLICABLE TO RAW WATER SAMPLES FROM A GROUNDWATER CATCHMENT

- 11. Where raw water originates from groundwater, the sample collector must
- (1) collect the sample from the raw water tap closest to the well-head;
- (2) prior to sampling, let the water run long enough to empty the tap run;
 - (3) collect the sample when the well pump is operating;
- (4) in the case of a sample required following an exceedance of microbiological standard in the distribution facility, collect the sample prior to any clean-up or disinfection procedure of the well.

TITLE II

STANDARDS OF SAMPLE PRESERVATION METHODS

12. Every person who collects water samples within the scope of this Regulation must ensure that the water samples are preserved for analysis purposes. For that purpose, the person must

- (1) carefully pack containers used for sampling to avoid accidental breakage or leakage;
- (2) use a cooler adequately insulated with appropriate cooling agents to ship samples.

Except where samples intended for the analysis of a parameter for which a provision of one of the following tables provides a preservation period at a temperature of -20°C, the sample collector may not at any time freeze samples or use cooling means likely to cause the freezing of samples during shipping.

In addition, the sample collector must, according to the parameter provided for in the following tables, ensure that the samples are treated using a preservative and according to the concentration indicated for that parameter. The samples thus treated must be kept in a container of the type indicated in the tables. The sample collector must also ensure that the period between the sampling and its analysis does not exceed the period referred to in the tables for those parameters.

Preservation standards of microbiological parameters

Parameter	Preservative	Type of container	Maximum preservation period
	(1)	(2)	preservation period
— Fecal coliform and Escherichia coli		PS	
— Total coliform	TS	or	48 hours
— Enterococci		VS	
— F-specific coliphage viruses			

Preservation standards of inorganic substances

Parameter	Preservative	Type of container	Maximum preservation period	
	(1)	(2)		
Antimony	AN	P or V	180 days	
Arsenic	AN	P or V	180 days	
Barium	AN	P or V	180 days	
Boron	AN	P	180 days	
Bromates	EDA	P	28 days	
Cadmium	AN	P or V	180 days	

Chlorates	EDA	P	28 days
Chlorites	EDA	PO	14 days
Chromium	AN	P or V	180 days
Copper	AN	P or V	180 days
Cyanides	NaOH	P or V	14 days
Fluorides	N	P	28 days
Free residual chlorine	N	P or V	15 minutes
Lead	AN	P or V	180 days
Mercury	AC or AN	P or V	28 days
Nitrates and nitrites (expressed as N)	AS	P or V	28 days
Nitrites	N	P or V	48 hours
pH	N	P or V	15 minutes
Selenium	AN	P or V	180 days
Temperature	N	P or V	15 minutes
Total residual chlorine	N	P or V	15 minutes
Turbidity	N	P or V	48 hours
Uranium	AN	P or V	180 days

Preservation standards of organic substances

Parameter	Preservative	Type of container	Maximum preservation period
	(1)	(2)	•
PESTICIDES			
Aldicarb and its metabolites	TS	P	7 days
Aldrin and dieldrin	N	PY	7 days
Atrazine and its metabolites	N	PY	7 days
Azinphos-methyl	N	PY	7 days
Bendiocarb	N	PY	7 days
Bromoxynil	AS	VT	21 days
Carbaryl	N	PY	7 days
Carbofuran	N	PY	7 days
(4-chloro-2-methylphenoxy acetic acid, also referred			
to as MCPA	AS	VT	21 days

Chlorpyriphos	N	PY	7 days
Cyanazine	N	PY	7 days
Diazinon	N	PY	7 days
Dicamba	AS	VT	21 days
2,4-dichlorophenoxyacetic acid, also referred to			
as 2,4-D	AS	VT	21 days
Diclofop-methyl	AS	VT	21 days
Dimethoate	N	PY	7 days
Dinoseb	AS	VT	21 days
Diquat	N	P	7 days (3)
Diuron	N	PY	7 days
Glyphosate	TS	P	14 days (3)
Malathion	N	PY	7 days
Metholachlor	N	PY	7 days
Methoxychlor	N	PY	7 days
Metribuzin	N	PY	7 days
Paraquat (in dichlorides)	N	P	7 days (3)
Parathion	N	PY	7 days
Phorate	N	PY	7 days
Picloram	AS	VT	21 days
Simazine	N	PY	7 days
Terbufos	N	PY	7 days
Trifluralin	N	PY	7 days
OTHER ORGANIC SUBS	TANCES		
Benzene	TSS	VI	7 days
Benzo (a) pyrene	AS	VAT	7 days
Carbon tetrachloride	TSS	VI	7 days
1,2-dichlorobenzene	TSS	VI	7 days
1,4-dichlorobenzene	TSS	VI	7 days
1,2-dichloroethane	TSS	VI	7 days
1,1-dichloroethylene	TSS	VI	7 days
Dichloromethane	TSS	VI	7 days

2,4-dichlorophenol	AS	VB	14 days
Microcystins (expressed as microcystin-LR toxic			
equivalents)	TS-1	VT	7 days
Monochlorobenzene	TSS	VI	7 days
Nitrilotriacetic acid (NTA)	N	P	7 days
Pentachlorophenol	AS	VB	14 days
Tetrachloroethylene	TSS	VI	7 days
2,3,4,6-tetrachlorophenol	AS	VB	14 days
Trichloroethylene	TSS	VI	7 days
2,4,6-trichlorophenol	AS	VB	14 days
Vinyl chloride	TSS	VI	7 days
OTHER			
Total trihalomethanes (chloroform, bromodichloromethane, chlorodibromomethane and bromoform)	TSS	VI	7 days
Haloacetic acids (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid and dibromoacetic acid)	CA	VAT	14 days
RADIOACTIVE SUBSTA	ANCES		
Cesium – 137	AC or AN	P or V	180 days
Iodine – 131	N	P or V	180 days
Lead – 210	AC or AN	P or V	180 days
Radium – 226	AC or AN	P or V	180 days
Strontium – 90	AC or AN	P or V	180 days
Tritium	N	P or V	180 days
Gross alpha activity	AC or AN	P or V	180 days
Gross beta activity	AC or AN	P or V	180 days

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(1) The letters written in respect of preservatives prescribed in the tables of Part II correspond to the following preservatives, including the methodology of each of them.

PRESE	ERVATIVE
AC	Must contain HCI in sufficient concentration to acidify sample to pH < 2
AN	Must contain $HNO_{\scriptscriptstyle 3}$ in sufficient concentration to acidify sample to $pH<2$
AS	Must contain $H_2SO_4 in$ sufficient concentration to acidify sample to $pH < 2$
CA	Must contain 1 mL of ammonium chloride per litre of sample
EDA	Must contain 1 mL of ethylene diamine, to 45 mg/L, per litre of sample collected
N	No preservative required
NaOH	Must contain NaOH in sufficient concentration to overbase sample to pH > 12
TS	Final concentration of 100 mg/L of sodium thiosulfate
TS-1	Final concentration of 10 mg/L of sodium thiosulfate
TSS	Final concentration of 1,000 mg/L of sodium thiosulfate

(2) The letters written in respect of types of containers prescribed in the tables of Part II correspond to the following types of containers:

TYPE OF CONTAINER

P Bottles and cap coatings are made of the following plastics: high or low density polyethylene, polypropylene, polystyrene, polyvinyl chloride or Teflon PO Opaque plastic bottle PS Sterile non-toxic plastic bottle for bacteria PY Clear or amber Pyrex glass bottle with lid with Teflon or aluminum foil inner surface V Clear or amber glass bottle VAT Clear or amber glass bottle covered with aluminum foil, with lid with Teflon or Teflon sheet or aluminum foil inner surface VB Clear or amber glass bottle with lid with Teflon inner surface VI Clear or amber glass bottle with cap with septum liner, filled to capacity VS Sterile glass bottle VT Clear or amber glass bottle with lid with Teflon or Teflon sheet inner surface

- (3) Samples may be kept for a maximum period of 28 days, provided they are kept at all times at a temperature of -20°C.".
- **75.** This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Ouébec*, except
- (1) sections 15 to 18, section 22, paragraph 2 of section 23, section 27, paragraphs 5 and 6 of section 28, section 29, section 31, paragraphs 1 and 3 of section 47, section 55 as regards section 44.0.1, section 69 as regards section 53.3, section 71 as regards the standards relating to chlorates, chlorites, (4-chloro-2-methylphenoxy) acetic acid, microcystins, haloacetic acids and lead-210, and section 72, which come into force on 8 March 2013;
- (2) section 12, which comes into force on 8 March 2017.

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Gouvernement du Québec

O.C. 72-2012, 8 February 2012

Natural Heritage Conservation Act (R.S.Q., c. C-61.01)

Réserve écologique de la Grande-Rivière and approval of its conservation plan — Change to the limits

Change to the limits of the Réserve écologique de la Grande-Rivière and approval of its conservation plan

WHEREAS, with a view to establishing the Réserve écologique de la Grande-Rivière, temporary proposed ecological reserve status was assigned to the land appearing in the plan of the Réserve écologique projetée de la Grande-Rivière in the publication of the notice provided for in section 4 of the Ecological Reserves Act (R.S.Q., c. R-26.1) in the Gazette officielle du Québec of 8 December 1999;

WHEREAS, under Order in Council 76-2001 dated 31 January 2001, made in accordance with section 1 of the Ecological Reserves Act, a major portion of land of the Réserve écologique projetée de la Grande-Rivière was established as an ecological reserve under the name "Réserve écologique de la Grande-Rivière", the remaining portion of the land keeping proposed ecological reserve status;