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chapter Q-2, r. 16

Regulation respecting the liquid effluents of petroleum refineries

Environment Quality Act
(chapter Q-2, ss. 20, 22, 46 and 95.1).

Act respecting certain measures enabling the enforcement of environmental and dam safety legislation
(chapter M-11.6, ss. 30 and 45).

R.R.Q., 1981, c. Q-2, r. 6; I.N. 2019-12-01; S.Q. 2022, c. 8, s. 1.

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DIVISION I

INTERPRETATION

1. Definitions: In this Regulation, unless the context indicates otherwise,

(a) "ballast water" means water carried in a vessel for stability and seaworthiness, including water used for cargo and ballast tank cleaning;

(b) "once-through cooling water" means water circulating only once through heat exchangers, either singly or in series, for the purpose of removing heat from hydrocarbons or treating chemicals used in the processes of a petroleum refinery and that is not intended to come into contact with the latter or with process waters;

(c) "storm water" means water run-off that results from precipitation of any kind that falls on a petroleum refinery and on the property on which it is located, including water run-off originating from outside the said property and that passes over or through the latter;

(d) "process water" means water intended to come into contact with hydrocarbons or treating chemicals used in the processes of a petroleum refinery;

(e) "liquid effluent" means any waste water from a petroleum refinery, including, in particular, process water, ballast water stored at the refinery prior to loading a vessel, once-through cooling water, storm water, cooling tower blow-down, waste water, sludges from water supply treatment facilities and other sludges or water associated with the operation of a petroleum refinery and any other equipment or reservoir used for such a refinery;

(f) "existing" means whose construction has begun or which is already in operation on 9 November 1977;

(g) "Act" means the Environment Quality Act (chapter Q-2);

(h) "new" means whose construction begins after 9 November 1977;

(i) "maximum daily amount" means the maximum amount of a contaminant that a petroleum refinery is allowed to deposit in any one day per calendar month;

(j) "average monthly amount" means the maximum daily amounts plus the daily amounts of each contaminant measured over a period of 1 calendar month in accordance with the second paragraph of section 15 and divided by the number of days on which the amounts were measured in that month;

(k) "one day amount" means the amount of a contaminant that a petroleum refinery is allowed to deposit in water each day of a calendar month, subject to the maximum daily amount and average monthly amount determined in this Regulation;

(l) (paragraph revoked).

R.R.Q., 1981, c. Q-2, r. 6, s. 1; O.C. 243-98, s. 1.

DIVISION II

(Revoked)

R.R.Q., 1981, c. Q-2, r. 6, Div. II; I.N. 2019-12-01; O.C. 871-2020, s. 1.

2. *(Revoked).*

R.R.Q., 1981, c. Q-2, r. 6, s. 2; O.C. 1529-93, s. 16; I.N. 2019-12-01; O.C. 871-2020, s. 1.

3. *(Revoked).*

R.R.Q., 1981, c. Q-2, r. 6, s. 3; O.C. 1529-93, s. 17; I.N. 2019-12-01; O.C. 871-2020, s. 1.

DIVISION III

STANDARDS RELATING TO LIQUID EFFLUENTS

4. Effluent standards: A new petroleum refinery shall not deposit in the environment liquid effluents containing petroleum hydrocarbons (C_{10}-C_{50}), phenols, sulfide, ammonia nitrogen and suspended matter in excess of any of the standards established in the following table, per 1,000 barrels of crude oil processed by the refinery, the whole in accordance with the refining capacity declared to the Minister:

Nature of contaminant	Average monthly amount (in kg)	Daily amount (in kg)	Maximum daily amount (in kg)
Petroleum hydrocarbons (C_{10}-C_{50})	1.40	2.50	3.40
Phenols	0.14	0.25	0.34
Sulfide	0.05	0.14	0.23
Ammonia nitrogen	1.63	2.60	3.27
Suspended matter	3.26	5.45	6.80

R.R.Q., 1981, c. Q-2, r. 6, s. 4; O.C. 871-2020, s. 2; O.C. 994-2023, s. 1.

5. Alteration or increase of production: The standards set out in section 4 shall also apply to any increase of 15% or more in the production of an existing petroleum refinery in relation to the refining capacity declared to the Minister pursuant to section 22. The standards shall apply in relation to the refining capacity thus increased.

R.R.Q., 1981, c. Q-2, r. 6, s. 5.

6. Existing refineries: Existing petroleum refineries shall not deposit in the environment liquid effluents containing petroleum hydrocarbons (C_{10}-C_{50}), phenols, sulfide, ammonia nitrogen and suspended matter in excess of any of the standards established in the following table, per 1,000 barrels of crude oil processed by the refinery, the whole in accordance with the refining capacity declared:

Nature of contaminant	Average monthly amount (in kg)	Daily amount (in kg)	Maximum daily amount (in kg)
Petroleum hydrocarbons (C_{10}-C_{50})	1.40	2.50	3.40
Phenols	0.14	0.25	0.34
Sulfides	0.05	0.14	0.23
Ammonia nitrogen	1.63	2.60	3.27
Suspended matter	4.80	5.45	6.80

R.R.Q., 1981, c. Q-2, r. 6, s. 6; O.C. 243-98, s. 2; O.C. 871-2020, s. 3; O.C. 994-2023, s. 2.

7. Once-through cooling water: For the application of the standard relative to the deposit of petroleum hydrocarbons (C_{10}-C_{50}), prescribed in section 6, the liquid effluents of an existing petroleum refinery shall not include once-through cooling water containing petroleum hydrocarbons (C_{10}-C_{50}) in a concentration of 5 mg/litre or less.

R.R.Q., 1981, c. Q-2, r. 6, s. 7; O.C. 994-2023, s. 3.

8. Suspended matter: The effluent standards established in sections 4 and 6 shall apply to all liquid effluents deposited in the environment by a petroleum refinery. However, a petroleum refinery may withdraw from such deposits the suspended matter contained each day in the untreated water supply of the petroleum refinery where the person responsible for that refinery measures the suspended matter in the same way and in accordance with the same frequency and terms and conditions as he measures the contaminants deposited in the environment pursuant to sections 15 to 17.

R.R.Q., 1981, c. Q-2, r. 6, s. 8.

9. Storm water: In addition to sections 4 and 6, where a petroleum refinery deposits storm water and measures the flow of such water separately from that of other water contained in its liquid effluents, such refinery shall not deposit in the environment petroleum hydrocarbons (C_{10}-C_{50}), phenols, or suspended matter in excess of any of the standards established in the following table, added to those set out in sections 4 and 6:

Nature of Contaminants	Daily concentration (in mg/litre of storm water deposited)	Total monthly amount (in kg/1,000 barrels of crude oil each day)
Petroleum hydrocarbons (C_{10}-C_{50})	10	11.34
Phenols	1	1.13
Suspended matter*	30	34.02
*The volatile portion only.		

R.R.Q., 1981, c. Q-2, r. 6, s. 9; O.C. 994-2023, s. 4.

10. Uncontaminated water: Section 9 shall not apply to storm water which has not been contaminated by a petroleum refinery or by operations related to the operation of a refinery.

To be able to invoke the exception provided for in this section, a person responsible for a new petroleum refinery who becomes aware that the refinery deposits storm water contemplated in this section into the environment must send a notice to the Minister within 60 days following the beginning of operations at the refinery.

R.R.Q., 1981, c. Q-2, r. 6, s. 10; O.C. 243-98, s. 3.

11. pH: A petroleum refinery shall not deposit in the environment a liquid effluent or storm water whose pH is not within 6.0 and 9.5.

R.R.Q., 1981, c. Q-2, r. 6, s. 11.

12. Section 20 of the Act: The standards set out in sections 4, 6, 9 and 11 are established within the meaning of section 20 of the Act.

R.R.Q., 1981, c. Q-2, r. 6, s. 12.

13. **Waste water from sanitary facilities:** Waste water originating from the sanitary facilities used by the employees of a petroleum refinery must be treated by a device for the treatment of waste water whose construction has been authorized by the Minister in accordance with subparagraph 3 of the first paragraph of section 22 of the Act, unless it is deposited in a sewer system contemplated in section 21.

R.R.Q., 1981, c. Q-2, r. 6, s. 13; I.N. 2019-12-01.

DIVISION IV

SUPERVISION AND TESTING

14. **Measurement of pH and flow:** The person responsible for a petroleum refinery shall measure continually the flow of liquid effluents deposited in the environment by that refinery.

The person responsible for a petroleum refinery shall also measure continually the pH of those liquid effluents according to the method described in Volume 2 of the Guide d'échantillonnage à des fins d'analyses environnementales published by the Ministère du Développement durable, de l'Environnement et des Parcs.

R.R.Q., 1981, c. Q-2, r. 6, s. 14; O.C. 243-98, s. 4.

15. **Measurement of other contaminants:** The person responsible for a petroleum refinery must also measure the aggregate amount of petroleum hydrocarbons (C_{10}-C_{50}), phenols, sulfide, ammonia nitrogen and suspended matter contained in the liquid effluents and storm water deposited in the environment by the refinery.

The contaminants contemplated in the first paragraph shall be measured on 3 non-consecutive days per week. The 3 days selected for the measurement of contaminants must always be the same. The data thus obtained must be kept in a register for a period of at least 5 years. The register must also indicate the number of barrels of crude oil processed in the petroleum refinery on each day that the contaminants are measured.

Lastly, the person responsible for an existing petroleum refinery must, each week, for 3 non-consecutive days, measure the concentration of petroleum hydrocarbons (C_{10}-C_{50}) present in the once-through cooling water deposited in the environment by such a refinery.

R.R.Q., 1981, c. Q-2, r. 6, s. 15; O.C. 663-2013, s. 1; O.C. 994-2023, s. 5.

16. *(Revoked).*

R.R.Q., 1981, c. Q-2, r. 6, s. 16; O.C. 663-2013, s. 2.

17. **Sending of data:** The results obtained in accordance with sections 14 and 15 must be sent to the Minister once a month, in the following month, in the form prescribed in Schedule A or by telematics or a computer medium in accordance with the sample standard format provided by the Minister.

R.R.Q., 1981, c. Q-2, r. 6, s. 17; O.C. 243-98, s. 5.

18. **Sampling method:** The contaminants contemplated in Division III are determined on the basis of samples collected before the deposit of liquid effluents, storm water and once-through cooling water in the receiving watercourse or in the sewer system contemplated in section 21.

Composite sampling must be carried out in accordance with the method described in Volume 2 of the Guide d'échantillonnage à des fins d'analyses environnementales published by the Ministère.

R.R.Q., 1981, c. Q-2, r. 6, s. 18; O.C. 243-98, s. 6.

19. **Preservation of samples:** Every sample collected for the purposes of this Regulation must be preserved in accordance with the method described in Volume 2 of the Guide d'échantillonnage à des fins d'analyses environnementales published by the Ministère.

R.R.Q., 1981, c. Q-2, r. 6, s. 19; O.C. 243-98, s. 7.

20. **Methods of analysis:** The analyses required to ensure the application of this Regulation must be carried out by a laboratory accredited by the Minister under section 118.6 of the Act and in accordance with the methods described in the Liste des méthodes d'analyses relatives à l'application des règlements découlant de la Loi sur la qualité de l'environnement published by the Ministère.

R.R.Q., 1981, c. Q-2, r. 6, s. 20; O.C. 243-98, s. 8; O.C. 663-2013, s. 3.

21. **Sewer system:** The standards set forth in Division III pertaining to deposits from a petroleum refinery in the environment shall apply, with the necessary modifications, to deposits from a petroleum refinery in any sewer system, except those respecting waste water from sanitary facilities deposited separately from other liquid effluents.

R.R.Q., 1981, c. Q-2, r. 6, s. 21; I.N. 2019-12-01.

22. **Refining capacity of an existing petroleum refinery:** The daily refining capacity of an existing petroleum refinery is the capacity communicated to the Minister before 9 January 1978, corresponding to the highest average daily amount of crude oil actually refined during 7 consecutive days in the 2 years preceding 9 November 1977.

R.R.Q., 1981, c. Q-2, r. 6, s. 22; O.C. 663-2013, s. 4.

23. **Increase in refining capacity:** The person responsible for a petroleum refinery may change his refining capacity declaration in cases where an increase has occurred in the average daily amount of crude oil actually refined, over a period of 1 month, by 15% or more as compared to the refining capacity previously declared.

This new daily refining capacity applies as of the first day of the following month.

R.R.Q., 1981, c. Q-2, r. 6, s. 23; O.C. 871-2020, s. 4; O.C. 994-2023, s. 6.

24. The person responsible for a petroleum refinery must change his or her refining capacity declaration in cases where a decrease of 15% or more has occurred in the average daily amount of crude oil actually refined, over a period of 1 month, as compared to the refining capacity previously declared, excluding the days where the decrease in refining is attributable to the maintenance of the petroleum refinery.

This new daily refining capacity applies as of the first day of the following month.

R.R.Q., 1981, c. Q-2, r. 6, s. 24; O.C. 871-2020, s. 5; O.C. 994-2023, s. 7.

DIVISION V

MONETARY ADMINISTRATIVE PENALTIES

O.C. 663-2013, s. 5.

25. A monetary administrative penalty of $250 in the case of a natural person or $1,000 in other cases may be imposed on any person who fails

(1) to keep the data referred to in the second paragraph of section 15 in a register for a minimum period of 5 years;

(2) to respect the frequency or terms provided for in section 17 as to the sending of the results referred to in that section.

O.C. 663-2013, s. 5; O.C. 994-2023, s. 8.

26. A monetary administrative penalty of $350 in the case of a natural person or $1,500 in other cases may be imposed on any person who fails to send to the Minister the results referred to in section 17.

O.C. 663-2013, s. 5.

27. A monetary administrative penalty of $500 in the case of a natural person or $2,500 in other cases may be imposed on any person who fails

(1) to comply with the sampling or preservation conditions of the samples provided for in section 18 or 19;

(2) to have the required analyses carried out under this Regulation by a laboratory accredited by the Minister in accordance with section 20;

(3) to change the declaration concerning the daily refining capacity of crude oil in the case provided for in section 24.

O.C. 663-2013, s. 5.

28. A monetary administrative penalty of $750 in the case of a natural person or $3,500 in other cases may be imposed on any person who fails

(1) to treat, in accordance with section 13, waste water originating from sanitary facilities referred to in that section;

(2) to take the measurements referred to in section 14 or 15, according to the prescribed conditions.

O.C. 663-2013, s. 5.

29. A monetary administrative penalty of $2,000 in the case of a natural person or $10,000 in other cases may be imposed on any person who deposits in the environment a liquid effluent or storm water that does not comply with the standards provided for in section 4, 6, 9 or 11.

O.C. 663-2013, s. 5.

DIVISION VI

PENAL SANCTIONS

O.C. 663-2013, s. 5.

30. Every person who fails

(1) to keep the data referred to in the second paragraph of section 15 in a register for a minimum period of 5 years,

(2) to respect the frequency or terms provided for in section 17 as to the sending of the results referred to in that section,

commits an offence and is liable, in the case of a natural person, to a fine of $1,000 to $100,000 or, in other cases, to a fine of $3,000 to $600,000.

O.C. 663-2013, s. 5; O.C. 994-2023, s. 9.

31. Every person who fails to send the results referred to in section 17 to the Minister commits an offence and is liable, in the case of a natural person, to a fine of $2,000 to $100,000 or, in other cases, to a fine of $6,000 to $600,000.

O.C. 663-2013, s. 5.

32. Every person who contravenes section 18, 19, 20 or 24 commits an offence and is liable, in the case of a natural person, to a fine of $2,500 to $250,000 or, in other cases, to a fine of $7,500 to $1,500,000.

O.C. 663-2013, s. 5.

33. Every person who

(1) contravenes section 13 or 14 or fails to take the measurements provided for in section 15 according to the prescribed conditions,

(2) *(paragraph revoked),*

commits an offence and is liable, in the case of a natural person, to a fine of $4,000 to $250,000 or, in other cases, to a fine of $12,000 to $1,500,000.

O.C. 663-2013, s. 5; O.C. 994-2023, s. 10.

34. Every person who contravenes section 4, 6, 9 or 11 commits an offence and is liable, in the case of a natural person, to a fine of $10,000 to $1,000,000 or, despite article 231 of the Code of Penal Procedure (chapter C-25.1), to a maximum term of imprisonment of 3 years, or to both the fine and imprisonment, or, in other cases, to a fine of $30,000 to $6,000,000.

O.C. 663-2013, s. 5.

35. Every person who contravenes any other requirement imposed by this Regulation also commits an offence and is liable, where no other penalty is provided for by this Division or the Environment Quality Act (chapter Q-2), to a fine of $1,000 to $100,000 in the case of a natural person or, in other cases, to a fine of $3,000 to $600,000.

O.C. 663-2013, s. 5.

SCHEDULE A

(s. 17)

MONTHLY REPORT ON THE WASTE WATER FROM A PETROLEUM REFINERY

Petroleum refinery operated by _____

and located in _____

Month of _____20 _____

Declared refining capacity: _____TB*/day

Date of the declaration concerning the refining capacity: _____ 20 _____

Amount of crude oil refined:

Current month: _____TB*

Days of production: _____

Average for current month: _____TB*/dp**

TABLE OF ACTUAL DEPOSITS

Date	Flow measurement (m^3/day)		Suspended matter in water supply	Deposits measured (kg/day)					pH		
	Liquid effluent	Storm water		Petroleum hydrocarbons (C_{10}-C_{50})	Phenols	Sulfides	NH_3-N	Suspended matter	Measurement		Duration of overage
									min	max	(minutes)
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
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19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
Average											

TABLE OF AUTHORIZED DEPOSITS PURSUANT TO THIS REGULATION

	Petroleum hydrocarbons (C_{10}-C_{50})	Phenols	Sulfides	NH_3-N	Suspended matter	pH
Average monthly amount (kg)						≥6.0 and ≤9.5
One day amount (kg)						
Maximum daily amount (kg)						

TABLE OF COMPLIANCE OF STORM WATER

Date	Storm water	Petroleum hydrocarbons (C_{10}-C_{50})		Phenols		Volatile suspended matter	
	Flow measurement (m^3/day)	(mg/l)	(kg/day)	(mg/l)	(kg/day)	(mg/l)	(kg/day)

1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
Amount of monthly deposit (kg)							
Authorized total monthly amount (kg)							

Authorized daily concentration (mg/l)	10		1		30	

*TB: thousand barrels

**dp: days of production

I certify that this declaration is true and accurate.

_____

(name of refinery)

Signature:

Title: _____

_____

R.R.Q., 1981, c. Q-2, r. 6, Sch. A; O.C. 994-2023, s. 11.

UPDATES
R.R.Q., 1981, c. Q-2, r. 6
O.C. 1529-93, 1993 G.O. 2, 5996
O.C. 243-98, 1998 G.O. 2, 1285
O.C. 663-2013, 2013 G.O. 2, 1756
O.C. 871-2020, 2020 G.O. 2, 2343A
O.C. 994-2023, 2023 G.O. 2, 1274