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Draft Regulations

Draft Regulation

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

Burial of contaminated soils — Amendments

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (R.S.Q., c. R-18.1), and section 124 of the Environment Quality Act (R.S.Q., c. Q-2), that the Regulation to amend the Regulation respecting the burial of contaminated soils, the text of which appears below, may be made by the Government upon the expiry of 30 days following this publication.

The purpose of the draft Regulation is to amend the Regulation respecting the burial of contaminated soils to add, in the territory of the Communauté métropolitaine de Montréal, a burial method using former unused quarries or mines having the correct hydrogeological conditions for slightly contaminated soils. That solution makes it possible to safely bury at a lower cost soils having a level of contamination less than the C criteria in the *Politique de protection des sols et de réhabilitation des terrains contaminés*, which should encourage land rehabilitation projects, contribute to prevent non-controlled disposal of contaminated soils and keep maximum security burial sites for soils whose contamination level and risk for the environment are higher. By restricting that type of burial to soils originating only from the territory of the Communauté métropolitaine de Montréal, contaminated soils from outside that territory or from outside Québec will consequently be excluded.

The draft Regulation also removes the final deposit of sediments on the bed or banks of streams from which they are taken from the application of the Regulation respecting the burial of contaminated soils.

Finally, the draft Regulation eliminates the parameters for which there is no analytical measurement method, and corrects certain terms.

The necessity to ensure that the Communauté métropolitaine de Montréal will have in its territory, as soon as possible, sufficient capacity for the disposal by burial of slightly contaminated soils from its territory extracted from large job sites or projects carried out under the Revi-sols program, justifies shortening the publication period of the draft Regulation to 30 days, in accordance with the provisions of sections 12 and 13 of the Regulations Act.

For information concerning the Regulation to amend the Regulation respecting the burial of contaminated soils, contact Marc Pedneault or Pierre Vézina, Service des lieux contaminés, Direction des politiques du secteur industriel, Ministère de l'Environnement, 675, boulevard René-Lévesque Est, 9^e étage, Québec G1R 5V7, telephone : (418) 521-3940 ext. 4963 (Marc Pedneault) or ext. 4928 (Pierre Vézina) or by e-mail : marc.pedneault@menv.gouv.qc.ca or pierre.vezina@menv.gouv.qc.ca

Any person having comments to make on the draft Regulation is asked to send them in writing, before the expiry of the 30-day period, to the Direction des politiques du secteur industriel of the Ministère de l'Environnement, at the above-mentioned address.

ANDRÉ BOISCLAIR,
*Minister of State for Municipal Affairs,
Greater Montréal, the Environment and Water,
Minister of the Environment*

Regulation to amend the Regulation respecting the burial of contaminated soils*

Environment Quality Act
(R.S.Q., c. Q-2, s. 31, pars. a, c, d, e, g, h, h.1, h.2, m and n, s. 31.69, par. 5, s. 70 pars. 1, 2, 5, 6 and 7, s. 109.1 and s. 124.1; 2002, c. 11, s. 2)

1. Section 2 of the Regulation respecting the burial of contaminated soils is amended by adding the following paragraph:

“This Regulation does not apply to the final disposal of sediments extracted from a watercourse or body of water on the shore or bank of that watercourse or body of water.”

2. The Regulation is amended by inserting the following section after section 11:

“**11.1.** Despite section 11, a contaminated soil burial site may also be laid out in a rock quarry or mine if the following conditions are met:

* The Regulation respecting the burial of contaminated soils made by Order in Council 843-2001 dated 27 June 2001 (2001, G.O. 2, 3518) was amended by the regulation made by Order in Council 1553-2001 dated 19 December 2001 (2002, G.O. 2, 248).

(1) the quarry or mine must be located in the territory of the Communauté métropolitaine de Montréal and its operation must have stopped definitely before the coming into force of this section;

(2) the quarry or mine must be of the open-pit type;

(3) the floor of the quarry or mine must be situated below the ground water level; and

(4) the average daily flow of groundwater seepage, calculated on an annual basis, must be equal to or lower than $5 \times 10^4 \text{ m}^3$ of water per square metre of wall and floor area of the quarry or mine situated below the ground water level;

The following may not be received in a burial site referred to in the first paragraph:

(1) soils from outside of the territory of the Communauté métropolitaine de Montréal;

(2) soils that contain one or more substances in a concentration higher than the limit values determined in Schedule III; and

(3) soils that are acidogenic.”

3. Section 10 is amended by adding the following paragraph:

“The provisions of this section do not apply to a contaminated soil burial site referred to in section 11.1.”

4. Section 12 is amended:

(1) by inserting “, where applicable,” after “installed” in the third paragraph;

(2) by adding “In a burial site referred to in section 11,” at the beginning of the fourth paragraph.

5. Section 15 is amended by adding “, and in the case where the total concentration of sulphur present in the soils received for burial in a site referred to in section 11.1 exceeds 2,000 ppm, the results of the analyses show that such soils are not acidogenic” at the end of subparagraph 2 of the first paragraph.

6. Section 38 is amended

(1) by inserting the following before item *a* of subparagraph 1 of the first paragraph:

“ – in the case of a burial site governed by section 11,”

(2) by inserting the following after item *b* of subparagraph 1 of the first paragraph:

“ – in the case of a burial site governed by section 11.1,

(a) a layer of clay having, permanently, a hydraulic conductivity equal to or less than 1×10^{-7} cm/s at least 60 cm thick after compaction;

(b) an impermeable synthetic membrane of high density polyethylene or having equivalent characteristics at least 1.5 mm thick; or

(c) any other material having an efficiency at least equal to that of the materials prescribed by items *a* and *b* of this dash;”.

7. Section 46 is amended by replacing “all the substances” by “all the parameters and substances”.

8. Section 57 is amended by replacing “referred to in section 31.1 of” by “made under”.

9. Schedule I is amended as follows:

(1) under Polycyclic Aromatic Hydrocarbons, strike out “Acenaphtene”, “Acenaphthylene”, “Anthracene”, “Fluoranthene”, “Fluorene” and “Pyrene”, replace “Methylnaphthalenes (each)” by the following substances and limit values:

| | | |
|----------------------------|----|---|
| 1-Methylnaphthalene | 56 | |
| 2-Methylnaphthalene | 56 | |
| 1,3-Dimethylnaphthalene | 56 | |
| 2,3,5-Trimethylnaphthalene | 56 | ” |

and replace “Naphthalene” by “Naphtalene”;

(2) under Non-chlorinated Pesticides, strike out “Bendiocarb phenol”, “Dithiocarbamates (total)”, “Formparanate”, “Isolan”, “m-cumenyl methylcarbamate”, “Tebuthiuron”, and “Tirpate”;

(3) under Other organic substances, strike out “Di-n-butyl phtalate”, “Ethylene glycol”, “Formaldehyde” and “Phtalates (each, except other listed phtalates)”;

(4) under the heading of the table on international toxicity equivalency factors, for the congeners mentioned therein, replace “1998” by “1988”.

10. Schedule II is amended as follows:

(1) under METALS (and metalloids) for “Cadmium”, replace the symbol “Ca” by Cd”;

(2) insert “Phenol index” between “PHENOLIC COPMPOUNDS” AND “Non-chlorinated”;

(3) insert the following between “2, 4, 6-Trinitrotoluene or TNT” and “INTEGRATING PARAMETERS”:

“PETROLEUM PRODUCTS
C₁₀ to C₅₀ Petroleum hydrocarbons”;

(4) strike out “Phenol Index” and “Petroleum hydrocarbons C₁₀ to C₅₀” in the integrating parameters.

11. The Regulation is amended by adding Schedule III attached to this Regulation after Schedule II.

12. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

SCHEDULE III

(s. 11.1)

Substances

Limit values
mg/kg dry matter
(ppm)

Inorganic

Metals and Metalloids

| | |
|-----------------|------|
| Silver (Ag) | 40 |
| Arsenic (As) | 50 |
| Barium (Ba) | 2000 |
| Cadmium (Cd) | 20 |
| Chromium (Cr) | 800 |
| Cobalt (Co) | 300 |
| Copper (Cu) | 500 |
| Tin (Sn) | 300 |
| Manganese (Mn) | 2200 |
| Mercury (Hg) | 10 |
| Molybdenum (Mo) | 40 |
| Nickel (Ni) | 500 |
| Lead (Pb) | 1000 |
| Selenium (Se) | 10 |
| Zinc (Zn) | 1500 |

Other inorganic compounds

| | |
|------------------------|------|
| Available bromide (Br) | 300 |
| Available cyanide (Cn) | 100 |
| Total cyanide (Cn) | 500 |
| Available fluoride (F) | 2000 |

Substances

Limit values
mg/kg dry matter
(ppm)

Organic

Monocyclic aromatic volatile organic compounds

| | |
|-------------------|-----|
| Benzene | 0,5 |
| Chlorobenzene | 1 |
| m-Dichlorobenzene | 1 |
| o-Dichlorobenzene | 1 |
| p-Dichlorobenzene | 1 |
| Ethylbenzene | 5 |
| Styrene | 5 |
| Toluene | 3 |
| Xylene | 5 |

Chlorinated aliphatic volatile organic compounds

| | |
|--|---|
| Chloroform or trichloromethane | 5 |
| 1,1-Dichloroethane | 5 |
| 1,2-Dichloroethane | 5 |
| 1,1-Dichloroethylene | 5 |
| 1,2-Dichloroethylene (cis and trans) | 5 |
| 1,2-Dichloropropane | 5 |
| 1,3-Dichloropropylene (cis and trans) | 5 |
| 1,1,2,2-Tetrachloroethane | 5 |
| Tetrachloroethylene or perchloroethylene | 5 |
| Carbon tetrachloride | 5 |
| 1,1,1-Trichloroethane | 5 |
| 1,1,2-Trichloroethane | 5 |
| Trichloroethylene | 5 |

Non-chlorinated phenolic compounds

| | |
|--------------------------------|----|
| 2,4-Dimethylphenol | 10 |
| m-Cresol | 10 |
| o-Cresol | 10 |
| p-Cresol | 10 |
| o-Nitrophenol or 2-Nitrophenol | 10 |
| p-Nitrophenol or 4-Nitrophenol | 10 |
| Phenol | 10 |

| Substances | Limit values mg/kg dry matter (ppm) | Substances | Limit values mg/kg dry matter (ppm) |
|--|---|---|---|
| Chlorinated phenolic compounds | | Non-chlorinated benzene compounds | |
| 2-Chlorophenol | 5 | 2,4,6-Trinitrotoluene (TNT) | 1,7 |
| 3-Chlorophenol | 5 | Chlorobenzenes | |
| 4-Chlorophenol | 5 | Hexachlorobenzene | 10 |
| 2,3-Dichlorophenol | 5 | Pentachlorobenzene | 10 |
| 2,4-Dichlorophenol | 5 | 1,2,3,4-Tetrachlorobenzene | 10 |
| 2,5-Dichlorophenol | 5 | 1,2,4,5-Tetrachlorobenzene | 10 |
| 2,6-Dichlorophenol | 5 | 1,2,3,5-Tetrachlorobenzene | 10 |
| 3,4-Dichlorophenol | 5 | 1,2,3-Trichlorobenzene | 10 |
| 3,5-Dichlorophenol | 5 | 1,2,4-Trichlorobenzene | 10 |
| Pentachlorophenol | 5 | 1,3,5-Trichlorobenzene | 10 |
| 2,3,4,5-Tetrachlorophenol | 5 | Polychlorinated biphenyls | |
| 2,3,4,6-Tetrachlorophenol | 5 | PCBs (summation of the congeners) | 10 |
| 2,3,5,6-Tetrachlorophenol | 5 | Pesticide | |
| 2,3,4-Trichlorophenol | 5 | Tebuthiuron | 3600 |
| 2,3,5-Trichlorophenol | 5 | Other organic substances | |
| 2,3,6-Trichlorophenol | 5 | Acrylonitrile | 5 |
| 2,4,5-Trichlorophenol | 5 | Ethylene glycol | 411 |
| 2,4,6-Trichlorophenol | 5 | Formaldehyde | 125 |
| 3,4,5-Trichlorophenol | 5 | Dibutyl phthalate | 70 000 |
| Polycyclic aromatic hydrocarbons | | Petroleum products | |
| Acenaphptene | 100 | Petroleum hydrocarbons C ₁₀ to C ₅₀ | 3500 |
| Acenaphthylene | 100 | Chlorinated dioxins and furans | mg/kg dry matter (ppt) |
| Anthracene | 100 | Summation of chlorodibenzodioxins and chlorodibenzofurans expressed in toxicity equivalents | |
| Benzo(b+j+k)fluoranthene (combination of each) | 10 | 2,3,7,8-TCDD (NATO scale, 1988) | 750 |
| Benzo (a) anthracene | 10 | 5672 | |
| Benzo (a) pyrene | 10 | | |
| Benzo (c) phenanthrene | 10 | | |
| Benzo (g,h,i) perylene | 10 | | |
| Chrysene | 10 | | |
| Dibenzo (a,h) anthracene | 10 | | |
| Dibenzo (a,h) pyrene | 10 | | |
| Dibenzo (a,i) pyrene | 10 | | |
| Dibenzo (a,l) pyrene | 10 | | |
| 7,12-Dimethylbenzo (a) anthracene | 10 | | |
| Fluoranthene | 100 | | |
| Fluorene | 100 | | |
| Indeno (1,2,3-cd) pyrene | 10 | | |
| 3-Methylcholanthrene | 10 | | |
| Naphtalene | 50 | | |
| Phenanthrene | 50 | | |
| Pyrene | 100 | | |
| 1-Methylnaphtalene | 10 | | |
| 2-Methylnaphtalene | 10 | | |
| 1,3-Dimethylnaphtalene | 10 | | |
| 2,3,5-Trimethylnaphtalene | 10 | | |

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Abbreviations: **A**: Abrogated, **N**: New, **M**: Modified

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