chapter Q-2, r. 40

# Regulation respecting the quality of drinking water

## **Environment Quality Act**

(chapter Q-2, ss. 31, 45, 45.2, 46, 87, 109.1 and 124.1)

# CHAPTER I

**GENERAL** 

1. For the purposes of this Regulation,

Note: in the event of an inconsistency between this document and the amendment published in the Gazette officielle du Québec, the latter shall prevail.

"correctional facility" means any facility used for the detention of persons and governed by the Act respecting the Québec correctional system (chapter S-40.1); (établissement de détention)

"distribution facility" means a distribution system, except equipment used to collect or treat water intended for human consumption; (installation de distribution)

"distribution system" means mains, a system of mains or equipment used to collect, treat, store or supply water intended for human consumption. In the case of a building connected to a waterworks system, all mains supplying the building and located downstream of the property limit or the shut-off valve are excluded; (système de distribution)

"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;

"drinking water" means water intended for ingestion by human beings; (eau potable)

"educational institution" means any institution providing preschool, elementary or secondary education and governed by the Education Act (chapter I-13.3) or by the Education Act for Cree, Inuit and Naskapi Native Persons (chapter I-14), a private educational institution governed by the Act respecting private education (chapter 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 (chapter 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, and for the purposes of this Regulation, includes childcare centres and day care centres governed by the Educational Childcare Act (chapter S-4.1.1); (établissement d'enseignement)

"enterprise" means any establishment where a commercial, industrial, agricultural, professional or institutional activity is carried on, excluding educational institutions, correctional facilities, health and social services institutions and tourist establishments; (entreprise)

"health and social services institution" means any health and social services institution governed by the Act respecting health services and social services (chapter S-4.2) or by the Act respecting health services and social services for Cree Native persons (chapter 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; (établissement de santé et de services sociaux)

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

<del>"person in charge of a distribution system" means the owner or operator of a system; (responsable d'un système de distribution)</del>

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

"professional" means a professional, within the meaning of section 1 of the Professional Code (chapter 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)

"tourist establishment" means any establishment which offers to the public, in return for payment, sleeping accommodations, restaurant services or camping sites, except an establishment in respect of which the person in charge has sent the notice referred to in section 44.1, and for the purposes of this Regulation.

includes tourist information offices, rest areas and leisure establishments open to the public; (établissement touristique)

"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*)

"water intended for human consumption" means drinking water or water intended for personal hygiene. (eau destinée à la consommation humaine)

The enterprises, institutions, facilities and establishments referred to in this section may also mean, as the context requires, the buildings or premises in which their activities are carried on.

Where this Regulation requires the number of persons supplied to be determined, the method in Schedule 0.1 must be used.

- **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 (chapter 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.
- 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) or the Act respecting the Société des alcools du Québec (R.S.Q., c. S-13).
- 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 (chapter P-29), nor to water whose use or distribution is governed by the Act respecting the Société des alcools du Québec (chapter S-13).
- 3. Drinking water must, where it is put at the disposal of a user, comply with the standards of quality of drinking water defined in Schedule 1.
- **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.

### CHAPTER II

### FILTRATION AND DISINFECTION

- **4.** The provisions of this Chapter do not apply to a distribution system that supplies only one of the following users:
  - (1) 1 residence:
  - (2) 1 or more enterprises:
  - (3) 1 residence and 1 or more enterprises.

The provisions become applicable, however, if the treatment system supplying 1 or more enterprises is modified or a water treatment system is installed.

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.
- 5. Water supplied by a distribution system must have undergone a filtration and continuous 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.

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.

The treatment prescribed by this section must be able to eliminate at least 99.99% of viruses, 99.9% of *Giardia* cysts and 99% 99.9% 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) at least one sample of water per week is collected for a period of not less than 120 consecutive days and at least 90% of the samples have fewer than 20 fecal coliform 15 Escherichia coli bacteria or less per 100 ml of water collected, and the average turbidity over 30 consecutive days is lower than 1 NTU;
- (2.1) one sample of raw or supplied water is collected at least once a month for a period of not less than 120 consecutive days and none of the disinfection by-product analysis parameters following simulation of the treatment and distribution conditions shows a concentration greater than the standards of quality set out in Schedule 1;
- (3) the quality of the 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.

- (3) the quality of the water is not likely to be altered, in respect of one of the parameters provided for in subparagraph 1, 2 or 2.1, by contaminants from a source of contamination located upstream from the water catchment site.
- **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	Category of pathogenic	Elimination
Escherichia coli bacteria	microorganisms	percentage
(per 100 ml of sampled		
raw water)		
	Virus	99.99 %
< 15	Giardia cyst	99.9 %
	Cryptosporidium oocyst	99.9 %
	Virus	99.999 %
≥ 15 and ≤ 150	Giardia cyst	99.99 %
	Cryptosporidium oocyst	99.9 %
	Virus	99.9999 %
> 150 and ≤ 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.

**6.** Every continuous disinfection treatment facility for water supplied by a distribution system must, if the water comes from groundwater, be able to eliminate at least 99.99% of viruses.

For any other groundwater disinfection treatment or oxidation facility, the person in charge of the facility must, every month, collect or have at least 1 sample collected of the raw water taken or stored that supplies the facility to test for the presence of *Escherichia coli* bacteria.

Rechlorination stations are not subject to the requirements of the first and second paragraphs.

**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.

- 7. Water supplied by a distribution system must, if it comes from groundwater for which the analyses carried out pursuant to the second paragraph of section 6, section 13 or section 39 revealed the presence of fecal contamination, have undergone 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 the reservoir, have a content of free residual chlorine of at least 0.3 mg/L.

If the continuous 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 1 building.

- **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.

**9.** Every continuous disinfection treatment facility must be equipped with standby equipment to ensure disinfection in case of emergency, particularly if the main treatment facility breaks down.

Continuous disinfection equipment for 1 building only and rechlorination stations are not subject to the requirements of the first paragraph.

**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.

9.1. Where the person in charge of a distribution system installs a treatment system in an immovable not owned by the person to comply with section 5 or 6 or with the standards of quality set out in Schedule I, the person in charge must also provide, by contract with the owner or lessee of the immovable, as the case may be, for access to the immovable for the purpose of maintaining the system and monitoring water quality.

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.

In the case of a disinfection system or a system to remove volatile or radioactive substances, the equipment must be installed at the water inlet.

# (coming into force on 8 March 2017)

**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.

#### 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 1 or more enterprises.

- **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.
- **10.1.** Every person in charge of a distribution facility to which this Division applies is required to send to the Minister of Sustainable Development, Environment and Parks a signed declaration containing the information in Schedule 3. The person in charge must also send to the Minister any changes to that information.
- **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.
- §1. Bacteriological control

(in force until 7 March 2013)

**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 1,000 persons	2	
1,001 to 8,000 persons	8	
8,001 to 100,000 persons	1 per 1,000 persons	
100,001 persons and over	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 where the water is put at the disposal of users, after the water has run for at least 5 minutes and, for the same day of sampling, from the tap of different users. In addition, the water sampled must not have undergone treatment by an individual treatment system other than a system referred to in section 9.1.

Where possible, those samples shall be spread in equal numbers over each of the weeks in the month; if the number of samples is less than 4, they shall be collected at an interval of at least 7 days.

## (coming into force on 8 March 2013)

**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 1,000 persons	2	
1,001 to 8,000 persons	8	
8,001 to 100,000 persons	1 per 1,000 persons	
100,001 persons and ove	r 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 where the water is put at the disposal of users, after the water has

run for at least 5 minutes and, for the same day of sampling, from the tap of different users. In addition, the water sampled must not have undergone treatment by an individual treatment system other than a system referred to in section 9.1.

Where possible, those samples shall be spread in equal numbers over each of the weeks in the month; if the number of samples is less than 4, they shall be collected at an interval of at least 7 days.

**12.** At least 50% of the samples prescribed by section 11 must be collected at the outermost limits of the distribution system.

The provisions of this section do not apply to a distribution system that supplies only 1 building.

(coming into force on 8 March 2013)

**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.

**13.** Where water supplied by a distribution system comes in whole or in part from non-disinfected groundwater having a vulnerability index for the bacteriological protection area that is greater than 100 using the DRASTIC

method, the person in charge of the distribution system must collect or have a sample collected of the raw water taken or stored that supplies the distribution system at least once a month to test for the presence of *Escherichia coli* bacteria and enterococci bacteria if works or activities likely to alter the microbiological quality of the water are present within the bacteriological protection area of the catchment site established on the basis of a 200-day groundwater migration time.

Where water supplied by a distribution system comes in whole or in part from non-disinfected groundwater having a vulnerability index for the virological protection area that is greater than 100 using the DRASTIC method, the person in charge of the distribution system must also collect or have a sample collected of the raw water taken or stored that supplies the distribution system at least once a month to test for the presence of F-specific coliphage viruses if works or human activities such as a sewer system, the spreading of septic tank sludge or a domestic waste water infiltration field likely to alter the microbiological quality of the water are present or are carried on within the virological protection area of the catchment site established on the basis of a 550-day groundwater migration time.

# §2. Physical and chemical control

# Control of inorganic substances

(in force until 7 March 2013)

**14.** The person in charge of a distribution system must, for the purpose of testing for the inorganic substances listed in Schedule 1 other than nitrates+nitrites and nitrites, chloramines and bromates, collect or have at least 1 sample of the water supplied collected annually between 1 July and 1 October, or if the distribution system is not in service from 1 July to 1 October, at any other period when it is in service.

The person must also, for the purpose of testing for nitrates+nitrites, collect or have at least 1 sample of the water supplied collected annually during each of the quarters beginning respectively on 1 January, 1 April, 1 July and 1 October, with a minimum interval of 2 months between samplings.

This section does not apply to a distribution system supplied by another distribution system that is subject to the inorganic substances testing requirements.

(coming into force on 8 March 2013)

**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 Number of users	Minimum number of samples	Sampling period
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.

### (coming into force on 8 March 2013)

**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 Number of users	Minimum number of samples	Sampling period
Lead Copper	≥ 21 and ≤ 500	2	Annually, between 1 July and 1 October
	≥ 501 and ≤ 5,000	5	
	≥ 5,001 and ≤ 20,000	10	

≥ 20,001 and	20	
≤ 50,000		
≥ 50,001 and	30	
≤ 100,000		
≥ 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.

# (in force until 7 March 2013)

**15.** If the water supplied by a distribution system is treated by ozonation, the person in charge of the distribution system must, for the purpose of testing for bromates, collect or have at least 1 sample of the water supplied collected annually between 1 July and 1 October, or if the distribution system is not in service from 1 July to 1 October, at any other period when it is in service.

If the water supplied is disinfected with chloramines, the person in charge of the distribution system must also collect or have at least 1 sample of the water collected for the purposes of measuring, during the sampling, the concentration of chloramines and enter the results in the analysis request form furnished by the Minister of Sustainable Development, Environment and Parks.

This section does not apply to a distribution system supplied by another distribution system that is subject to the bromate and chloramine testing requirements.

## (coming into force on 8 March 2013)

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.

- **16.** The sampling methods provided for in the second paragraph of section 11 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 referred to in section 5 must, at the time of the sampling, measure the pH of the water and enter the results in the analysis request form furnished by the Minister of Sustainable Development, Environment and Parks.

If the analysis of a water sample collected pursuant to the first paragraph shows that the pH value is lower than 6.5 or greater than 8.5, the person in charge of the distribution system must immediately inform the Minister and describe the measures implemented to assess and, if required, to control the corrosion in the distribution system.

- 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.
- **17.1.** If the analysis of at least 2 samples of the water made available to users, including 1 sample collected pursuant to 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.

### Control of organic substances

(in force until 7 March 2013)

**18.** 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 at least 1 sample of the water supplied collected during each of the quarters beginning respectively on 1 January, 1 April, 1 July and 1 October, with a minimum interval of 2 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, a correctional facility or several such establishments, institutions or facilities, the person in charge of the system is required to collect only one sample of the water supplied per year for the purpose of testing for

trihalomethanes, between 1 July and 1 October or, if the establishment, institution or facility is not in service between 1 July and 1 October, at any other period when it is in service.

For the purposes of the calculations of the standards of quality set out in Schedule 1 as regards total trihalomethanes, the person in charge must take the average of the values obtained in the preceding 4 quarters. If in any one quarter more than 1 value is obtained, the person in charge must average the values and use the result obtained as the value for that quarter.

## (coming into force on 8 March 2013)

18. 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 at least 1 sample of the water supplied collected during each of the quarters beginning respectively on 1 January, 1 April, 1 July and 1 October, with a minimum interval of 2 months between samplings.

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  Number of users	Minimum number of samples
≥ 21 and ≤ 5,000	1
≥ 5,001 and ≤ 100,000	4
≥ 100,001	8

Notwithstanding the preceding paragraph, if the aforementioned system supplies only a tourist establishment, a health and social services institution, an educational institution, a correctional facility or several such establishments, institutions or facilities, the person in charge of the system is required to collect only one sample of the water supplied per year for the purpose of testing for trihalomethanes, between 1 July and 1 October or, if the establishment, institution or facility is not in service between 1 July and 1 October, at any other period when it is in service.

For the purposes of the calculations of the standards of quality set out in Schedule 1 as regards total trihalomethanes, the person in charge must take the average of the values obtained in the preceding 4 quarters. If in any one quarter

more than 1 value is obtained, the person in charge must average the values and use the result obtained as the value for that quarter.

(in force until 7 March 2013)

**19.** The person in charge of a distribution system that supplies more than 5,000 persons must, for the control of pesticides and other organic substances referred to in Schedule 2, collect or have at least 1 sample of the water supplied collected annually during each of the quarters beginning on 1 January, 1 April, 1 July and 1 October, with a minimum interval of 2 months between samplings.

This section does not apply to a distribution system supplied by another distribution system that is subject to the testing requirements for the substances listed in Schedule 2.

(coming into force on 8 March 2013)

**19.** The person in charge of a distribution system that supplies more than 5,000 persons must, for the control of pesticides and other organic substances referred to in Schedule 2, collect or have at least 1 sample of the water supplied collected annually during each of the quarters beginning on 1 January, 1 April, 1 July and 1 October, with a minimum interval of 2 months between samplings.

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.

This section does not apply to a distribution system supplied by another distribution system that is subject to the testing requirements for the substances listed in Schedule 2.

**20.** The sampling methods provided for in the second paragraph of section 11 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 1 sample of the water supplied collected per month.

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

# §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.

## §3. Disinfection control

(coming into force on 8 March 2013)

**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%.

**22.** Every continuous disinfection treatment facility (ozone, chlorine dioxide, chlorine, chloramines) disinfection treatment facility for water supplied by a distribution system must have a device that takes continuous measurements of the free residual disinfectant concentration installed at the outlet of each continuous disinfection treatment unit. The device must have an alarm system capable of warning the person in charge or a person designated by the person in charge of a breakdown or defective operation, or of non-compliance with section 8.

If the water supplied is disinfected by means of continuous ultraviolet radiation, the treatment facility must have an alarm system capable of warning of a

breakdown or defective operation, or that the lamp intensity has fallen below the required level.

In addition, every continuous disinfection treatment facility that treats water supplied by a distribution system referred to in section 5 must have a device that takes continuous measurements of the turbidity of the water installed downstream of each filtration unit, or in the absence of filtration, at the outlet of the facility. The device must have an alarm system capable of warning of a breakdown or defective operation, or of non-compliance with this Regulation as regards turbidity.

# (in force until 7 March 2013)

The person in charge of a distribution system that has a continuous 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 the period, the measurement of water volume and flow rate in the disinfection reserves corresponding to the lowest free residual disinfectant concentration and, in the case referred to in the third paragraph, the measurement of turbidity. 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. The person in charge must sign the record, keep it in paper form for a minimum of 2 years and make it available to the Minister of Sustainable Development, Environment and Parks.

## (coming into force on 8 March 2013)

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.

## (in force until 7 March 2013)

For continuous disinfection treatment facilities with software that allows for continuous calculation of the removal rate for the viruses and parasites to which sections 5 and 6 refer, the paper copy of the record referred to in the fourth

paragraph may consist of a listing of the removal levels achieved by the disinfection treatment facility at any given time. The person in charge must sign the record, keep it in paper form for a minimum of 2 years and make it available to the Minister.

# (coming into force on 8 March 2013)

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.

This section does not apply to a continuous disinfection treatment facility that supplies 20 persons or less.

# (coming into force on 8 March 2013)

**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
≥ 1,001 and ≤ 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.

- **22.1.** For the purposes of section 22, the following adaptations are permitted for a distribution system that has a continuous disinfection treatment facility that only supplies populations served by tank trucks north of the 55th parallel or a population of 500 persons or less, and for 1 or more health and social services institutions, educational institutions, correctional facilities or tourist establishments:
  - no continuous measurement equipment is required;
  - (2) the measurements may be taken by means of daily sampling over not

fewer than 5 days per week; the alarm system installed may be limited to warning of a breakdown or defective operation of the continuous disinfection treatment facility;

- (3) for the purposes of the third paragraph of section 22, the measurements may be taken by means of daily sampling over not fewer than 5 days per week and the alarm system is not required; and
- (4) the entries in the record may be made at each sampling for all the measurements taken.

## (in force until 7 March 2013)

**23.** The person in charge of a distribution system that supplies chlorinated 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 request form furnished by the Minister of Sustainable Development, Environment and Parks.

## (coming into force on 8 March 2013)

- 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.
- **24.** (Revoked).
- **25.** (Revoked).

### **DIVISION II**

WATER SUPPLIED BY TANK TRUCK

The provisions of Division I are applicable, with the necessary modifications, to drinking water supplied by tank truck to more than 20 persons. The owner or operator of a tank truck is bound by the same obligations as those for 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.

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.

In the territories located north of the 55th parallel, the samples collected pursuant to sections 11, 14, 15, 18 and 19 and 18 must be collected at the outlet of the reservoir where the owner or operator of the tank truck is supplied with water.

Sections 21 and 23 do not apply to water supplied by a tank truck north of the 55th parallel.

27. The owner or operator of a tank truck must fill the tank with water that complies with the standards of quality set out in Schedule 1.

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.

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 person in charge 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, the owner or operator must maintain a record in which the date and results of the measurements prescribed above are entered along with the names of the persons who took them, and the origin of the water. That data must be kept for a minimum of 2 years 5 years and be made available to the Minister.

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

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

### **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, published by the Ministère du Développement durable, de l'Environnement et des Parcs.

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.

Every person who collects or has a water sample collected pursuant to this Regulation must sign the analysis request form furnished by the Minister of Sustainable Development, Environment and Parks to certify that the sampling, and the preservation and sending of the sample to a 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 requirements of this Regulation.

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 (chapter Q-2) have taken place in compliance with the provisions of this Regulation.

The person in charge of the distribution system must keep a copy of the analysis request form sent to the accredited laboratory for a minimum of 2 years and make it available to the Minister.

**31.** The water samples collected pursuant to subparagraph 2 of the third paragraph of section 5, section 6, sections 11 to 14, the first paragraph of section 15, sections 18 to 21, 26, 39, 40 and 42 14.1, the first paragraph of section 15, sections 18 to 21.1, 22.0.1, 26, 39, 40, 42 and 53.0.1 must be sent for analysis to laboratories accredited by the Minister of Sustainable Development, Environment and Parks under section 118.6 of the Environment Quality Act (chapter Q-2). The analysis request forms furnished by the Minister must also be sent with the samples.

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.

North of the 55th parallel, any Northern village constituted under the Act respecting Northern villages and the Kativik Regional Government (chapter V-6.1) is considered to be a laboratory accredited by the Minister under section 118.6 of the Environment Quality Act.

32. The water samples collected pursuant to the second paragraph of section 15, section 17, the fourth paragraph of section 22, section 23, section 27 and the first paragraph of section 28 must be analysed in accordance with the methods described in 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 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).

The person who analyses the sample must certify that the analysis was carried out in accordance with those methods. The certification is to be made on the analysis request form furnished by the Minister of Sustainable Development, Environment and Parks, which must be kept and be made available to the Minister for a minimum of 2 years.

**33.** The laboratory shall send to the Minister of Sustainable Development, Environment and Parks using an information technology medium furnished to the laboratory by the Minister, the results of the analyses of the water samples referred to in section 31 and the data entered in the analysis request forms received under that section, within 10 days of the sampling in the case of samples for the control of microorganisms, free residual disinfectant residual disinfectant concentration or turbidity or, in the case of samples for the control of other parameters, within 60 days of the sampling.

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.

#### CHAPTER IV

NON-COMPLIANCE OF WATER WITH THE STANDARDS OF QUALITY

**34.** The third paragraph second, third and fourth paragraphs of section 35 and sections 36 to 41 do not apply to a distribution system supplying 1 residence only.

Sections 39 and 40 do not apply to a distribution system to which section 10 does not apply.

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 shows the presence of fecal coliform bacteria or Escherichia coli bacteria, total coliform bacteria, enterococci bacteria or Especific coliphage viruses.

If the water does not comply with one of the other standards of quality set out in Schedule 1 or contains more than 80 µg/L of trihalomethanes, the laboratory must immediately communicate that information to the persons referred to in the first paragraph.

Every result showing the presence of fecal coliform bacteria or *Escherichia coli* bacteria, enterococci bacteria or F-specific coliphage viruses must also be immediately communicated by the laboratory to the Minister of Sustainable Development, Environment and Parks and to the public health director of the region concerned. If the water does not comply with one of the other standards of quality set out in Schedule 1 or contains more than 80 µg/L of trihalomethanes, the laboratory must communicate that information to those persons as soon as possible during working hours.

- **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 micro-organisms 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 μg/L;
- haloacetic acids in concentration greater than 60 µg/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.

**35.1.** In the event of the 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 of Sustainable Development, Environment and Parks and describe the necessary remedial measures. The person in charge must also immediately inform the public health director of the region concerned.

Where the person in charge of a distribution system that has a continuous disinfection treatment facility becomes aware as a consequence of section 22 or 22.1 that the standards set out in section 8 or in the second paragraph of paragraph 6 of Schedule 1 have been exceeded, the person must immediately implement remedial measures and inform the Minister as soon as possible during working hours. The person in charge must also inform the public health director of the region concerned as soon as possible.

**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.

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, on being informed thereof, notify the Minister of Sustainable Development, Environment and Parks 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.

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 µg/L of trihalomethanes or 60 µg/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.

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 required on being so informed to notify the users in question using the media, by sending individual written notices or by any other appropriate means, that the water at their disposal is unfit for consumption and of the

precautions to be taken, including an advisory to boil water for at least 1 minute before it is ingested. If the users include health and social services institutions or educational institutions they must be notified individually. The Minister of Agriculture, Fisheries and Food entrusted under the Food Products Act (R.S.Q., c. P-29) with protecting the health and safety of consumers must also be immediately informed if institutions supplied by water governed by that Act are affected.

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.

In the case of an enterprise, an educational institution, a correctional facility, a health and social services institution or a tourist establishment, the notice required by the second paragraph may be given as provided in section 38.

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.

The notices to be given to users shall be given at least once every 2 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 established in Schedule 1 with respect to other analyzed 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 Sustainable Development, Environment and Parks 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. 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.

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.

**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.

- **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 water that does not meet one of the parameters set out in Schedule 1, 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 person in charge of the vehicle of the problem. If the presence of fecal coliform bacteria or *Escherichia coli* bacteria is detected, the persons in charge of those systems must, on being so informed, notify the users as provided in the second, third and fourth paragraphs of section 36.
- **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 the subject of 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 at each place in the institution where the water is made available for consumption purposes and interrupt any water service from drinking fountains supplied with the contaminated water by the distribution system or tank truck.

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

## (in force until 7 March 2013)

**39.** If the water at the disposal of a user that originates from a distribution system or tank truck does not comply with one of the bacterial parameters 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 owner or operator of the vehicle must, over 2 days separated by less than 72 hours, collect or have the minimum number of samples as determined in the table below collected for the purpose of bacteriological monitoring of the water supplied.

Users concerned	Minimum number of samples per day
500 persons or fewer	2

501 to 5,000 persons	4	
5,001 to 20,000 persons	1 per 1,000 persons	
20,001 persons and over	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 analysis request form furnished by the Minister an analysis request form that complies with the model provided 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 2 samples of the raw groundwater taken or stored that supplies the system must be collected per day as soon as possible as of the time the person in charge is informed of such presence, separated by at least 2 hours, for at least 1 day to test for the presence of *Escherichia coli* bacteria and enterococci bacteria.

The sampling methods provided for in the second paragraph of section 11 apply to the sampling prescribed by the first paragraph. Where the person in charge of the distribution system or the owner or operator person in charge 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 2 hours between each sampling.

Water supplied by the distribution system or tank truck referred to in the first paragraph may be considered as again complying 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. 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. If the analysis of a sample of raw water collected in accordance with this section shows that the water contains *Escherichia coli* bacteria or enterococci bacteria, the boil advisory may not be lifted without the necessary remedial measures having been implemented.

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.

(coming into force on March 8 2013)

**39.** 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
≤ 200	1
≥ 201 and ≤ 500	2
≥ 501 and ≥ 5,000	4
≥ 5,001 and ≥ 20,000	1 per 1,000 persons
≥ 20,001	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 analysis request form furnished by the Minister an analysis request form that complies with the model provided by the Minister. 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.

In the case of non-disinfected water for which analyses revealed the presence of fecal coliform bacteria or *Escherichia coli* bacteria, at least 2 samples of the raw groundwater taken or stored that supplies the system must be collected per day as soon as possible as of the time the person in charge is informed of such presence, separated by at least 2 hours, for at least 1 day to test for the presence of *Escherichia coli* bacteria and enterococci bacteria.

The sampling methods provided for in the second paragraph of section 11 apply to the sampling prescribed by the first paragraph. Where the person in charge of the distribution system or the owner or operator person in charge 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 2 hours between each sampling.

Water supplied by the distribution system or tank truck referred to in the first paragraph may be considered as again complying 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. 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. If the analysis of a sample of raw water collected in accordance with this section shows that the water contains *Escherichia coli* bacteria or enterococci bacteria, the boil advisory may not be lifted without the necessary remedial measures having been implemented.

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.

**39.1.** If raw water contamination is detected after testing pursuant to section 6, 13 or 39, the person in charge of the system must immediately inform the Minister of Sustainable Development, Environment and Parks and the director of public health in the region concerned and describe the necessary remedial measures.

If raw water contamination is detected pursuant to section 13, 21.1 or 39 or nondisinfected 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.

**40.** If the water put at the disposal of a user that originates from a distribution system or tank truck does not comply with one of the parameters for organic or inorganic substances, radioactive substances or activities, or turbidity, set out in Schedule 1, the person in charge of the distribution system, or the owner or operator person in charge of the vehicle must, over 2 days separated by less than 72 hours, collect or have at least 1 sample per day collected for the purpose of testing the water supplied for those parameters. In the case of a standard based on the average of quarterly sampling and in the case of an exceedance of the standard of quality of drinking water relating to lead, the 2-day sampling requirement is replaced by the requirement to certify to the Minister the efficiency

of the necessary remedial measures.

Water supplied by that distribution system or vehicle may be considered as again complying 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 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 also apply, with the necessary modifications. The water samples collected under this section may not be taken into account for the purposes of the sampling prescribed by sections 14, 15, 19 and 21.

- 41. As soon as the water supplied by a distribution system or 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, 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.
- **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.
- 42. If there are reasons to suspect that the water put at the disposal of the user does not comply with the standards of quality set out in Schedule 1 or in section 17, 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 adequately test the quality of that water.

If the quality of the water put at the disposal of the user shows a gross alpha activity greater than 0.1 Bq/L or a gross beta activity greater than 1 Bq/L, the person in charge of the distribution system or, as the case may be, the owner or operator of the tank truck must, as soon as possible, take the necessary remedial measures to enable testing for the presence of radioactive substances in the water.

**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.

### CHAPTER V

COMPETENCE REQUIRED

- **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.
- **43.** The provisions of this Chapter do not apply to a distribution system or tank truck that supplies only:
  - (1) 20 persons or less;
  - (2) one or more enterprises;
  - (3) 20 persons or less and one or more enterprises.

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.

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.

In addition, all the maintenance and repair work on a distribution facility for water intended for human consumption, and all the stages involved in putting distribution facilities into service after remedial or extension work must be carried out by or under the immediate supervision of a certified person.

For the purposes of this section, a certified person is a person who holds a diploma, certificate or other attestation recognized by the Minister of Education, Recreation and Sports or by Emploi-Québec or the minister responsible for Emploi-Québec for the production or distribution of water intended for human consumption. Attestations or certificates issued for the purposes of this section

by Emploi-Québec or the minister responsible for Emploi-Québec must be renewed every 5 years.

The certification requirement also applies to persons responsible for collecting water for analysis, unless the persons are employed by a laboratory accredited for that purpose by the Minister of Sustainable Development, Environment and Parks under section 118.6 of the Environment Quality Act (R.S.Q., c. Q-2).

**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 (chapter 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 (chapter Q-2).

## (coming into force on March 8 2013)

**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 (chapter F-5) 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 one 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 one 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 (chapter Q-2) 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.

### **CHAPTER V.1**

SPECIAL PROVISIONS FOR CERTAIN SEASONAL TOURIST ESTABLISHMENTS

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

**44.1.** The person in charge of a seasonal tourist establishment may put water that does not comply with the standards of quality set out in Schedule 1 at the disposal of users, to be used for personal hygiene, from the date of receipt by the Minister of Sustainable Development, Environment and Parks of a notice from the person in charge stating that the water is not being treated in accordance with the standards in section 5 or 6 and that the water is not suitable as drinking water.

The person in charge is subject only to the requirements of this Chapter.

- **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 (chapter D-8.2);
  - the territory located north of the 55th parallel; or
- the territory of Municipalité de Côte-Nord-du-Golfe-du-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-Golfe-du-Saint-Laurent (1988, chapter 55, amended by 1996, chapter 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.

44.2. The person in charge of a seasonal tourist establishment must install pictograms in such manner that they are visible by any person at taps supplying water that is not suitable as drinking water. The pictograms must be at least 10 cm in height by 10 cm in width and show a glass of water appearing in a red circle crossed by an oblique red bar.

If the person in charge of the seasonal tourist establishment installs such pictograms in a building having premises where food is stored or commercially prepared, the person must immediately so inform the Minister of Agriculture, Fisheries and Food.

**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 (chapter 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.

**44.3.** The person in charge of a seasonal tourist establishment of a distribution system or tank truck referred to in section 44.1 supplying more than 20 persons south of the 50th parallel must also, each month and with a minimum of 10 days between samplings, collect at least 1 sample of the water used for personal hygiene to test for the number of *Escherichia coli* bacteria present.

The person must also enter in a record the date and the name of the person who collected the sample and the number of *Escherichia coli* bacteria present in the sample. The paper copy of the record must be made available to the Minister of Sustainable Development, Environment and Parks for a minimum of 2 5 years after the date of the last entry.

**44.4.** The water samples collected pursuant to section 44.3 must be sent for analysis to laboratories accredited by the Minister of Sustainable Development, Environment and Parks under section 118.6 of the Environment Quality Act (chapter Q-2). The person in charge of a seasonal tourist establishment of a distribution system or tank truck referred to in section 44.1 must keep a copy of the analysis request furnished by the accredited laboratory and the analysis report for a minimum of 5 years and make them available to the Minister.

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.

**44.5.** If the presence of more than 20 *Escherichia coli* bacteria per 100 ml is detected in a sample collected pursuant to section 44.3, the person in charge of the seasonal tourist establishment a distribution system or, as the case may be, of a tank truck must immediately implement the necessary remedial measures or cease supplying the water. As well, the person must immediately inform the Minister of Sustainable Development, Environment and Parks and the public health director of the region concerned and describe the remedial measures implemented. The person must also immediately inform the public health director of the region concerned.

#### **CHAPTER VI**

**PENAL** 

- **45.** Every person who, in contravention of section 3, puts water intended for human consumption that does not comply with the standards of quality set out in Schedule 1 at the disposal of a user, or does not install the required pictograms, does not ensure that they are installed, or does not maintain or ensure that they are maintained in place as provided in this Regulation, is liable
  - (1) to a fine of \$2,000 to \$20,000 in the case of a natural person;
- (2) to a fine of \$4,000 to \$40,000 in the case of a legal person.
- **46.** In the case of a contravention of any of sections 5 to 9.1 9.2, 17, 27, 29, 29.1, 36, 36.1, 39.1 and 42, the owner or operator person in charge of the distribution system or tank truck, as the case may be, is liable to the fines set out in section 45.

The following persons are also liable to those fines:

- (1) every person who enters false or inaccurate data in a record, report or other document referred to in sections 10.1, 21.0.1, 22, 22.1, 23, 28, the second paragraph of section 30, the first and second paragraphs of section 39 and the second paragraph of section 44.3, the second paragraph of section 44.3, section 53.2 and the first paragraph of section 53.3, or fails to enter the data prescribed by those sections in those records, reports or documents; and
  - (2) every person who contravenes section 44, 44.0.1 or 44.0.2.
- **47.** Any offence against section 35 or 38 makes the offender liable to the fines provided for in section 45.
- **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.
- **47.1.** Any offence against sections 11, 12, 14, 15, 12.1, 14 to 15, 17 to 19, 21, the second paragraph of section 21.0.1, section 22.0.1, the first or third paragraph of section 30, the third, fourth or fifth paragraph of section 39, section 40 or the first paragraph of section 44.3 renders the offender liable
  - (1) to a fine of \$2,000, to \$25,000, in the case of a natural person;
  - (2) to a fine of \$5,000 to \$60,000, in the case of a legal person.
- **48.** Every person who commits an offence against the provisions of this Regulation that are not covered by sections 45 to 47.1 is liable
- (1) to a fine of \$500 to \$10,000 in the case of a natural person; and

- (2) to a fine of \$1,000 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 the immovables in a reserved area or an agricultural zone established under the Act respecting the preservation of agricultural land and agricultural activities (chapter P-41.1).
- **51.** (Omitted).
- **52.** (Amendment integrated into chapters F-4.1, r. 1.001.1, P-29, r. 1, P-30, r. 14.1 and Q-2, r. 7).
- **53.** The distribution systems supplying water that consists in whole or in part of surface water that undergoes no treatment by flocculation, slow filtration or membrane filtration on 28 June 2001, and not meeting the requirements of section 5 on 25 June 2008, are exempt from the application of that section until the date on which the attestation referred to in the third paragraph is received by the Minister.

However, the persons in charge of the systems referred to in the first paragraph must, not later than 28 June 2010 for the facilities of municipalities and intermunicipal boards—and not later than 28 June 2012 for other facilities, be authorized under section 32 of the Environment Quality Act (chapter Q-2) to carry out the work required to have the systems meet the requirements of section 5.

In addition, the persons in charge of the systems referred to in the first paragraph must send to the Minister of Sustainable Development, Environment and Parks, not later than 60 days after the end of the work, an attestation from an engineer who is a member of the Ordre des ingénieurs du Québec to the effect that the work carried out enables the systems to meet the requirements of section 5.

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.

**53.0.1.** The persons in charge of the distribution systems referred to in section 53, to the extent that they serve 20 persons or more for the non-exclusive use of enterprises, must, as of 28 June 2008 and until the date on which the attestation referred to in the third paragraph of that section is received by the Minister, collect or cause to be collected, on a weekly basis for the facilities of

municipalities and intermunicipal boards and monthly for other facilities, at least 1 sample of raw water at each surface water catchment site and send those samples for testing for the presence of for counting of *Escherichia coli* bacteria to a laboratory accredited under section 118.6 of the Environment Quality Act (chapter Q-2) or a laboratory referred to in the second paragraph of section 31.

In addition, the persons in charge must, not later than 28 January, 28 April, 28 July and 28 October of each year, send to the Minister a report containing, for every preceding quarter, the results of the testing referred to in the first paragraph, the elimination percentages of the viruses and parasites referred to in section 5, calculated by an engineer who is a member of the Ordre des ingénieurs du Québec a professional using the data entered in the record required under section 22, as well as the events and microbiological sources of pollution likely to have reduced the quality of the raw water.

The first quarterly report referred to in the second paragraph must be sent not later than 28 January 2009.

- **53.1.** The person in charge of a system covered by section 10.1 must send the information required by that section to the Minister of Sustainable Development, Environment and Parks before 1 December 2005.
- **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.

(coming into force on March 8 2013)

**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.

**54.** The Minister of Sustainable Development, Environment and Parks must, not later than 15 June 2006 8 March 2020, and thereafter every 5 years, report to the Government on the implementation of this Regulation, in particular on the advisability of amending the standards of quality of drinking water after considering the scientific and technical knowledge current at the time.

That report shall be made available to the public not less than 15 days after it has been sent to the Government.

**55.** (Omitted).

#### SCHEDULE 0.1

(s. 1)

#### METHOD TO DETERMINE THE NUMBER OF USERS SUPPLIED

**System supplying residences:** the maximum number of persons supplied by the operator or 2.5 persons multiplied by the number of residences supplied.

**Establishment offering camping sites:** the number of camping sites of the establishment multiplied by 2.5 persons, to which is added the maximum number of regular employees of the establishment present on the same work shift.

**Establishment offering sleeping accommodations:** the number of persons supplied is determined by the number of beds (in single-bed equivalents) in the establishment, increased by the number of regular non-resident employees on the same work shift.

**Establishment offering restaurant services:** the number of persons supplied is determined by the number of seated places in the establishment increased by the number of regular employees of the establishment on the same work shift. In the case of an establishment for which the Régie des alcools, des courses et des jeux has issued a permit, the number of places is the number indicated on the permit, increased by the number of regular employees on the same work shift. In the case of a canteen, convenience store or restaurant not having seating accommodation for users but providing glasses of water or access to toilets, refer to the calculation under Public place.

**Educational institution:** the number of persons supplied is determined by the accommodation capacity of the institution, increased by the number of regular employees of the institution working on the premises.

**Health and social services institution or correctional facility:** the number of persons supplied is determined by the accommodation capacity of the institution or facility, increased by the number of regular employees of the institution or facility on the same work shift.

**Public place:** if there is a book or register of the number of persons who visited the place in the previous year, the number of persons supplied is determined by the average daily number of visitors during the open period, increased by the maximum number of regular employees on the same work shift. The number of persons supplied may also be determined, if applicable, by the number of seated places for persons waiting for the service offered by the place, increased by the number of regular employees on the same work shift. In the absence of data, the number of persons supplied is 500.

Place not accessible to the public: the number of regular employees on the same work shift indicated on the declaration made by the person in charge if the employer puts water intended for human consumption at the disposal of employees through piping.

#### 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, enterecocci 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, 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 or counted where the membrane filtration technique is used to count total coliforms and fecal coliform bacteria in 100 ml of water collected;
- (g) (subparagraph revoked).

#### 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
<del>Barium (Ba)</del>	1
Boron (B)	<del>-5</del>
<del>Bromates</del>	0.010

Cadmium (Cd)	0.005
Chloramines (1)	_3
<del>Copper (Cu)</del>	-1
<del>Cyanides (CN)</del>	<del>-0.2</del>
Fluorides (F)	1.5
Lead (Pb)	0.01
Nitrates + nitrites (expressed as N)	<del>-10</del>
Nitrites (expressed as N)	1
Mercury (Hg)	0.001
Selenium (Se)	0.01
Total chromium (Cr)	0.05
Uranium (U)	<del>-0.02</del>

## 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 (μg/L)
Aldicarb and its metabolites	9
Aldrin and dieldrin	0.7
Atrazine and its metabolites	<del>5</del>

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	
2,4 dichlorophenoxyacetic acid (2,4 D)  Diclofop-methyl	100	
Diclofop-methyl	9	
Diclofop-methyl Dimethoate	9 20	
Diclofop-methyl  Dimethoate  Dinoseb	9 20 10	
Diclofop-methyl  Dimethoate  Dinoseb  Diquat	9 20 10	
Diclofop-methyl  Dimethoate  Dinoseb  Diquat  Diuron	9 20 10 70	
Diclofop-methyl  Dimethoate  Dinoseb  Diquat  Diquat  Glyphosate	9 20 10 70 150	

Metribuzin	80
<del>Paraquat (in dichlorides)</del>	10
Parathion	50
Phorate	2
Picloram	190
Simazine	10
Terbufos	1
Trifluralin	45
Other organic substances	Maximum concentration (µg/L)
Other organic substances	the state of the s
Other organic substances  Benzene	the state of the s
	(µg/L)
Benzene	(µg/L)
Benzene Benzo(a)pyrene	(µg/L)  5  0.01
Benzene  Benzo(a)pyrene  Carbon tetrachloride	(µg/L)
Benzene  Benzo(a)pyrene  Carbon tetrachloride  1,1-dichloroethylene	(μg/L)  5  0.01  5  14
Benzene  Carbon tetrachloride  1,1-dichloroethylene  1,2 dichlorobenzene	(µg/L)  5  0.01  5  14
Benzene  Benzo(a)pyrene  Carbon tetrachloride  1,1-dichloroethylene  1,2 dichlorobenzene  1,4-dichlorobenzene	(µg/L)  5  0.01  5  14  200

Monochlorobenzene	80
Nitrilotriacetic acid (NTA)	400
Pentachlorophenol	60
<del>Tetrachloroethylene</del>	30
2,3,1,6-tetrachlorophenol	100
2,4,6-trichlorophenol	<del></del>
<del>Trichloroethylene</del>	<del>50</del>
Vinyl chloride	2
Other organic substances	Maximum average  concentration calculated over  4 consecutive quarters  (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	Maximum concentration (Bq/L)
Cesium-137	10
<del>Iodine-131</del>	6

Radium 226	0.6
Strontium-90	5
Tritium	7,000

### 5. Parameters respecting pH

(paragraph revoked).

### 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 coagulated, filtered or disinfected water, the turbidity must not exceed 0.5 NTU in more than 5% of the measurements entered in the record pursuant to section 22 or 22.1 over a period of 30 consecutive days; despite the foregoing, the limit of 0.5 NTU will be 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. If any other filtration is carried out without coagulation, the limit of 0.5 NTU in 5% of the measurements is increased to an average value of 1 NTU for that period.

# 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:

Inorganic substances	Maximum concentration (mg/L)
Antimony	0.006
Arsenic (As)	0.010
Barium (Ba)	1.0
Boron (B)	5.0
Bromates	0.010
Cadmium (Cd)	0.005
Chloramines (1)	3.0
Chlorates	0.8
(coming into force on March 8 2013)	0.8
Chlorites	0.8
(coming into force on March 8 2013)	0.0
Chromium (Cr)	0.050
Copper	1.0
Cyanides (CN)	0.20
Fluorides (F)	1.50
Lead (Pb)	0.010
Mercury (Hg)	0.001
Nitrates + nitrites (expressed as N)	10.0
Nitrites (expressed as N)	1.0
Selenium (Se)	0.010
Uranium (U)	0.020

### 3. Parameters respecting organic substances

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

Pesticides	Maximum concentration (µg/L)
Aldicarb and its metabolites	7
Aldrin and dieldrin	0.7
Atrazine and its metabolites	3.5
Azinphos-methyl	17
Bendiocarb	27
Bromoxynil	3.5
Carbaryl	70
Carbofuran	70
(4-chloro-2-methylphenoxy) acetic acid	
also referred to as MCPA	30
(coming into force on March 8 2013)	
Chlorpyrifos	70
Cyanazine	9
Diazinon	14
Dicamba	85
Diclofop-methyl	7
2,4-dichlorophenoxyacetic acid also	70
referred to as 2,4-D	
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 (μg/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
(coming into force on March 8 2013)	
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) <sup>(3)</sup> (coming into force on March 8 2013)	60
Total trihalomethanes (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) <sup>(3)</sup>	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	
lodine-131	6	
Lead-210	0.2	
(coming into force on March 8 2013)		
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 third paragraph of section 22

Column 1	Column 2	Column 3
Process	Limit value over a period of 30 days (NTU)	Limit value (NTU)
Coagulated, filtrated and disinfected water	0.3 in 95% of measurements <sup>(4)(5)</sup>	1.0 <sup>(5)</sup>
Slow filtration or with diatomaceous earth	1.0 in 95% of measurements <sup>(4)</sup>	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 <sup>(6)</sup>	5.0

## 5.2. Treatment facilities covered by paragraph 3 of section 22.1

Column 1	Column 2	Column 3
Process	Limit value over a period of 30 days (NTU)	Limit value (NTU)
Coagulated, filtrated and disinfected water	0.3 in 95% of measurements <sup>(5)</sup>	1.0 <sup>(5)</sup>
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 <sup>(6)</sup>	5.0

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

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

- 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.
- 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.
- 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.".

## (in force until 7 March 2013) **SCHEDULE 2** (s.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

## (coming into force on 8 March 2013) **SCHEDULE 2** (s.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

### **SCHEDULE 3** (s. 10.1)

## DECLARATION BY THE PERSON IN CHARGE OF A DISTRIBUTION FACILITY

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

- Identification of distribution system:
- Type of establishment or institution according to user base:
- Name of owner of distribution facility distribution system:
- Address:
- Telephone:
- Name of operator if different from owner:
- Address:
- Telephone:
- Operation start date and end date:
- Chlorinated water: yes / no
- Ozonated water: yes / no
- Chloraminated water: yes / no
- -- Water disinfected on a continuous basis: yes / not
  - 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
- Surface water in whole or in part: yes / no
- Supplied by another distribution system subject to testing requirements: yes/no
- Total number of persons supplied:
- Signature of person in charge of the distribution facility distribution system
- Date of the declaration

### 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
  - 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;
  - 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
  - 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

- 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 wellhead.
  - (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 (1)	TYPE OF CONTAINER (2)	MAXIMUM PRESERVATION PERIOD
<ul> <li>Fecal coliform and Escherichia coli</li> <li>Total coliform</li> <li>Enterococci</li> <li>F-specific coliphage viruses</li> </ul>	TS	PS or VS	48 hours

### Preservation standards of inorganic substances

PARAMETER	Preservative (1)	TYPE OF CONTAINER (2)	MAXIMUM PRESERVATION PERIOD
Antimony	AN	P or V	180 days
Arsenic	AN	P or V	180 days
Barium	AN	P or V	180 days
Boron	AN	Р	180 days
Bromates	EDA	Р	28 days
Cadmium	AN	P or V	180 days
Chlorates	EDA	Р	28 days
Chlorites	EDA	PO	14 days

PARAMETER	Preservative (1)	TYPE OF CONTAINER (2)	MAXIMUM PRESERVATION PERIOD
Chromium	AN	P or V	180 days
Copper	AN	P or V	180 days
Cyanides	NaOH	P or V	14 days
Fluorides	Ν	Р	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	Z	P or V	48 hours
рН	Ν	P or V	15 minutes
Selenium	AN	P or V	180 days
Temperature	Ν	P or V	15 minutes
Total residual chlorine	N	P or V	15 minutes
Turbidity	Ν	P or V	48 hours
Uranium	AN	P or V	180 days

## Preservation standards of organic substances

PARAMETER	Preservative (1)	TYPE OF CONTAINER (2)	MAXIMUM PRESERVATION PERIOD
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	Р	7 days (3)	
Diuron	N	PY	7 days	
Glyphosate	TS	Р	14 days (3)	
Malathion	Ν	PY	7 days	
Metholachlor	Ν	PY	7 days	
Methoxychlor	Ν	PY	7 days	
Metribuzin	N	PY	7 days	
Paraquat (in dichlorides)	N	Р	7 days (3)	
Parathion	Ν	PY	7 days	
Phorate	N	PY	7 days	
Picloram	AS	VT	21 days	
Simazine	N	PY	7 days	
Terbufos	N	PY	7 days	
Trifluralin	Ν	PY	7 days	
OTHER ORGANIC SUBSTANCES				
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	Р	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 SUBSTANCES				
Cesium – 137	AC or AN	P or V	180 days	
lodine – 131	Ν	P or V	180 days	
Lead - 210	AC or AN	P or V	180 days	
Radium – 226	AC or AN P or V 180 da		180 days	
Strontium – 90	AC or AN P or V 180		180 days	
Tritium	Ν	P or V	180 days	
Gross alpha activity	AC or AN P or V 180 days		180 days	
Gross beta activity	AC or AN	P or V	180 days	

(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.

PRESERVATIVE	
AC	Must contain HCI in sufficient concentration to acidify sample to
	pH < 2
AN	Must contain HNO <sub>3</sub> in sufficient concentration to acidify sample to
	pH < 2
AS	Must contain H <sub>2</sub> SO <sub>4</sub> 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 OI	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.