



Fact Sheet *Federal Halocarbon Regulations, 2003*

Information Pertaining to Refrigeration and Air-Conditioning Systems

This fact sheet focuses on the provisions of the *Federal Halocarbon Regulations, 2003* that relate specifically to refrigeration and air-conditioning systems. It is not intended to replace the full legal text of the Regulations or to provide legal opinions. You are advised to retain a lawyer should you require a legal opinion.

A similar fact sheet is also available for fire-extinguishing systems.

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What are halocarbons and why are they regulated?

Halocarbons are synthetic chemical compounds made up of carbon and one or more halogens (chlorine, bromine and fluorine). They are used as refrigerants, fire-extinguishing agents, solvents, foam-blowing agents and fumigants. Common halocarbons include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

Emissions of halocarbons can lead to ozone layer depletion and contribute to climate change.

How are halocarbons regulated?

In Canada, the federal, provincial and territorial governments have requirements in place to manage halocarbons. At the federal level, Environment Canada administers two regulations under the *Canadian Environmental Protection Act, 1999*:

- the *Ozone-depleting Substances Regulations, 1998*, which control the import, export, manufacture, use, sale and offer for sale of ozone-depleting substances; and
- the *Federal Halocarbon Regulations, 2003*, which are discussed in this fact sheet.

In addition to federal legislation, each province and territory controls halocarbons in activities that come under its jurisdiction.

Scope of the Federal Halocarbon Regulations, 2003

The *Federal Halocarbon Regulations, 2003* replaced the previous *Federal Halocarbon Regulations* on August 13, 2003.

The purpose of the Regulations is to reduce and prevent emissions of halocarbons to the environment from refrigeration, air-conditioning, fire-extinguishing and solvent systems that are

- owned by the federal government (e.g., departments, boards or agencies, Crown corporations) or by federal works or undertakings; or
- located on Aboriginal or federal lands (including all tenants on such lands).

A federal work or undertaking is any work or undertaking that is within the legislative authority of the Parliament of Canada, including but not limited to

- a work or undertaking operated for or in connection with navigation and shipping, whether inland or maritime, including the operation of ships and transportation by ship;
- a railway, canal, telegraph or other work or undertaking connecting one province with another, or extending beyond the limits of a province;
- a line of ships connecting a province with any other province, or extending beyond the limits of a province;
- a ferry between any province and any other province or between any province and any country other than Canada;
- airports, aircraft and commercial air services;
- a broadcast undertaking;
- a bank;
- a work or undertaking that, although wholly situated within a province, is before or after its completion declared by Parliament to be for the general advantage of Canada or for the advantage of two or more provinces (e.g., nuclear facilities, feed mills); and
- a work or undertaking outside the exclusive legislative authority of the legislature of the provinces.

Definitions

Air-conditioning system: an air-conditioning system, including any associated equipment, that contains or is designed to contain a halocarbon refrigerant

Certified person: a service technician who holds a certificate recognized by three or more provinces or by the province in which the work is being done, indicating successful completion of an environmental awareness course in recycling, recovery and handling procedures for halocarbon refrigerants as outlined in the Refrigerant Code of Practice

Chiller: an air-conditioning or refrigeration system that has a compressor, an evaporator and a secondary refrigerant

Chiller overhaul: a thorough service activity on a chiller that includes any of the following procedures or repairs:

- replacement or modification of an internal sealing device;
- replacement or modification of an internal mechanical part with the exception of the following parts: oil heater, oil pump, float assembly or, in the case of a chiller with a single-stage compressor, vane assembly; or
- any procedure or repair that resulted from the failure of an evaporator or condenser heat-exchanger tube

Halocarbon: a substance set out in Schedule 1 of the *Federal Halocarbon Regulations, 2003*, whether existing alone or in a mixture, and including isomers of any such substance

Installation: does not include the reactivation of a system by the same owner at the same site

Owner: a person who holds a right in, has possession, control or custody of, is responsible for the maintenance, operation or management of, or has the power to dispose of a system

Purge system: a purge unit on a refrigeration or air-conditioning system, including any associated release recovery equipment

Refrigerant Code of Practice: the *Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air-Conditioning Systems* published by Environment Canada

Refrigeration system: a refrigeration system, including any associated equipment, that contains or is designed to contain a halocarbon refrigerant

Small air-conditioning system: an air-conditioning system that is not contained in a motor vehicle and that has a refrigeration capacity of less than 19 kW as rated by the manufacturer

Small refrigeration system: a refrigeration system that has a refrigeration capacity of less than 19 kW as rated by the manufacturer, other than a system that is installed in, attached to or normally operates in conjunction with a means of transportation

Prohibitions

Prohibited Activities	Exceptions
Releasing a halocarbon from a refrigeration or air-conditioning system or associated container or device	Releasing a halocarbon from a purge system that emits less than 0.1 kg of halocarbon per kg of air purged
Releasing a halocarbon from a container or equipment used in the reuse, recycling, reclamation or storage of that halocarbon	No exceptions
Purchasing, transporting or storing a halocarbon in a container that is not designed and manufactured to be refilled and to contain that specific type of halocarbon	Purchasing, transporting or storing a halocarbon used as a laboratory reagent or analytical standard
Installing a refrigeration or air-conditioning system that operates with a halocarbon other than HCFCs, HFCs or PFCs	No exceptions
Installing or operating a purge system that emits more than 0.1 kg of halocarbon per kg of air purged	No exceptions
Charging a refrigeration or air-conditioning system without it first being leak tested	Charging a leaking system during a period, up to 7 days, that is necessary to prevent an immediate danger to human life or health
Charging a refrigeration or air-conditioning system with a halocarbon other than HCFCs, HFCs or PFCs for leak testing	No exceptions
Charging a refrigeration or air-conditioning system with a halocarbon other than HCFCs, HFCs or PFCs	Charging a chiller that has not undergone an overhaul or a small refrigeration or air-conditioning system
Effective January 1, 2015, operating a chiller that contains a halocarbon other than HCFCs, HFCs or PFCs	No exceptions

Certification

Only a certified person may do work (installing, servicing, leak testing, charging or other work that may result in the release of a halocarbon) on a refrigeration or air-conditioning system.

Servicing, leak testing and decommissioning

Servicing

All work (installing, servicing, leak testing, charging or other work that may result in the release of a halocarbon) on a refrigeration or air-conditioning system must be done in accordance with the Refrigerant Code of Practice.

Before any such work is started, any halocarbon that would otherwise be released during these procedures must be recovered into a container designed and manufactured to be refilled and to contain that specific type of halocarbon.

Once such work is completed, an entry describing the work must be made in a service log containing the information outlined in item 5 of Schedule 2 of the *Federal Halocarbon Regulations, 2003*.

Leak testing

A leak test is required before charging any refrigeration or air-conditioning system, except to charge a system for a period, up to seven days, that is necessary to prevent an immediate danger to human life or health.

Except for small refrigeration and air-conditioning systems and air-conditioning systems designed for occupants in a motor vehicle, leak tests of all system components that come in contact with a halocarbon are also required at least once every 12 months.

Refer to the Refrigerant Code of Practice for more information on acceptable leak testing methods.

As soon as possible after a leak is detected, but not later than seven days, the certified person must notify the owner of the system and the owner must either:

- repair the leak;
- isolate the leaking portion of the system and recover the halocarbon from that portion; or
- recover the halocarbon from the entire system.

A Leak Test Notice containing the information outlined in item 2 of Schedule 2 of the *Federal Halocarbon Regulations, 2003* must be affixed to a system after each leak test. The Notice cannot be removed except to replace it with another notice.

Dismantling, decommissioning and destruction

Prior to dismantling, decommissioning or destroying any refrigeration or air-conditioning system, all halocarbon must be recovered into a container designed and manufactured to be refilled and to contain that specific type of refrigerant.

A Dismantling, Decommissioning and Destruction Notice containing the information outlined in item 1 of Schedule 2 of the *Federal Halocarbon Regulations, 2003* must be affixed to the system. The Notice cannot be removed except to replace it with another notice.

Release reports

Owners must report all halocarbon releases of more than 10 kg to Environment Canada.

In the event of a release of 100 kg or more from a refrigeration or air-conditioning system—or from a container or equipment used in the reuse, recycling, reclamation or storage of the halocarbon—the owner must submit a verbal or written report within 24 hours of detecting the release. The report must indicate the name of the owner, the type of halocarbon released and the type of system, container or equipment from which it was released.

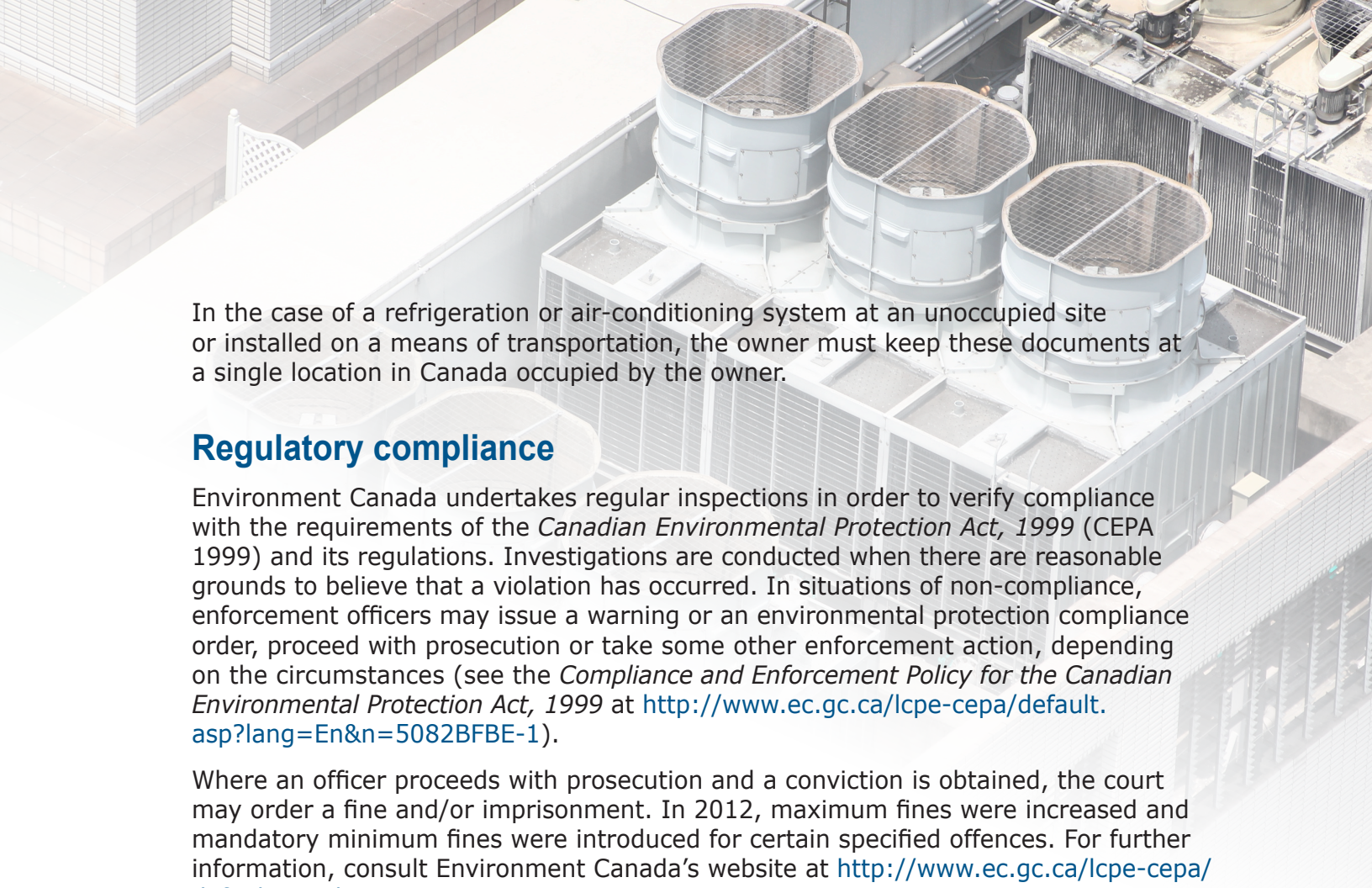
Within 14 days of a release of 100 kg or more, a written report must also be submitted that more fully details the circumstances leading to the release, as well as the corrective and preventative action(s) taken. The information that must be reported is outlined in item 8 of Schedule 2 of the *Federal Halocarbon Regulations, 2003*.

For releases of more than 10 kg but less than 100 kg, the owner must submit no later than January 31 or July 31 a written report containing the information outlined in item 8 of Schedule 2 of the Regulations for all releases in the preceding calendar half-year.

Written reports must be mailed or faxed to the appropriate Environment Canada regional representative (See the **For more information** section).

Record keeping

The owner must keep a copy of all logs, notices, records and reports required by the *Federal Halocarbon Regulations, 2003* at the premises or site where the refrigeration or air-conditioning system is located, for a period of at least five years.



In the case of a refrigeration or air-conditioning system at an unoccupied site or installed on a means of transportation, the owner must keep these documents at a single location in Canada occupied by the owner.

Regulatory compliance

Environment Canada undertakes regular inspections in order to verify compliance with the requirements of the *Canadian Environmental Protection Act, 1999* (CEPA 1999) and its regulations. Investigations are conducted when there are reasonable grounds to believe that a violation has occurred. In situations of non-compliance, enforcement officers may issue a warning or an environmental protection compliance order, proceed with prosecution or take some other enforcement action, depending on the circumstances (see the *Compliance and Enforcement Policy for the Canadian Environmental Protection Act, 1999* at <http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=5082BFBE-1>).

Where an officer proceeds with prosecution and a conviction is obtained, the court may order a fine and/or imprisonment. In 2012, maximum fines were increased and mandatory minimum fines were introduced for certain specified offences. For further information, consult Environment Canada's website at <http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=66B8D849-1>.

For more information

Visit Environment Canada's Stratospheric Ozone website at www.ec.gc.ca/ozone for more information, including information regarding

- Canada's Ozone Layer Protection Program
- the *Federal Halocarbon Regulations, 2003*
- the Refrigerant Code of Practice published by Environment Canada

For additional information, please contact your Environment Canada regional representative listed on the Ozone website.

Cat. No.: En14-108/1-2013E-PDF
ISBN 978-1-100-22780-1

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