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chapter Q-2, r. 19

Regulation respecting the landfilling and incineration of residual materials

Environment Quality Act
(chapter Q-2, ss. 31, 31.69, 57, 64.1, 70, 115.27, 115.34, 124.0.1 and 124.1)

CHAPTER I
DEFINITIONS, SCOPE OF APPLICATION AND PURPOSE

1. For the purposes of this Regulation,

(1) “fly ash” means particulate matter entrained in and carried by the combustion gases from a residual materials incineration facility and collected by a flue gas cleaning system or an energy recovery system, and includes residue generated by those systems that contains fly ash;

(2) “landfilling” means the final deposit of residual materials onto or into land;

(3) “operator” includes a person having the charge, management or control of a disposal facility;

(4) “watercourse or body of water” includes ponds, marshes and swamps, but excludes intermittent watercourses, peat bogs and ditches. The relative distance to a watercourse or body of water is measured from the high-water mark as defined in the Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains (chapter Q-2, r. 35) adopted pursuant to section 2.1 of the Environment Quality Act (chapter Q-2).

O.C. 451-2005, s. 1.

2. This Regulation applies to the following residual materials disposal facilities:

(1) landfills in the following classes, governed respectively by Divisions 2 to 6 of Chapter II:

- engineered landfills;
- trench landfills;
- northern landfills;
- construction or demolition waste landfills;
- remote landfills;

(2) incineration facilities governed by Chapter III.

Residual materials transfer stations are governed by Chapter IV of this Regulation.

O.C. 451-2005, s. 2.

3. The purpose of this Regulation is to prescribe which residual materials may be accepted at the facilities referred to in section 2, the conditions subject to which the facilities are to be sited and operated and the conditions that apply to their closure and post-closure management.

O.C. 451-2005, s. 3.

CHAPTER II
LANDFILLS

DIVISION 1
GENERAL

4. The following may not be disposed of in a landfill to which this Chapter applies:

(1) residual materials generated outside Québec;

(2) hazardous materials within the meaning of paragraph 21 of section 1 of the Environment Quality Act (chapter Q-2);

(3) residual materials in a liquid state at 20 °C, except residual materials from household waste;

(4) residual materials which, when tested by a laboratory accredited by the Minister of Sustainable Development, Environment and Parks under section 118.6 of the Environment Quality Act, contain a free liquid, except in a remote landfill to which Division 6 applies;

(5) livestock waste within the meaning of the Agricultural Operations Regulation (chapter Q-2, r. 26);

(6) pesticides within the meaning of the Pesticides Act (chapter P-9.3);

(7) biomedical waste to which the Regulation respecting biomedical waste (chapter Q-2, r. 12) applies, that is not treated by disinfection;

(8) sludge with a dryness lower than 15%, except in a remote landfill to which Division 6 applies;

(9) soils that, because of human activity, contain 1 or more contaminants in concentrations exceeding the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37), and any product resulting from the treatment of such soils by a stabilization, fixation or solidification process;

(10) derelict motor vehicles;

(11) mill residual materials within the meaning of section 1 of the Regulation respecting pulp and paper mills (chapter Q-2, r. 27) with a dryness lower than 25%, other than

- sludge from the biological treatment of process water, which may be disposed of by landfilling as soon as its dryness is 15% or greater; or

- lime sludge and residue from lime slaking, which may be disposed of by landfilling only if its dryness is 55% or greater;

(12) used tires within the meaning of the Regulation respecting used tire storage (chapter Q-2, r. 20), except in a northern landfill and in a remote landfill to which Divisions 4 and 6 apply respectively.

O.C. 451-2005, s. 4; O.C. 808-2007, s. 145; O.C. 451-2011, s. 1.

5. Inedible meat within the meaning of the Regulation respecting food (chapter P-29, r. 1) may be disposed of by landfilling only under the conditions prescribed by the Food Products Act (chapter P-29) and the regulations made under that Act.

O.C. 451-2005, s. 5.

6. With the exception of the other landfills authorized by this Regulation or any other regulation, the engineered

landfills governed by Division 2 are the only landfills in which residual materials to which Division VII of Chapter I of the Environment Quality Act (chapter Q-2) applies may be deposited permanently onto or into land, except batches of branches, stumps or shrubs less than 60 m^3 and soil excavated from land that has not been contaminated by human activity.

Despite the provisions of the first paragraph, the following may be disposed of in a landfill authorized for that purpose by the Minister under section 22 of the Environment Quality Act:

(1) fibrous waste from sawmills;

(2) fibrous waste of the same nature as fibrous waste from sawmills that originates from oriented strandboard manufacturing plants; and

(3) ash, soils or sludge from the establishments referred to in subparagraphs 1 and 2 and that contain such waste.

O.C. 451-2005, s. 6; O.C. 451-2011, s. 2.

DIVISION 2
ENGINEERED LANDFILLS

§1. General

7. For the purposes of this Regulation, “engineered landfill” means any landfill developed and operated in accordance with this Division.

O.C. 451-2005, s. 7.

8. The following residual materials may be landfilled only in engineered landfills:

(1) residue from the shredding of derelict motor vehicles;

(2) residue from any residual materials incineration facility, including biomedical waste incinerators, in particular bottom ash and fly ash. This provision does not apply to bottom ash generated by a facility incinerating residual materials produced in a territory referred to in section 87, which may also be landfilled in a trench landfill or northern landfill to which Divisions 3 and 4 apply respectively;

(3) subject to the provisions of Chapter VI of the Regulation respecting pulp and paper mills (chapter Q-2, r. 27), mill residual materials within the meaning of section 1 of that Regulation;

(3.1) subject to the second paragraph of section 6 of this Regulation, fibrous waste from sawmills and fibrous waste of the same nature that originates from oriented strandboard manufacturing plants, as well as ash and soils or sludge from those establishments and that contain such waste;

(4) oil refinery sludge; and

(5) inedible meat that, under the Food Products Act (chapter P-29) and the regulations made under that Act, may be disposed of in a landfill and that consists of animal carcasses or animal parts in respect of which a disposal order has been made under section 3.4, 11.1 or 11.2 of the Animal Health Protection Act (chapter P-42) or section 114 of the Health of Animals Regulations (C.R.C., c. 296).

O.C. 451-2005, s. 8; O.C. 808-2007, s. 145; O.C. 451-2011, s. 3.

9. Fly ash and incineration residue that contains fly ash must be landfilled in separate disposal areas reserved exclusively for that type of residual material and sited as provided by the applicable provisions of sections 20 to 24.

That requirement does not apply to ash or residue that has been decontaminated by means of a contaminant extraction process and that presents a risk to the environment no greater than that for other residual materials that

may be accepted at the landfill.

O.C. 451-2005, s. 9.

10. The operator of an engineered landfill must accept the eligible residual materials that are generated

(1) in the territory of the regional county municipality in which the landfill is situated;

(2) in the territory of the city or town in which the landfill is situated, in the case of a city or town constituted on or after 1 January 2002 and whose territory is not within the territory of a regional county municipality;

(3) in the territory of any local municipality of fewer than 2,000 inhabitants if no other engineered landfill accessible by a road open year-round is situated closer to the municipality. For the purposes of this subparagraph, the population of a municipality is the number of inhabitants determined in the order made under section 29 of the Act respecting municipal territorial organization (chapter O-9); and

(4) in any territory that is not organized into a local municipality.

O.C. 451-2005, s. 10.

11. The operator of an engineered landfill must also accept inedible meat referred to in paragraph 5 of section 8 from the administrative region in which the landfill is situated. “Administrative region” means any region established by the Décret concernant la révision des limites des régions administratives du Québec (chapter D-11, r. 1).

O.C. 451-2005, s. 11.

12. The operator of an engineered landfill is required, however, to accept residual materials as provided in sections 10 and 11 only if the tariffs payable are paid and all other conditions, if any, in the certificate of authorization are complied with.

The requirement to accept residual materials does not apply to landfills reserved exclusively for the use of an industrial, commercial or other establishment or in respect of the following residual materials:

(1) mill residual materials within the meaning of section 1 of the Regulation respecting pulp and paper mills (chapter Q-2, r. 27);

(2) fibrous waste from sawmills with an annual production capacity of 10,000 m^3 or more and ash and soils or sludge from such sawmills that contain such waste;

(3) sludge that is not from municipal water or sludge treatment or collection works, other sanitary wastewater collection or treatment works or treatment works for sludge from such works, or from sewer cleaning;

(4) residue from residual materials incineration facilities including biomedical waste incinerators, in particular bottom ash and fly ash;

(5) residual materials from an industrial process, except waste referred to in subparagraph 2 from sawmills with an annual production capacity of less than 10,000 m^3.

O.C. 451-2005, s. 12; O.C. 808-2007, s. 145.

§2. Siting

General siting conditions

13. The disposal areas in an engineered landfill and the treatment system for leachate or water from those areas, other than surface water sediment basins, must be sited at a minimum distance of 1 km from any surface water or

groundwater collection facility if the facility is used for the production of spring water or mineral water within the meaning of the Regulation respecting bottled water (chapter P-29, r. 2) or for the supply of a waterworks authorized under the Environment Quality Act (chapter Q-2).

The foregoing does not apply if the disposal areas or treatment system are not likely to alter the quality of the water.

O.C. 451-2005, s. 13.

14. The siting of an engineered landfill in the flood zone of a watercourse or body of water situated within the 100-year flood plain is prohibited.

"100-year flood plain" means the line that corresponds to the limit line of a flood likely to occur once every 100 years.

O.C. 451-2005, s. 14.

15. The siting of an engineered landfill in an area where ground movement is likely to occur is prohibited.

O.C. 451-2005, s. 15.

16. The siting of an engineered landfill on land underneath which there is free groundwater having a high potential aquifer is prohibited.

For the purposes of this section, a "high potential aquifer" exists where at least 25 m^3 of water per hour may be drawn on a permanent basis from the same well.

O.C. 451-2005, s. 16.

17. An engineered landfill must integrate into the surrounding landscape. To that end, the following must be taken into account:

(1) the physical characteristics of the landscape within a radius of 1 km, among other things its topography and the shape, surface area and height of its landforms;

(2) the visual characteristics of the landscape, also within a radius of 1 km, including its visual accessibility and recreational and tourist interest (visibility, landscape organization and structure, aesthetic value, integrity, etc.);

(3) the ability of the landscape to integrate or accommodate an engineered landfill;

(4) the effectiveness of measures to mitigate visual impacts (screen, buffer zone, revegetation, reforestation, etc.).

O.C. 451-2005, s. 17.

18. In order to mitigate the nuisances that an engineered landfill may generate and to allow for the carrying out of any necessary remedial measures, a buffer zone at least 50 m wide must be maintained on the perimeter of the landfill or the disposal areas and the leachate or water treatment system sites, other than surface water sediment basins, and if present, the biogas gas pumping system and the removal facility. The buffer zone must be an integral part of the engineered landfill.

A buffer zone must not have any watercourse or body of water within it. Its interior and exterior boundaries must be maintained so that they are capable of being located at all times.

Only activities necessary to access and monitor the facilities, and activities consistent with the purposes referred to in the first paragraph are permitted in a buffer zone. That restriction does not prevent the establishment of all or part of a buffer zone on an existing landfill, so long as the achievement of those purposes is not compromised.

O.C. 451-2005, s. 18.

19. The siting of an engineered landfill must take into account the inherent geotechnical constraints of the natural materials present and the synthetic materials used as well as the prevailing hydrogeological conditions that may be altered as a consequence of the proposed landfill siting.

O.C. 451-2005, s. 19.

Containment protection

20. In order to protect the soil and groundwater from leachate contamination, engineered landfills may be sited only on land where the unconsolidated deposits on which the residual materials will be deposited form a natural homogenous layer with a constant hydraulic conductivity of 1×10^{-6} cm/s or less to a minimum depth of 6 m, the hydraulic conductivity to be established in situ.

The surface of the natural layer must be graded to an inclination of at least 2% to allow leachate to flow by gravity towards the drains.

O.C. 451-2005, s. 20.

21. Despite section 20, an engineered landfill may be sited on land where the underlying unconsolidated deposits meeting the requirements of that section are at a greater depth, provided that the disposal areas have

(1) an impermeable sideslope liner system

- consisting of materials with a constant hydraulic conductivity of 1×10^{-6} cm/s or less;

- at least 1 m wide;

- extending upwards to ground level;

- the base of which extends at least 1 m into the unconsolidated deposits meeting the requirements of section 20; or

(2) an alternative sideslope liner system if the alternative liner system is at least as effective as the liner system described in subparagraph 1.

Excavation in a disposal area that has an impermeable sideslope liner system must in no case compromise compliance with the requirements of the first paragraph of section 20.

O.C. 451-2005, s. 21.

22. An engineered landfill may also be sited on land where the unconsolidated deposits do not meet the impermeability requirements of section 20, provided that the disposal areas have a double liner system on the bottom and sideslopes that is composed of

(1) a lower composite liner consisting of

(a) a layer of clayey materials at least 60 cm thick after compaction

- that consists of at least 50% by weight of particles 0.08 mm or finer in diameter and at least 25% by weight of particles 0.005 mm or finer in diameter;

- with a constant hydraulic conductivity of 1×10^{-7} cm/s or less throughout its thickness;

(b) a geomembrane at least 1.5 mm thick placed over the layer of clayey materials; and

(2) an upper liner consisting of a second geomembrane at least 1.5 mm thick.

The geomembranes must be of the high-density polyethylene (HDPE) type or have equivalent properties; they must be installed with an inclination of at least 2% to allow leachate to flow by gravity towards the drains.

An alternative double liner system may also be used in the case referred to in the first paragraph if it is at least as effective as the system required by the first paragraph.

O.C. 451-2005, s. 22; O.C. 451-2011, s. 4.

23. The base of the lower composite liner of an engineered landfill with a double liner system installed as provided in section 22 must be situated above the groundwater level. The lowering of the groundwater level by pumping, drainage or otherwise is permitted only on land where the unconsolidated deposits form a natural homogenous layer with a constant hydraulic conductivity of 5×10^{-5} cm/s or less through a minimum thickness of 3 m, the hydraulic conductivity to be established in situ.

Where the unconsolidated deposits meeting the requirements of the first paragraph are at a greater depth, the disposal areas must also have an impermeable sideslope liner system that complies with the requirements of the first paragraph of section 21; excavation in those disposal areas must not compromise compliance with the requirements of the first paragraph as regards the unconsolidated deposits.

O.C. 451-2005, s. 23.

24. An engineered landfill may also be sited in a rock quarry or a mine so long as

(1) the quarry or mine is an open pit;

(2) the quarry or mine floor is situated below the groundwater level; and

(3) the average groundwater infiltration rate, calculated on an annual basis, is 5×10^{-4} m^3 or less of water per square metre of quarry or mine wall situated below the groundwater level.

O.C. 451-2005, s. 24.

Leachate and water collection and treatment

25. An engineered landfill must have a system capable of collecting leachate and conveying it towards a treatment or discharge site. The collection system must incorporate the following components:

(1) a drainage layer placed across the base and sideslopes of the disposal areas over the soil liner or the geomembrane, as the case may be, and which, to a minimum depth of 50 cm,

- consists of materials having less than 5% by weight of particles 0.08 mm or finer in diameter;

- has a constant minimum hydraulic conductivity of 1×10^{-2} cm/s.

The drainage layer must not impair the integrity of the underlying geomembrane, if any;

(2) a network of drainage pipes and collectors embedded within the drainage layer on the bottom of the disposal areas. The pipes must

- have a smooth interior and a minimum diameter of 150 mm;

- have no synthetic filter sock;

- have a minimum slope of 0.5%;

- have cleanout ports.

Despite the foregoing, if, pursuant to section 21, an engineered landfill has an impermeable sideslope liner system, the leachate may be collected and removed by means of another system if the system ensures compliance with the requirements of section 27.

If any portion of the collection system used to convey the leachate to the treatment site is situated outside the landfill disposal areas, the pipes in that portion must be leakproof.

O.C. 451-2005, s. 25.

26. An engineered landfill which under this Regulation must have a double liner system must also have, in addition to the leachate collection system to be installed pursuant to section 25 over the upper geomembrane, a secondary leachate collection system placed between the 2 geomembranes and that consists of

(1) a system that incorporates the components prescribed by subparagraphs 1 and 2 of the first paragraph of section 25, except that

- the minimum thickness of the drainage layer must be 30 cm;

- the minimum diameter of the pipes must be 100 mm; or

(2) any other system if the system is at least as effective as the system referred to in subparagraph 1.

The secondary collection system must be designed to be monitored independently from the other collection systems on the site.

O.C. 451-2005, s. 26.

27. The leachate collection systems prescribed by this Regulation must be designed and installed so that the leachate head likely to accumulate at the base of the disposal areas cannot reach the level of the residual materials.

In addition, in the case of landfills sited as provided in section 22, the leachate head likely to accumulate over the upper liner must not exceed 30 cm, except at the sump pump.

O.C. 451-2005, s. 27.

28. Every component of a treatment system for leachate or water from an engineered landfill must be leakproof, except surface water sediment basins.

Every pond or basin that receives such leachate or water must, if sited on land where the unconsolidated deposits do not meet the requirements of the first paragraph of section 20, have a containment liner system on its bottom and sides consisting of the components described in subparagraphs a and b of subparagraph 1 of the first paragraph of section 22, or an alternative system if the alternative system is at least as effective.

O.C. 451-2005, s. 28.

29. Access to the leachate or water treatment system must be restricted by having the system situated inside a building or surrounded by a fence. The system must be accessible at all times by a road open to vehicular traffic. This section does not apply to surface water sediment basins.

O.C. 451-2005, s. 29.

30. An engineered landfill must be built so that surface water cannot flow into the disposal areas, in particular by the use of perimeter trenches or any other collection system.

O.C. 451-2005, s. 30.

31. If the liner containment system for the disposal areas and the components of the leachate or water treatment

system are below groundwater level, the disposal areas must, if the pressure exerted by the groundwater is likely to impair the integrity of the containment system, have a system that collects and evacuates the groundwater so as to reduce the pressure.

The groundwater collection system must

(1) incorporate all the components prescribed by section 25, except that

- the minimum thickness of the drainage layer must be 30 cm;

- the minimum diameter of the pipes must be 100 mm; or

(2) incorporate other components if the components are at least as effective as the components referred to in subparagraph 1.

The system must be designed to be monitored independently from the other collection systems on the site.

The operation of the groundwater collection system may be halted if the hydraulic pressure exerted by the groundwater is offset by the weight of the landfilled residual materials or by the liquid accumulated in the disposal areas and in the ponds or basins forming part of the leachate or water treatment system.

O.C. 451-2005, s. 31.

Collection and removal of biogas

32. An engineered landfill must have a system capable of collecting all biogas produced in the disposal areas and of releasing it into the environment or of directing it towards a reclamation or removal facility, so as among other things to ensure compliance with the limit values prescribed by section 60.

In the case of landfills having a maximum capacity greater than 1,500,000 m^3 or sited as provided in section 24, or as soon as a landfill receives 50,000 tons or more of residual materials per year, the biogas collection system must have a gas pumping device except if such a device is not warranted because of the nature of the residual materials accepted and the low quantity of biogas likely to be produced.

In addition, if it is not reclaimed, the biogas collected in engineered landfills referred to in the second paragraph must be removed by means of thermal destruction equipment capable of destroying at least 98% of the organic compounds other than methane, or capable of reducing the concentration of those compounds to less than 20 ppm hexane equivalent, by volume, measured on a dry basis at 3% oxygen. The destruction equipment must be designed for a minimum retention time of 0.3 seconds at a minimum temperature of 760 °C. The biogas removal requirements are mandatory as long as the concentration of methane generated by the residual materials exceeds 25% by volume.

Biogas may also be removed as provided in the third paragraph using any other destruction equipment if the destruction equipment is at least as efficient as the equipment required by that paragraph and allows for continuous monitoring of its operation and for annual testing of its efficiency in destroying organic compounds other than methane.

O.C. 451-2005, s. 32; O.C. 451-2011, s. 5.

33. Access to the gas pumping device and biogas removal facility, if any, must be restricted by having them situated inside a building or surrounded by a fence. The device and facility must be accessible at all times by a road open to vehicular traffic.

O.C. 451-2005, s. 33.

Quality assurance and control

34. The size, choice and placement of materials must be such that the landfill containment liner system, leachate and

water collection and treatment systems, the biogas collection and removal system and network of groundwater observation wells referred to in section 65 and which are present in an engineered landfill pursuant to this Regulation will operate properly, even on a long-term basis, considering the physical, chemical and biological processes that may take place in the landfill during the development, operation and post-closure management periods.

The systems must also be designed to be monitored, maintained and cleaned throughout the entire period.

O.C. 451-2005, s. 34.

35. All the materials and equipment to be used in the development of an engineered landfill, whether for containment purposes or for the installation of a system referred to in section 34, must be verified by independent experts before and during the development or installation and by laboratory or in situ tests to ensure that the materials or equipment comply with the applicable standards.

O.C. 451-2005, s. 35.

36. The landfill development work must be performed under the supervision of independent experts who must among other things verify the qualifications of the workers assigned to performing the work, as well as the quality of the techniques used and the systems installed.

As and when the development work is completed, the operator of a landfill must send to the Minister the reports of the independent experts in charge of verifying and supervising the work as required by section 35 and this section confirming compliance of the installation with the applicable standards, or indicating cases of non-compliance with those standards and remedial measures to be taken.

O.C. 451-2005, s. 36; O.C. 666-2013, s. 1.

§3. Operation

General operating conditions

37. The operator of an engineered landfill must verify whether the residual materials received may be landfilled, in particular by a visual inspection.

O.C. 451-2005, s. 37.

38. Residual materials received for landfilling in an engineered landfill must be weighed and undergo radiological testing by devices capable of detecting the presence of radioactive materials.

The devices for weighing the residual materials and for testing the residual materials for radioactivity must be installed at the entrance to the site, be used and maintained so as to provide reliable data and be calibrated at least once a year.

The provisions of this section regarding the weighing of residual materials do not apply to a landfill reserved exclusively for the use of an industrial, commercial or other establishment if the data relating to the quantity of residual materials (in weight) that are landfilled may be obtained otherwise and under the same conditions of accessibility and conservation as those set out in section 39.

Similarly, the provisions of this section regarding the testing of residual materials for radioactivity do not apply to the landfill referred to in the third paragraph if, by reason of the nature of the activities of the establishment using the landfill and the composition of the residual materials landfilled, the residual materials cannot contain any radioactive material.

O.C. 451-2005, s. 38.

39. For every load of residual materials brought to an engineered landfill, the operator must enter in a log

(1) the name of the carrier;

(2) the nature of the residual materials and, in the case of decontaminated sludge, fly ash or soil, or soil from land rehabilitation work, the results of the analyses or measures establishing that they may be landfilled;

(3) the source of the residual materials and, if they result from an industrial process, the name of the producer;

(4) the quantity of residual materials, expressed in weight; and

(5) the date on which they were landfilled.

The logs and their appendices must be kept on the premises of the landfill site for the duration of its operation and be made available to the Minister. Following closure of the site, the logs must be kept by the operator until the operator is released under section 85 from all obligations.

O.C. 451-2005, s. 39; O.C. 451-2011, s. 6.

40. The operator must also enter in the log, for every load of materials referred to in the second and third paragraphs of section 42 and the third and fourth paragraphs of section 50 and to be used to cover the residual materials landfilled in the disposal areas, the nature and quantity of the materials.

If the materials consist of the soils referred to in subparagraph 2 of the first paragraph of section 39, the operator may accept them only after receipt of the results of the analyses or measures showing they comply with the requirements of the above sections. Those results must also be entered in the annual log.

O.C. 451-2005, s. 40; O.C. 451-2011, s. 7.

40.1. The operator is required to confirm the acceptance of soil when soil referred to in subparagraph 2 of the first paragraph of section 39 is received. For that purpose, for each batch of soil of 200 tons or less, the operator must have a sample taken to have it analyzed for all contaminants likely to be present in the soil among those referred to in the second paragraph of section 42 and the third paragraph of section 50, in the case of soil used to cover residual materials, or in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37) in the case of soil intended for landfilling.

For every batch of soil of more than 200 tons, in addition to the sampling provided for in the first paragraph, the operator must have an additional sample taken and have it analyzed for each additional fraction of soil of 400 tons or less.

The results of the analyses must be entered in the log.

O.C. 451-2011, s. 8.

41. As soon as they are deposited in a disposal area, residual materials must be spread and compacted except in the case of sludge, soil referred to in subparagraph 2 of the first paragraph of section 39, residual materials that are baled and animal carcasses or animal parts.

In order to minimize the release of odours, the spread of fires, the proliferation of animals or insects, and blowing litter, the residual materials must be covered at the end of each day of operation with a layer of soil or other materials referred to in section 42, or be covered in another manner enabling the above purposes to be accomplished.

The daily cover requirement does not apply to a landfill reserved exclusively for the use of an industrial, commercial or other establishment if the residual materials received are not likely to generate the nuisances referred to above.

Residual materials containing asbestos or that are likely to release dust into the atmosphere, and animal carcasses or animal parts, must be covered with other materials as soon as they are deposited in the disposal area, even before being compacted. For the purposes of this paragraph, “containing asbestos” has the meaning assigned by section 1.1 of the Safety Code for the construction industry (chapter S-2.1, r. 4).

Residual materials at a temperature likely to create fires, in particular bottom ash, fly ash and any other incineration residue, is to be landfilled only once it has cooled sufficiently to prevent any risk of fire.

O.C. 451-2005, s. 41; O.C. 451-2011, s. 9.

42. The soil used for the daily cover of the residual materials must have a constant minimum hydraulic conductivity of 1×10^{-4} cm/s and less than 20% by weight of particles 0.08 mm or finer in diameter.

The soil may also contain contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37) for volatile organic compounds and in Schedule II to that Regulation for other contaminants. Those limit values do not apply to contaminants that do not originate from human activity. The thickness of the cover layer consisting of such contaminated soil must not exceed 60 cm.

Other material may be used to cover the residual materials if the other material meets the requirements of the first paragraph, does not contain substances that are not accepted at the landfill, and is capable of accomplishing the purposes referred to in the second paragraph of section 41.

The operator must periodically verify, at the frequency specified in the authorization obtained pursuant to section 22 or 31.5 of the Environment Quality Act (chapter Q-2), whether the soils or other materials used to cover the residual materials meet the requirements of the first paragraph. For that purpose, the operator must have representative samples of the soils or materials measured and analyzed and the results of the measures and analyses must appear in the annual report prepared pursuant to section 52.

Despite the foregoing, residual materials may be covered temporarily using materials other than soil that does not meet the requirements of the first paragraph. In such a case, no residual materials may be subsequently deposited until the temporary cover has been removed or brought into conformity with that paragraph.

Contaminated soil or residual materials to be used as cover material may be stockpiled at an engineered landfill only in areas that meet the containment requirements set out in this Regulation and that have not received the final cover prescribed by section 50.

O.C. 451-2005, s. 42; O.C. 451-2011, s. 10.

43. Residual materials must be landfilled in limited disposal areas which, as they successively fill up, allow for progressive redevelopment of the landfill in compliance with sections 50 and 51.

O.C. 451-2005, s. 43.

44. The leachate and water collection and treatment systems, the biogas collection and removal systems and the network of groundwater observation wells referred to in section 65 must at all times be maintained in proper working order. For that purpose, they must be periodically inspected and maintained or cleaned at the frequency specified in the authorization obtained pursuant to section 22 or 31.5 of the Environment Quality Act (chapter Q-2). In addition, the leachate collection systems must function in such manner as to comply with the requirements of section 27.

O.C. 451-2005, s. 44.

45. Every engineered landfill must have, at the landfill entrance,

(1) a conspicuous sign indicating the type of landfill, the name, address and telephone number of the operator and any other person in charge of the landfill, as well as the business hours; and

(2) a barrier or other device restricting access to the landfill after business hours or in the absence of the personnel in charge of overseeing the acceptance of residual materials or their compaction and covering.

O.C. 451-2005, s. 45.

46. The landfilling operations in an engineered landfill must not be visible from a public area or from the ground floor of a dwelling located within a radius of 1 km, that distance to be measured from the disposal areas.

O.C. 451-2005, s. 46.

47. No person may burn residual materials in an engineered landfill. An operator may not allow the burning of such materials in an engineered landfill.

O.C. 451-2005, s. 47; O.C. 451-2011, s. 11.

48. The operator of an engineered landfill must take the necessary measures to minimize the release of odours that cause odour nuisances beyond the limits of the landfill and to prevent wind dispersal or scattering of residual materials and the emission of dust visible in the atmosphere more than 2 m from the emission source.

As needed, the operator must clean on-site roads, the entrances and devices installed to contain the residual materials in the disposal areas and the immediate surroundings so that no residual materials remain in those areas.

O.C. 451-2005, s. 48.

49. The operator of an engineered landfill must take the necessary measures to prevent or eliminate any infestation of pests on the landfill site and in the immediate surroundings.

O.C. 451-2005, s. 49.

50. The residual materials landfilled in the disposal areas of an engineered landfill must, once they have reached the maximum authorized height or landfilling operations are terminated, be covered with a final cover as soon as climatic conditions permit.

The final cover system must have, from the bottom up,

(1) a drainage layer consisting of soil with a constant minimum hydraulic conductivity of 1×10^{-3} cm/s through a minimum thickness of 30 cm, designed to collect landfill gas while allowing the circulation of liquids;

(2) an impermeable soil layer with a constant maximum hydraulic conductivity of 1×10^{-5} cm/s through a minimum thickness of 45 cm after compaction, or a geomembrane at least 1 mm thick;

(3) a barrier soil layer at least 45 cm thick, having characteristics that preserve the integrity of the impermeable layer; and

(4) a soil layer at least 15 cm thick, suitable for vegetation.

The soil referred to in subparagraph 1 of the second paragraph may contain contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37) for volatile organic compounds and in Schedule II to that Regulation for other contaminants. The soils referred to in subparagraphs 2 and 3 of the second paragraph may also contain such contaminants in a concentration equal to or lower than the limit values set out in Schedule I to that Regulation. The limit values prescribed by this paragraph do not apply to contaminants that do not originate from human activity.

The layers referred to in subparagraphs 1 to 4 of the second paragraph may consist of another material if the material will achieve protection efficiency at least equivalent to that of the materials prescribed in those subparagraphs, the material meets where applicable the requirements of the third paragraph and the minimum thickness of the layers is as prescribed in those subparagraphs.

The final cover slope must be of at least 2% and no more than 30% to allow water to flow away from the disposal areas and limit soil erosion. In addition, in the case of disposal areas that have an impermeable sideslope liner system pursuant to section 21, surface water infiltration into the disposal areas must be reduced by extending the

layers referred to in subparagraphs 2, 3 and 4 of the second paragraph beyond the liner perimeter, or by another cover procedure that reduces water infiltration into the disposal areas.

The provisions of sections 34 to 36 relating to quality assurance and control apply, with the necessary modifications, to the final cover of disposal areas prescribed by this section.

O.C. 451-2005, s. 50; O.C. 451-2011, s. 12.

51. Not later than 1 year after installation of the final cover, the final layer must be given a vegetative layer consisting of species not likely to impair the impermeability of the cover.

Damage such as holes, fissures or subsidence that may occur in the final cover must be repaired immediately to prevent water from pooling over or infiltrating into the disposal areas, until the areas have been fully stabilized.

O.C. 451-2005, s. 51.

52. The operator of an engineered landfill must prepare, for each year of operation, a report containing

(1) a compilation of the data collected pursuant to sections 39 and 40 relating to the nature, the source and quantity of residual materials landfilled and materials received for cover purposes;

(2) a plan and data showing the progression on the site of the landfilling operations, including filled disposal areas, areas in operation and current available landfill capacity;

(3) the results of the testing or measurements performed pursuant to sections 63, 64, 66 and 68, other than results sent to the Minister pursuant to section 71, and a summary of the data from the sampling or analyses required under other provisions of this Regulation;

(4) a certificate stating that the measurements and samples prescribed by this Regulation were taken in compliance with best practices and the provisions of this Regulation, as the case may be;

(5) any information or document indicating the places where the measurements or samples were taken, in particular the number and location of the monitoring points, the methods and devices used and the names of the laboratories or persons taking the measurements or samples; and

(6) a summary of the work carried out pursuant to this Regulation.

The report must be sent to the Minister in a computer medium using the technology-based documents prescribed by the Minister within 90 days following the end of each year of operation and include any other information the Minister may require under section 68.1 of the Environment Quality Act (chapter Q-2).

O.C. 451-2005, s. 52; O.C. 451-2011, s. 13.

Leachate and water

53. The leachate and water collected by a collection system in an engineered landfill may be discharged into the environment only if there is compliance with the following limit values:

Parameters - Substances	Limit values	Average monthly limit values*
Ammoniacal nitrogen (expressed as N)	25 mg/l	10 mg/l
Fecal coliforms		1,000 CFU/100 ml

Phenolic compounds	0.085 mg/l	0.030 mg/l
5-day biochemical oxygen demand (BOD_5)	150 mg/l	65 mg/l
Suspended solids	90 mg/l	35 mg/l
Zinc (Zn)	0.17 mg/l	0.07 mg/l
pH	greater than 6.0 but lower than 9.5	

“* The average monthly limit values apply only to water or leachate discharged after treatment. They are established using an arithmetic average, except for the limit value relating to fecal coliforms which is established using a geometric average.

In addition, the Minister may determine parameters to be measured or substances to be analyzed according to the composition of the materials received for disposal, and set the limit values to be complied with for those parameters or substances. The limit values may be in addition to or in substitution for the limit values previously set.

A batch discharge is prohibited.

For the purposes of this Regulation, a discharge into the environment includes a discharge into a sewer system that does not convey wastewater to a treatment facility established and operated in accordance with an authorization issued under the Environment Quality Act (chapter Q-2).

O.C. 451-2005, s. 53; O.C. 451-2011, s. 14.

54. The limit values prescribed by section 53 do not apply to surface water collected within the perimeter of a buffer zone established pursuant to section 18 if an analysis of the surface water shows that there is no compliance with the limit values before the surface water enters the buffer zone.

In that case, the quality of the surface water must not, in relation to the parameters or substances listed in section 53, be deteriorated in any manner before it reaches the outside perimeter of a buffer zone established pursuant to section 18.

O.C. 451-2005, s. 54.

55. Leachate and water collected by a collection system that does not comply with the limit values prescribed by section 53 must not be diluted in any manner before being discharged into the environment, other than dilution caused by precipitation.

O.C. 451-2005, s. 55.

56. Artificial infiltration of leachate or water into disposal areas is permitted only in engineered landfills for the purpose of accelerating the degradation of the residual materials, subject to the following conditions:

(1) prior authorization under the Environment Quality Act (chapter Q-2);

(2) the infiltration must take place in areas where there has been a deposit of a minimum thickness of 4 m of residual materials;

(3) if the infiltration is the result of surface spraying or sprinkling techniques, it can take place only in disposal areas that do not have a final cover and those techniques must not cause surface pooling or aerosol formation.

O.C. 451-2005, s. 56.

Groundwater

57. Subject to section 59, groundwater migrating into the soil where disposal areas or a leachate or water treatment system are sited must comply with the following limit values at the observation wells installed pursuant to section 65:

Parameters - Substances	Limit values*
Ammoniacal nitrogen (expressed as N)	1.5 mg/l
Benzene	0.005 mg/l
Boron (B)	5 mg/l
Cadmium (Cd)	0.005 mg/l
Chlorides (expressed as Cl^-)	250 mg/l
Chromium (Cr)	0.05 mg/l
Fecal coliforms	0 CFU/100 ml
Total cyanides (expressed as CN^-)	0.2 mg/l
Ethylbenzene	0.0024 mg/l
Iron (Fe)	0.3 mg/l
Manganese (Mn)	0.05 mg/l
Mercury (Hg)	0.001 mg/l
Nickel (Ni)	0.02 mg/l
Nitrates + nitrites (expressed as N)	10 mg/l
Lead (Pb)	0.01 mg/l
Sodium (Na)	200 mg/l
Total sulphates (SO_4^{-2})	500 mg/l
Total sulphides (expressed as S^{-2})	0.05 mg/l
Toluene	0.024 mg/l
Xylene (o, m, p)	0.3 mg/l
Zinc (Zn)	5 mg/l

"* The limit values correspond to the limit values that apply to water intended for human consumption.

In addition, the Minister may determine the parameters to be measured or substances to be analyzed on the basis of

the composition of the residual materials received for disposal, and set the limit values to be complied with for those parameters or substances. The limit values may be in addition to or in substitution for the limit values set out in the first paragraph.

O.C. 451-2005, s. 57.

58. The limit values listed in section 57 do not apply if an analysis of the groundwater shows that there is no compliance with those limit values before the groundwater migrates into the soil where the disposal areas or the leachate or water treatment system are situated.

In that case, the quality of the groundwater must not, in relation to the parameters or substances listed in section 57, be deteriorated in any manner as a result of its migration into that soil.

O.C. 451-2005, s. 58.

59. Groundwater that re-emerges within the monitoring perimeter established under section 65 is subject to section 53, except as regards suspended solids.

The same applies to any groundwater that is collected in the perimeter and discharged on the surface.

O.C. 451-2005, s. 59.

Biogas

60. The concentration of methane in biogas produced by the residual materials disposed of in an engineered landfill must not exceed 25% of its lower explosive limit, or 1.25% by volume, if it is emitted or migrates into and accumulates in the soil and the buildings or facilities (other than the leachate, water and biogas collection or treatment systems) situated at a maximum distance of 150 m from the disposal areas without exceeding the outside perimeter of any buffer zone established under section 18.

For the purposes of this section, “lower explosive limit” means the lowest concentration, by volume, of a gas in a gas mixture above which a flare may sustain itself at a temperature of 25°C and a pressure of 101.325 kPa.

O.C. 451-2005, s. 60.

61. The operation of the biogas collection system in an engineered landfill must begin not later than 1 year after a disposal area has received a final cover.

However, in the case of landfills referred to in the second paragraph of section 32, the biogas collection system and the biogas removal equipment must be designed to operate so that the collection and removal of any biogas produced by the landfilled residual materials may begin, even though the disposal area has not yet received a final cover, not later than 5 years after the landfilling in the case of landfills receiving 100,000 tons or less of residual materials per year or, in the case of landfills receiving more than 100,000 tons per year, not later than 1 year after the landfilling.

The operation of a biogas collection system must not result in an increase in temperature likely to cause a fire in a disposal area.

O.C. 451-2005, s. 61.

62. During the operating period of a biogas collection system that has a gas pumping device pursuant to the second paragraph of section 32, the concentration of nitrogen or oxygen must be respectively less than 20% and 5% by volume in each drain and wet well in the system situated in every section of disposal areas that have received a final cover.

In addition, the concentration of methane at the surface of the disposal areas served by the system must be less than 500 ppm, in volume, in that operating period regardless of whether or not the areas have received a final cover.

The operation of a gas pumping device for the biogas produced in all or part of a disposal area may be halted if, throughout a period of 5 years, all the measurements of the methane generated by the residual materials in the disposal area show a concentration of less than 25% by volume.

O.C. 451-2005, s. 62.

Monitoring and supervision measures

63. The operator of an engineered landfill must, at the frequency indicated below, take or have a sample taken of the leachate or water collected by each collection system in the landfill and in resurgent water within the groundwater monitoring perimeter established under section 65, and have the samples analyzed

(1) at least once a year, for the purpose of measuring the parameters or substances referred to in sections 53, 57 and 66;

(2) at least 3 times a year, in the spring, summer and fall, if the leachate or water is not conveyed to a treatment system, for the purpose of measuring the parameters or substances listed in section 53; or

(3) at least once a month, if the leachate or water is conveyed to a treatment facility established and operated pursuant to an authorization issued under the Environment Quality Act (chapter Q-2), for the purpose of measuring the parameters or substances referred to in section 53, except fecal coliforms.

The leachate and water to be sampled pursuant to the first paragraph must be sampled before being discharged into the environment or, if applicable, before being treated or discharged towards a treatment facility. For the purposes of this section, there is a discharge of surface water into the environment if the water flows out of a buffer zone established under section 18.

If the surface water does not comply with the limit values listed in section 53 before flowing into the buffer zone established under section 18, the water must also be sampled and analyzed as provided in subparagraph 2 of the first paragraph before entering the buffer zone.

The operator must also take or have a weekly sample taken of the discharges into the environment from every leachate or water treatment system in the landfill, other than surface water sediment basins, and have the samples analyzed to measure the parameters or substances listed in section 53.

Each of the samples must be a single sample (grab sample). In the case of resurgent water, the sampling must be carried out at the resurgence point.

The flow of the leachate collected by the collection systems prescribed by sections 25 and 26 and the flow of the discharges from the treatment system in the landfill must be separately and continuously measured and the results recorded.

O.C. 451-2005, s. 63; O.C. 451-2011, s. 15.

64. At least once a year, the operator of an engineered landfill must leak test or have the pipes in the leachate or water collection system that are situated outside the disposal areas leak tested.

Before being put into service and every 3 years thereafter, each component of the leachate or water treatment system likely to release leachate or water must be leak tested.

O.C. 451-2005, s. 64.

65. In order to monitor the quality of the groundwater migrating into the soil where the disposal areas or a leachate or water treatment system are sited, the operator must install 1 or more networks of observation wells in accordance with the following provisions.

If the leachate or water treatment system is situated in whole or in part within 150 m of the disposal areas, a single

network of observation wells is required, otherwise the disposal areas and the treatment system location must each have its own network.

The number of wells in a network of observation wells depends on the surface area occupied by the disposal areas and the treatment system. The location of the wells and the number of sampling points required depends on the hydrogeological conditions of the sites, subject to the following:

(1) no observation well is to be situated beyond the outside perimeter of a buffer zone established pursuant to section 18;

(2) the observation wells must be situated at a maximum distance of 150 m hydraulically downgradient from the disposal areas or location of the treatment system so that the groundwater at that distance can be monitored. If all or part of a buffer zone has been established on an existing landfill, the monitoring perimeter may be extended to include the landfill, but without exceeding the distance of 150 m from the disposal areas or related treatment system;

(3) a network of observation wells must consist of at least 3 wells for the first 8 ha of land and 1 well for each additional 8-ha portion of land or remaining portion of less than 8 ha;

(4) at least 1 additional observation well to monitor the quality of groundwater before its migration into the soil where the disposal areas or treatment system are situated must be installed hydraulically upgradient, or if the hydraulic upgrade cannot be determined because of hydrogeological conditions, at any other location making it possible to ascertain the quality of the groundwater representative of the groundwater migrating into the monitoring perimeter established under this section.

For the purposes of this section, a pond, basin or reservoir, except surface water sediment basins, in which water accumulates that does not comply with the limit values set out in section 53 is considered to form an integral part of the water treatment system.

O.C. 451-2005, s. 65; O.C. 451-2011, s. 16.

66. At least 3 times a year, in the spring, summer and fall, the operator of an engineered landfill must take or have a groundwater sample taken at each sampling point of the observation wells installed pursuant to section 65, and have the samples analyzed to monitor the parameters or substances listed in section 57 and compliance with section 58, and to measure the following indicative parameters or substances:

(1) electrical conductivity;

(2) phenolic compounds;

(3) 5-day biochemical oxygen demand (BOD5);

(4) chemical oxygen demand (COD);

(5) iron.

During sampling, the groundwater piezometric level must also be measured.

After a minimum 2-year monitoring period, the samples taken need no longer be analyzed for the parameters or substances whose concentration measured in the leachate before treatment, if any, has consistently been lower than the limit values listed in section 57, except in the case of indicative parameters or substances. The reduction in the number of parameters or substances to be analyzed applies as long as the annual analyses of leachate, before treatment, show that that condition is met. In addition, the analysis for 2 of the 3 required annual samplings may pertain only to the indicative parameters or substances listed in the first paragraph.

The Minister may establish a different list of indicative parameters or substances according to the composition of the residual materials received for disposal, in which case the parameters or substances may be in addition to or in substitution for the parameters or substances listed above.

Despite the foregoing, as soon as the analysis of a sample shows significant fluctuation for a parameter or substance or that a limit value has been exceeded, all the subsequent samples taken at the sampling point concerned must undergo a comprehensive analysis of the parameters or substances listed in section 57 until the situation is remedied.

O.C. 451-2005, s. 66.

67. At least 4 times a year, at intervals spread evenly throughout the year, the operator of an engineered landfill must monitor or have the concentration of methane in the soil and inside the buildings and facilities monitored in order to ensure compliance with the requirements of section 60. The operator is, however, exempt from that monitoring requirement if the landfilled residual materials are not likely to generate methane.

The number and location on the site of the methane monitoring points are determined according to the geological and hydrogeological conditions and the siting features, subject to the following:

(1) the measurements in the soil must be taken at a minimum of 4 monitoring points distributed evenly around the disposal areas;

(2) if the disposal areas exceed 8 ha, a monitoring point must be added for each additional 8-ha portion of land or remaining portion of less than 8 ha.

The date, time, temperature and barometric pressure must be recorded every time a measurement is taken pursuant to the second paragraph.

O.C. 451-2005, s. 67.

68. During the operating period of a biogas collection system that has a gas pumping device pursuant to the second paragraph of section 32, the flow of biogas must be continuously measured and the results recorded. For the purpose of ensuring compliance with the requirements of section 62, the operator must also monitor or have the following monitored:

(1) at least every 3 months:

- the concentration of methane generated by the residual materials;

- the concentration of nitrogen or oxygen and the temperature in each drain and wet well;

(2) at least once a year, the concentration of methane at the surface of the disposal areas of an engineered landfill that receives 100,000 tons or less of residual materials per year; or

(3) at least 3 times a year, in the spring, summer and fall, the concentration of methane at the surface of the disposal areas of an engineered landfill that receives more than 100,000 tons of residual materials per year. The frequency may, however, be reduced to once a year for all or part of a disposal area that has received a final cover if, after a minimum 2-year monitoring period of that area or part of area, none of the measurements has shown that the limit value set out in the second paragraph of section 62 has been exceeded. The reduction applies as long as the annual monitoring shows compliance with the limit value, otherwise the frequency of the measurements is 3 times a year until the situation is remedied for that area or part of area.

Where thermal destruction equipment for biogas is required pursuant to the second paragraph of section 32, the destruction temperature and flow rate of the biogas must be continuously measured and recorded and the destruction efficiency for the organic compounds other than methane must be verified at least once a year.

O.C. 451-2005, s. 68.

69. The leachate or water samples taken pursuant to this Regulation must not be filtered in any manner during sampling or prior to analysis.

The groundwater samples taken for analysis of metals and metalloids may be filtered during sampling as long as

they are filtered at all sampling points.

O.C. 451-2005, s. 69.

70. The samples taken pursuant to this Regulation must be sent for analysis to laboratories accredited by the Minister under section 118.6 of the Environment Quality Act (chapter Q-2).

The analysis reports prepared by the laboratories must be kept by the operator for a minimum of 5 years after the date on which they were prepared.

O.C. 451-2005, s. 70.

71. The operator must, within 30 days following the last day of the month of the sampling, send the results of the analyses of the samples taken pursuant to this Regulation to the Minister in a computer medium using the technology-based documents prescribed by the Minister.

If limit values prescribed by this Regulation have been exceeded, the operator must, within 15 days after being so informed, report to the Minister on the measures taken or to be taken to remedy the situation.

The operator must also, within 30 days after the last day of the month during which the operator is so informed, send to the Minister the results of the measures taken pursuant to section 67 and the results of the measurements of the methane concentration at the surface of the disposal areas and the destruction efficiency verification for organic compounds carried out pursuant to section 68.

O.C. 451-2005, s. 71; O.C. 451-2011, s. 17.

Watchdog committee

72. The operator of an engineered landfill must form a committee within 6 months after landfilling operations commence that is to exercise the function provided for in section 57 of the Environment Quality Act (chapter Q-2).

To that end, the operator is to invite in writing the following bodies and groups to designate a representative on the committee:

(1) the local municipality in which the landfill is situated;

(2) the metropolitan community and the regional county municipality in which the landfill is situated;

(3) the persons residing in the vicinity of the landfill;

(4) a local or regional environmental protection group or body;

(5) a local or regional group or body likely to be affected by the landfill.

The operator's representative designated by the operator is also to sit on the committee.

Any vacancy on the committee is to be filled in keeping with the procedure described in the second paragraph.

Failure by 1 or more bodies or groups to designate a representative does not prevent the committee from operating ; the committee is to exercise its functions even though 1 or more members have yet to be designated.

O.C. 451-2005, s. 72.

73. The committee may, if the majority of the members agree, invite other bodies or groups to sit on the committee and designate a representative.

O.C. 451-2005, s. 73.

74. The members of the committee designate a chair and a secretary from among their number; if the majority of the members agree, a person who is not a member of the committee may be designated as secretary.

O.C. 451-2005, s. 74.

75. The members of the committee must meet at least once a year.

Unless a majority of the members decide otherwise, the meetings of the committee are held in the territory of the local municipality in which the landfill is situated.

O.C. 451-2005, s. 75.

76. The secretary must post the agenda of every committee meeting at least 10 days prior to the meeting in the places indicated by the municipal bodies referred to in the second paragraph of section 72.

The secretary must also post the minutes of the meeting in the same places within 30 days following the meeting and send a copy of the minutes to the Minister.

The minutes of the committee meetings are available to any person on request to the secretary.

O.C. 451-2005, s. 76.

77. The operator must inform the committee of any application for authorization pertaining to the landfill made under the Environment Quality Act (chapter Q-2), and of any change in management responsibility for the landfill.

The operator must also, in a timely manner, make available to or provide the committee with all the documents or information necessary for the exercise of its functions, in particular the certificates of authorization pertaining to the landfill, the logs after removing the names of the residual materials carriers and producers, the annual reports, the results of the analyses, monitoring or measurements required by this Regulation, the closure report prepared under section 81 and the status report prepared under section 84.

O.C. 451-2005, s. 77; O.C. 451-2011, s. 18.

78. All operating expenses of the committee, including the costs of the meeting room and the material resources necessary for the committee to exercise its functions, are payable by the operator.

The expenses incurred for the meetings of the committee are payable by the operator for a maximum of 4 meetings per year.

O.C. 451-2005, s. 78.

79. The operator must allow committee members free access during the landfill's business hours to the landfill and to any equipment or facility at the landfill.

O.C. 451-2005, s. 79.

§4. Closure

80. The operator must permanently close the engineered landfill when it has reached its maximum capacity or landfilling operations are terminated. The operator must immediately notify the Minister in writing of the date of closure.

O.C. 451-2005, s. 80.

81. Within 6 months following the date on which the engineered landfill is closed, the operator must send to the Minister a closure report prepared by independent experts, attesting to

(1) the working order, effectiveness and reliability of the landfill liner system, the leachate or water collection and treatment systems, the biogas collection and evacuation or removal system and the network of groundwater observation wells, installed at the landfill in accordance with this Regulation;

(2) compliance with the limit values that apply to discharges of leachate or water, to emissions of biogas and to groundwater; and

(3) compliance with the requirements of this Regulation or with the certificate of authorization as regards the final landfill cover and the integration of the landfill into the surrounding landscape.

The closure report must specify any instances of non-compliance with this Regulation or the certificate of authorization and indicate the remedial measures to be taken.

O.C. 451-2005, s. 81.

82. A conspicuous sign must be posted at the entrance to an engineered landfill that has been permanently closed stating that the landfill is closed and that the disposal of residual materials is prohibited.

O.C. 451-2005, s. 82.

§5. Post-closure management

83. The requirements of this Division continue to apply, with the necessary modifications, to a permanently closed engineered landfill, for as long as the landfill is likely to be a source of contamination.

Once a landfill is closed, the owner is responsible, in particular,

(1) for maintaining the integrity of the final cover over the landfilled residual materials;

(2) for monitoring and maintaining the leachate or water collection and treatment systems, the biogas collection and evacuation or removal system and the network of groundwater observation wells;

(3) for the carrying out of samplings, analyses and measurements of leachate, water and biogas; and

(4) for leak testing the leachate or water collection pipes situated outside the landfill disposal areas and every component in the leachate or water treatment system.

O.C. 451-2005, s. 83.

84. The operator of an engineered landfill may apply to the Minister to be released from any environmental monitoring or maintenance obligation under this Regulation if, during a post-closure monitoring period of a minimum duration of 5 years,

(1) none of the parameters or substances analyzed in the leachate or water samples taken before treatment has exceeded the limit values set out in section 53;

(2) none of the parameters or substances analyzed in the groundwater samples has contravened sections 57 to 59; and

(3) the concentration of methane has been measured in the components of the biogas collection system at a frequency of at least 4 times per year at intervals spread evenly throughout the year, and all the measurements have indicated a concentration of methane less than 1.25% by volume.

To that end, the operator must have a status report pertaining to the state of the landfill and, where applicable, its environmental impacts, prepared by independent experts; the operator must send the status report to the Minister.

O.C. 451-2005, s. 84.

85. If it is established, particularly in the light of the status report prepared pursuant to section 84, that there is compliance with the conditions referred to in the first paragraph of that section, that the landfill complies in every respect with the applicable standards and that it is no longer likely to be a source of contamination, an operator who so requests is released by the Minister from the environmental monitoring and maintenance obligations under this Regulation.

O.C. 451-2005, s. 85.

DIVISION 3
TRENCH LANDFILLS

86. Trench landfills may be established in the territories enumerated in section 87, in which only residual materials generated in the territories are accepted, including sludge which, although generated elsewhere, is treated in the territories.

Trench landfills must be sited and operated in accordance with this Division, which also prescribes the conditions that apply to their closure and post-closure management.

O.C. 451-2005, s. 86.

87. Trench landfills are permitted in the following territories only:

(1) in the North, as defined in section 94;

(2) in any part of territory that is not organized into a local municipality and that is situated more than 100 km by a road open year-round from an engineered landfill site that is not reserved exclusively for the use of an industrial, commercial or other establishment;

(3) in the territory of the James Bay region, as described in the schedule to the James Bay Region Development and Municipal Organization Act (chapter D-8.2), excluding the towns of Chibougamau and Chapais;

(4) in any territory inaccessible by a road open year-round, including every island that is not connected to the mainland by a bridge or a boat service operational year-round;

(5) in the regional county municipalities of Minganie and Caniapiscau;

(6) in the part of the territory of Ville de la Tuque situated west of the 73rd meridian.

O.C. 451-2005, s. 87; O.C. 451-2011, s. 19.

88. Subject to the conditions set out in the second paragraph, sections 13 to 16, 18, 19, 28 to 30 and 34 to 36 apply, with the necessary modifications, to the siting of a trench landfill.

The siting is also subject to the following conditions:

(1) the minimum distance between the trench area and any watercourse or body of water must be 150 m;

(2) the minimum distance between the trench area and any catchment installation for surface water or groundwater intended for human consumption must be 500 m. That requirement does not apply if the landfill is not likely to alter the quality of the water;

(3) the bottom of the trenches must be at least 1 m above the rock and the groundwater level. Any lowering of the groundwater level by pumping, draining or otherwise is prohibited.

O.C. 451-2005, s. 88.

89. Sections 37, 39, 40, 40.1, 43 to 49, 52 to 55, 57 to 59, 63 to 66 and 69 to 71 apply to the operation of a trench

landfill, with the necessary modifications, in particular as follows: the quantity of residual materials referred to in subparagraph 4 of the first paragraph of section 39 may be expressed in volume, and the maximum distance authorized by subparagraph 2 of the third paragraph of section 65 for the installation of groundwater quality monitoring wells is extended to 300 m from the trench area.

The provisions of sections 63, 65 and 66 do not apply to a trench landfill that is completely sited on a mine tailings heap if the monitoring and supervision measures prescribed by those sections cannot be implemented due to physical constraints inherent to the heap. In that case, the operator must see to the implementation of substitution measures that, in addition to being better adapted to those constraints, allow water monitoring and supervision as close as possible to those prescribed by sections 63, 65 and 66.

O.C. 451-2005, s. 89; O.C. 451-2011, s. 20.

90. The operation of a trench landfill is also subject to the following conditions :

(1) in order to minimize the release of odours, the spread of fires, the proliferation of animals or insects, and blowing litter, the residual materials deposited in the trenches must, at least once a week from May to October, be covered with a layer of soil or other material referred to in paragraph 4, or be covered in another manner if the above purposes are accomplished. The weekly cover requirement does not apply to a landfill reserved exclusively for the use of an industrial, commercial or other establishment if the residual materials received are not likely to generate the nuisances referred to above;

(2) residual materials containing asbestos, sludge and animal carcasses or animal parts must be covered with other materials as soon as they are deposited. That requirement does not apply if the residual materials deposited are covered in another manner as provided for in paragraph 1. The words “containing asbestos” have the same meaning as in the fourth paragraph of section 41;

(3) the soil used to cover the residual materials may contain contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37) for volatile organic compounds and in Schedule II to that Regulation for other contaminants. Those limit values do not apply to contaminants that do not originate from human activity. The thickness of the cover layer consisting of such contaminated soil may not exceed 60 cm;

(4) other material may be used to cover the residual materials deposited in trenches if the other material does not contain any substance that is not accepted in a trench landfill and is capable of accomplishing the purposes referred to in paragraph 1.

O.C. 451-2005, s. 90.

91. When the height of the residual materials deposited in a trench reaches the ground surface at the perimeter of the trench area, the trench area must be covered with a soil layer at least 60 cm thick including, in its upper portion, a layer at least 15 cm thick that is suitable for vegetation. The latter layer may also consist of a layer not more than 30 cm thick of another material that is suitable for vegetation.

With the exception of the layer of soil or other material suitable for vegetation, the trench cover may also consist of soils containing contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37). Those limit values do not apply to contaminants that do not originate from human activity.

In order to allow the water to flow away from the trench area and limit soil erosion, the final cover must also be graded to a slope of at least 2% without exceeding

(1) 5%, if the slope at the perimeter of the trench area does not exceed that percentage; or

(2) the percentage of the slope at the perimeter of the trench area, if that slope is greater than 5%.

Not later than 1 year after installation of the final cover, the final layer must be given a vegetative layer. Damage

such as holes, fissures or subsidence that may occur in the final cover must be repaired immediately to prevent water from pooling, until the trench area has been fully stabilized.

The provisions of sections 34 to 36 relating to quality assurance and control apply, with the necessary modifications, to the final trench cover prescribed by this section.

O.C. 451-2005, s. 91; O.C. 451-2011, s. 21.

92. If all or part of a trench landfill is temporarily closed for a period of 3 months or more, and subject to the second paragraph, the residual materials deposited in a trench must be covered with at least 30 cm of soil at the latest by the expiry of the third month.

Any trench that is unused for a period of 6 months must be filled in as provided in section 91 at the latest by the expiry of the sixth month.

O.C. 451-2005, s. 92.

93. Sections 80 to 85 apply, with the necessary modifications, to the closure of a trench landfill and to its post-closure management.

O.C. 451-2005, s. 93.

DIVISION 4
NORTHERN LANDIFLLS

94. Landfills may be established in the North, in which only residual materials generated in the North are accepted, including sludge which, although generated elsewhere, is treated in the North.

Northern landfills must be sited and operated in accordance with this Division.

For the purposes of this Division, “the North” means the territories listed below:

(1) the territory situated north of the 55th parallel;

(2) Municipalité de Côte-Nord-du-Golfe-du-Saint-Laurent, the municipalities of Blanc-Sablon, Bonne-Espérance, Gros-Mécatina and Saint-Augustin, Ville de Schefferville and the territory within a radius of 10 km from the limits of that town, the Naskapi Village of Kawawachikamach and 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; 1996, chapter 2).

O.C. 451-2005, s. 94; O.C. 451-2011, s. 22.

95. Northern landfills must be sited at a minimum distance of

(1) 150 m from any watercourse or body of water; and

(2) 500 m from any catchment installation for surface water or groundwater intended for human consumption.

The first paragraph does not apply if the landfill is not likely to alter the quality of the water referred to in that paragraph.

O.C. 451-2005, s. 95.

96. Northern landfills must be surrounded by a fence or any other device so as

(1) to prevent wind dispersal of the residual materials and contain them in the disposal areas;

(2) to prevent animals from entering the landfill; and

(3) to prevent access to the landfill after business hours.

The landfills must also be surrounded by a fire barrier at least 15 m wide devoid of all vegetation.

A conspicuous sign must be posted at the landfills indicating the type of landfill, the name and address of the operator and any other person in charge of the landfill, as well as the business hours.

O.C. 451-2005, s. 96.

97. The bottom of the disposal areas of a northern landfill must be above the permafrost line at a minimum distance of 30 cm above the groundwater level. Any lowering of the groundwater level by pumping, draining or otherwise is prohibited.

The removed materials must be stockpiled on the perimeter of the site to be used to cover the residual materials.

Sludge must be deposited in an area separate from the area in which other residual materials are deposited so as to facilitate the burning of the residual materials.

O.C. 451-2005, s. 97.

98. Northern landfills must have a surface water collection system to prevent the surface water from being contaminated by residual materials or from penetrating into the disposal areas. Once collected, the surface water must be discharged outside the landfill site.

O.C. 451-2005, s. 98.

99. Combustible residual materials deposited in northern landfills must be burned at least once a week, weather conditions permitting.

Residual materials containing asbestos, and animal carcasses or animal parts must be covered with soil or other residual materials as soon as they are deposited. The words “containing asbestos” have the same meaning as in the fourth paragraph of section 41.

The soil used to cover the residual materials may contain contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37) for volatile organic compounds and in Schedule II to that Regulation for other contaminants. Those limit values do not apply to contaminants that do not originate from human activity.

O.C. 451-2005, s. 99; O.C. 451-2011, s. 23.

100. If all or part of a northern landfill is closed or unused for a period of 6 months or more, the residual materials deposited in the landfill must be covered after being burned with a layer of soil at least 30 cm thick at the latest by the expiry of the sixth month.

The soil referred to in the first paragraph may contain contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37). Those limit values do not apply to contaminants that do not originate from human activity.

O.C. 451-2005, s. 100; O.C. 451-2011, s. 24.

DIVISION 5
CONSTRUCTION OR DEMOLITION WASTE LANDFILLS

101. For the purposes of this Division, “construction or demolition waste” means any material from the construction, renovation or demolition of immovables, bridges, roads or other structures, and includes stone, debris

or rubble, fragments of concrete, masonry or asphalt, siding materials, wood, metal, glass, textile materials and plastics, but excludes

(1) materials rendered unrecognizable by burning, crushing, shredding or otherwise, containers of paint, solvent, sealant, adhesive or other similar materials, wood treated to prevent the presence of mould or to increase resistance to decay, yard waste such as grass, leaves and woodchips, and materials, other than bituminous coated material, containing asbestos. The words “containing asbestos” have the same meaning as in the fourth paragraph of section 41; and

(2) any material mingled with household garbage, materials from an industrial process or any of the materials referred to in subparagraph 1.

Trees, branches and stumps removed to allow for construction work, soil excavated from land including soil containing 1 or more contaminants in a concentration lower than or equal to the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37), and residual materials from a facility that recovers or reclaims construction or demolition waste or from another recovery or reclamation facility authorized under the Environment Quality Act (chapter Q-2) are considered to be construction or demolition waste to which this Division applies insofar as in all cases the materials, although of a composition similar to that of construction or demolition waste, were unable to be recovered or reclaimed. The limit values referred to in this paragraph for contaminants do not apply to contaminants that do not originate from human activity.

O.C. 451-2005, s. 101.

102. Any establishment or enlargement of construction or demolition waste landfills is prohibited. The term “enlargement” includes any alteration that results in an increase in landfill capacity.

That prohibition does not apply to projects to establish or enlarge a dry materials disposal site within the meaning of the Regulation respecting solid waste (chapter Q-2, r. 13), replaced by this Regulation, in respect of which, before 1 December 1995, a notice required under section 31.2 of the Environment Quality Act (chapter Q-2) or an application for a certificate was filed with the Minister and, on 19 January 2006, no decision has been made by the Government or the Minister granting or refusing the authorization or certificate applied for. Those projects may be continued as projects to establish or enlarge a construction or demolition waste landfill and are subject to the provisions of this Division.

O.C. 451-2005, s. 102.

103. Construction or demolition waste landfills referred to in the second paragraph of section 102 may be established or enlarged only for the purpose of filling a pit or quarry within the meaning of the Regulation respecting pits and quarries (chapter Q-2, r. 7) if the depth of the pit or quarry allows for waste to be landfilled to an average thickness of at least 3 m.

Only construction or demolition waste within the meaning of section 101 of this Regulation may be disposed of in a landfill referred to in the first paragraph.

O.C. 451-2005, s. 103.

104. Subject to the conditions set out in the second paragraph, sections 13 to 16, 19, 28 to 30 and 34 to 36 apply, with the necessary modifications, to the siting of construction or demolition waste landfills.

The siting is also subject to the following conditions:

(1) the minimum distance between the disposal areas and any watercourse or body of water must be 150 m;

(2) the bottom of the disposal areas must be at least 1 m above the groundwater level. The lowering of the groundwater level by pumping, draining or otherwise is prohibited. That prohibition does not apply to landfills in operation on 19 January 2006 if their siting complies with the provisions of this Regulation that apply to containment and the collection of leachate in engineered landfills. In such a case, the leachate collection system must

be designed and installed so that the hydraulic head at the base of the disposal areas cannot reach the level of the residual materials deposited in the disposal areas.

The minimum distances prescribed by the second paragraph are measured from the disposal areas in the pit or quarry.

O.C. 451-2005, s. 104.

105. Sections 37 to 40.1, 43 to 49, 52 to 55, 57 to 60, 63 to 67 and 69 to 79 apply to the operation of construction or demolition waste landfills, with the necessary modifications and in particular as follows: the maximum distance authorized under subparagraph 2 of the third paragraph of section 65 for the installation of groundwater quality monitoring wells must not exceed the perimeter of the landfills.

The operation of the landfills is also subject to the following conditions:

(1) subject to subparagraph 2, construction or demolition waste deposited in the landfills must, at least once a month during the operation period, be graded and covered with a layer of soil or material that

- consists of less than 20% by weight of particles 0.08 mm or finer in diameter;

- has a constant minimum hydraulic conductivity of 1×10^{-4} cm/s;

- does not contain material that is not accepted in such a landfill;

- accomplishes the purposes referred to in the second paragraph of section 41;

(2) bituminous coated material containing asbestos must be covered with other materials on being unloaded in a disposal area. The words “containing asbestos” have the same meaning as in the fourth paragraph of section 41;

(3) (subparagraph revoked).

The soil used to cover construction or demolition waste may also contain contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37). Those limit values do not apply to contaminants that do not originate from human activity.

The operator must periodically verify, at the frequency specified in the authorization obtained pursuant to section 22 or 31.5 of the Environment Quality Act (chapter Q-2), whether the soils or other materials used to cover the residual materials meet the requirements of subparagraph 1 of the second paragraph of this section. For that purpose, the operator must have representative samples of the soils or materials measured and analyzed and the results of the measurements and analyses must appear in the annual report prepared pursuant to section 52.

O.C. 451-2005, s. 105; O.C. 451-2011, s. 25.

106. When the height of landfilled construction or demolition waste reaches a level that is 90 cm below the ground surface at the perimeter of a disposal area, the area must receive a final cover consisting of, from the bottom up,

(1) an impermeable soil layer with a constant maximum hydraulic conductivity of 1×10^{-5} cm/s, through a minimum thickness of 45 cm after compaction, or a geomembrane at least 1 mm thick placed on a soil layer at least 30 cm thick having characteristics that preserve the integrity of the geomembrane; and

(2) a barrier soil layer at least 45 cm thick if the above-mentioned impermeable layer is a soil layer, or 60 cm thick if the impermeable layer is a geomembrane. The upper portion of the layer prescribed by this subparagraph must also, to a depth of between 15 and 30 cm, consist of soil or materials suitable for vegetation. The characteristics of the soil or other materials used must be such as to preserve the integrity of the impermeable layer.

In addition, any raising of the ground surface at the perimeter of a disposal area is prohibited.

With the exception of the layer of soil or material suitable for vegetation, the layers referred to in subparagraphs 1 and 2 of the first paragraph may also consist of soils containing contaminants in a concentration equal to or lower than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37). Those limit values do not apply to contaminants that do not originate from human activity. The layers may also consist of other material if the material meets where applicable the requirements of this paragraph and the minimum thickness of the layers is as prescribed in those subparagraphs.

In order to allow the water to flow away from the disposal area and limit soil erosion, the final cover must also be graded

(1) to a slope of 2%, if the slope at the perimeter of the disposal area does not exceed that percentage; or

(2) to a slope that equals the slope percentage at the perimeter of the disposal area, if that perimeter slope is greater than 2%.

Not later than 1 year after installation of the final cover, the final layer must be given a vegetative layer. Damage such as holes, fissures or subsidence that may occur in the final cover must be repaired immediately to prevent water from pooling over or infiltrating into the disposal area, until the disposal area has been fully stabilized.

The provisions of sections 34 to 36 relating to quality assurance and control apply, with the necessary modifications, to the final cover of disposal areas prescribed by this section.

O.C. 451-2005, s. 106; O.C. 451-2011, s. 26.

107. Every construction or demolition waste landfill must have a system that collects and removes the biogas produced in the landfill.

The system must be in operation not later than 1 year after a disposal area has received a final cover.

O.C. 451-2005, s. 107.

108. The final profile of filled construction or demolition waste landfills including the final cover must not exceed the ground surface at the perimeter of the disposal areas, except to the extent that the raising of the surface of the disposal areas relative to the ground is necessary to meet the requirements of the fourth paragraph of section 106, in which case the height of the landfilled residual materials may exceed the limit prescribed by that section.

O.C. 451-2005, s. 108.

109. Residual materials in a construction or demolition waste landfill that has been unused for a period of 12 months or more must, at the latest by the expiry of the twelfth month, be covered as required by sections 106 and 108 which apply with the necessary modifications.

O.C. 451-2005, s. 109.

110. Sections 80 to 85 apply, with the necessary modifications, to the closure of construction or demolition waste landfills and to their post-closure management.

O.C. 451-2005, s. 110.

DIVISION 6
REMOTE LANDFILLS

111. Landfills may be established in the territories referred to in section 112, in which only residual materials generated in those territories are accepted.

The landfills, referred to as “remote landfills”, must be sited and operated in accordance with this Division, which also prescribes the conditions that apply to their closure.

O.C. 451-2005, s. 111.

112. Remote landfills are permitted in the following territories only:

(1) territories that are not organized into local municipalities;

(2) territories inaccessible by road and every island that is not connected to the mainland by a bridge or a boat service;

(3) the territory of the James Bay region, as described in the schedule to the James Bay Region Development and Municipal Organization Act (chapter D-8.2);

(4) the territories referred to in the third paragraph of section 94; and

(5) the part of the territory of Ville de La Tuque situated west of the 73rd meridian.

Except the territories referred to in subparagraph 4 of the first paragraph, those landfills may not serve more than 100 persons on average, on a yearly basis.

In addition, in the territories referred to in subparagraphs 1, 3 and 5 of the first paragraph, only the following persons or municipalities may establish and operate a remote landfill:

(1) the Minister of Natural Resources and Wildlife or another authority responsible under the Act for the management of lands in the domain of the State;

(2) a regional county municipality;

(3) the manager of an outfitting operation or of a controlled territory within the meaning of the Act respecting the conservation and development of wildlife (chapter C-61.1);

(4) the person responsible for an industrial camp governed by the Regulation respecting sanitary conditions in industrial or other camps (chapter Q-2, r. 11);

(5) Municipalité de Baie-James;

(6) the person appointed under section 166 of the Environment Quality Act (chapter Q-2) to exercise the functions, duties and powers of the Minister of Sustainable Development, Environment and Parks on Category I land in the territory referred to in section 133 of that Act;

(7) Ville de La Tuque.

O.C. 451-2005, s. 112; O.C. 451-2011, s. 27.

113. A remote landfill may not accept residual materials from

(1) a dwelling or an establishment served by a residual materials collection service or situated 100 km or nearer by road from an engineered landfill that is not reserved exclusively for the use of an industrial, commercial or other establishment, or from an incineration facility referred to in section 121, as long as those disposal facilities remain accessible by road; or

(2) an establishment in which more than 100 people are lodged, on a yearly basis or the equivalent.

O.C. 451-2005, s. 113; O.C. 451-2011, s. 28.

114. Remote landfills must be sited at a minimum distance of

(1) 150 m from any watercourse or body of water; and

(2) 500 m from any catchment installation for surface water or groundwater intended for human consumption. That requirement does not apply if the landfill is not likely to alter the quality of the water.

O.C. 451-2005, s. 114.

115. No person may burn residual materials in a remote landfill. An operator may not allow the burning of such materials in a remote landfill.

The prohibition in the first paragraph is however not applicable to a remote landfill in the North as defined in section 94 that has a fire barrier at least 15 m wide and devoid of all vegetation extending outward from the burning area.

O.C. 451-2005, s. 115; O.C. 451-2011, s. 29.

116. The bottom of the disposal areas of every remote landfill must be a minimum distance of 30 cm above bedrock and the groundwater level. Any lowering of the groundwater level by pumping, draining or otherwise is prohibited.

O.C. 451-2005, s. 116.

117. From May to October, the residual materials deposited in a remote landfill must be covered at the end of each day of use or at least once a week where those materials are burned pursuant to the second paragraph of section 115, with a layer of soil or with a layer of lime, or be covered in another manner that minimizes the release of odours, the spread of fires, the proliferation of animals or insects, and blowing litter.

Residual materials containing asbestos, and animal carcasses or animal parts must be covered with other residual materials as soon as they are deposited. That requirement does not apply if the residual materials deposited in the remote landfill are covered in another manner as provided for in the first paragraph. The words “containing asbestos” have the same meaning as in the fourth paragraph of section 41.

O.C. 451-2005, s. 117; O.C. 451-2011, s. 30.

118. Sludge with a dryness lower than 15% to be landfilled in a remote landfill must be landfilled in a separate pit reserved exclusively for that type of residual material.

O.C. 451-2005, s. 118.

119. When the height of the residual materials reaches the ground surface at the perimeter of the landfill, the remote landfill must be covered with a layer of materials at least 30 cm thick consisting of soil including a layer at least 15 cm thick that is suitable for vegetation, or consisting of a layer of another material not more than 30 cm thick that is suitable for vegetation. Any raising of the ground surface at the perimeter of the landfill is prohibited.

In order to allow water to flow away from the landfill and limit soil erosion, the final cover must also be graded to a slope of at least 2% without exceeding

(1) 5%, if the slope at the perimeter of the remote landfill does not exceed that percentage; or

(2) the percentage of the slope at the perimeter of the remote landfill if that slope is greater than 5%.

O.C. 451-2005, s. 119.

120. If a remote landfill is temporarily closed for a period of 3 months or more, and subject to the second paragraph, the residual materials deposited in the landfill must be covered with at least 30 cm of soil at the latest by the expiry of the third month.

A remote landfill that is unused for a period of 12 months must be filled in at the latest by the expiry of that period and section 119 applies, with the necessary modifications.

O.C. 451-2005, s. 120.

CHAPTER III
RESIDUAL MATERIALS INCINERATION FACILITIES

DIVISION 1
GENERAL

121. This Chapter applies to incineration facilities that incinerate at least 1 of the following types of residual materials:

(1) household garbage collected by or for a municipality;

(2) sludge from municipal water or sludge treatment or collection works, other sanitary wastewater collection or treatment works or treatment works for sludge from such works, or from sewer cleaning.

O.C. 451-2005, s. 121.

122. The provisions of the Regulation respecting biomedical waste (chapter Q-2, r. 12) and the Clean Air Regulation (chapter Q-2, r. 4.1) that apply to biomedical waste incineration facilities also apply to the residual materials incineration facilities governed by this Chapter that receive biomedical waste referred to in section 1 of the Regulation respecting biomedical waste.

Where this Regulation is inconsistent with the above regulations, the provisions that ensure greater environmental protection are to prevail.

O.C. 451-2005, s. 122; O.C. 666-2013, s. 2.

123. Residual materials that, under paragraphs 1 to 6, 8 to 10 and 12 of section 4, may not be disposed of in an engineered landfill may not be disposed of in an incineration facility governed by this Chapter.

In addition, inedible meat within the meaning of the Regulation respecting food (chapter P-29, r. 1) may be disposed of in such an incineration facility only under the conditions prescribed by the Food Products Act (chapter P-29) and the regulations made under that Act.

O.C. 451-2005, s. 123.

DIVISION 2
SITING AND OPERATION

124. The incineration facilities governed by this Chapter must have a handling area or pit where the residual materials are received and that must be situated inside a building.

The handling area and pit must be impermeable.

The handling area must be cleaned at the end of each day of operation.

No non-incinerated residual material or incinerator ash may be stored outside the incineration facility buildings ; no truck containing residual materials, including ash, may be parked on the premises of the facility for a period of more than 1 hour.

O.C. 451-2005, s. 124; O.C. 451-2011, s. 31.

125. An incineration facility governed by this Chapter that receives biomedical waste referred to in paragraphs 1 to 3 of section 1 of the Regulation respecting biomedical waste (chapter Q-2, r. 12), or animal carcasses or animal parts, must be laid out so that the residual materials are unloaded in an area separate from the area where the other types of residual materials are deposited, and are conveyed to the combustion chamber or chambers by means of an independent feed system.

The requirements of the first paragraph do not apply in the case of animal carcasses or animal parts of domestic pets that are not from establishments that breed or sell domestic pets or that shelter, care for or protect them.

O.C. 451-2005, s. 125.

126. An incineration facility governed by this Chapter that has a rated capacity of less than 1 ton per hour must have at least 2 combustion chambers.

Gases from the primary combustion chamber must be brought to a temperature greater than 1,000°C for at least 1 second when they reach the final combustion chamber.

In addition, no residual materials may be fed into the primary combustion chamber during the preheating of the final combustion chamber, or be ignited until the temperature of the gases in the final combustion chamber has been maintained at a temperature of at least 1,000°C for a minimum of 15 minutes.

The facility must have auxiliary gas or liquid fossil fuel burners.

O.C. 451-2005, s. 126.

127. An incineration facility governed by this Chapter must have a sampling system that continuously measures and records the concentration of carbon monoxide, carbon dioxide and oxygen in the combustion gases emitted into the atmosphere. It must also have a system that continuously measures and records the gas temperature at the outlet of the final combustion chamber.

If the incineration facility has a rated capacity of 1 ton or more per hour, it must also have a sampling system that continuously measures and records the opacity of the combustion gases or the concentration of the particles emitted into the atmosphere.

In addition, if an incineration facility has a rated capacity of 2 tons or more per hour and burns halogenated materials, it must have a sampling system that continuously measures and records the concentration of hydrogen chloride in the combustion gases emitted into the atmosphere.

All measurements must be kept by the operator for a minimum of 4 years and be made available to the Minister.

O.C. 451-2005, s. 127.

128. Sections 37 to 39, paragraph 1 of section 45, sections 48, 52 and 72 to 79 apply, with the necessary modifications, to the operation of every incineration facility governed by this Chapter.

Sections 38 and 72 to 79 do not apply to an incineration facility that disposes of residual materials generated in any of the territories referred to in section 87 or 94.

O.C. 451-2005, s. 128.

DIVISION 3
GAS EMISSIONS

129. The opacity of grey or black combustion gas emitted into the atmosphere by an incineration facility governed by this Chapter must not exceed 20% except

(1) for a maximum of 4 minutes per hour at which time the opacity of the emissions may attain a maximum of 40%; or

(2) on igniting the combustion chamber or blowing tubes at which time the opacity of the emissions may attain a maximum of 60% for a maximum of 4 minutes.

The opacity of the emissions is measured using the Micro-Ringelmann Chart in the manner set out in Schedule I.

O.C. 451-2005, s. 129.

130. Subject to section 133, the incineration facilities governed by this Chapter must not emit combustion gases into the atmosphere that contain

(1) more than 20 mg/m^3 of particles if the facilities have a rated capacity equal to or greater than 1 ton per hour, or more than 50 mg/m^3 of particles if the rated capacity is lower. “Particle” means any substance, except chemically uncombined water, which exists in a finely divided liquid or solid state in suspension in a gaseous environment;

(2) more than 50 mg/m^3 of hydrogen chloride. That limit value may be exceeded without, however, exceeding 100 mg/m^3, in the case of a facility that has a rated capacity of less than 1 ton per hour;

(3) more than 57 mg/m^3 of carbon monoxide calculated as the arithmetic average of all measurements taken during a 4-hour period;

(4) more than 0.08 ng/m^3 of polychlorinated dibenzofurans and polychlorinated dibenzo [b, e] [1,4] dioxins. That contaminant concentration is calculated by adding the concentrations of each of the congeners listed in Schedule II and multiplying the sum obtained by the corresponding toxicity equivalency factor determined in that Schedule; or

(5) more than 20 µg/m^3 of mercury or, if the facility incinerates only sludge referred to in paragraph 2 of section 121, more than 70 µg/m^3 of mercury.

O.C. 451-2005, s. 130.

DIVISION 4
GAS EMISSIONS MONITORING

131. The measurements taken to monitor compliance with the limit values set out in section 130 are expressed as units of mass per cubic metre of dry combustion gas, at a reference temperature of 25 °C and pressure of 101.3 kPa, corrected to 11% oxygen according to the following formula:

$E = E_a \times (9.9 / (20.9 - A))$

where

“E” is the corrected concentration;

“E_a” is the dry concentration at the above temperature and pressure; and

“A” is the percentage of oxygen, on a dry basis, in the combustion gases at the sampling point.

O.C. 451-2005, s. 131.

132. The operator of an incineration facility governed by this Chapter that has a rated capacity equal to or greater than 1 ton per hour must, at least once a year, perform source emissions testing of the combustion gases emitted into the atmosphere or have such testing performed for the purpose of measuring the parameters mentioned in section 130, with 3 samples per run for the parameters referred to in paragraphs 1, 2, 4 and 5 of that section. If the rated capacity of the incineration facility is less than 1 ton per hour, that testing requirement is reduced to at least once every 3 years.

O.C. 451-2005, s. 132.

133. A limit value set out in paragraphs 1, 2, 4 and 5 of section 130 is considered to be complied with if the following conditions are met:

(1) the arithmetic average of the 3 sampling results from the same sampling run performed pursuant to section 132 is lower than or equal to the limit value;

(2) at least 2 of the results are lower than the limit value;

(3) none of the 3 results exceeds the limit value by more than 20%.

O.C. 451-2005, s. 133.

134. The emissions testing of the gas required by section 132 must be performed using the methods described in Book 4 of the Guide d'échantillonnage à des fins d'analyses environnementales published by the Ministère du Développement durable, de l'Environnement et des Parcs. A report of the testing performed as provided in that Book must be sent to the Minister within 120 days after the end of each sampling run. The report must contain a statement by its author certifying that the testing was performed in accordance with the methods described in that Book.

The gas samples must be sent for analysis to laboratories accredited by the Minister under section 118.6 of Environment Quality Act (chapter Q-2).

O.C. 451-2005, s. 134.

DIVISION 5
PROCESS WATER AND OTHER LIQUID

135. Sections 29, 53, 55, 63 and 69 to 71 apply, with the necessary modifications, to process water used in an incineration facility governed by this Chapter to cool the incineration residue or to reduce the emissions of contaminants into the atmosphere, and to liquid from the handling area or pit where the residual materials are received.

O.C. 451-2005, s. 135.

CHAPTER IV
RESIDUAL MATERIALS TRANSFER STATIONS

DIVISION 1
GENERAL

O.C. 451-2011, s. 33.

136. This Chapter applies to residual materials transfer stations, except transfer stations that receive only construction or demolition waste within the meaning of section 101.

“Transfer station” means any facility where residual materials are unloaded to be prepared for further transport to another place for disposal.

O.C. 451-2005, s. 136.

137. The only residual materials that may be accepted at a transfer station are those authorized by this Regulation to be disposed of in an engineered landfill or an incineration facility to which Chapters II and III apply respectively.

Despite the foregoing, sludge with a dryness lower than 25% may not be accepted at a transfer station.

O.C. 451-2005, s. 137; O.C. 451-2011, s. 32.

138. The operations at a transfer station involving the loading and unloading of residual materials must be carried out inside a building. No residual material may be stockpiled outside the building. No truck containing residual materials may be parked on the premises of the transfer station for a period of more than 1 hour.

When transfer activities cease for a period of more than 12 hours, all the residual materials received must be conveyed to their destination so that no residual materials remain inside the building or on the premises of the transfer station. That requirement does not apply if the building referred to in the first paragraph has an air collection and treatment system that prevents any nuisance odour caused by the residual materials remaining in the building for a period of more than 12 hours.

O.C. 451-2005, s. 138.

139. Subject to section 139.2, sections 37 to 39, paragraph 1 of section 45, sections 48, 49, subparagraph 1 of the first paragraph of section 52 and the second and third paragraphs of section 124 apply, with the necessary modifications, to residual materials transfer stations.

The operations logs maintained by a transfer station must also indicate the destination of the transferred residual materials and the data must be compiled in the annual reports of those stations. The logs are not required to be kept after a transfer station is closed if the information entered in them has been transferred into the operations logs of the disposal facilities that received the residual materials.

In addition, section 29, subparagraph 4 of the first paragraph and the second paragraph of section 52, sections 53, 55, 63 and 69 to 71 apply, with the necessary modifications, to liquid from the residual materials handling area.

O.C. 451-2005, s. 139; O.C. 451-2011, s. 34.

DIVISION 2
LOW CAPACITY TRANSFER STATIONS

O.C. 451-2011, s. 35.

139.1. A low capacity transfer station established in accordance with this Division may be operated only by or for a municipality.

“Low capacity transfer station” means a transfer station that is established for the transfer of 200 metric tons or less of residual materials every week.

O.C. 451-2011, s. 35.

139.2. Despite the provisions of section 139, the provisions of section 38 do not apply to a low capacity transfer station. The quantity of residual materials entered in the operations logs of such a station pursuant to subparagraph 4 of the first paragraph of section 39 may be expressed in volume.

The provisions of sections 29, 37, 39, subparagraphs 1 and 4 of the first paragraph and the second paragraph of section 52, and the second and third paragraphs of section 124 do not apply to a low capacity transfer station where it is established for the transfer of 30 metric tons or less of residual materials every week.

In addition, the provisions of section 138 do not apply to a low capacity transfer station where the residual materials are deposited in a closed and watertight container and conveyed to a disposal facility at least once a week from May to October.

A local municipality may only have on its territory 1 low capacity transfer station established for the transfer of more than 30 metric tons of residual materials every week. This also applies to a transfer station established for the transfer of 30 metric tons or less of residual materials every week and used in whole or in part for the transfer of household garbage.

O.C. 451-2011, s. 35.

139.3. The maximum volume of residual materials that may be stored in a low capacity transfer station must not at any time exceed 300 m^3. In the case of a station established for the transfer of 30 metric tons or less of residual materials every week, the volume may not exceed 100 m^3.

O.C. 451-2011, s. 35.

139.4. Despite the provisions of section 139.1, where a low capacity transfer station is situated in a territory inaccessible by a road open year-round within the meaning of paragraph 4 of section 87, a quantity of residual materials greater than 200 metric tons may be transferred every week from November to April. In addition, during the same period, the provisions of section 139.3 do not apply to such a station.

O.C. 451-2011, s. 35.

CHAPTER V
FINANCIAL GUARANTEE

140. The operation of the facilities to which Divisions 2, 3 and 5 of Chapter II and Chapters III and IV apply, except a transfer station referred to in the second paragraph of section 139.2, is subject to the provision of a financial guarantee by the operator or by a third party on the operator's behalf to guarantee, during the operation and on closure, the performance of the operator's obligations under the Environment Quality Act (chapter Q-2), the regulations, an order or an authorization.

The amount of the financial guarantee is established as follows:

Class of facility	Guarantee
Engineered landfill and construction or demolition waste landfill - receiving less than 20,000 tons per year - receiving from 20,000 to 100,000 tons per year - receiving more than 100,000 tons per year without exceeding 300,000 tonnes per year - receiving more than 300,000 tons per year	 $100,000 $300,000 $500,000 $1,000,000
Trench landfill	$50,000 per landfill, maximum $250,000 for the operator of more than 1 landfill
Incineration facility	1% of capital cost, minimum $100,000 maximum $2,000,000
Transfer station	$100,000

O.C. 451-2005, s. 140; O.C. 451-2011, s. 36.

141. The financial guarantee must be in one of the following forms:

(1) cash, a bank money order or a certified cheque made out to the Minister of Finance;

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

(3) a security or guarantee policy, with a stipulation of solidarity and renunciation of the benefits of discussion and division, issued by a legal person authorized to give guarantees under the Bank Act (S.C. 1991, c. 46), the Act respecting trust companies and savings companies (chapter S-29.01), the Act respecting insurance (chapter A-32) or

the Act respecting financial services cooperatives (chapter C-67.3);

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

O.C. 451-2005, s. 141.

142. The sums of money, orders, cheques or bonds provided as a guarantee must be deposited with the Minister of Finance pursuant to the Deposit Act (chapter D-5) for the operational period of the facility and for a period of 12 months following the closure of the facility or the revocation or transfer of the certificate of authorization, whichever occurs first.

O.C. 451-2005, s. 142.

143. A financial guarantee provided in the form of security, a financial guarantee policy or a letter of credit must have a term of not less than 12 months. At least 60 days before the expiry of the financial guarantee, the proponent must send renewal of the financial guarantee or any other financial guarantee that meets the requirements of sections 140 and 141 to the Minister of Sustainable Development, Environment and Parks.

The financial guarantee must also contain a clause setting the time period for filing a claim based on a failure by the operator to perform obligations at not less than 12 months after expiry of the financial guarantee or, as the case may be, its revocation, rescission or cancellation.

A clause of revocation, rescission or cancellation of a financial guarantee may take effect only if prior notice of at least 60 days is sent to the Minister by registered or certified mail.

O.C. 451-2005, s. 143.

144. If the operator fails to perform an obligation and the default persists after a notice from the Minister to remedy the failure, the Minister may use the financial guarantee provided pursuant to section 140 to pay expenses necessary for performance of the obligation. In such a case, the sums required to fulfil a financial guarantee provided under this Chapter become payable.

O.C. 451-2005, s. 144.

CHAPTER VI
CERTIFICATE OF AUTHORIZATION

145. No person may establish or enlarge an engineered landfill or a construction or demolition waste landfill referred to in the second paragraph of section 102 without being the owner of the land on which the landfill is to be established or enlarged, including the land on which any system necessary to its operation is to be situated if the land is not the land on which the disposal areas and other landfill equipment or facilities are to be situated.

After its establishment or enlargement, the landfill and the land on which the landfill or any system necessary to its operation is situated must continue to be owned by the same person or municipality, including after a transfer of the disposal facility.

O.C. 451-2005, s. 145.

146. Section 55 of the Environment Quality Act (chapter Q-2) relating to the authorization requirement set out in section 22 of the Act does not apply to remote landfills to which Division 6 of Chapter II applies. Despite the foregoing, the operator is required, before establishing or altering such a landfill, to give notice in writing of the establishment or alteration to the Minister and the regional county municipality in which the landfill is situated, or the local municipality in which the landfill is situated if the territory of the local municipality is not within the territory of a regional county municipality. The notice must specify where the landfill is situated and indicate the number of persons the landfill is to serve on a yearly basis or provide the data necessary to enable the equivalent of that number to be determined.

Likewise, the provisions of section 55 do not apply to a transfer station referred to in the second paragraph of section 139.2. In such a case, the operator must notify in writing the Minister and the regional county municipality with an indication of the location of such a station, the weekly quantity of residual materials that will be transferred at the station and the user community concerned.

O.C. 451-2005, s. 146; O.C. 451-2011, s. 37.

147. An application for an authorization under section 22 of the Environment Quality Act (chapter Q-2) relating to the establishment or alteration of a residual materials disposal facility referred to below must be accompanied by the following information and documents, in addition to those required under section 22 of the Act or under the Regulation respecting the application of the Environment Quality Act (chapter Q-2, r. 3):

(1) in the case of an application for the establishment or enlargement of an engineered landfill or a construction or demolition waste landfill that was authorized by the Government under section 31.5 of the Environment Quality Act,

(a) a copy of the titles confirming the applicant's ownership of the lots or parts of lots covered by the application, and the location certificate for each lot or part of lot;

(b) the plans and specifications of any facility required for the establishment and operation of the landfill, including any equipment or works to reduce, control, contain or prevent the deposit, release, emission or discharge of contaminants into the environment;

(c) all documents and information required under the conditions specified in the authorization granted pursuant to section 31.5 of that Act;

(d) any document or information showing compliance with the conditions set out in this Regulation if the application involves for the landfill or any of its components an exemption from a requirement of this Regulation or the use of an alternative system, technique or material, to the extent that a provision of this Regulation gives entitlement to such an exemption or use;

(2) in the case of any other application concerning an engineered landfill or a construction or demolition waste landfill,

(a) a copy of the titles confirming the applicant's ownership of the lots or parts of lots covered by the application, and the location certificate for each lot or part of lot;

(b) the general characteristics of the disposal facility, including information regarding the user community to be served by the project, and the nature and quantity of the residual materials to be landfilled;

(c) the capacity and life of the landfill, the project schedule for the various phases, the estimated costs for the siting, operation, closure and post-closure management of the landfill, in particular for the monitoring and follow-up measures;

(d) a general plan of the disposal facility showing

- the location and dimensions of the facility, including the buffer zone, with geographic coordinates or, where applicable, the numbers of the lots or parts of lots covered by the application;

- the current land use and zoning within a radius of 2 km;

- the location of every airport within a radius of 8 km;

- the public thoroughfares, access roads, watercourses or bodies of water, wetlands (marshes, swamps, peat bogs), flood plains and mapped 100-year flood plains or flood zones identified by the municipalities, and wooded sectors, dwellings and any other construction within a radius of 1 km;

- the current drainage pattern and general topography of the land within a radius of 1 km;

- the location of every catchment site or works for surface water or groundwater for human or animal consumption, and of the protection areas around the site or works;

(e) a description of the local geology including, for the land covered by the application, a detailed stratigraphy, a geological survey performed using a representative number of stratigraphic borings (a minimum of 4 borings for the first 5 ha of land and an additional boring for each additional 5 ha or 5-ha portion), a soil characterization using a representative number of samples, and an estimate of the volumes of materials available for the establishment and operation of the landfill;

(f) a description of the local hydrogeology including, for the land covered by the application, a piezometric map, the levels of observation wells and other water points (resurgences, streams, outcrops of the water table), groundwater characteristics including location and depth, hydraulic conductivity determined from in-situ tests, direction of flow, migration velocity, the relationship between the various hydrostratigraphic units and with the surface hydrographic network, and groundwater susceptibility to pollution determined from a representative number of observation wells or piezometers (a minimum of 4 wells or piezometers for the first 5 ha of land and an additional well or piezometer for each additional 5 ha or 5-ha portion);

(g) a map showing, within a radius of 1 km, the location of the geological and hydrogeological observation points used, rock outcrops and unconsolidated deposits, areas sensitive to erosion and ground movement and land where, because of current or past use, contaminants could be potentially present in concentrations equal to or greater than the limit values set out in Schedule I to the Land Protection and Rehabilitation Regulation (chapter Q-2, r. 37);

(h) the results of the groundwater samples taken on the land covered by the application for the purpose of verifying the parameters and substances listed in sections 57 and 66, using a representative number of samples (a minimum of 1 sample per piezometer);

(i) a description of the physico-chemical and bacteriological characteristics of the surface water near any points of discharge into the environment, and the uses of the surface water;

(j) a study showing the integration of the landfill into the surrounding landscape;

(k) the plans and specifications of any facility required for the establishment and operation of the landfill, including any equipment or works to reduce, control, contain or prevent the deposit, release, emission or discharge of contaminants into the environment, including

- a topographical survey of the land showing the contour lines at intervals of not more than 1 m;

- a survey of the servitudes encumbering the land and of the surface and underground equipment present;

- a land development plan (scale between 1 :1,000 and 1 :1,500) showing among other things natural screens, the features to ensure integration into the landscape, the areas reserved for the removal or stockpiling of cover materials, the location of the buildings to be used by employees and for storing equipment, deforestation areas, vehicle traffic areas, weighing equipment, fences and gates, surface water, groundwater and biogas monitoring points and longitudinal and cross sections of the land showing its original and final contours;

- the plans and profiles of the drainage systems with cross sections of the various components, their description and location of the points of discharge into the environment;

- a description of the impermeable liner system for the disposal areas and of the leachate and water treatment system;

- a description of the final cover for the disposal areas, with cross sections of the components;

- a description of the equipment and works to be used to collect and treat leachate, with an estimate of the quality and quantity of leachate treated having regard to the variability of its characteristics, how the equipment and works are to be managed, how the leachate is to be characterized and treated and how the treatment waste is to be disposed of, as well as the location of the points of discharge into the environment;

- a description of the equipment and works to be used to prevent or control migration into the soil or emission into the atmosphere of the gas produced by the decomposition of landfilled residual materials, including biogas detection, combustion or treatment equipment and the composition of the gas;

(l) the quality assurance and quality control programs to ensure the application of sections 34 to 36;

(m) the operational specifications for the landfill, including

- assignment of the personnel required for the operation;

- the measures to be taken to ensure the maintenance and repair of the machinery and its replacement if required;

- the control measures for the residual materials accepted (nature, quality, origin) and the measures to be applied when the materials are unacceptable;

- the control measures for the daily cover materials to ensure compliance with section 42;

- the systems inspection, maintenance and cleaning program to be implemented to ensure the application of section 44;

- the programs to be implemented to monitor and supervise surface water, groundwater and biogas quality to ensure the application of sections 63 to 71, indicating in particular the location of the observation wells and the particulars of their installation;

(n) where required, any document or information referred to in subparagraph d of paragraph 1;

(3) in the case of an application concerning a trench landfill,

(a) a copy of every document confirming the applicant's rights on the land covered by the application;

(b) the documents and information referred to in subparagraphs b to i and k to n of subparagraph 2, which apply with the necessary modifications;

(c) if a landfill is planned to be sited completely on a mine tailings heap, the documents or information establishing that physical constraints justify the implementation of substitution measures for water monitoring and supervision, as permitted by section 89, and that those measures meet the conditions in that section;

(4) in the case of an application concerning a northern landfill,

(a) the documents and information referred to in subparagraphs b and d of subparagraph 1, subparagraphs b to d of subparagraph 2 and subparagraph a of subparagraph 3, which apply with the necessary modifications;

(b) a survey of the servitudes encumbering the land and of the surface and underground equipment present;

(c) the plans and profiles of the drainage system;

(d) a description of the soil at the landfill site to a minimum depth of 30 cm below the residual materials floor level;

(e) the operational specifications for the landfill; and

(5) in the case of an application concerning a residual materials transfer station or a residual materials incineration facility,

- the documents and information referred to in subparagraph b of subparagraph 1, subparagraphs b to d of subparagraph 2, subparagraph a of subparagraph 3 and subparagraph e of subparagraph 4, which apply with the necessary modifications.

The plans and specifications required under this section must be approved by an engineer who is a member of the Ordre des ingénieurs du Québec.

O.C. 451-2005, s. 147; O.C. 451-2011, s. 38.

148. If the information or documents required under section 147 have been provided to the Minister in connection with a preceding application, they need not be sent again if the applicant attests to their accuracy.

O.C. 451-2005, s. 148.

149. (Revoked).

O.C. 451-2005, s. 149; O.C. 441-2008, s. 10.

CHAPTER VI.1
MONETARY ADMINISTRATIVE PENALTIES

O.C. 666-2013, s. 3.

149.1. 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 have, at the landfill entrance, a sign complying with paragraph 1 of section 45;

(2) to form a watchdog committee within the period and in the manner provided for in the first and second paragraphs of section 72 or to ensure the operation of the committee in the case provided for in the fifth paragraph of that section;

(3) to fill any vacancy on the watchdog committee according to the terms referred to in the fourth paragraph of section 72;

(4) to inform the watchdog committee of any situation referred to in the first paragraph of section 77 or to make available to or provide the committee with, in a timely manner, all the documents or information prescribed by the second paragraph of that section;

(5) to pay all operating expenses of the watchdog committee in accordance with section 78;

(6) to post at the entrance to a landfill that has been permanently closed a sign complying with section 82 or the third paragraph of section 96, as the case may be.

O.C. 666-2013, s. 3.

149.2. 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 comply with the accessibility conditions prescribed by section 29 or 33;

(2) to obtain the reports referred to in the second paragraph of section 36 or to send them to the Minister in accordance with that paragraph;

(3) to enter in a log the information prescribed by the first paragraph of section 39, the first or second paragraph of section 40 or the third paragraph of section 40.1;

(4) to keep the log and its appendices referred to in section 39 or to make them available to the Minister, for the periods and on the conditions provided for in the second paragraph of section 39;

(5) to enter the results referred to in the fourth paragraph of section 42 or 105 in the annual report provided for in

section 52;

(6) to have, at the landfill entrance, a barrier or other device complying with paragraph 2 of section 45;

(7) to prepare an annual report containing the data, documents or information provided for in subparagraphs 1 to 6 of the first paragraph of section 52 or to comply with the periods and conditions for sending the report provided for in the second paragraph of section 52;

(8) to keep the analysis reports referred to in the second paragraph of section 70 during the period provided for therein;

(9) to send to the Minister the results referred to in the first or third paragraph of section 71 in accordance with the periods and conditions for transmission provided for therein;

(10) to immediately notify the Minister in writing of the date of closure of a landfill in accordance with section 80;

(11) to have prepared or to send to the Minister, within the period provided for in section 81, the closure report referred to therein containing the elements prescribed by subparagraphs 1 to 3 of the first paragraph or the second paragraph of that section;

(12) to keep or make available to the Minister the results referred to in the fourth paragraph of section 127 within the periods and on the conditions provided for therein;

(13) to send to the Minister the sampling report referred to in the first paragraph of section 134 according to the periods and conditions provided for therein;

(14) to give notice in writing to the Minister and the regional county municipality in the cases and on the conditions provided for in the first or second paragraph of section 146;

(15) to notify the Minister in writing in the case and according to the period and conditions provided for in the second paragraph of section 155.

O.C. 666-2013, s. 3.

149.3. 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 accept, in an engineered landfill, the eligible residual materials generated in the territories referred to in paragraphs 1 to 4 of section 10 or the inedible meat referred to in section 11;

(2) to comply with the conditions provided for in section 17 relating to the integration of an engineered landfill into the surrounding landscape;

(3) to maintain a buffer zone complying with the first or second paragraph of section 18 or to comply with the activity restrictions in such a zone in accordance with the third paragraph of that section;

(4) to meet the conditions provided for in section 19 or 30 relating to the siting of a landfill;

(5) to provide the zones or components referred to in the first paragraph of section 31 with a groundwater collection system in the cases provided for therein;

(6) to ensure that a groundwater collection system referred to in the first paragraph of section 31 complies with the conditions provided for in the second or third paragraph of that section or that it be halted only in the case provided for in the fourth paragraph of that section;

(7) to verify whether the residual materials received in a landfill may be landfilled in accordance with section 37;

(8) to weigh residual materials received for landfilling in a landfill or to perform radiological testing as soon as the materials are received and in the manner prescribed by the first paragraph of section 38;

(9) to comply with the conditions for the installation, use or maintenance of the devices referred to in the second paragraph of section 38, as provided for in that paragraph;

(10) to obtain the results of the analyses or measures provided for in the second paragraph of section 40 before receiving the soils referred to therein;

(11) to verify the acceptance of soils referred to in section 40.1 by having taken to have them analyzed the samples referred to in the first or second paragraph of that section in accordance with the conditions provided for therein;

(12) to comply with the conditions relating to the deposit or covering of the residual materials provided for in the first or second paragraph of section 41;

(13) to comply with the conditions provided for in the first, second, third or fifth paragraph of section 42 relating to soils or other materials that may be used to cover residual materials;

(14) to make the periodic verifications prescribed by the fourth paragraph of section 42 according to the frequency and conditions provided for therein;

(15) to landfill residual materials in the zones prescribed by section 43;

(16) to comply with the visibility conditions provided for in section 46 regarding residual materials landfilling operations;

(17) to take the measures prescribed by the first paragraph of section 48 to prevent wind dispersal or scattering of residual materials referred to therein;

(18) to proceed with the cleaning prescribed by the second paragraph of section 48 in the case and on the conditions provided for therein;

(19) to take the necessary measures to prevent or eliminate any infestation of pests in accordance with section 49;

(20) to cover the landfilled residual materials with a final cover in the cases provided for in the first paragraph of section 50 and in accordance with paragraphs second, third, fourth, fifth and sixth of that section;

(21) to comply with the conditions provided for in the first or second paragraph of section 51 relating to the vegetative layer or the repair of a final cover of an engineered landfill;

(22) to comply with the conditions provided for in section 56 permitting the infiltration of leachate or water into residual materials disposal areas;

(23) to measure the groundwater piezometric level in the case provided for in the second paragraph of section 66;

(24) to continuously measure the flow of biogas during the operating period of a biogas collection system referred to in section 68 or record the results in accordance with the first paragraph of that section;

(25) to monitor or have monitored every 3 months the concentrations prescribed by subparagraph 1 of the first paragraph of section 68;

(26) to comply with the conditions provided for in the first or second paragraph of section 69 relating to the samples referred to therein;

(27) to send for analysis to a laboratory accredited by the Minister the samples taken pursuant to this Regulation in accordance with the first paragraph of section 70;

(28) to allow watchdog committee members free access to the landfill and to any equipment or facility at the landfill in accordance with section 79;

(29) to comply with the conditions provided for in paragraphs 1, 3 or 4 of section 90 relating to a trench landfill;

(30) to comply with the conditions provided for in the first, second, third or fourth paragraph of section 91 relating to the final cover of a trench landfill;

(31) to comply with the conditions provided for in the first or second paragraph of section 92 in case of a temporary closure of all or part of a trench landfill for a period of 3 months or more;

(32) to surround a northern landfill by a fence or any other device complying with subparagraphs 1 to 3 of the first or a fire barrier complying with the second paragraph of section 96;

(33) to comply with the conditions provided for in the second or third paragraph of section 97 relating to the materials removed or sludge from a northern landfill;

(34) to provide a northern landfill with a surface water collection system or to discharge the water collected outside the landfill site in accordance with section 98;

(35) to burn the combustible residual materials referred to in the first paragraph of section 99 at the frequency and on the conditions provided for therein;

(36) to comply with the concentrations of contaminants prescribed by the third paragraph of section 99 or the second paragraph of section 100 relating to the soil used as final cover of the residual materials;

(37) to comply with the conditions provided for in the first paragraph of section 100 in the case of closure or non-use of a northern landfill for a period of 6 months or more;

(38) to comply with the conditions provided for in subparagraph 1 of the second paragraph of section 105 relating to a construction or demolition waste landfill;

(39) to comply with the concentrations of contaminants prescribed by the third paragraph of section 105 or 106 relating to the soil used as final cover for the construction or demolition waste;

(40) to make the periodic verifications prescribed by the fourth paragraph of section 105 at the frequency and on the conditions provided for therein;

(41) to comply with the conditions provided for in the first, third, fourth or fifth paragraph of section 106 relating to the final cover of a construction or demolition waste landfill;

(42) to comply with the prohibition to raise the ground surface provided for in the second paragraph of section 106;

(43) to comply with the conditions provided for in the first paragraph of section 117 relating to the cover of residual materials deposited in a remote landfill;

(44) to comply with the landfilling conditions provided for in section 118 relating to the sludge referred to therein;

(45) to comply, as the case may be, with the conditions provided for in the first or second paragraph of section 120 in the case of closure or non-use of a remote landfill;

(46) to provide an incineration facility referred to in the first paragraph of section 124 with a handling area or pit complying with the first or second paragraph of that section or clean the handling area in accordance with the third paragraph of that section;

(47) to comply with the conditions provided for in the fourth paragraph of section 124 relating to storage or parking outside an incineration facility;

(48) to provide an incineration facility referred to in the first paragraph of section 126 with at least 2 combustion chambers operating in compliance with the second or third paragraph of that section;

(49) to equip an incineration facility referred to in the first paragraph of section 126 with auxiliary burners complying with the fourth paragraph of that section;

(50) to equip an incineration facility referred to in the first, second or third paragraph of section 127 with the systems complying with that section;

(51) to send, for analysis, to a laboratory accredited by the Minister the gas samples referred to in section 134 in accordance with the second paragraph of that section;

(52) to comply with the conditions provided for in the first paragraph of section 138 relating to the loading and unloading of residual materials at a transfer station, the stockpiling or parking outside such a station;

(53) to comply with the conditions provided for in the second paragraph of section 138 where residual materials transfer activities cease for a period of more than 12 hours;

(54) to comply with the maximum volumes of residual materials that may be stored in a transfer station in the cases and on the conditions provided for in section 139.3;

(55) to obtain a guarantee the amount of which is established by section 140 in the cases and on the conditions provided for therein;

(56) to send renewal of the guarantee or another guarantee to the Minister in the cases referred to in section 143 according to the time limits and conditions provided for in that section;

(57) to comply with the conditions provided for in the second paragraph of section 159 relating to the height of the residual materials layers.

O.C. 666-2013, s. 3.

149.4. 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 comply with the conditions provided for in the first paragraph of section 9 relating to the landfilling of fly ash or residue that contains fly ash;

(2) to site an engineered landfill on land that complies with the conditions, in particular the siting conditions, prescribed by section 20, the first paragraph of section 21 or section 22;

(3) to ensure that the excavation carried out in a zone referred to in the second paragraph of section 21 complies with the conditions provided for therein;

(4) to comply with the conditions provided for in section 23 relating to the liner system referred to therein or at groundwater level;

(5) to comply with the conditions provided for in section 24 regarding the siting of an engineered landfill in a rock quarry or a mine;

(6) to provide an engineered landfill with a collection system complying with the first or third paragraph of section 25 or any other system in the case and on the conditions provided for in the second paragraph of that section;

(7) to provide an engineered landfill referred to in section 26 with a second collection system complying with that

section;

(8) to comply with the conditions on design or the installation of leachate collection systems provided for in section 27;

(9) to ensure that every component of a system referred to in the first paragraph of section 28 is leakproof in accordance with that section;

(10) to provide an engineered landfill referred to in the first or second paragraph of section 32 with a biogas collection system complying with that section;

(11) to remove biogas collected in the landfills referred to in the second paragraph of section 32 using the equipment complying with the third or fourth paragraph of that section;

(12) to comply with the conditions provided for in the first or second paragraph of section 34 relating to the materials or the installation of the systems referred to in that section;

(13) to have verified the materials and equipment referred to in section 35 in accordance with that section;

(14) to have the work referred to in the first paragraph of section 36 supervised by independent experts in accordance with that section;

(15) to comply with the conditions provided for in the fourth or fifth paragraph of section 41 relating to the cover or landfilling of the residual materials referred to therein;

(16) to comply with the conditions provided for in the sixth paragraph of section 42 relating to the stockpiling in an engineered landfill of the contaminated soils or residual materials referred to therein;

(17) to maintain at all times in proper working order the systems referred to in section 44 or to control, maintain or clean those systems in accordance with that section;

(18) to ensure that the systems referred to in section 44 work as to guarantee compliance with the requirements of section 27;

(19) to comply with the terms provided for in the first, second or third paragraph of section 61 regarding the operation of the systems and equipment referred to therein;

(20) to ensure that the concentration of nitrogen or oxygen prescribed by the first paragraph of section 62 are met in the cases and on the conditions referred to therein;

(21) to comply with the conditions provided for in the third paragraph of section 62 relating to the halting of the biogas pumping system referred to therein;

(22) to take or have taken or have analyzed the samples prescribed by section 63 according to the frequency and conditions provided for in the first, second, third, fourth and fifth paragraphs of that section;

(23) to measure the flow of the leachate or the flow of the discharges referred to in the sixth paragraph of section 63, on the conditions referred to therein;

(24) to leak test or have leak tested the pipes or components referred to in the first or second paragraph of section 64 according to the frequency and conditions provided for therein;

(25) to install the required number of wells or networks of observation wells prescribed by section 65 in the cases and on the conditions provided for therein;

(26) to take or have taken or have analyzed the samples prescribed by the first paragraph of section 66 according to the frequency and conditions provided for in the first, third, or, in the case provided for therein, the fifth paragraph

of that section;

(27) to measure or have measured the concentration of methane at the frequency and on the conditions provided for in section 67;

(28) to measure or have measured the concentration of methane at the frequencies and on the conditions provided for in subparagraph 2 or 3 of the first paragraph of section 68 in the cases referred to therein;

(29) to continuously measure the destruction temperature or the flow rate of the biogas referred to in the first or second paragraph of section 68 or to verify the destruction efficiency for the organic compounds other than methane in the cases and on the conditions provided for in the second paragraph of that section;

(30) to permanently close a landfill in the cases provided for in section 80;

(31) to cover as soon as deposited the residual materials referred to in paragraph 2 of section 90 or the second paragraph of section 99 or 117 with other materials or soils in the cases provided for in those sections;

(32) to cover as soon as deposited bituminous coated materials referred to in subparagraph 2 of the second paragraph of section 105 with other materials;

(33) to provide a construction or demolition waste landfill with a system referred to in section 107 and to put in operation such system on the date provided for in the second paragraph of that section;

(34) to comply with the conditions provided for in section 108 relating to the final profile of a filled construction or demolition waste landfill;

(35) to comply with the conditions provided for in section 119 relating to the final cover of a remote landfill;

(36) to comply with the conditions provided for in the first paragraph of section 125 relating to the layout of an incineration facility referred to in that section;

(37) to perform or have performed the testing provided for in section 132 in the cases and on the conditions and according to the methods provided for in that section or the first paragraph of section 134.

O.C. 666-2013, s. 3.

149.5. 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

(1) deposits permanently the residual materials referred to in the first paragraph of section 6 elsewhere that on a landfill authorized as provided for in that section;

(2) does not comply with the conditions and restrictions for siting provided for in section 13, 14, 15 or 16 relating to a landfill;

(3) fails to send to the Minister the information provided for in the second paragraph of section 71 in the case provided for therein;

(4) establishes a trench landfill in a territory other than those provided for in section 87 or does not comply with the conditions provided for in section 86 regarding the establishment of such landfill in one of the territories;

(5) does not comply with the conditions provided for in section 88 relating to the siting of a trench landfill or the lowering of the groundwater level;

(6) does not comply with the conditions permitting the establishment of a northern landfill provided for in section 94 or the conditions relating to the siting of such landfill provided for in section 95;

(7) does not comply with the conditions provided for in the first paragraph of section 97 relating to the bottom of the disposal areas of a northern landfill or the lowering of the groundwater level;

(8) does not comply with the conditions permitting the establishment or enlargement of a construction or demolition waste landfill referred to in the second paragraph of section 102 provided for in the first paragraph of section 103;

(9) does not comply with the conditions provided for in the second paragraph of section 104 relating to the siting of a construction or demolition waste landfill;

(10) establishes a remote landfill in a territory other than those provided for in section 112 or does not comply with the conditions provided for in section 111 or 114 regard the establishment or siting of such landfill in one of the territories;

(11) receives, in a remote landfill, residual materials prohibited pursuant to section 113;

(12) does not comply with the conditions provided for in section 116 relating to the bottom of the disposal areas of a remote landfill or the lowering of the groundwater level;

(13) operates a transfer station referred to in the first paragraph of section 139.1 while unauthorized to do so pursuant to that section;

(14) does not comply with the restriction provided for in the fourth paragraph of section 139.2 regarding the number of low capacity transfer stations that may be established in a territory referred to therein;

(15) establishes or enlarges a landfill referred to in section 145 without complying with the conditions provided for therein;

(16) does not comply with the conditions provided for in the second, third or fifth paragraph of section 161 relating to the acceptance for landfilling in the sites referred to therein of residual materials or materials referred to therein.

O.C. 666-2013, s. 3.

149.6. 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 in a landfill referred to in section 4 materials, objects or substances referred to in any of paragraphs 1 or 3 to 12 of that section;

(2) landfills residual materials listed in section 8 in a place other than a landfill, in contravention of section 8;

(3) burns or allows to be burned residual materials in an engineered landfill, in contravention of section 47;

(4) batch discharges of leachate or water, in contravention of the third paragraph of section 53;

(5) dilutes, before their discharge into the environment, leachate or water referred to in section 55, in contravention of section 55;

(6) establishes or enlarges a construction or demolition waste landfill, in contravention of the first paragraph of section 102;

(7) disposes in a construction or demolition waste landfill materials other than the waste within the meaning of section 101, in contravention of the second paragraph of section 103;

(8) burns or allows to be burned residual materials in a remote landfill, in contravention of section 115;

(9) disposes in an incineration facility referred to in the first paragraph of section 123 materials, objects or substances listed in section 4;

(10) accepts in a transfer station materials other than those allowed pursuant to section 137;

(11) accepts residual materials after the date provided for in the first paragraph of section 159 for the disposal areas referred to in that section;

(12) fails to permanently close a landfill referred to in the fourth paragraph of section 161, or the area or trench of such landfill, where it is prescribed to do so by that paragraph.

O.C. 666-2013, s. 3.

149.7. 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) disposes, in a landfill referred to in section 4, of hazardous materials, in contravention of paragraph 2 of that section:

(2) fails to take the measures prescribed by the first paragraph of section 48 to minimize the release of odours that cause odour nuisances beyond the limits of an engineered landfill;

(3) emits dust visible in the atmosphere more than 2 m from the emission source, in contravention of the first paragraph of section 48;

(4) discharges into the environment leachate and water referred to in the first paragraph of section 53 that do not comply with the limit values prescribed therein or those determined by the Minister pursuant to the second paragraph of that section;

(5) fails to ensure that the quality of the surface water referred to in the second paragraph of section 54 is not deteriorated in the case provided for therein;

(6) fails to ensure that the groundwater referred to in the first paragraph of section 57 complies at the observation wells with the limit values prescribed or those determined by the Minister pursuant to the second paragraph of that section;

(7) fails to ensure that the quality of the groundwater referred to in the second paragraph of section 58 is not deteriorated in the case provided for therein;

(8) fail to ensure that the concentration referred to in section 60 or the second paragraph of section 62 complies with the values provided for therein;

(9) emits into the atmosphere grey or black emissions the opacity of which exceeds 20% in the cases provided for in section 129;

(10) emits into the atmosphere combustion gases that do not comply with the values prescribed by paragraphs 1 to 5 of section 130.

O.C. 666-2013, s. 3.

CHAPTER VII
PENAL SANCTIONS

O.C. 451-2005, c. VII; O.C. 666-2013, s. 4.

150. Every person who contravenes paragraph 1 of section 45, section 72, 77, 78 or 82 or the third paragraph of section 96 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. 451-2005, s. 150; O.C. 451-2011, s. 39; O.C. 666-2013, s. 5.

151. Every person who contravenes section 29 or 33, the second paragraph of section 36 or 39, the first paragraph of section 40, paragraph 2 of section 45, section 52 or 70, the first or third paragraph of section 71, section 81, the fourth paragraph of section 127, section 146 or the second paragraph of section 155 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 enter in a log the information prescribed by the first paragraph of section 39, the first or second paragraph of section 40 or the third paragraph of section 40.1,

(2) to enter the results referred to in the fourth paragraph of section 42 or 105 in the annual report provided for in section 52,

(3) to immediately notify the Minister of the date of closure of an engineered landfill in accordance with section 80,

(4) to send to the Minister the testing report referred to in the first paragraph of section 134 in accordance with the time limits and conditions provided for therein,

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

O.C. 451-2005, s. 151; O.C. 451-2011, s. 40; O.C. 666-2013, s. 5.

152. Every person who contravenes section 10, 11, 17, 18, 19, 30, 31, 37 or 38, the first or second paragraph of section 40.1, the first or second paragraph of section 41, the first, second, third or fifth paragraph of section 42, section 43 or 46, the second paragraph of section 48, section 49, 50, 51 or 56, the second paragraph of section 66, the introduction or subparagraph 1 of the first paragraph section 68, section 69, the first paragraph of section 70, section 79, paragraph 1, 3 or 4 of section 90, the first, second, third or fourth paragraph of section 91, section 92, the first or second paragraph of section 96, the second or third paragraph of section 97, section 98, the first or third paragraph of section 99, section 100, subparagraph 1 of the second paragraph or third paragraph of section 105, the first, second, third, fourth or fifth paragraph of section 106, the first paragraph of section 117, section 118, 120, 124 or 126, the first, second or third paragraph of section 127, the second paragraph of section 134, section 138, 139.3, 140, 143 or the second paragraph of section 159 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 obtain the results of the analyses or measures provided for in the second paragraph of section 40 before receiving the soils referred to therein,

(2) to periodically make the verifications prescribed by the fourth paragraph of section 42 or 105 at the frequency and on the conditions provided for therein,

(3) to take the measures prescribed by the first paragraph of section 48 to minimize wind dispersal or scattering of residual material referred to therein,

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

O.C. 451-2005, s. 152; O.C. 451-2011, s. 41; O.C. 666-2013, s. 5.

153. Every person who contravenes the first paragraph of section 9, any of sections 20 to 28, 32, 34 or 35, the first paragraph of section 36, the fourth or fifth paragraph of section 41, the sixth paragraph of section 42, section 44 or

61, the first or third paragraph of section 62, section 63, 64 or 65, the first, third or fifth paragraph of section 66, section 67, subparagraph 2 or 3 of the first paragraph or the second paragraph of section 68, paragraph 2 of section 90, the second paragraph of section 99, subparagraph 2 of the second paragraph of section 105, section 107 or 108, the second paragraph of section 117 or section 119, 125 or 132 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 permanently close an engineered landfill in the cases provided for in section 80,

(2) to take samples of the gases referred to in section 134 in accordance with the methods prescribed by the first paragraph of that section,

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

O.C. 451-2005, s. 153; O.C. 666-2013, s. 5.

154. Every person who

(1) contravenes the first paragraph of section 6, section 13, 14, 15 or 16, the second paragraph of section 71, the first paragraph of section 86, section 87 or 88, the first paragraph of section 94, 95, 97 or 103, the second paragraph of section 104, the first paragraph of section 111, section 112, 113, 114 or 116, the first paragraph of section 139.1, the fourth paragraph of section 139.2, section 145 or the second, third or fifth paragraph of section 161,

(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. 451-2005, s. 154; O.C. 666-2013, s. 5.

154.1. Every person who contravenes any of paragraphs 1 or 3 to 12 of section 4, 8 or 47, the third paragraph of section 53, section 55, the first paragraph of section 102, the second paragraph of section 103, section 115, the first paragraph of section 123, section 137, the first paragraph of section 159 or the fourth paragraph of section 161 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. 666-2013, s. 5.

154.2. Every person who contravenes paragraph 2 of section 4, the first or second paragraph of section 53, the second paragraph of section 54, section 57, the second paragraph of section 58, section 60, the second paragraph of section 62, the first paragraph of section 129 or section 130 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.

Every person who

(1) fails to take the measures prescribed by the first paragraph of section 48 to minimize the release of odours that cause odour nuisances beyond the limits of an engineered landfill,

(2) emits dust visible in the atmosphere more than 2 m from the emission source, in contravention of the first paragraph of section 48,

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

O.C. 666-2013, s. 5.

154.3. 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. 666-2013, s. 5.

CHAPTER VIII
TRANSITIONAL, AMENDING AND MISCELLANEOUS

155. In addition to the remote landfills and the transfer stations referred to in the second paragraph of section 139.2 that are exempt from the application of section 55 of the Environment Quality Act (chapter Q-2) under section 146, the following sites are also exempt from the application of that section 55:

(1) sites where compost only is landfilled in accordance with section 72 of the Regulation respecting waste water disposal systems for remote dwellings (chapter Q-2, r. 22);

(2) sites where inedible meat only is landfilled in accordance with section 7.3.1 of the Regulation respecting food (chapter P-29, r. 1);

(3) incineration facilities that have a rated capacity of less than 1 ton per hour in which only inedible meat is incinerated in accordance with the Regulation respecting food.

Despite the foregoing, in the case of a project to establish or alter an incineration facility referred to in subparagraph 3 of the first paragraph, at least 30 days before carrying out the project the operator is required to so notify the Minister in writing by means of a project notice showing the location of the facility and describing its technical and operating characteristics. The project notice must be accompanied by a statement from an engineer certifying that the project conforms to the Environment Quality Act and its regulations.

The sites referred to in subparagraphs 1 and 2 of the first paragraph are also exempt from the application of section 65 of the Environment Quality Act.

O.C. 451-2005, s. 155; O.C. 451-2011, s. 42.

155.1. Sections 64.2 to 64.12 of the Environment Quality Act (chapter Q-2) related to the fixing of tariffs by the operator of a residual materials disposal facility apply to engineered landfills governed by Division 2 of Chapter II of this Regulation.

O.C. 451-2011, s. 43.

156. This Regulation replaces the Regulation respecting solid waste (chapter Q-2, r. 13), except to the extent that that Regulation continues to apply as provided in the following provisions.

O.C. 451-2005, s. 156.

157. For a 3-year period beginning on 19 January 2006, the sanitary landfill sites, in-trench disposal sites for solid waste and dry materials disposal sites governed by the Regulation respecting solid waste (chapter Q-2, r. 13) that are in operation on that date continue to be governed by the Regulation respecting solid waste and the certificates of authorization or conformity issued before that date, subject to section 159 and to the following:

(1) sections 10 to 12 relating to the requirement to accept residual materials apply, with the necessary modifications, to those sanitary landfill sites as of 19 January 2006;

(2) sections 39 and 40 relating to the log apply, with the necessary modifications, to those sanitary landfill sites

and dry materials disposal sites as of 19 January 2006;

(3) the daily and final coverings of the residual materials deposited in the disposal areas of those sanitary landfill sites may be done using materials different from those prescribed by the Regulation respecting solid waste, provided there is compliance with the requirements of the first paragraph of section 32 and sections 42 and 50, which apply with the necessary modifications; the daily covering of the residual materials must, however, be done in compliance with section 41 as of 19 January 2006;

(4) section 47 relating to the prohibition on the burning of residual materials applies, with the necessary modifications, to those in-trench disposal sites for solid waste as of 19 January 2006;

(5) subparagraphs 1 and 2 of the first paragraph and the second paragraph of section 52 relating to the annual report apply, with the necessary modifications, to those sanitary landfill sites and dry materials disposal sites as of 19 January 2006;

(6) sections 80 to 82 relating to site closure apply, with the necessary modifications, to those sanitary landfill sites, in-trench disposal sites for solid waste and dry materials disposal sites as of 19 January 2006;

(7) as of 19 January 2006, only construction or demolition waste within the meaning of section 101 may be landfilled in those dry materials disposal sites; in addition, the prohibition on enlargement set out in section 102 applies to those dry materials disposal sites as of 19 January 2006, except for the cases provided for in the second paragraph of that section. The covering of the residual materials deposited in dry materials disposal areas may be done using materials different from those prescribed by the Regulation respecting solid waste, provided there is compliance with the requirements of the second and third paragraphs of section 105 and sections 106 and 107, as the case may be, which apply with the necessary modifications;

(8) as of 19 January 2006, an enlargement of a sanitary landfill site or in-trench disposal site for solid waste is considered to be a project to establish an engineered landfill or trench landfill governed by this Regulation. For the purposes of this paragraph, enlargement includes any alteration that results in an increase in landfill capacity;

(9) the provisions of Chapter V relating to the provision of a financial guarantee that apply to engineered landfills, trench landfills and construction or demolition waste landfills apply respectively, with the necessary modifications, to those sanitary landfill sites, in-trench disposal sites for solid waste and dry materials disposal sites as of the sixth month following 19 January 2006.

O.C. 451-2005, s. 157; O.C. 451-2011, s. 44.

158. Not later than at the end of the thirtieth month following 19 January 2006, the operator of a site referred to in section 157 must send a notice to the Minister informing the Minister that the operator intends to

(1) permanently cease the operation of the site on or before the expiry date of the 3-year period provided for in that section; or

(2) continue to operate the site after the 3-year period.

If the operator chooses to continue the operations, the notice must be sent with a report of an independent expert establishing that the disposal areas or trenches in which residual materials will be landfilled after the expiry date of the three-year period comply with the provisions of this Regulation that apply to those areas or trenches under section 161. The report must contain certification by the expert of that compliance.

O.C. 451-2005, s. 158.

159. In sanitary landfill sites in operation on the date of coming into force of this Regulation, disposal areas that do not meet the containment protection requirements of section 20, 21, 22 or 24 and that received a final cover before that date may in no case receive other residual materials after that date.

As for disposal areas that meet the containment protection requirements of section 20, 21, 22 or 24 but do not meet

the other requirements of Division 2 of Chapter II, and disposal areas that do not meet those containment protection requirements and have not received a final cover before 19 January 2006, the height of the residual materials layers relative to the surrounding landform may not exceed the following limits:

(1) the height of the outboard sideslopes, which consist of the above-grade layers of residual materials, may not exceed 4 m, that height being measured from the ground surface at the perimeter of the disposal area, excluding the final cover. Any raising of the ground surface at that perimeter is prohibited;

(2) the disposal area must in addition be graded so that the final profile of the residual materials layers, excluding the final cover, is as follows:

(a) the inclination of the sideslopes referred to above must not exceed 30%; and

(b) the inclination of the cover deck from the crest to the sideslopes must not exceed

- 5%, if the ground slope at the perimeter of the disposal area is equal to or lower than that percentage; or

- the percentage of the ground slope at the perimeter of the disposal area, if that slope is greater than 5%.

Disposal areas that comply with all of the provisions of Division 2 of Chapter II are, with respect to the height of the layers of residual materials, exempt from the limits set out in the second paragraph and are governed by the landscape integration rule set out in section 17.

O.C. 451-2005, s. 159.

160. The following continue to be governed by the Regulation respecting solid waste (chapter Q-2, r. 13) and by their certificates of authorization or conformity, as long as they remain closed:

(1) disposal sites that were permanently closed before 19 January 2006 ;

(2) disposal areas in the disposal sites in operation on the date of coming into force of this Regulation that received a final cover before that date or, pursuant to section 157, receive residual materials in the 3-year period following that date and receive a final cover at the latest on the expiry of that period.

O.C. 451-2005, s. 160.

161. As of the expiry date of the 3-year period following 19 January 2006, and subject to the second, third and fourth paragraphs, the sanitary landfill sites, in-trench disposal sites for solid waste and dry materials disposal sites referred to in section 157 are, except with respect to siting standards, governed by the provisions of this Regulation that apply respectively to engineered landfills, trench landfills and construction or demolition waste landfills as regards the acceptance of residual materials and the conditions for the development, operation, closure and post-closure management of the disposal areas or trenches in which residual materials will be landfilled as of the date mentioned above. The first paragraph of section 18 requiring the creation of a buffer zone does not apply to leachate or water treatment systems, gas pumping devices or biogas removal facilities in existence on 19 January 2006. In addition, in the case of the landfill used exclusively by the waste water treatment plant of Ville de Montréal in operation on that date, the minimum width of the buffer zone prescribed by the first paragraph of section 18 is reduced to 10 m around the landfill, including any future enlargement, so long as only the ash from the sludge incinerator and the sands generated by the operation of that station are landfilled.

In addition, after the expiry of the 3-year period following 19 January 2006, residual materials may be accepted in in-trench disposal sites for solid waste existing on 1 May 2000 only if the sites are located in a territory described in section 87 which at all times meets the requirements of subparagraphs 2 and 4 of that section, and the landfilling is done in trenches that meet the siting standards prescribed by section 88.

Similarly, after the expiry of the 3-year period mentioned above, construction or demolition waste may be accepted at dry materials disposal sites existing on 1 May 2000 only if the sites meet the requirements of section 103 and the landfilling is done in disposal areas that meet the siting standards prescribed by section 104. The siting standards do

not apply to disposal areas if their siting complies with the provisions of this Regulation that apply to containment and the collection of leachate in engineered landfills.

A landfill referred to in the second or third paragraph, or a disposal area or a trench in such a landfill, must be permanently closed as soon as residual materials may no longer be accepted owing to non-compliance with those paragraphs.

Despite the provisions of the second and fourth paragraphs of this section, residual materials generated in the territory of Ville de Lebel-sur-Quévillon remain accepted in the in-trench disposal site operated by the municipality before 19 January 2009 and located in the territory of Ville de Senneterre, up to the landfill capacity authorized on that date so long as it is sited and operated in accordance with the provisions prescribed by sections 88 to 93.

O.C. 451-2005, s. 161; O.C. 82-2009, s. 1; O.C. 451-2011, s. 45.

162. As of 19 January 2006, waste disposal sites in the North and outfitters' waste-pits governed by the Regulation respecting solid waste (chapter Q-2, r. 13) that are in operation on that date are governed by the provisions of this Regulation that apply respectively to northern landfills and remote landfills.

O.C. 451-2005, s. 162.

163. For a 3-year period beginning on 19 January 2006, the incinerators governed by the Regulation respecting solid waste (chapter Q-2, r. 13) that are in operation on that date continue to be governed by that Regulation, the Regulation respecting the quality of the atmosphere (chapter Q-2, r. 38) and the certificates of authorization or conformity issued before that date, subject to the following:

(1) the provisions of section 128 concerning the application of section 39 and of subparagraph 1 of the first paragraph and the second paragraph of section 52 apply, with the necessary modifications, to those incinerators as of 19 January 2006;

(2) the provisions of section 128 concerning the application of sections 72 to 79 apply to those incinerators as of the expiry of the sixth month following 19 January 2006;

(3) paragraphs 4 and 5 of section 130 apply to those incinerators as of the expiry of the twelfth month following 19 January 2006;

(4) the provisions of Chapter V concerning the provision of a financial guarantee that apply to incineration facilities governed by Chapter III apply to those incinerators, with the necessary modifications, as of the sixth month following 19 January 2006;

(5) as of 19 January 2006, any increase in the incinerator capacity of those incinerators is governed by the provisions of this Regulation that apply to incineration facilities governed by Chapter III.

As of the expiry date of the 3-year period following 19 January 2006, the incinerators referred to in the first paragraph are governed by the provisions of this Regulation that apply to incineration facilities governed by Chapter III.

O.C. 451-2005, s. 163.

164. Residual materials disposal sites not governed by the Regulation respecting solid waste (chapter Q-2, r. 13) that were permanently closed before 19 January 2006 are exempt from the application of this Regulation as long as they remain closed.

If the disposal sites referred to in the first paragraph are in operation on 19 January 2006, they are also exempt from the application of the Regulation but only for the 3-year period following that date, except for any enlargement of the landfills or increase in incinerator capacity, which is governed by the third paragraph; enlargement includes any alteration that results in an increase in landfill capacity.

On the expiry of the 3-year period, those disposal sites are, except with respect to the siting standards, governed in the case of landfills by Chapter II as regards acceptance of residual materials and the conditions for the development, operation, closure and post-closure management of the disposal areas or trenches in which residual materials will be landfilled after the expiry of the 3-year period, and in the case of incinerators that receive residual materials referred to in section 121, by Chapter III.

In addition, section 158 applies, with the necessary modifications, to the operator of a landfill referred to in this section.

O.C. 451-2005, s. 164.

165. Sections 157, 163 and 164 may not operate to prevent this Regulation from applying to an existing disposal site within a time period shorter than the time period provided for in those sections if the operator chooses to bring the site into compliance with those provisions earlier than required.

O.C. 451-2005, s. 165.

166. Despite sections 157 to 165, the limit values set out in section 53 apply to the leachate or water from a disposal site to which those sections apply as soon as it is conveyed for treatment to a facility where the leachate or water from disposal areas governed by this Regulation is also treated.

The same applies to the biogas removal requirements in the third paragraph of section 32 that apply to biogas from a disposal site to which those sections apply as soon as it is conveyed for removal to a facility where biogas from disposal areas governed by this Regulation is also removed.

O.C. 451-2005, s. 166.

167. As of 19 January 2006, the mixed waste transfer stations governed by the Regulation respecting solid waste (chapter Q-2, r. 13) that are in operation on that date are governed by the provisions of Chapter IV that apply to residual materials transfer stations.

The operators of those facilities have a 6-month period to provide a financial guarantee that meets the requirements of sections 140 to 144.

O.C. 451-2005, s. 167.

168. (Revoked).

O.C. 451-2005, s. 168; O.C. 666-2013, s. 6.

169. (Amendment integrated into c. Q-2, r. 1.001, s. 13).

O.C. 451-2005, s. 169.

170. (Amendment integrated into c. Q-2, r. 2, ss. 47 and 48).

O.C. 451-2005, s. 170.

171. (Amendment integrated into c. Q-2, r. 3, s. 7).

O.C. 451-2005, s. 171.

172. (Amendment integrated into c. Q-2, r. 3, s. 15).

O.C. 451-2005, s. 172.

173. (Amendment integrated into c. Q-2, r. 3, s. 16).

O.C. 451-2005, s. 173.

174. (Amendment integrated into c. Q-2, r. 3.001, s. 36).

O.C. 451-2005, s. 174.

175. (Amendment integrated into c. Q-2, r. 3.001, s. 56).

O.C. 451-2005, s. 175.

176. (Amendment integrated into c. Q-2, r. 6.01, s. 1).

O.C. 451-2005, s. 176.

177. (Amendment integrated into c. Q-2, r. 9, s. 2).

O.C. 451-2005, s. 177.

178. (Amendment integrated into c. Q-2, r. 12.2, s. 95).

O.C. 451-2005, s. 178.

179. (Amendment integrated into c. Q-2, r. 12.2, s. 101).

O.C. 451-2005, s. 179.

180. (Amendment integrated into c. Q-2, r. 12.2, s. 107).

O.C. 451-2005, s. 180.

181. (Amendment integrated into c. Q-2, r. 12.2, Sch. X).

O.C. 451-2005, s. 181.

182. (Amendment integrated into c. Q-2, r. 15.2, s. 2).

O.C. 451-2005, s. 182.

183. (Amendment integrated into c. Q-2, r. 20, s. 22).

O.C. 451-2005, s. 183.

184. (Amendment integrated into c. Q-2, r. 20, s. 66.1).

O.C. 451-2005, s. 184.

185. (Amendment integrated into c. Q-2, r. 20, s. 67).

O.C. 451-2005, s. 185.

186. This Regulation applies 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).

O.C. 451-2005, s. 186.

187. (Omitted).

O.C. 451-2005, s. 187.

SCHEDULE I

(s. 129)

CHART TO MEASURE OPACITY OF GREY OR BLACK EMISSIONS

Opacity is evaluated using a chart in good condition, printed within the last 5 years, that complies with the following specifications:

The Micro Ringelmann Chart is printed on a card 12.8 cm long by 8.6 cm wide on which opacities of 20%, 40%, 60% and 80% (No. 1, No. 2, No. 3 and No. 4 respectively) are represented in order, in an alignment of vertical rectangles 24 mm by 58 mm (±1 mm), within which a 13 mm (±1 mm) slit is made (see figure below). Each degree of opacity is represented by an ultra fine grid of black lines on a white background, according to the following specifications:

For opacity No. 1: Black grid lines measuring 0.055 mm that are 0.555 mm apart with white spaces 0.5 mm by 0.5 mm.

For opacity No. 2: Black grid lines measuring 0.128 mm that are 0.555 mm apart with white spaces 0.427 mm by 0.427 mm.

For opacity No. 3: Black grid lines measuring 0.205 mm that are 0.555 mm apart with white spaces 0.35 mm by 0.35 mm.

For opacity No. 4: Black grid lines measuring 0.305 mm that are 0.555 mm apart with white spaces 0.25 mm by 0.25 mm.

The month and year the chart was printed must be indicated in the lower left-hand corner.

CHART SPECIMEN

No.1 No.2 No. 3 No. 4

MICRO RINGELMANN CHART

Month/year

Slit in the card

Opacity is measured from an observation point between 30 and 400 m from the emission point. The observation point must allow full view of the emissions. The sun must be oriented in the 140º sector to the observer's back. The observer must make observations using a line of vision that is perpendicular to the direction of the plume.

The observer holds the chart at arm's length and looks at the emission through the slit in the card. The observer notes the scale number (No. 1, 2, 3 or 4) that best suits the opacity observed. No. 0 is used to indicate that no emission is visible and No. 4 applies to an opacity of 100%.

Opacity evaluation must be carried out where the opacity is maximum, in a part of the plume where there is no condensed water vapour. The observer must not look continually at the plume but rather must observe the plume

momentarily every 15 seconds. Opacity evaluation is carried out over a 60-minute period without interruption between each period (240 observations in 60 minutes) or two 30-minute periods with an interruption at half time (120 observations in 30 minutes, twice).

Where water vapour condenses and becomes visible at a certain distance from the emission point, the opacity must be evaluated between the emission point and the condensation point of the water vapour.

When condensed water vapour is present in the plume, at its emission point, the opacity of the plume must be observed at the point where the vapour is no longer visible.

The following formula is used to establish emission opacity:

$$P = \frac{\text{NEU at opacity No. 1} \times 20\%}{\text{number of observations}}$$

where P is the percentage of emission opacity and NEU is the number of equivalent units.

Each number on the chart represents as many equivalent units.

A single observation may suffice for the application of section 129.

O.C. 451-2005, Sch. I.

SCHEDULE II

(s. 130)

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

Congeners	Toxicity equivalency factors
2,3,7,8-T_4CDD	1
1,2,3,7,8-P_5CDD	1
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	0.0001
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	0.0001

O.C. 451-2005, Sch. II; O.C. 15-2007, s. 79.

REFERENCES
O.C. 451-2005, 2005 G.O. 2, 1182
O.C. 15-2007, 2007 G.O. 2, 525
O.C. 808-2007, 2007 G.O. 2, 2581
O.C. 441-2008, 2008 G.O. 2, 1331
O.C. 82-2009, 2009 G.O. 2, 193
O.C. 451-2011, 2011 G.O. 2, 1084
O.C. 666-2013, 2013 G.O. 2, 1764