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chapter Q-2, r. 18

Regulation respecting the burial of contaminated soils

Environment Quality Act
(chapter Q-2, ss. 31.52, 70, 95.1, 118.3.5 and 124.1).

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

Note *See Chapter III of the Regulation respecting the temporary implementation of the amendments made by chapter 7 of the Statutes of 2021 in connection with the management of flood risks (chapter Q-2, r. 32.2).*

O.C. 843-2001; I.N. 2019-12-01; S.Q. 2022, c. 8, s. 1.

TABLE OF CONTENTS

CHAPTER I
SCOPE **1**

CHAPTER II
CONTAMINATED SOIL BURIAL SITES

DIVISION I
GENERAL **3**

DIVISION II
LAYOUT
§ 1. — *General layout conditions* **5**
§ 2. — *Tightness* **11**
§ 3. — *Collection and treatment of leachates* **12**
§ 4. — *Collection of gas* **13**
§ 5. — *Collection of surface water* **14**

DIVISION III
OPERATION
§ 1. — *General operating conditions* **15**
§ 2. — *Leachates* **22**
§ 3. — *Groundwater* **25**
§ 4. — *Gas* **27**
§ 5. — *Monitoring and supervision measures* **28**

DIVISION IV
QUALITY ASSURANCE AND CONTROL **37**

DIVISION V
FINAL COVER AND CLOSURE..... **38**

DIVISION VI
POST-CLOSURE PERIOD..... **43**

CHAPTER III
SECURITY **48**

CHAPTER IV
OWNERSHIP OF LAND..... **56**

CHAPTER IV.1
MONETARY ADMINISTRATIVE PENALTIES..... **57.1**

CHAPTER V
PENAL SANCTIONS..... **58**

CHAPTER VI
MISCELLANEOUS PROVISIONS..... **64**

SCHEDULE I

SCHEDULE II

CHAPTER I

SCOPE

1. This Regulation determines the conditions or prohibitions applicable to the layout, extension and operation of sites used in whole or in part for the burial of contaminated soils as well as the conditions applicable to their closure and their post-closure follow-up.

Despite the foregoing, it does not apply to landfills governed by Chapter II of the Regulation respecting the landfilling and incineration of residual materials (chapter Q-2, r. 19) or to the reclamation and restoration of a quarry done in accordance with the Regulation respecting sand pits and quarries (chapter Q-2, r. 7.1).

For the purposes of this Regulation:

(1) sediments extracted from a watercourse or body of water constitute soils;

(2) the extension of a contaminated soil burial site includes any alteration that results in an increase in capacity.

O.C. 843-2001, s. 1; O.C. 1553-2001, s. 1; O.C. 451-2005, s. 176; O.C. 238-2019, s. 1.

2. A site that, in connection with rehabilitation work authorized under the Environment Quality Act (chapter Q-2), is used exclusively for the burial of contaminated soils extracted from the land on which it is located and soils containing 1 or many substances from such land, is exempt from the application of sections 10, 15, 16, 19, 21, 23, 40, 42, 48 to 55 and 64 to 66.

O.C. 843-2001, s. 2; O.C. 1553-2001, s. 1.

CHAPTER II

CONTAMINATED SOIL BURIAL SITES

DIVISION I

GENERAL

3. Storage of contaminated soils with a view to their final disposal is allowed only on the land of origin, in connection with rehabilitation work, or in a burial site authorized under the Act.

O.C. 843-2001, s. 3.

4. The following may not be disposed of in contaminated soil burial sites:

(1) soils that contain 1 or more substances with concentrations equal to or greater than the limit values in Schedule I except

(a) if they are disposed of in a site referred to in section 2;

(b) the soils from which at least 90% of the substances initially present in the soils were removed by means of a treatment authorized under the Act and, in the case of removed metals and metalloids, only if they were stabilized, fixed and solidified by an authorized treatment;

(c) where a detailed report proves that a substance present in the soils may not be removed in a proportion of 90% following an authorized optimal treatment and there is no available technique for that purpose;

(2) soils having more than 50 mg of PCB per kg of soil;

(3) soils that, after segregation, contain more than 25% of residual materials;

(4) soils containing explosive or radioactive materials within the meaning of section 3 of the Regulation respecting hazardous materials (chapter Q-2, r. 32) or materials incompatible, physically or chemically, with the materials making up the burial site; and

(5) contaminated soils containing a free liquid, according to a standard test carried out by a laboratory accredited by the Minister under section 118.6 of the Act.

O.C. 843-2001, s. 4; O.C. 1553-2001, s. 2.

DIVISION II

LAYOUT

§ 1. — *General layout conditions*

5. A contaminated soil burial site may not be located less than 1 km upstream of any surface water withdrawal facility installation for supplying a waterworks system.

The distance prescribed by the first paragraph shall be measured from the inside limit of the buffer zone that must surround every contaminated soil burial site in accordance with section 10.

O.C. 843-2001, s. 5; I.N. 2019-12-01.

6. It is prohibited to lay out a contaminated soil burial site in the flood zone of a watercourse or body of water, where such zone is located within the low-velocity flood zone.

"low-velocity flood zone" means the line that corresponds to the limit line of a flood likely to occur once every 100 years.

O.C. 843-2001, s. 6.

7. It is prohibited to lay out a contaminated soil burial site where ground movement is likely to occur.

O.C. 843-2001, s. 7.

8. Laying out a contaminated soil burial site on land within the supply area of a groundwater collection system intended for the supply of an inner and intermediate protection zones of an underground water withdrawal facility for supplying a waterworks system or the production of spring water or mineral water within the meaning of the Regulation respecting bottled water (chapter P-29, r. 2) is also prohibited.

It is also prohibited to lay out a contaminated soil burial site on land underneath which there is free groundwater having a high aquifer potential. A high aquifer potential exists where pumping tests show that at least 25 m^3 of water per hour may be drawn, on a permanent basis, from a same withdrawal facility.

O.C. 843-2001, s. 8; I.N. 2019-12-01.

9. The maximum height of the final cover of the contaminated soil burial site shall be limited by a maximum slope of 30% and the obligation to maintain the periphery of the burial site at the same level as that of the surrounding soil. In addition, the contaminated soil burial site must integrate into the surrounding landscape.

O.C. 843-2001, s. 9.

10. A contaminated soil burial site shall include, on its periphery, a buffer zone at least 50 m wide intended to safeguard the isolation of the site, to mitigate the nuisances thereof and to allow the carrying out of corrective work. There shall be no watercourse or body of water in that zone.

O.C. 843-2001, s. 10.

§ 2. — *Tightness*

11. In order to prevent soil and groundwater from being contaminated, contaminated soil burial sites may only be laid out on lands where the unconsolidated deposits on which the contaminated soils will be deposited are composed on their beds and walls of a natural homogenous layer having on a permanent basis a hydraulic conductivity equal to or less than 1×10^{-6} cm/s to a minimum depth of 3 m.

The zone on which the contaminated soils will be deposited shall be equipped, on their beds and walls, with an impermeabilization system with a double liner made up as follows:

(1) a bottom protection level made up of an impermeable synthetic membrane of a high-density polyethylene type or having equivalent characteristics at least 1.5 mm thick, installed on the layer of unconsolidated deposits;

(2) a top protection level made up of an impermeable synthetic membrane of a high-density polyethylene type or having equivalent characteristics at least 1.5 mm thick.

The natural layer and the above-mentioned impermeable membranes must be laid out so as to have a slope of at least 2% to allow the flow, by gravity, of leachates towards the drains.

O.C. 843-2001, s. 11.

§ 3. — *Collection and treatment of leachates*

12. Contaminated soil burial sites must be equipped with a system that collects all the leachates and conveys them towards a treatment unit or a leakproof reservoir sheltered from water from precipitation, and that enables the quality of the leachates to be determined before discharge.

“Leachate” means any liquid or filtrate that has percolated through the contaminated soils.

For the purposes of the first paragraph, a leachate collection system must be installed on the sideslopes and bed of the burial site over the impermeable membrane. The system must be designed so that the maximum height of the liquid likely to accumulate on the bed of the burial site may not be greater than 30 cm.

Another system to collect and discharge leachates, intended to detect leakage, must be laid out between the 2 impermeable membranes. The layout of the collection system must allow for monitoring separate from the other collection systems.

O.C. 843-2001, s. 12.

§ 4. — *Collection of gas*

13. Contaminated soil burial sites must be equipped with a system enabling all gas present in the soils to be collected and sampled.

O.C. 843-2001, s. 13.

§ 5. — *Collection of surface water*

14. Contaminated soil burial sites must be equipped with a surface water collection system that prevents the water from being in contact with the soils deposited there or from penetrating into the zone where the soils are deposited.

O.C. 843-2001, s. 14.

DIVISION III

OPERATION

§ 1. — *General operating conditions*

15. The operator of a contaminated soil burial site is required to check if the soils that enter the site may be received. For that purpose, the operator must, for every load of soils, ask and record in an annual operation register

(1) the name and address of the owner of the soils and the name of the carrier;

(2) the nature of substances present in the soils and their concentration value;

(3) the origin of the soils;

(4) the quantity of soils, expressed in weight (metric ton); and

(5) the date on which they were received.

The operator must, before receiving contaminated soils, confirm the nature and the concentration values of substances present in the soils, among those in Schedule I, by means of an analysis report including a number of representative samples enabling receivabililty to be verified. The report shall be certified by a laboratory accredited by the Minister under section 118.6 of the Act and be attached to the operation register.

In addition, the operator must, when receiving soils, have a certain number of samples analyzed to validate the aforementioned reports. The data will be attached to the register.

The operation registers and their schedules shall be kept on the site during its operation; after the site is closed, they shall be kept by the operator for a minimum of 5 years following the date the site is closed.

O.C. 843-2001, s. 15; I.N. 2019-12-01; O.C. 871-2020, s. 1.

16. Contaminated soils must be spread and compacted. The removed, stabilized, fixed and solidified metals and metalloids referred to in subparagraph *b* of paragraph 1 of section 4 must be set apart in the burial zone.

O.C. 843-2001, s. 16.

17. Contaminated soils must be deposited so as to prevent water from precipitation in contact with the soils from contaminating uncontaminated water. The available areas must be filled successively and enable the final cover prescribed in section 38 to be carried out.

O.C. 843-2001, s. 17.

18. Leachate collection and treatment systems, systems for the collection of surface water, systems for the collection of gas and the groundwater monitoring facilities referred to in section 33 must at all times be kept in working order; for that purpose, they shall be subject to tests and maintenance or cleaning work depending on the frequency set out in the authorization. The components of the leachate treatment system must be leakproof.

O.C. 843-2001, s. 18; I.N. 2019-12-01.

19. Every contaminated soil burial site must be equipped with the following at the entrance:

(1) a conspicuous sign that indicates that the site is a contaminated soil burial site, the name and address of the operator and the hours of operation; and

(2) a gate or any other device that prevents access to the site outside the hours of operation or in the absence of an authorized person.

O.C. 843-2001, s. 19.

20. The operator of a contaminated soil burial site must take the necessary measures to prevent the dispersal of dust on the site and the surrounding area.

O.C. 843-2001, s. 20.

21. The operator of a contaminated soil burial site shall prepare, for each year of operation, a report containing

(1) a compilation of data collected pursuant to subparagraphs 2, 3 and 4 of the first paragraph of section 15 relating to the nature of contamination, place of origin of the soils and quantity of contaminated soils buried;

(2) a plan and data stating the progression, on the site, of the contaminated soil burial operations, the filled zones, those in operation and the deposit capacity still available; and

(3) a summary of the data collected following sampling, analysis and measure programs and a summary of work carried out pursuant to sections 28, 30 to 33, 35 and 36, where applicable.

The report must be provided to the Minister in January of each year.

O.C. 843-2001, s. 21.

§ 2. — *Leachates*

22. Leachates and surface water collected by any collection system with which a contaminated soil burial site is equipped may be discharged into the environment only if they comply with the values established in the authorization.

Every discharge into the hydrographic surface network or a storm sewer network must be carried out without creating a batch shock load on the receiving body of water.

O.C. 843-2001, s. 22; I.N. 2019-12-01.

23. In order to restrict access thereto, leachate treatment facilities must be located inside a building or be surrounded by a fence.

O.C. 843-2001, s. 23.

24. Any dilution of leachates is prohibited with the exception of that caused by direct atmospheric precipitation.

O.C. 843-2001, s. 24.

§ 3. — *Groundwater*

25. The quality of the groundwater on the land must be determined before the implementation of the contaminated soil burial site for the substances referred to in section 29. The values thus obtained will be used as an intervention threshold for the purposes of section 36.

O.C. 843-2001, s. 25.

26. A monitoring network must be laid out on the perimeter of the burial areas and at the limits of the land to monitor the quality of groundwater upstream and downstream of the facilities of the contaminated soil

burial site. The location of the wells on the land and their depth must take into account the hydrogeological conditions.

O.C. 843-2001, s. 26.

§ 4. — *Gas*

27. Gas collected by the collection system with which a contaminated soil burial site is equipped may be discharged into the environment only if it complies with the values established in the authorization.

O.C. 843-2001, s. 27; I.N. 2019-12-01.

§ 5. — *Monitoring and supervision measures*

28. The concentration and flow of gas must be measured at the outlet of the gas collection system of a contaminated soil burial site. Gas that may be present in soils shall be indicated in the authorization, which also indicates the frequency at which it is measured shall also be indicated.

O.C. 843-2001, s. 28; I.N. 2019-12-01.

29. The parameters to be measured and substances to be analysed in groundwater, leachates and surface water pursuant to sections 25 and 30 are those identified in Schedule II except for the establishments and extensions on the land of a site used exclusively for the final deposit of contaminated soils extracted from that land in connection with rehabilitation work authorized under the Act, in which case the parameters to be measured and the substances to be analysed are those established at the outset on the basis of the contaminants likely to be present in the soils.

O.C. 843-2001, s. 29.

30. At least once a year, in the spring or fall, the operator of a contaminated soil burial site must take a grab sample of the leachates present in the collection system installed on the bed of the burial site and in the collection system laid out between the 2 impermeable membranes. The samples must be analysed for the parameters and substances referred to in section 29.

The quantity of leachates present in the collection system between the 2 impermeable membranes shall be measured twice a year, in the spring and fall.

O.C. 843-2001, s. 30.

31. The operator of a contaminated soil burial site must take a sample of water at the outlet of the treatment system or reservoir referred to in section 12, before each discharge into the environment and have it analysed for the parameters and substances identified in the leachates analysed as provided in section 30.

O.C. 843-2001, s. 31.

32. At least twice a year, in the spring and fall, the operator of a contaminated soil burial site must take grab samples of the surface water collection system. The samples must be analysed for the parameters and substances identified in the leachates analysed as provided in section 30.

O.C. 843-2001, s. 32.

33. At least 3 times a year, in the spring, summer and fall, the operator of a contaminated soil burial site must take a groundwater sample in each of the monitoring wells located on the perimeter of the facilities to quantify each of the substances detected in the leachates collected in the preceding sampling programs. If contaminants are detected, the operator must take a groundwater sample in each of the monitoring wells located at the limits of the land and have them analysed for the same contaminants.

During sampling, the piezometric level of the groundwater shall also be measured.

O.C. 843-2001, s. 33.

34. Leachate, surface water and groundwater samples taken pursuant to sections 25 and 30 to 33 must be analysed by a laboratory accredited by the Minister under section 118.6 of the Act. The operator must keep the analysis report produced by the laboratory for at least 5 years after the closure of the site.

O.C. 843-2001, s. 34.

35. At least once a year, the operator of a contaminated soil burial site must verify the effectiveness of the collection systems and the leachate treatment system provided for in this subdivision and leak test them. The report on the analyses related to the effectiveness of the treatment must be kept by the operator for at least 5 years from the date on which it is produced.

O.C. 843-2001, s. 35.

36. Where the values established according to section 25 are not compliant, the operator must, within 15 days following the day on which he becomes aware thereof, inform the Minister in writing and notify the Minister of the measures he has taken or intends to take the remedy the situation.

O.C. 843-2001, s. 36.

DIVISION IV

QUALITY ASSURANCE AND CONTROL

37. The operator must have the carrying out of development and final cover work of contaminated soil burial sites supervised by a certified and independent professional who must, in particular, verify the compliance of the material and equipment used.

The operator must provide the Minister, as soon as the site is completely laid out, with a report of the professional's activities in which the professional attests the compliance of the facility with the applicable standards or, if applicable, indicates the elements that do not comply with the standards and the corrective measures to be taken.

O.C. 843-2001, s. 37; O.C. 665-2013, s. 1.

DIVISION V

FINAL COVER AND CLOSURE

38. The final cover of a contaminated soil burial site consists of superposed layers and must comprise, from the bottom up,

(1) an impermeable layer consisting of

(a) a layer of clay over which an impermeable synthetic membrane of a high density polyethylene type or having equivalent characteristics at least 1.5 mm thick is laid. The clay must have a minimum constant hydraulic conductivity equal to or less than 1×10^{-7} cm/s to a minimum depth of 60 cm after compaction; or

(b) 2 impermeable synthetic membranes of a high density polyethylene type or having equivalent characteristics at least 1.5 mm thick, separated by an appropriate protection layer.

If there is a physical or chemical inconsistency between the contaminated soils and the impermeable layer, a transition zone consisting of a layer of soil at least 15 cm thick, a geotextile or the equivalent must be laid out;

(2) a drainage layer at least 60 cm thick after compaction having a hydraulic conductivity equal to or greater than 1 x 10^{-3} cm/s or the equivalent;

(3) a protective layer consisting of soil having the characteristics and thickness that can protect the impermeable layer against frost and biointrusions. The layer may comprise the drainage layer and the layer of soil suitable for vegetation; and

(4) a layer of soil suitable for vegetation, at least 15 cm thick, must be sown in such way that revegetation takes place within 1 year. Notwithstanding the foregoing, the vegetation must not be such that it is likely to impair the impermeable layer.

The final cover must have a slope of at least 2% and not more than 30% to enable the flow by gravity of runoff away from the deposit areas and to limit soil erosion.

O.C. 843-2001, s. 38.

39. Holes, fissures and subsidence must be repaired until the soil deposits are completely stabilized so as to prevent water from accumulating on the different cover layers or from infiltrating into the site.

O.C. 843-2001, s. 39.

40. The operator must, 60 days before the end of the soil burial operations, forward the Minister a notice confirming the date on which the contaminated soil burial site will close; that date must not exceed 1 year following the end of burial operations.

O.C. 843-2001, s. 40.

41. Within 6 months following the date on which the contaminated soil burial site has been closed, the operator shall forward the Minister a closing statement prepared by a certified and independent professional attesting to

(1) the working order, effectiveness and reliability of the equipment and systems with which the contaminated soil burial site is equipped;

(2) the compliance of the contaminated soil burial site with the provisions of this division and with the authorization respecting the final cover of buried contaminated soils and the integration of the site into the surrounding landscape.

In addition, the closing statement must include

(1) the evaluation of all the follow-up data gathered during the operation and a summary of the data, taking into account all the contaminants present in the buried soils; and

(2) a post-closure follow-up and monitoring program comprising the location of sampling and measuring points, the frequency of sampling and measuring, the parameters to be measured and the substances to be analysed for 5 years following the closure.

The closing statement shall specify any cases of non-compliance with the provisions of this subdivision and shall indicate the corrective measures to be taken.

O.C. 843-2001, s. 41; I.N. 2019-12-01.

42. The following must be found at the entrance of a closed contaminated soil burial site:

(1) a conspicuous sign that indicates that the site is closed and that the disposal of contaminated soils is henceforth prohibited; and

(2) a gate or any other device that prevents access to the site by the public.

O.C. 843-2001, s. 42.

DIVISION VI

POST-CLOSURE PERIOD

43. The obligations prescribed by the provisions of the preceding divisions of this chapter continue to apply, with the necessary modifications and subject to the following provisions, to every closed contaminated soil burial site, for a minimum period of 30 years.

After the site is closed, the owner is responsible, particularly,

(1) for the maintenance of the integrity of the final cover of contaminated soils;

(2) for the monitoring and maintenance of leachate collection and treatment equipment, follow-up and monitoring equipment for surface and groundwater and the gas collection system; and

(3) for the carrying out of the sampling, analysis and measuring programs pertaining to leachates, surface water, groundwater and gas.

O.C. 843-2001, s. 43; O.C. 1553-2001, s. 3.

44. Not later than 3 months before the end of the fifth year following the date on which the site is closed, a complete evaluation of the follow-up and monitoring data gathered during that period must be recorded in a report and forwarded to the Minister. The report will include a summary of the evaluation and an up-to-date follow-up and monitoring program for the period including the 5 following years.

O.C. 843-2001, s. 44.

45. The re-evaluation of the follow-up and monitoring program must be made and forwarded to the Minister at least 3 months before the end of the tenth year and then, on the basis of the data gathered, at a frequency that may be not more than 5 years.

The list of substances to be analysed may be revised and modified after each 5-year period on the basis of the results obtained during that period.

O.C. 843-2001, s. 45.

46. The follow-up and monitoring program will include the analysis of all the substances in Schedule II at least every 5 years from the fifth year, except for the sites referred to in section 2, in which case the parameters to be measured and the substances to be analyzed are those established at the outset on the basis of the contaminants likely to be present in the soil.

O.C. 843-2001, s. 46; O.C. 1553-2001, s. 4.

47. Not later than the third trimester of the 29th post-closure year, the owner of the contaminated soil burial site must have a certified and independent professional prepare an assessment of the burial site and where applicable, its impact on the environment and have it forwarded to the Minister.

The owner of the contaminated soil burial site shall be released from the obligations imposed upon him under paragraph 3 of section 43 where the assessment proves that the burial site remains in every way compliant with the standards applicable and that it is no longer likely to be a source of contamination.

In the opposite case, the obligations prescribed by section 43 for the post-closure period shall continue to apply for as long as the owner of the contaminated soil burial site is unable to demonstrate conformity as provided in the second paragraph.

O.C. 843-2001, s. 47.

CHAPTER III

SECURITY

48. The operation of a contaminated soil burial site is subject to the provision, by the operator or by a third party on the operator's behalf, of security intended to ensure, during the operation and on closure, the discharge of the obligations that the operator must meet under the Environment Quality Act (chapter Q-2) and this Regulation.

The Minister may use the security referred to in the first paragraph where the operator fails or refuses to discharge the obligations that he must meet. The security may also be used where the operator becomes bankrupt or, if the operator is a legal person, in the case of winding-up of the legal person.

The amount of the security shall correspond to $2 per metric ton according to the authorized maximum contaminated soil burial capacity.

O.C. 843-2001, s. 48.

49. An amount equal to 10% of the amount of the security must be provided to the Minister before the beginning of the operation. In addition, a proportional amount established according to the volumes of buried soils in comparison with the authorized volume of soils equivalent to $2 per metric ton will be provided to the Minister in January of each year according to the data gathered pursuant to section 21.

O.C. 843-2001, s. 49.

50. The proportional amount referred to in section 49 will be decreased in proportion to the work already completed pursuant to sections 37 and 38.

O.C. 843-2001, s. 50.

51. The security shall be provided

(1) in cash, by bank draft or by certified cheque made out to the Minister of Finance;

(2) by bonds issued or guaranteed by Québec, Canada or another Canadian province, the United States of America or one of the member States, the International Bank for Reconstruction and Development, a municipality, a school service centre or a school board in Canada or a fabrique in Québec;

(3) by suretyship or a guarantee policy, with a stipulation of solidarity and a waiver of the benefits of discussion and division, taken with a legal person authorized to stand security under the Bank Act (S.C. 1991, c. 46), the Trust Companies and Savings Companies Act (chapter S-29.02), the Insurers Act (chapter A-32.1) or the Act respecting financial services cooperatives (chapter C-67.3); or

(4) by an irrevocable letter of credit issued by a banking institution or by a financial services cooperative.

O.C. 843-2001, s. 51; O.C. 488-2017, s. 17; O.C. 816-2021, s. 80.

52. The amounts of money, drafts, cheques or bonds provided as security are deposited with the Bureau général de dépôts pour le Québec for the duration of the operation and until the expiry of the period specified in section 55 or following the revocation or the transfer of the authorization, whichever occurs first.

O.C. 843-2001, s. 52; O.C. 488-2017, s. 18; I.N. 2019-12-01.

53. Security provided in the form of a suretyship, a guarantee policy or a letter of credit shall have a term of not less than 12 months. Not less than 60 days before the expiry of the guarantee, its holder shall forward his renewed security to the Minister of Sustainable Development, Environment and Parks or any other security meeting the requirements prescribed by sections 48 and 51.

The security shall also contain a clause setting at not less than 12 months after its expiry or, as the case may be, after its revocation, rescission or cancellation, whichever occurs first, the time period for filing a claim based on the operator's failure to perform his obligations.

Any clause of revocation, rescission or cancellation of a security may take effect only if prior notice is sent by registered mail to the Minister at least 60 days prior to the expiry of the security. At the time of the taking of effect of such a clause, if other security complying with the requirements prescribed in this Regulation has not been forwarded to the Minister, the operator may not pursue his activity until the situation has been rectified.

O.C. 843-2001, s. 53; I.N. 2016-01-01 (NCCP).

54. Before using the security, the Minister must give the operator 60 days advance notice. Upon the expiry of that time limit, the Minister may use the security to carry out the final cover and to rehabilitate the site according the requirements of this Regulation unless the operator has, in the meantime, already begun the required work.

Where the operator does not complete the required work, the Minister may give another 60 days advance notice and use the security in accordance with section 48.

O.C. 843-2001, s. 54.

55. An amount corresponding to 75% of the security shall be given to the operator at the time the site closes, when the Minister is satisfied that the operator has complied with all the applicable provisions of Chapter II, and the balance shall be given to him after 5 years on the same conditions.

O.C. 843-2001, s. 55.

CHAPTER IV

OWNERSHIP OF LAND

O.C. 843-2001, c. IV; I.N. 2019-12-01; O.C. 871-2020, s. 2.

56. No one may establish or alter a contaminated soil burial site without holding the titles of ownership of the land where the site and the systems necessary to operate the burial site are located.

O.C. 843-2001, s. 56.

57. *(Revoked).*

O.C. 843-2001, s. 57; O.C. 441-2008, s. 9.

CHAPTER IV.1

MONETARY ADMINISTRATIVE PENALTIES

O.C. 665-2013, s. 2.

57.1. 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

(1) to ask or to record in an annual operation register the information prescribed by the first paragraph of section 15 or to attach to the register the analysis report provided for in the second paragraph of that section or the data referred to in the third paragraph;

(2) to keep the operation registers and their schedules, in accordance with the fourth paragraph of section 15;

(3) to equip the entrance of a contaminated soil burial site with a sign that complies with paragraph 1 of section 19 or 42;

(4) to prepare the report provided for in section 21 or to provide it to the Minister according to the conditions provided for in that section;

(5) to keep the analysis report referred to in section 34 or 35 for the period provided for therein;

(6) to forward to the Minister a closing statement that complies with section 41 within the time provided for in that section;

(7) to forward to the Minister a report containing the information prescribed by section 44 in accordance with that section;

(8) to forward to the Minister the re-evaluation of the follow-up and monitoring program in accordance with section 45;

(9) to forward to the Minister the assessment of the burial site prescribed by section 47 within the time provided for in that section.

O.C. 665-2013, s. 2.

57.2. 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 conditions relating to the final cover of the contaminated soil burial site prescribed by section 9;

(2) to equip a contaminated soil burial site with a surface water collection system that complies with the requirements of section 14;

(3) to confirm the nature and the concentration values of substances present in the soils by means of an analysis report that complies with the requirements of the second paragraph of section 15 or to have the report certified by a laboratory accredited by the Minister;

(4) to have the required samples analyzed to validate an analysis report in accordance with the third paragraph of section 15;

(5) to meet the conditions relating to the operation of a contaminated soil burial site prescribed by section 16 or 17;

(6) to take the necessary measures to prevent the dispersal of dust in accordance with section 20;

(7) to restrict access to leachate treatment facilities in accordance with the requirements of section 23;

(8) to determine the quality of groundwater on the land in accordance with section 25;

(9) to measure, in accordance with section 28, the concentration and flow of gas at the outlet of the gas collection system of a contaminated soil burial site according to the frequency set out in the authorization;

(10) to take a leachate sample or to analyze it or measure it in accordance with section 30;

(11) to take samples of the surface water collection system or to analyze them in accordance with section 32;

(12) to take a groundwater sample in each of the monitoring wells in accordance with section 33;

(13) to have samples analyzed by a laboratory accredited by the Minister in accordance with section 34;

(14) to verify the effectiveness of a collection system or leachate treatment system and to leak test it in accordance with section 35;

(15) to have the carrying out of the work referred to in the first paragraph of section 37 supervised by a certified and independent professional or to provide the Minister with a report of the professional's activities in accordance with the second paragraph of that section;

(16) to repair holes, fissures or subsidence in accordance with section 39;

(17) to have a closing statement that complies with section 41 prepared by a certified and independent professional, within the time provided for in that section;

(18) to be responsible for the carrying out of the sampling, analysis and measuring programs provided for in subparagraph 3 of the second paragraph of section 43;

(19) to record in a report a complete evaluation of the follow-up and monitoring data or to include in that report a summary of the evaluation and an up-to-date follow-up and monitoring program in accordance with section 44;

(20) to carry out the re-evaluation of the follow-up and monitoring program in accordance with section 45;

(21) to include, in the follow-up and monitoring program, the analysis referred to in section 46 in accordance with that section;

(22) to provide security, in accordance with section 48, or to provide the amounts of that security, in accordance with section 49, at the time or according to the frequency provided for therein.

O.C. 665-2013, s. 2; I.N. 2019-12-01.

57.3. 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 provide a buffer zone that complies with the conditions prescribed by section 10 on the periphery of a contaminated soil burial site;

(2) to equip the zone on which the contaminated soils will be deposited with an impermeabilization system that complies with the conditions prescribed by the second paragraph of section 11;

(3) to lay out the natural layer and impermeable membranes in accordance with the conditions prescribed by the third paragraph of section 11;

(4) to equip a contaminated soil burial site with a leachate collection system that complies with the conditions prescribed by section 12;

(5) to equip a contaminated soil burial site with a system enabling all gas present in the soil to be collected and sampled in accordance with section 13;

(6) to keep, at all times, a system referred to in section 18 in working order or to carry out the tests or maintenance or cleaning work depending on the frequency set out in the authorization;

(7) to ensure that the components of the leachate treatment system are leakproof in accordance with section 18;

(8) to equip the entrance of a contaminated soil burial site with a gate or any other device that prevents access to the site in accordance with paragraph 2 of section 19 or 42;

(9) to carry out every discharge into the hydrographic surface network or a storm sewer network in the manner provided for in the second paragraph of section 22;

(10) to lay out a monitoring network in accordance with the requirements of section 26;

(11) to take a sample of water or to have it analyzed in accordance with sectio 31;

(12) to take a groundwater sample where contaminants are detected or to have them analyzed in accordance with section 33;

(13) to comply with the conditions of final cover of a contaminated soil burial site prescribed by section 38;

(14) to close a burial site within the time provided for in section 40;

(15) to maintain the integrity of the final cover of contaminated soils in accordance with subparagraph 1 of the second paragraph of section 43;

(16) to monitor or to maintain the equipment and system referred to in subparagraph 2 of the second paragraph of section 43;

(17) to have a certified and independent professional prepare an assessment provided for in the first paragraph of section 47, within the time provided for in that section.

O.C. 665-2013, s. 2; I.N. 2019-12-01.

57.4. A monetary administrative penalty of $1,000 in the case of a natural person or $5,000 in other cases may be imposed on any person who fails to forward to the Minister in writing the notices or information prescribed by section 36 or 40, within the time provided for therein.

O.C. 665-2013, s. 2.

57.5. A monetary administrative penalty of $1,500 in the case of a natural person or $7,500 in other cases may be imposed on any person who

(1) disposes of or introduces into contaminated soil burial sites prohibited soils pursuant to section 4 or any other material that may not be received therein pursuant to this Regulation;

(2) fails to comply with a location or layout standard of a contaminated soil burial site prescribed by any of section 5, 6, 7 or 8 or the first paragraph of section 11.

O.C. 665-2013, s. 2.

57.6. 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

(1) stores contaminated soils elsewhere than on the land or in a site referred to in section 3;

(2) discharges into the environment leachates or surface water referred to in the first paragraph of section 22 without complying with the values established in the authorization;

(3) dilutes leachates in contravention of section 24;

(4) discharges into the environment gas referred to in section 27 without complying with the values established in the authorization.

O.C. 665-2013, s. 2; I.N. 2019-12-01.

CHAPTER V

PENAL SANCTIONS

O.C. 843-2001, c. V; O.C. 665-2013, s. 3.

58. Every person who contravenes the first or fourth paragraph of section 15, paragraph 1 of section 19, section 21 or paragraph 1 of section 42 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.

Every person who fails

(1) to attach to the operation register the analysis report provided for in the second paragraph of section 15 or the data referred to in the third paragraph of that section,

(2) to keep the analysis report referred to in section 34 or 35 for the period provided for therein,

(3) to forward to the Minister a closing statement in accordance with section 41,

(4) to comply with the period provided for in section 44 to carry out the evaluation referred to in that section or to forward to the Minister the report in which the evaluation is recorded in accordance with that section,

(5) to comply with the period provided for in section 45 to carry out and forward to the Minister the re-evaluation of the follow-up and monitoring program provided for in that section in accordance with that section,

(6) to forward to the Minister the assessment prescribed by section 47 within the time provided for in that section,

also commits an offence and is liable to the same fines.

O.C. 843-2001, s. 58; O.C. 665-2013, s. 4.

59. Every person who contravenes section 9, 14, 16, 17, 20, 23, 25, 28, 30, 32, 37 or 39, subparagraph 3 of the second paragraph of section 43 or section 46, 48 or 49 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.

Every person who fails

(1) to confirm the nature and the concentration values of substances present in the soils by means of an analysis report that complies with the requirements of the second paragraph of section 15 or to have the report certified by a laboratory accredited by the Minister,

(2) to have the required samples analyzed to validate an analysis report in accordance with the third paragraph of section 15,

(3) to take a groundwater sample in each of the monitoring wells in accordance with the conditions prescribed by section 33,

(4) to have the samples referred to in section 34 analyzed by a laboratory accredited by the Minister in accordance with that section,

(5) to verify the effectiveness of a collection system or leachate treatment system and to leak test it in accordance with section 35,

(6) to have a closing statement that complies with section 41 prepared by a certified and independent professional, within the time provided for in that section,

(7) to record in a report a complete evaluation of the follow-up and monitoring data or to include a summary of the evaluation and an up-to-date follow-up and monitoring program in accordance with section 44,

(8) to carry out the re-evaluation of the follow-up and monitoring program referred to in section 45,

also commits an offence and is liable to the same fines.

O.C. 843-2001, s. 59; O.C. 665-2013, s. 4.

60. Every person who contravenes section 10, the second or third paragraph of section 11, section 12 or 13, paragraph 2 of section 19, the second paragraph of section 22, section 26, 31 or 38, paragraph 2 of section 42 or subparagraph 1 or 2 of the second paragraph of section 43 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.

Every person who fails

(1) to keep, at all times, a system referred to in section 18 in working order or to carry out the tests or maintenance or cleaning work depending on the frequency set out in the authorization,

(2) to ensure that the components of the leachate treatment system are leakproof in accordance with section 18,

(3) to take a groundwater sample if contaminants are detected or have them analyzed in accordance with section 33,

(4) to close a burial site within the time provided for in section 40,

(5) to have a certified and independent professional prepare an assessment provided for in the first paragraph of section 47, within the time provided for in that section,

also commits an offence and is liable to the same fines.

O.C. 843-2001, s. 60; O.C. 665-2013, s. 4; I.N. 2019-12-01.

61. Every person who

(1) contravenes section 36 or fails to forward, within the time provided for in that section, a notice to the Minister of the date on which the burial site will close in accordance with section 40,

(2) pursuant to this Regulation, makes a declaration, communicates information or files a document that is false or misleading,

commits an offence and is liable, in the case of a natural person, to a fine of $5,000 to $500,000 or, despite article 231 of the Code of Penal Procedure (chapter C-25.1), to a maximum term of imprisonment of 18 months, or to both the fine and imprisonment, or, in other cases, to a fine of $15,000 to $3,000,000.

O.C. 843-2001, s. 61; O.C. 665-2013, s. 4.

62. Every person who

(1) contravenes any of sections 5 to 8 or the first paragraph of section 11,

(2) disposes of or introduces into contaminated soil burial sites prohibited soils pursuant to section 4 or any other material that may not be received therein pursuant to this Regulation,

commits an offence and is liable, in the case of a natural person, to a fine of $8,000 to $500,000 or, despite article 231 of the Code of Penal Procedure (chapter C-25.1), to a maximum term of imprisonment of 18 months, or to both the fine and imprisonment, or, in other cases, to a fine of $24,000 to $3,000,000.

O.C. 843-2001, s. 62; O.C. 665-2013, s. 4.

63. Every person who contravenes section 3, the first paragraph of section 22 or section 24 or 27 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. 843-2001, s. 63; O.C. 665-2013, s. 4.

63.1. 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 Chapter 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. 665-2013, s. 4.

CHAPTER VI

MISCELLANEOUS PROVISIONS

64. Where, in Québec, there is no laboratory accredited for the analysis of a substance referred to in section 15, the analysis report required under that section must be prepared by a laboratory recognized by an authority competent in that field until a laboratory is accredited for the analysis of that substance in Québec. From that moment on, only the analysis reports prepared by a laboratory accredited under section 118.6 of the Act are accepted.

O.C. 843-2001, s. 64.

64.1. Section 10 does not apply to authorized contaminated soil burial sites in operation on 11 July 2001.

O.C. 1553-2001, s. 5.

65. In contaminated soil burial sites in operation on 11 July 2001, the zones that, in accordance with authorizations granted before that date, receive contaminated soils after that same date shall be, under the conditions and within the periods set out in section 66, governed by the provisions of this Regulation.

O.C. 843-2001, s. 65.

66. The operator of a contaminated soil burial site in operation on 11 July 2001 shall benefit from a 6-month period, from that date, to comply with the applicable requirements of this Regulation and to provide security complying with the third paragraph of section 48.

O.C. 843-2001, s. 66.

67. This Regulation also applies to the immovables in a reserved area or an agricultural zone established in accordance with the Act respecting the preservation of agricultural land and agricultural activities (chapter P-41.1).

O.C. 843-2001, s. 67.

67.1. This Regulation does not apply to those who, on 11 July 2001, were authorized to bury products resulting from the treatment of contaminated soils by a stabilization, fixation and solidification process.

O.C. 1553-2001, s. 6.

68. *(Amendment integrated into chapter Q-2, r. 3.2, s. 1).*

O.C. 843-2001, s. 68.

69. *(Amendment integrated into chapter Q-2, r. 3.2, a. 54).*

O.C. 843-2001, s. 69.

70. *(Omitted).*

O.C. 843-2001, s. 70.

SCHEDULE I

(ss. 2, 4 and 15)

SUBSTANCES	LIMIT VALUES mg/kg of dry matter (ppm)
Inorganic	
Metals/Metalloids	
Silver (Ag)	200
Arsenic (As)	250
Barium (Ba)	10 000
Cadmium (Cd)	100
Chromium (Cr)	4 000
Cobalt (Co)	1 500
Copper (Cu)	2 500
Tin (Sn)	1 500
Manganese (Mn)	11 000
Mercury (Hg)	50
Molybdenum (Mo)	200
Nickel (Ni)	2 500

Lead (Pb)	5 000
Selenium (Se)	50
Zinc (Zn)	7 500
Other inorganic compounds	
Available bromide (Br^-)	1 500
Available cyanide (CN^-)	300
Total cyanide (CN^-)	5 900
Available fluoride (F^-)	10 000
Organic	
Monocyclic aromatic volatile organic compounds	
Benzene	5
Chlorobenzene	10
Ethylbenzene	50
m-Dichlorobenzene	10
o-Dichlorobenzene	10
p-Dichlorobenzene	10

Styrene	50
Toluene	30
Xylenes	50
Chlorinated aliphatic volatile organic compounds	
Bromodichloromethane	150
2-Chloro-1,3-butadiene	2.8
3-Chloropropylene	300
Chlorodibromomethane	150
Chloroethane	60
Chloroform or trichloromethane	50
Chloromethane or methyl chloride	300
Methylene chloride or dichloromethane	50
Vinyl chloride	60
1,2-Dibromo-3-chloropropane	150
1,1-Dichloroethane	50
1,1-Dichloroethylene	50
1,2-Dichloroethylene (cis and trans)	50
1,2-Dichloroethane	50

1,2-Dichloropropane	50
1,3-Dichloropropylene (cis and trans)	50
Dichlorodifluoromethane	72
Hexachlorobutadiene	56
Hexachloroethane	300
Pentachloroethane	60
1,1,1,2-Tetrachloroethane	60
1,1,2,2-Tetrachloroethane	50
Tetrachloroethylene or perchloroethylene	50
Carbon tetrachloride	50
1,1,1-Trichloroethane	50
1,1,2-Trichloroethane	50
1,2,3-Trichloropropane	300
Trichloroethylene	50
Trichlorofluoromethane	300
Non-chlorinated phenolic compounds	
2,4-Dimethylphenol	140
m-Cresol	56

o-Cresol	56
p-Cresol	56
o-Nitrophenol or 2-Nitrophenol	130
p-Nitrophenol or 4-Nitrophenol	290
Phenol	62
Chlorinated phenolic compounds	
2-Chlorophenol	57
3-Chlorophenol	57
4-Chlorophenol	57
2,3-Dichlorophenol	140
2,4-Dichlorophenol	140
2,5-Dichlorophenol	140
2,6-Dichlorophenol	140
3,4-Dichlorophenol	140
3,5-Dichlorophenol	140
p-Chloro-*m*-cresol	140
Pentachlorophenol	74
2,3,4,5-Tetrachlorophenol	74

2,3,4,6-Tetrachlorophenol	74
2,3,5,6-Tetrachlorophenol	74
2,3,4-Trichlorophenol	74
2,3,5-Trichlorophenol	74
2,3,6-Trichlorophenol	74
2,4,5-Trichlorophenol	74
2,4,6-Trichlorophenol	74
3,4,5-Trichlorophenol	74
Polycyclic aromatic hydrocarbons	
Acenapthene	100
Acenaphtylene	100
Anthracene	100
Benzo(b+j+k)fluoranthene	136
Benzo(a)anthracene	34
Benzo(a)pyrene	34
Benzo(c)phenanthrene	56
Benzo(g,h,i)perylene	18

2-Chloronaphtalene	56
Chrysene	34
Dibenzo(a,h)anthracene	82
Dibenzo(a,h)pyrene	34
Dibenzo(a,i)pyrene	34
Dibenzo(a,l)pyrene	34
7,12-Dimethylbenzo(a)anthracene	34
Fluoranthene	100
Fluorene	100
Indeno(1,2,3-cd)pyrene	34
Methylnaphtalenes (*each*)	56
3-Methylcholanthrene	150
Naphtalene	56
Phenanthrene	56
Pyrene	100
Non-chlorinated benzene compounds	
2,6-Dinitrotoluene	280
2,4,6-Trinitrotoluene or TNT	280

Chlorobenzenes	
Benzal chloride or dichloromethylbenzene	60
Hexachlorobenzene	100
4,4-Methylene bis(2-chloro-aniline)	300
p-Chloroaniline or chloroaminobenzene	160
Pentachlorobenzene	100
Pentachloronitrobenzene	48
1,2,3,4-Tetrachlorobenzene	140
1,2,3,5-Tetrachlorobenzene	140
1,2,4,5-Tetrachlorobenzene	140
1,2,3-Trichlorobenzene	190
1,2,4-Trichlorobenzene	190
1,3,5-Trichlorobenzene	190
Polychlorinated biphenyls	
PCBs (*summation of the congeners*)	50
Chlorinated pesticides	

2,4,5-T	79
2,4-D	100
Aldrin	0.66
alpha-BHC or hexachlorocyclohexane	0.66
beta-BHC or hexachlorocyclohexane	0.66
delta-BHC or hexachlorocyclohexane	0.66
gamma-BHC or lindane, hexachlorocyclohexane	0.66
Barban	14
Chlordane (*alpha and gamma*)	2.6
Dieldrin	1.3
Endosulfan I	0.66
Endosulfan II	1.3
Endosulfan sulfate	1.3
Endrin	1.3
Endrin aldehyde	1.3
Heptachlor epoxide	0.66
Heptachlor	0.66
Formetanate hydrochloride	14

Isodrin	0.66
Kepone	1.3
Methoxychlor	1.8
o,p'-DDD	0.87
p,p'-DDD	0.87
o,p'-DDE	0.87
p,p'-DDE	0.87
o,p'-DDT	0.87
p,p'-DDT	0.87
Pronamide	15
Silvex or fenoprop	79
Thiodicarb	14
Toxaphene	26
Triallate	14
Non-chlorinated pesticides	
Aldicarb sulfone (*summation of Aldicarb, Aldicarb sulfone and Aldicarb sulfoxide*)	2.8
Bendiocarb	14

Bendiocarb phenol	14
Benomyl	14
Butylate	14
Carbaryl	1.4
Carbendazim	14
Carbofuran	1.4
Carbofuran phenol	14
Carbosulfane	14
Dimetilan	14
Dinoseb	25
Disulfoton	62
Dithiocarbamates (*total*)	280
EPTC	14
Famphur	150
Formparanate	14
Isolan	14
m-cumenyl methylcarbamate	14
Methiocarb	14

Methomyl	1.4
Metolcarb	14
Mexacarbate	14
Molinate	14
Oxamyl	2.8
Parathion	46
Methyl parathion	46
Pebulate	14
Phorate	46
Promecarb	14
Propham	14
Propoxur	14
Prosulfocarb	14
Tebuthiuron	3 600
Thiophanate-methyl	14
Tirpate	2.8
Vernolate	14
A2213 or oxamyl oxime	14

Other organic substances	
Acrylonitrile	840
Diethyl phtalate	280
Dimethyl phtalate	280
Di-n-butyl phtalate	70 000
Di-n-octyl phtalate	280
Ethylene glycol	411
Formaldehyde	125
Hexachlorocyclopentadiene	24
Hexachloropropylene	300
Phtalates (*each, except other listed phtalates*)	60
1,1,2-Trichloro-1,2,2-trifluoroethane	300
bis(2-chloroethyl)ether	60
bis(2-chloroethoxy)methane	72
bis(2-chloroisopropyl)ether	72
Butyl benzyl phtalate	280

Petroleum products	

Petroleum hydrocarbons C_{10} to C_{50}	10 000

Chlorinated dioxins and furans

Summation as toxic equivalents in accordance with the following table	0.005

INTERNATIONAL TOXICITY EQUIVALENCY FACTORS FOR SPECIFIC PCDD (POLYCHLORODIBENZO-P-DIOXINS) AND PCDF (POLYCHLORODIBENZOFURANS) CONGENERS (NATO, 1988)

CONGENERS	TOXICITY EQUIVALENCY FACTORS
2,3,7,8-T_4CDD	1
1,2,3,7,8-P_5CDD	0.5
1,2,3,4,7,8-H_6CDD	0.1
1,2,3,6,7,8-H_6CDD	0.1
1,2,3,7,8,9-H_6CDD	0.1
1,2,3,4,6,7,8-H_7CDD	0.01
OCDD	0.001
2,3,7,8-T_4CDF	0.1
2,3,4,7,8-P_5CDF	0.5
1,2,3,7,8-P_5CDF	0.05
1,2,3,4,7,8-H_6CDF	0.1

1,2,3,7,8,9-H_6CDF	0.1
1,2,3,6,7,8-H_6CDF	0.1
2,3,4,6,7,8-H_6CDF	0.1
1,2,3,4,6,7,8-H_7CDF	0.01
1,2,3,4,7,8,9-H_7CDF	0.01
OCDF	0.001

O.C. 843-2001, Sch. I.

SCHEDULE II

(ss. 29 and 46)

SUBSTANCES

METALS (and metalloids)
Aluminium (Al)
Antimony (Sb)
Antimony III (Sb III)
Silver (Ag)
Arsenic (As)
Barium (Ba)
Cadmium (Cd)
Chromium (Cr)
Chromium VI (Cr VI)
Cobalt (Co)
Copper (Cu)
Manganese (Mn)
Mercury (Hg)
Molybdenum (Mo)
Nickel (Ni)
Lead (Pb)

Selenium (Se)
Sodium (Na)
Zinc (Zn)
OTHER INORGANIC COMPOUNDS
Ammonia nitrogen (NH_4^+)
Chlorides (Cl^-)
Available cyanides (CN^-)
Total cyanides (CN^-)
Total fluorides
Nitrate ($N\text{-}NO_3^-$)
Nitrite ($N\text{-}NO_2^-$)
Nitrate + Nitrite
Total phosphor ($P\text{-}PO_4^{-3}$)
Sulfides (H_2S)
VOLATILE ORGANIC COMPOUNDS
Monocyclic aromatic hydrocarbons
Benzene
Chlorobenzene
1,2-Dichlorobenzene

1,3-Dichlorobenzene
1,4-Dichlorobenzene
Ethylbenzene
Styrene
Toluene
Xylenes
Chlorinated aliphatic hydrocarbons
Chloroform
Vinyl chloride or chloroethene
1,2-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethene
1,2-Dichloroethene (trans)
Dichloromethane
1,2-Dichloropropane
1,3-Dichloropropane
1,3-Dichloropropene (cis + trans)
1,1,2,2-Tetrachloroethane
Tetrachloroethene

Carbon tetrachloride
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
PHENOLIC COMPOUNDS
Non-chlorinated
o-Cresol
p-Cresol
2,4-Dimethylphenol
2,4-Dinitrophenol
2-Methyl-4,6-dinitrophenol
4-Nitrophenol
Phenol
Chlorinated
2-Chlorophenol
3-Chlorophenol
4-Chlorophenol
2,3-Dichlorophenol
2,4-Dichlorophenol

2,5-Dichlorophenol
2,6-Dichlorophenol
3,4-Dichlorophenol
3,5-Dichlorophenol
Pentachlorophenol
2,3,4,6-Tetrachlorophenol
2,3,5,6-Tetrachlorophenol
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
Chlorophenols
POLYCYCLIC AROMATIC HYDROCARBONS
Acenaphtene
Anthracene
Benzo(a)anthracene
Benzo(b + j)fluoranthene
Benzo(k)fluoranthene
Benzo(a)pyrene
Chrysene
Dibenzo(a,h)anthracene

Fluoranthene
Fluorene
Indeno(1,2,3-c,d)pyrene
Naphtalene
Phenanthrene
Pyrene
NON-CHLORINATED BENZENE COMPOUNDS
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Nitrobenzene
CHLOROBENZENES
Hexachlorobenzene
Pentachlorobenzene
1,2,3,4-Tetrachlorobenzene
1,2,4,5-Tetrachlorobenzene
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
Trichlorobenzenes (*total*)
PESTICIDES

Atrazine and metabolites
Azinphos-methyl
Bentazon
Bromoxynil
Captan
Carbaryl
Carbofuran
Chlorothalonil
Chlorpyrifos
Cyanazine
Deltamethrin
Diazinon
Dicamba
Dichlorprop
Dimethoate
Diquat
Diuron
Endosulfan (I and II)
Glyphosate

Lindane
Malathion
MCPA
Metolachlor
Metribuzin
Myclobutanil
Paraquat (dichloride)
Paraquat
Parathion
Permethrin
Phorate
Picloram
Simazine
Tebuthiuron
Terbufos
Trifluralin
2,4-D
2,4-DB
PESTICIDES THAT ARE NO LONGER USED BUT STILL PERSISTING IN THE ENVIRONMENT

Aldicarb (*summation of Aldicarb, Aldicarb sulfone and Aldicarb sulfoxide)*
Aldrin
Chlordane
Dieldrin
p,p' DDT
p,p' DDE
Endrin
Heptachlor epoxide
Fenoprop or Silvex
Heptachlor
Methoxychlor
Mirex
2,4,5-T
OTHER ORGANIC SUBSTANCES
Acrylonitrile
Bis(2-chloroethyl)ether
Ethylene glycol
Formaldehyde
Hexachloroethane

Pentachloroethane
Dibutyl phtalate
2,4,6-Trinitrotoluene or TNT
INTEGRATING PARAMETERS
Phenol index
Chronic toxicity
Acute toxicity
Petroleum hydrocarbons C_{10} to C_{50}

O.C. 843-2001, Sch. II; O.C. 1553-2001, s. 7.

UPDATES
O.C. 843-2001, 2001 G.O. 2, 3518
O.C. 1553-2001, 2002 G.O. 2, 248
O.C. 451-2005, 2005 G.O. 2, 1182
O.C. 441-2008, 2008 G.O. 2, 1331
O.C. 665-2013, 2013 G.O. 2, 1759
S.Q. 2016, c. 7, s. 183
O.C. 488-2017, 2017 G.O. 2, 1429
O.C. 238-2019, 2019 G.O. 2, 520
S.Q. 2018, c. 23, s. 811
O.C. 871-2020, 2020 G.O. 2, 2343A
O.C. 816-2021, 2021 G.O. 2, 2103
O.C. 1596-2021, 2022 G.O. 2, 6