



Province of Alberta

ENVIRONMENTAL PROTECTION AND
ENHANCEMENT ACT

**OZONE-DEPLETING SUBSTANCES
AND HALOCARBONS REGULATION**

Alberta Regulation 181/2000

With amendments up to and including Alberta Regulation 132/2004

Office Consolidation

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Alberta Queen's Printer
7th Floor, Park Plaza
10611 - 98 Avenue
Edmonton, AB T5K 2P7
Phone: 780-427-4952
Fax: 780-452-0668

E-mail: qp@gov.ab.ca
Shop on-line at www.qp.alberta.ca

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(Consolidated up to 132/2004)

ALBERTA REGULATION 181/2000

Environmental Protection and Enhancement Act

**OZONE-DEPLETING SUBSTANCES
AND HALOCARBONS REGULATION**

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Schedules

Definitions

1 In this Regulation,

- (a) “charge” means to add an ozone-depleting substance or halocarbon to a refrigeration or air conditioning system;
- (a.1) “chiller” means an air conditioning system or refrigeration system that has a compressor, an evaporator and a secondary refrigerant;
- (a.2) “critical use application” means a situation where a technically and financially feasible alternative does not exist;
- (b) “Director” means the person designated as Director for the purposes of this Regulation;
- (c) “halocarbon” means a substance listed in Schedule 3 or 4, and includes a substance that contains such a substance;

- (c.1) “mobile refrigeration system” means a refrigeration system that is installed in or normally operates in or in conjunction with or is attached to a means of transportation;
- (d) “ozone-depleting substance” means a substance listed in Schedule 1 or 2, and includes a substance that contains such a substance;
- (e) “servicing procedure” means a procedure associated with the installation, maintenance, inspection, testing, leak detection, repair, labelling, alteration, conversion or temporary or permanent decommissioning of a refrigeration or air conditioning system or white goods or components of a refrigeration or air conditioning system or white goods;
- (e.1) “small refrigeration system” means any refrigeration system other than a mobile refrigeration system that is not contained in a motor vehicle and that has a rated refrigeration capacity of less than 19 kilowatts;
- (f) “white goods” means cooling and refrigeration appliances including, without limitation, refrigerators and freezers.

AR 181/2000 s1;132/2004

General prohibition

2(1) Unless subsection (3) or (4) is not contravened or unless permitted by any enactment of Alberta or Canada or by approval, no person shall release or permit the release of an ozone-depleting substance or halocarbon into the environment.

(2) Subsection (1) does not apply to the release of an ozone-depleting substance or halocarbon into the environment from any thing while it is used

- (a) in the course of fighting fires;
- (b) in human or animal health care applications, such as the following:
 - (i) bronchial dilators;
 - (ii) inhalable steroids;
 - (iii) topical anaesthetics;
 - (iv) veterinary powder wound sprays;
 - (v) sterilization of medical equipment;

(c) in laboratory analytical procedures.

(3) No person shall charge or permit the charge of an air conditioning system, that is designed for passengers in motor vehicles, with a chlorofluorocarbon or any mixture containing a chlorofluorocarbon listed in items (a) to (e) in Schedule 1.

(4) No person shall release or permit the release of more than 0.1 kilogram of an ozone-depleting substance or halocarbon per kilogram of air from an air purge system for purging non-condensable gases from a low pressure centrifugal chiller on or used on a refrigeration system or air conditioning system.

(5) On and after January 1, 2005, no person shall charge or permit the charge of a mobile refrigeration system with a chlorofluorocarbon or any mixture containing a chlorofluorocarbon listed in items (a) to (e) in Schedule 1.

(6) On and after January 1, 2005, no person shall charge or permit the charge of a refrigeration system with a chlorofluorocarbon or any mixture containing a chlorofluorocarbon listed in items (a) to (e) in Schedule 1.

(7) Subsection (6) does not apply to a chiller, a mobile refrigeration system or a small refrigeration system.

(8) On and after January 1, 2005, no person shall charge or permit the charge of a chiller with a chlorofluorocarbon or any mixture containing a chlorofluorocarbon listed in items (a) to (e) in Schedule 1 if that chiller has undergone an overhaul that includes the following procedure or repair:

(a) the replacement or modification of an internal sealing device;

(b) the replacement or modification of an internal mechanical part other than

(i) an oil heater,

(ii) an oil pump,

(iii) a float assembly, or

(iv) a vane assembly, in the case of a chiller with a single-stage compressor;

(c) any procedure or repair that resulted from the failure of an evaporator or a condenser heat-exchanger tube.

(9) Notwithstanding subsection (8), a person may charge a chiller with a chlorofluorocarbon or with a mixture containing a

chlorofluorocarbon listed in items (a) to (e) in Schedule 1, but that person shall not operate that chiller later than one year after the day on which it is charged unless it no longer contains a chlorofluorocarbon or mixture containing a chlorofluorocarbon listed in items (a) to (e) in Schedule 1.

(10) The owner or person responsible for charging a chiller pursuant to subsection (9) shall provide written notice to the Director within 30 days after the chiller is charged.

(11) On and after January 1, 2015, no person shall charge or permit the charge of a chiller with a chlorofluorocarbon or any mixture containing a chlorofluorocarbon listed in items (a) to (e) in Schedule 1.

(12) On and after January 1, 2005, no person shall charge or permit the charge of a portable fire extinguisher with a halon or any mixture containing a halon listed in items (f) to (i) in Schedule 1, except for critical use applications.

(13) During the period from January 1, 2005 to December 31, 2009, no person shall charge or permit the charge of a fixed fire extinguishing system with a halon or any mixture containing a halon listed in items (f) to (i) in Schedule 1 more than once on that system, except for critical use applications.

(14) On or after January 1, 2010, no person shall charge or permit the charge of a fixed fire extinguishing system with a halon or any mixture containing a halon listed in items (f) to (i) in Schedule 1, except for critical use applications.

AR 181/2000 s2;132/2004

Refillable container

3 No person shall sell or purchase an ozone-depleting substance or halocarbon used as a refrigerant in refrigeration or air conditioning, unless it is in a container that is designed to be refilled and to contain that substance.

AR 181/2000 s3;132/2004

Manufacture or sale

4(1) Subject to subsections (2) to (4), no person shall manufacture, offer for sale or sell

- (a) any thing containing an ozone-depleting substance listed in Schedule 1 that acts as a propellant,
- (b) packaging, wrapping or containers that contain an ozone-depleting substance listed in Schedule 1 or that are

manufactured by a process that uses an ozone-depleting substance listed in Schedule 1,

- (c) a portable hand-held fire extinguisher that contains an ozone-depleting substance listed in Schedule 1 or that is manufactured by a process that uses an ozone depleting substance listed in Schedule 1,
- (d) rigid foam insulation or flexible furniture foam made with any ozone-depleting substance listed in Schedule 1, or
- (e) any thing that contains an ozone-depleting substance listed in Schedule 1 that is
 - (i) a release agent for molds used in the manufacture of plastic materials,
 - (ii) a cleaning solvent for commercial use on electronic or electrical equipment,
 - (iii) a protective spray for application to photographs, or
 - (iv) a lubricant for use in mining operations.

(2) Subsection (1)(c) does not apply to the sale or offering for sale of a fire extinguisher that was manufactured before September 1, 1993.

(3) Subsection (1)(d) does not apply to the following:

- (a) the sale or offering for sale of rigid foam insulation, other than rigid foam insulation used in white goods after July 1, 1994 if it was manufactured before July 1, 1994;
- (b) the sale or offering for sale of rigid foam insulation used in white goods after January 1, 1996 if it was manufactured before January 1, 1996;
- (c) the sale or offering for sale of flexible furniture foam after January 1, 1994 if it was manufactured before January 1, 1994.

(4) Subsection (1)(e) does not apply to the sale or offering for sale of any thing referred to in clause (e) after January 1, 1994 that was manufactured before January 1, 1994.

AR 181/2000 s4;132/2004

Refrigeration and air conditioning equipment

5 A person who services a refrigeration system or air conditioning system that contains or may contain an ozone-depleting substance or a halocarbon must conduct the servicing procedures in

accordance with the Environment Canada *Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems EPS 1/RA/2 March 1996*, as amended from time to time.

Halon servicing

6(1) A person who services a fire suppression system or equipment that contains or may contain a halon listed in Schedule 1 must conduct the servicing procedures in accordance with the publication ULC/ORD-C1058.18-1993, entitled *The Servicing of Halon Extinguishing Systems*, as amended from time to time.

(2) No person shall install a fire suppression system or equipment containing halon listed in Schedule 1.

(3) No person shall use an ozone-depleting substance for the purpose of testing for leaks in a fire suppression system.

(4) No person shall add a halon listed in Schedule 1 to a fire suppression system unless the system has been tested for leaks and all the leaks have been repaired.

(5) A person responsible for a fire suppression system that contains a halon listed in Schedule 1 in a combined amount of 40 kilograms or greater must prepare a halon management plan applicable to the facility where the system is located that includes

- (a) written procedures for servicing of the fire suppression system, and
- (b) a plan and time schedule for phase-out and replacement of halon.

(6) Repealed AR 132/2004 s6.

(7) The halon management plan referred to in subsection (5) must be available at the facility for inspection by an inspector of Alberta Environment on request.

AR 181/2000 s6;132/2004

Apprenticeship and Industry Training Act

7 No person shall service equipment that contains or may contain an ozone-depleting substance or a halocarbon unless that person is qualified to do such servicing under the *Apprenticeship and Industry Training Act* and the regulations under that Act.

Returns and reports

- 8(1)** The Director may by notice in writing directed to the person responsible for an ozone-depleting substance or a halocarbon
- (a) require any returns or reports respecting a release of the ozone-depleting substance or halocarbon into the environment resulting from the construction, operation or reclamation of a plant, structure or thing,
 - (b) specify the manner and frequency of sampling, recording and reporting of the performance of a plant, structure or thing from which the ozone-depleting substance or halocarbon is or could be released into the environment, and
 - (c) specify an analytical method for determining the presence of the ozone-depleting substance or halocarbon at a plant, structure or thing that has affected, is affecting or may affect air emissions from the plant, structure or thing.
- (2)** A person who receives a notice in writing under subsection (1) must comply with it in accordance with its terms.

Label, mark is evidence

- 9** In a prosecution or proceeding under this Regulation, evidence that a container, vessel or equipment bore a mark or label indicating that a container, vessel or equipment contained an ozone-depleting substance or halocarbon is, in the absence of evidence to the contrary, proof that the container, vessel or equipment contained the substance so identified.

Refrigerant and halon take back

- 9.1(1)** On and after January 1, 2005, where a person purchases an ozone-depleting substance or other halocarbon, other than as part of or contained in refrigeration or air conditioning equipment, and returns the substance or halocarbon to the seller, the seller shall accept and store the substance or halocarbon until the seller can deliver it to a person to recycle, convert or destroy it.
- (2)** A person returning an ozone-depleting substance or other halocarbon to the seller shall return it in a container that is designed to contain it.

AR 132/2004 s7

Offences

- 10** Any person who contravenes section 2(1), (3), (4), (5), (6), (8), (9), (10), (11), (12), (13) or (14) or section 3, 4(1), 5, 6, 7, 8(2) or 9.1 is guilty of an offence and liable,

- (a) in the case of an individual, to a fine of not more than \$50 000, or
- (b) in the case of a corporation, to a fine of not more than \$500 000.

AR 181/2000 s10;132/2004

Due diligence defence

11 No person may be convicted of an offence under this Regulation if that person establishes on a balance of probabilities that the person took all reasonable steps to prevent its commission.

12 Repealed AR 132/2004 s9.

Coming into force

13 This Regulation comes into force on September 1, 2000.

Schedule 1**Chlorofluorocarbons (CFCs) Halons and Chlorocarbons**

- (a) CFC-11, also known as fluorotrichloromethane;
- (b) CFC-12, also known as dichlorodifluoromethane;
- (c) CFC-113, also known as 1,1,2-trichloro-1,2,2-trifluoroethane;
- (d) CFC-114, also known as 1,2-dichloro- 1,1,2,2-tetrafluoroethane;
- (e) CFC-115, also known as 1-chloro- 1,1,2,2,2-pentafluoroethane;
- (f) Halon-1211, also known as bromochlorodifluoromethane;
- (g) Halon-1301, also known as bromotrifluoromethane;
- (h) Halon-2402, also known as dibromotetrafluoroethane;
- (i) All other bromofluorocarbons and bromochlorofluorocarbons;
- (j) Carbon tetrachloride;
- (k) Methyl chloroform, also known as 1,1,1-trichloroethane.

Schedule 2**Hydrochlorofluorocarbons (HCFCs)**

(where used as a refrigerant in refrigeration and air conditioning)

- (a) HCFC-21 (hydrochlorofluorocarbon-21), also known as dichlorofluoromethane;
- (b) HCFC-22 (hydrochlorofluorocarbon-22), also known as chlorodifluoromethane;
- (c) HCFC-31 (hydrochlorofluorocarbon-31), also known as chlorofluoromethane;
- (d) HCFC-121 (hydrochlorofluorocarbon-121), also known as tetrachlorofluoroethane;
- (e) HCFC-122 (hydrochlorofluorocarbon-122), also known as trichlorodifluoroethane;
- (f) HCFC-123 (hydrochlorofluorocarbon-123), also known as dichlorotrifluoroethane;
- (g) HCFC-124 (hydrochlorofluorocarbon-124), also known as chlorotetrafluoroethane;
- (h) HCFC-131 (hydrochlorofluorocarbon-131), also known as trichlorofluoroethane;
- (i) HCFC-132 (hydrochlorofluorocarbon-132), also known as dichlorodifluoroethane;
- (j) HCFC-133 (hydrochlorofluorocarbon-133), also known as chlorotrifluoroethane;
- (k) HCFC-141 (hydrochlorofluorocarbon-141), also known as dichlorofluoroethane;
- (l) HCFC-142 (hydrochlorofluorocarbon-142), also known as chlorodifluoroethane;
- (m) HCFC-221 (hydrochlorofluorocarbon-221), also known as hexachlorofluoropropane;
- (n) HCFC-222 (hydrochlorofluorocarbon-222), also known as pentachlorodifluoropropane;
- (o) HCFC-223 (hydrochlorofluorocarbon-223), also known as tetrachlorotrifluoropropane;

- (p) HCFC-224 (hydrochlorofluorocarbon-224), also known as trichlorotetrafluoropropane;
- (q) HCFC-225 (hydrochlorofluorocarbon-225), also known as dichloropentafluoropropane;
- (r) HCFC-226 (hydrochlorofluorocarbon-226), also known as chlorohexafluoropropane;
- (s) HCFC-231 (hydrochlorofluorocarbon-231), also known as pentachlorofluoropropane;
- (t) HCFC-232 (hydrochlorofluorocarbon-232), also known as tetrachlorodifluoropropane;
- (u) HCFC-233 (hydrochlorofluorocarbon-233), also known as trichlorotrifluoropropane;
- (v) HCFC-234 (hydrochlorofluorocarbon-234), also known as dichlorotetrafluoropropane;
- (w) HCFC-235 (hydrochlorofluorocarbon-235), also known as chloropentafluoropropane;
- (x) HCFC-241 (hydrochlorofluorocarbon-241), also known as tetrachlorofluoropropane;
- (y) HCFC-242 (hydrochlorofluorocarbon-242), also known as trichlorodifluoropropane;
- (z) HCFC-243 (hydrochlorofluorocarbon-243), also known as dichlorotrifluoropropane;
- (aa) HCFC-244 (hydrochlorofluorocarbon-244), also known as chlorotetrafluoropropane;
- (bb) HCFC-251 (hydrochlorofluorocarbon-251), also known as trichlorofluoropropane;
- (cc) HCFC-252 (hydrochlorofluorocarbon-252), also known as dichlorodifluoropropane;
- (dd) HCFC-253 (hydrochlorofluorocarbon-253), also known as chlorotrifluoropropane;
- (ee) HCFC-261 (hydrochlorofluorocarbon-261), also known as dichlorofluoropropane;
- (ff) HCFC-262 (hydrochlorofluorocarbon-262), also known as chlorodifluoropropane;

- (gg) HCFC-271 (hydrochlorofluorocarbon-271), also known as chlorofluoropropane.

All isomers of the above.

All mixtures and azeotropes of the above.

Schedule 3

Hydrofluorocarbons (HFCs)

(where used as a refrigerant in refrigeration and air conditioning)

- (a) HFC 23 - trifluoromethane;
- (b) HFC 32 - difluoromethane;
- (c) HFC 125 - pentafluoroethane;
- (d) HFC 134 - tetrafluoroethane;
- (e) HFC 143 - trifluoroethane;
- (f) HFC 152 - difluoroethane;
- (g) HFC 161 - monofluoroethane;
- (h) HFC 281 - fluoropropane;
- (i) HFC 272 - difluoropropane;
- (j) HFC 263 - trifluoropropane;
- (k) HFC 254 - tetrafluoropropane;
- (l) HFC 245 - pentafluoropropane;
- (m) HFC 236 - hexafluoropropane;
- (n) HFC 227 - heptafluoropropane;
- (o) HFC 218 - octafluoropropane.

Mixtures

All isomers of the above.

All mixtures and azeotropes of the above.

Mixtures or azeotropes of the above with HCFCs are part of Schedule 2.

Mixtures or azeotropes of the above containing CFCs are part of Schedule 1.

Schedule 4**Perfluorocarbons (PFCs)**

(where used as a refrigerant in refrigeration and air conditioning)

- (a) FC-14, also known as tetrafluoromethane;
- (b) FC-116, also known as hexafluoroethane;
- (c) FC-218, also known as octafluoropropane;
- (d) FC-3-1-10, also known as decafluorobutane;
- (e) FC-4-1-12, also known as dodecafluoropentane;
- (f) FC-5-1-14, also known as tetradecafluorohexane.

Mixtures

A mixture containing one of the above.

Any azeotropes of the above.

Mixtures or azeotropes of the above with HCFCs are part of
Schedule 2.



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