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NEWFOUNDLAND AND LABRADOR
REGULATION 11/22

Air Pollution Control Regulations, 2022
under the
Environmental Protection Act
(O.C. 2022-072)

(Filed March 24, 2022)

Under the authority of section 111 of the *Environmental Protection Act*, the Lieutenant-Governor in Council makes the following regulations.

Dated at St. John's, March 24, 2022.

Krista Quinlan
Clerk of the Executive Council

REGULATIONS

Short title

1. These regulations may be cited as the *Air Pollution Control Regulations, 2022.*

11/22 s1

Definitions

2. In these regulations

(a) "Act" means the *Environmental Protection Act* ;

(b) "air " means the portion of the atmosphere which is external to buildings, structures or underground spaces;

(c) "air contaminant" means any discharge, release, or other propagation into the air and includes dust, fumes, mist, smoke, particulate matter, vapours, gases, odorous substances, acids, soot, grime or any combination of them;

(d) "air pollution" means the presence in air of an air contaminant or combination of air contaminants in excess of the maximum permissible standard, concentration or level as prescribed by these regulations or an approval issued under the Act;

(e) "air quality management plan" means a plan developed by the minister to manage the level of air contaminants in an area, and may include a company specific air quality management plan approved by the minister;

(f) "air zone" means a finite geographic area within the province that typically exhibits similar air quality issues and trends throughout;

(g) "Canadian standard" means the Canadian Standards Association Code CAN/CSA - B415.1-10 (R2020), Performance Testing of Solid Fuel Burning Heating Appliances as amended from time to time;

(h) "combustion process equipment" means a furnace, boiler, dryer, apparatus, stack and all appurtenances used in the combustion process but does not include mobile internal combustion engines when used to provide propulsion;

(i) "department " means the department presided over by the minister;

(j) "emission " means an air contaminant emitted into the air;

(k) "emission source" means any combustion process equipment, installation, machinery, appliance, equipment or tanks from which air contaminants may be discharged, released or propagated;

(l) "facility " means any stationary property, real or personal, taken as a whole, which has an emission source;

(m) "facility administrative boundary" means a boundary within which a standard does not apply;

(n) "feed rate" means the mass or volume of a gaseous, liquid or solid material fed into a continuous or batch combustion process equipment per unit of time or per batch;

(o) "fuel " means any fuel used directly or indirectly for heating, steam generation or electricity production, or for combustion in industrial processes;

(p) "gasoline " means a liquid product of petroleum that has a flash point below 37.8° Celsius and is designed primarily for use in an internal combustion engine;

(q) "good engineering stack height (GESH)" means the greater of

(i) 45 metres ,

(ii) the height as calculated using the formula GESH = H + 1.5L where H is the height of any nearby structure and L is the lesser of the height H or the greatest distance between 2 points of any nearby structure, as measured from the ground level elevation at the base of the stack, or

(iii) the height demonstrated by a fluid model or approved field study which ensures that stack emissions do not result in air pollution resulting from atmospheric downwash or wakes created by the facility, nearby emission sources or terrain features;

(r) "minister " means the minister appointed under the *Executive Council Act* to administer the Act;

(s) "modified " means any addition or alteration to emission sources which may cause

(i) an increase in the release of an air contaminant, or

(ii) an emission of an air contaminant that was not previously emitted;

(t) "nearby " means within the lesser of

(i) 800 metres, or

(ii) 5 times the lesser of

(A) the height of a structure, or

(B) the greatest distance between 2 points of a structure;

(u) "operating service factor" means the ratio of hours during facility operation that a vapour control system is operating normally to the total operating hours of the facility;

(v) "particulate matter" means a material, except water in an uncombined form, that is or has been airborne and exists as a liquid or a solid at reference conditions;

(w) "point of impingement" includes a part or combination of those things referred to in subparagraphs (i) to (iii) upon which an air contaminant may impinge

(i) land and water,

(ii) plant and animal life, including human life, and

(iii) a building, structure, machine or other device or thing made by humans;

(x) "reference conditions" means a dry gas temperature of 25 °Celsius and a gas pressure of 101.325 kilopascals;

(y) "stack " means a chimney, flue, conduit or duct arranged to conduct an air contaminant into the air;

(z) "sulphur content" means the amount of sulphur by weight as determined by standard methods;

(aa) "used oil" means oil that, through use, storage or handling, can no longer be used for its original purpose; and

(bb) "US EPA standard" means the Standards of Performance for New Residential Wood Heaters, Title 40, Part 60, Subpart AAA of the Code of Federal Regulations, published by the United States Environmental Protection Agency, as amended from time to time.

11/22 s2

Air quality standards

3. (1) The air quality standards prescribed in Schedule A shall be used to maintain air quality in the province.

(2) The concentration of air contaminants due to all sources shall not exceed the standards prescribed in Schedule A.

(3) For the purpose of determining compliance with the standards prescribed in Schedule A, the minister may do one or more of the following:

(a) specify a condition in an approval issued under Part XI of the Act;

(b) specify a facility administrative boundary in an approval issued under Part XI of the Act; and

(c) develop an air quality management plan specifying the provisions to reduce the level of air contaminants emitted by each facility identified in the plan, and the owner or operator of each facility shall

(i) provide the minister with any information the minister may require regarding the development of an air quality management plan, including a company specific air quality management plan, and

(ii) comply with the provisions of the plan within the time specified by the minister.

11/22 s3

Incineration prohibition

4. (1) An owner or operator shall not operate or permit the operation of incineration or pyrometric equipment having an in-stack concentration in excess of the standards prescribed in Schedule B.

(2) Notwithstanding subsection (1), an owner or operator may operate incineration or pyrometric equipment having an in-stack concentration in excess of the standards prescribed in Schedule B with the written approval of the minister.

11/22 s4

Good engineering stack height

5. (1) All new stack installations with annual releases in excess of 20 tonnes of either particulate matter or sulphur dioxide shall meet good engineering stack height.

(2) The calculated concentration of an air contaminant at a point of impingement shall be from good engineering stack height.

11/22 s5

Best available control technology

6. (1) An owner or operator who installs a new or modified emission source shall employ the best available control technology.

(2) Notwithstanding subsection (1), an owner or operator may install a new or modified emission source which does not comply with that subsection with the written approval of the minister.

(3) Notwithstanding subsection (1), best available control technology shall not apply to

(a) routine maintenance, repair and parts replacement;

(b) normal increases in production rates unless otherwise prohibited;

(c) increases in hours of operation unless otherwise prohibited; or

(d) use of an alternative cleaner fuel or raw material.

(4) Best available control technology shall be acceptable to the department and shall, in that particular circumstance, be

(a) the most effective emission control device or technique;

(b) the most stringent emission control device or technique;

(c) proven reliable in comparable processes; and

(d) economically feasible as determined by the minister in light of industry standards after consultation with the particular owner or operator.

11/22 s6

Sulphur dioxide emission cap

7. (1) There is established a provincial sulphur dioxide emission cap which shall be 60,000 tonnes per calendar year.

(2) The owner or operator of a facility which releases in excess of 20 tonnes of sulphur dioxide per calendar year in the aggregate, shall submit to the department an annual report on fuel usage, fuel sulphur content, fuel specific gravity and sulphur dioxide emissions, no later than June 1 of the following calendar year.

11/22 s7

Administrative penalty

8. (1) For the purpose of environmental protection, the minister may, under the authority of section 106 of the Act, impose an administrative penalty prescribed in Schedule C against an owner or operator who emits an air contaminant.

(2) Administrative penalties imposed under this section shall be payable within 60 days of notification of the penalty by the department.

11/22 s8

Performance testing facilities

9. (1) The owner or operator of an emission source shall provide the following performance testing facilities:

(a) sampling ports adequate for testing devices and applicable methods;

(b) safe sampling platforms;

(c) safe access to sampling platforms; and

(d) utilities for sampling and testing devices.

(2) Notwithstanding subsection (1), the minister may exempt an owner or operator of an emission source from providing the performance testing facilities referred to in subsection (1).

11/22 s9

Potential for air pollution

10. (1) Where a facility has the potential for air pollution as a result of an unanticipated failure to operate in the normal manner due to an accident, emergency or urgent situation, a change in operating conditions, or a shut-down of a pollution control device, the owner or operator of the facility shall

(a) take immediate remedial action to reduce any emissions;

(b) provide the department with the particulars of the failure, change or shutdown as soon as

it is practicable; and

(c) provide the department in writing with the particulars of the remedial action taken under paragraph (a) within 30 days of the failure.

(2) Where the minister considers an emission by a facility to be a nuisance, the owner or operator of that facility shall

(a) investigate to determine the nature of the emission; and

(b) provide the minister with a remediation plan.

(3) The minister may approve the plan required under paragraph 2(b) subject to any changes the minister may require and an owner or operator shall comply with the approved plan.

(4) Notwithstanding section 3, the minister may, under the authority of section 105 of the Act, enter into a compliance agreement with the owner or operator in writing regarding a situation contemplated by subsection (1), authorizing the continuance of the operation for the period of time as the minister considers reasonable.

11/22 s10

Burning prohibited

11. (1) A person shall not burn or permit the burning of any material listed in Schedule D in a fire.

(2) Notwithstanding subsection (1), the minister may allow a person to burn or permit the burning of any material listed in Schedule D in a fire where the burning of the material is recommended by the Office of the Fire Commissioner.

(3) Notwithstanding subsection (1), a person may burn or permit the burning of a material listed in Schedule D in combustion process equipment where

(a) the specifications of the combustion process equipment confirms that the design and intended use of the combustion process equipment is suitable for the burning of the material;

(b) the feed rate does not exceed the feed rate of the combustion process equipment as specified by the manufacturer; and

(c) the combustion process equipment has the combustion control and emission control devices required by the minister.

(4) Notwithstanding subsection (3), the minister may require a person who intends to burn or permit the burning of a material listed in Schedule D in combustion process equipment that satisfies the requirements in subsection (3) to obtain the written approval of the minister before burning or permitting the burning of the material.

11/22 s11

Sulphur limits on fuels

12. (1) Where an emission source does not employ best available control technology, a person shall not burn or permit the burning of any fuel, grade numbers 4, 5 or 6 that contains

(a) a sulphur content in excess of 2.2%; or

(b) a sulphur content in excess of 2.0% on an annual basis, as calculated by the following formula:

$$\%S_a = \frac{?^n{}_{i=1}(S_i)(V_i)}{?^n{}_{i=1}(V_i)}$$

where

$\%S_a$ = annual sulphur content, expressed as %;

i = each individual shipment of fuel;

n = number of shipments of fuel during a calendar year;

S_i = sulphur content of each shipment of fuel, expressed as %; and

V_i = volume of each shipment of fuel;

(2) Where an emission source employs best available control technology, a person shall not burn or permit the burning of any fuel, grade numbers 4, 5 or 6 that contains

(a) a sulphur content in excess of 3.0%; or

(b) a sulphur content in excess of 2.0% on an annual basis, as calculated by the following formula:

$$\%S_a = \frac{(SO_2)(100000)}{(1.9579)(V_t)}$$

where

$\%S_a$ = annual sulphur content, expressed as %;

SO_2 = annual sulphur dioxide emissions in tonnes; and

V_t = annual volume of fuel in litres.

11/22 s12

Residential wood combustion emissions

13. (1) A person shall not sell or permit the selling of a residential woodstove, fireplace insert or factory built fireplace which may emit particulate matter into the air in excess of

(a) the emission requirements of the Canadian standard; or

(b) the emission requirements of the US EPA standard.

(2) The emission requirements under subsection (1) shall be determined by the test methods and procedures contained in the applicable standard.

(3) Each unit sold under subsection (1) shall have a readily visible, permanently affixed manufacturer's label which

(a) conforms to the labelling requirements in the applicable standard; and

(b) indicates that the unit conforms to the particulate matter emission requirements of the applicable standard.

11/22 s13

Non-portable aboveground storage tanks

14. (1) All non-portable aboveground storage tanks with a volume greater than 4 m^3 and storing a volatile organic liquid with a vapour pressure greater than 10 kPa at 21.1 °Celsius shall comply with the provisions of the CCME guidelines "Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks, PN 1180″ including any amendments to those guidelines.

(2) The owner or operator of a facility to which subsection (1) applies shall, in respect of each calendar year, provide all records required for reporting under Part 7 of the guidelines referred to in subsection (1), by February 28 of the following calendar year.

11/22 s14

Gasoline distribution networks

15. (1) All persons engaged in the gasoline distribution network shall comply with the vapour balancing, recovery and control requirements of the CCME guidelines ″ Environmental Code of Practice for Vapour Recovery in Gasoline Distribution Networks, PN 1057″ including any amendments to those guidelines.

(2) Subsection (1) shall not apply to

(a) terminals with an annual gasoline throughput less than 25 million litres;

(b) bulk plants with an annual gasoline throughput less than 4.5 million litres;

(c) service stations with an annual gasoline throughput less than one million litres;

(d) cargo tank trucks with a capacity less than 21,000 litres ; or

(e) ships and barges.

(3) Notwithstanding that the guidelines referred to in subsection (1) require a terminal to have a minimum operating service factor of greater than 95% during a calendar year, a terminal may have an operating service factor of 95% or less during a 365 day period where

(a) the minister determines that the terminal owner or operator has used due diligence in keeping the terminal's vapour control system operative;

(b) the terminal owner or operator develops a plan to achieve an operating service factor greater than 95% for the terminal and submits the plan to the minister; and

(c) the minister approves the plan as submitted or with any changes the minister determines necessary and the terminal owner or operator complies with the plan.

(4) The owner or operator of a facility to which subsection (1) applies shall, in respect of each calendar year, provide all records required under Parts 3, 4, 5, and 6 of the guidelines referred to in subsection (1), by February 28 of the following calendar year.

11/22 s15

Gasoline volatility control

16. (1) Gasoline intended for use in the province as a fuel for motor vehicles shall conform to the requirements in the Canadian General Standards Board National Standard of Canada for Automotive Gasoline CAN/CGSB-3.5-2021 as amended from time to time.

(2) An owner or operator of a refinery and an importer of gasoline into the province shall submit to the minister a report for each calendar year by March 31 in the calendar year immediately following.

(3) The report referred to in subsection (2) shall indicate

(a) the quantity and the vapour pressure of gasoline refined, shipped or otherwise intended for use in this province; and

(b) other information the minister may require.

11/22 s16

NOx standards for fossil fuel fired boilers and heaters

17. All new and modified fossil fuel fired boilers and heaters, with a nameplate capacity equal to or greater than 10.5 GJ/hr, shall not exceed the emission standards prescribed in Schedule E.

11/22 s17

Monitoring and recording devices

18. The minister may require the installation of the following:

(a) devices which are necessary to record the throughput and operation of process, combustion or control equipment; and

(b) monitoring and recording devices which are necessary to measure and record concentrations of air contaminants and flow at their origin and at point of impingement.

11/22 s18

Manner of measurements, recording and analyses

19. All measurements, recordings and analysis conducted under these regulations shall be

(a) performed at locations and by devices and methods acceptable to the department; and

(b) made readily accessible to the department in a time and manner acceptable to the department.

11/22 s19

NLR 100/18 Amdt.

20. Subsection 5(2) of the *Used Oil and Used Glycol Control Regulations* is repealed and the following substituted:

(2) A person shall not use used oil as a fuel or otherwise combust used oil in a furnace, boiler, burner or other combustor unless the furnace, boiler, burner or other combustor complies with the *Air Pollution Control Regulations, 2022* .

11/22 s20

Repeal

21. (1) The *Air Pollution Control Regulations, 2004* , Newfoundland and Labrador Regulation 39/04, are repealed.

(2) The *Gasoline Volatility Control Regulations, 2003* , Newfoundland and Labrador Regulation 62/03, are repealed.

11/22 s21

Schedule A

Table I: Air Quality Standards

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
	Name of Contaminant	Contaminant Code or CAS No.	Unit of Concentration	Concentration	Period of Time	Additional Notes
1	Ammonia	7664-41-7	Parts per billion	144	24 hour	
2	Arsenic	7440-38-2	Total micrograms of arsenic in free and combined form per cubic metre of air	0.3	24 hour	
3	Asbestos (greater than 5 microns in length)	1332-21-4	Fibres per cubic centimetre of air	0.04	24 hour	
4	Cadmium	7440-43-9	Total micrograms of cadmium in free and combined form per cubic metre of air	2	24 hour	
5	Carbon monoxide	630-08-0	Parts per billion	30582 13107	1 hour 8 hour	
6	Copper	7440-50-8	Total micrograms of copper in free and combined form per cubic metre of air	50	24 hour	
7	Hydrogen sulphide	7783-06-4	Parts per billion	11 4	1 hour 24 hour	
8	Lead	7439-92-1	Total micrograms of lead in free and combined form per cubic metre of air	2	24 hour	
9	Mercury	7439-97-6	Total micrograms of mercury in free and combined form per cubic metre of air	2	24 hour	

10	Nickel	7440-02-0	Total micrograms of nickel in free and combined form per cubic metre of air	2	24 hour	
11	Nitrogen dioxide	10102-44-0	Parts per billion	213 106 53	1 hour 24 hour 1 year	 (1)
12	Particulate matter (less than 2.5 microns)		Micrograms per cubic metre of air	25 8.8	24 hour 1 year	(4) (1) (4)
13	Particulate matter (less than 10 microns)		Micrograms per cubic metre of air	50	24 hour	
14	Particulate matter (total)		Micrograms per cubic metre of air	120 60	24 hour 1 year	 (2)
15	Polychlorinated biphenyls (PCBs)	1336-36-3	Micrograms per cubic metre of air	0.15 0.035	24 hour 1 year	 (1)
16	Polychlorinated dibenzo -p-dioxins (PCDDs) & ploychlorinaded dibenzo furans (PCDFs)(I-TEQ)		Picograms (I-TEQ) per cubic metre of air	5	24 hour	(3)
17	Sulphur dioxide	7446-09-5	Parts per billion	344 229 115 23	1 hour 3 hour 24 hour 1 year	 (1)
18	Vanadium	7440-62-2	Total micrograms of vanadium in free and combined form per cubic metre of air	2	24 hour	
19	Zinc	7440-66-6	Micrograms per cubic metre of air	120	24 hour	

(1) The arithmetic average over a single calendar year of all 1 hour average concentrations in the year.

(2) The geometric average over a single calendar year of all 1 hour average concentrations in the year.

(3) The International Total Equivalent Quotient (I-TEQ) concentration of PCDDs and PCDFs is determined by multiplying the concentration of each congener listed in Column 1 of Table III by the corresponding toxicity factor set out in Column 2 of that item and by adding the products of them.

(4) At reference conditions.

Table II: Air Quality Standards for Air Zone Management

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
	Name of Contaminant	Contaminant Code or CAS No.	Unit of Concentration	Concentration	Period of Time	Additional Notes
1	Nitrogen dioxide	10102-44-0	Parts per billion	60 17	1 hour 1 year	(2) (1) This item number effective until December 31, 2024
2	Nitrogen dioxide	10102-44-0	Parts per billion	42 12	1 hour 1 year	(2) (1) This item number effective January 1, 2025
3	Ozone	10028-15-6	Parts per billion	82 44	1 hour 8 hour	
4	Particulate matter (less than 2.5 microns)		Micrograms per cubic metre of air	25 8.8	24 hour 1 year	(4) (1) (4)
5	Sulphur dioxide	7446-09-5	Parts per billion	70 5	1 hour 1 year	(3) (1) This item number effective until December 31, 2024
6	Sulphur dioxide	7446-09-5	Parts per billion	65 4	1 hour 1 year	(3) (1) This item number effective January 1, 2025

(1) The arithmetic average over a single calendar year of all 1 hour average concentrations in the year.

(2) The 3 year average of the annual 98th percentile of the NO_2 daily maximum 1 hour average concentrations.

(3) The 3 year average of the annual 99th percentile of the SO_2 daily maximum 1 hour average concentrations.

(4) At reference conditions.

TABLE III: Dioxins and Furans International Total Equivalent Quotient (I-TEQ)

ITEM	COLUMN 1	COLUMN 2
	Congener	Toxicity Factor
1	2,3,7,8-T4CDD	1
2	1,2,3,7,8-P5CDD	0.5
3	1,2,3,4,7,8-H6CDD	0.1
4	1,2,3,6,7,8-H6CDD	0.1
5	1,2,3,7,8,9-H6CDD	0.1
6	1,2,3,4,6,7,8-H7CDD	0.01
7	OCDD	0.001
8	2,3,7,8-T4CDF	0.1
9	1,2,3,7,8-P5CDF	0.05
10	2,3,4,7,8-P5CDF	0.5
11	1,2,3,4,7,8-H6CDF	0.1
12	1,2,3,6,7,8-H6CDF	0.1
13	1,2,3,7,8,9-H6CDF	0.1
14	2,3,4,6,7,8-H6CDF	0.1
15	1,2,3,4,6,7,8-H7CDF	0.01
16	1,2,3,4,7,8,9-H7CDF	0.01
17	OCDF	0.001

Schedule B

In-Stack Standards for Incineration and Pyrolysis

Facility Type	Mercury (1)	Polychlorinated dibenzo - p-dioxins (PCDDs) & poly-chlorinated dibenzofurans (PCDFs) (1) (2)
Municipal Waste Incineration	20 ?g /m^3	80 pg I-TEQ/m^3
Medical Waste Incineration	20 ?g /m^3	80 pg I-TEQ/m^3
Hazardous Waste Incineration	50 ?g /m^3	80 pg I-TEQ/m^3
Sewage Sludge		

Incineration	70 ?g /m^3	80 pg I-TEQ/m^3

(1) at reference conditions, dry gas basis, corrected to 11% oxygen by volume

Where

(a) (ug/m^3) = micrograms per cubic metre; and

(b) (pg I-TEQ/m^3) = International Total Equivalent Quotient picograms per cubic metre

(2) The International Total Equivalent Quotient (I-TEQ) concentration of PCDDs and PCDFs is determined by multiplying the concentration of each congener listed in Column 1 of Table III of Schedule A by the corresponding toxicity factor set out in Column 2 of that item and by adding the products of them.

Schedule C

Administrative Penalties for Emissions Exceedences

Air Contaminant	Maximum Allowable Annual Emission Without Administrative Penalty	Administrative Penalty
Ammonia	10 tonnes	$2 / tonne
Nickel	10 tonnes	$2 / tonne
Vanadium	10 tonnes	$2 / tonne
Carbon Monoxide	20 tonnes	$2 / tonne
Nitrogen Oxides	20 tonnes	$2 / tonne
Particulate Matter (total)	20 tonnes	$2 / tonne
Sulphur Dioxide	20 tonnes	$2 / tonne
Arsenic	50 kilograms	$2 / kilogram
Lead	50 kilograms	$2 / kilogram
Cadmium	5 kilograms	$2 / kilogram
Mercury	5 kilograms	$2 / kilogram
Polychlorinated dibenzo - p-dioxins (PCDDs) & poly-chlorinated dibenzofurans (PCDFs)(TEQ)	1000 milligrams TEQ	$2 / milligram TEQ

Schedule D

Materials Prohibited from Burning in a Fire

(a) tires	(k) manure
(b) plastics	(l) rubber
(c) treated lumber	(m) tar paper
(d) asphalt and asphalt products	(n) railway ties
(e) drywall	(o) paint and paint products
(f) demolition waste	(p) fuel and lubricant containers
(g) hazardous waste	(q) used oil
(h) biomedical waste	(r) animal cadavers
(i) domestic waste	(s) hazardous substances
(j) trash, garbage, or other waste from commercial, industrial or municipal operations	(t) materials disposed of as part of the removal or decontamination of equipment, buildings or other structures

Schedule E

Emission Standards for NO_x

Capacity	NO_x Emission Limit (g / GJ)		
(GJ / hr)	Gaseous Fuel	Distillate Oil	Residual Oil
10.5 - 105	26	40	90
> 105	40	50	90

Where:

(a) (GJ/hr)= gigajoules/hour

(b) (g/GJ)- grams per gigajoule.