12th EDITION

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2021 MANITOBA COMPLIANCE GUIDE

OZONE DEPLETING SUBSTANCES & OTHER HALOCARBONS

FOR HVAC, REFRIGERATION, A/C, AND FIRE SUPPRESSION SECTORS

MANITOBA OZONE PROTECTION INDUSTRY ASSOCIATION INC. MOPIA

MANITOBA OZONE PROTECTION INDUSTRY ASSOCIATION MOPIA.CA THE SKY'S OUR LIMIT! LEADERS IN CLIMATE PROTECTION

MOPIA'S MANITOBA COMPLIANCE GUIDE

AN INNOVATIVE MANITOBA NON-GOVERNMENT ORGANIZATION (NGO) IN COLLABORATION WITH THE PRIVATE SECTOR, MANITOBA GOVERNMENT AND OTHER LEADING STAKEHOLDERS

READY FOR THE CHALLENGE !

MOPIA is here to assist you in your transition of phasing-out, eliminating or properly managing the stewardship of various Ozone Depleting Substances (ODSs) and halocarbons including such synthetic gases as CFCs, HCFCs, HFCs, HFOs, halons and other substitutes or alternatives in your possession at your workplace, in the course of your employment, business and throughout the environment.

We encourage you to contact **MOPIA** if you require information on Manitoba's unique stratospheric ozone and climate protection program. If you need assistance or clarification on some of the information in this guide, a speaker at one of your events, information on ozone depletion, sun awareness, climate change or industry practices.

Tell us how can we improve our program or future compliance guides. Let us know what's missing or suggest what should be added. **MOPIA** is looking to make this guide and future info pieces as useful and comprehensive as possible.

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*You are welcome to duplicate, share or quote information within **MOPIA's** Compliance Guide. However, some material is sourced from other organizations and so where appropriate, we ask that you provide a reference or an appropriate credit.*

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STRIVING TO BE ACCURATE (Disclaimer)

MOPIA's Compliance Guide was prepared for your information and to help you comply with the ***Manitoba Ozone Depleting Substances and Other Halocarbons Regulation 103/94***. However, this Compliance Guide and the federal Code of Practice do not replace any Act or Regulation and have no legal force themselves. The appropriate legislation must be referred for all purposes of interpretation and application of the law. The responsibility falls on the users of this guide to ensure that they comply with all applicable legislation. **MOPIA** takes no responsibility for any errors or omissions.

This guide provides general information and a summary of the *Manitoba Ozone Depleting Substances Act* and *the Regulation* only. Always refer to the actual legislative text.

The complete provisions dealing with the use of regulated refrigerants (and halons) are contained in the *Ozone Depleting Substances Act* (Chapter 080) and the accompanying *Ozone Depleting Substances and Other Halocarbons Regulation 103/94*. Copies of the legislation and information on other ozone-depleting substances not covered may be obtained from **MOPIA** or the Government of Manitoba website: ***web2.gov.mb.ca/laws/index.php***

Note that the certificate course is in no way to be construed as certification or a license of competency to repair / service refrigeration and air conditioning or fire suppression equipment. The trained service technician certification demonstrates accreditation in understanding provincial legislation (*Manitoba Ozone Depleting Substances Act and Regulation*) and environmental awareness.

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INTRODUCTION

MOPIA's Regulatory Compliance Guide was developed originally in 1993 and updated several times including most recently in 2021. It is specifically designed to assist those in the refrigeration & air conditioning fields (HVAC/R), as those sectors include the most stakeholders and regulatory requirements. However, this guide may also be useful for those using "other" regulated substances used as fire extinguishing agents (halons), foams, solvents and propellants. It is also handy for the general public for use as an information tool regarding regulated products and industries' regulatory responsibilities.

MOPIA: Successful and Self-Sustaining

The **Manitoba Ozone Protection Industry Association Incorporated** (**MOPIA**) was created in October 1993 by a group of committed individuals from various associations (industry and environmental), companies, groups and government institutions to address ozone and climate challenges.

MOPIA is a not-for-profit, non-governmental organization that has been appointed under Manitoba's Regulation 103/94 to administer components of the Regulation to provide certification training, receive ODS records, leak reports, certificate renewals, public and industry support and/or information. **MOPIA** will endeavor to provide information and the necessary infrastructure for industry and the public to comply with Manitoba's Regulation and innovative atmosphere and climate protection programs.

Since 1994, **MOPIA** has succeeded through the efforts of volunteers from across the province representing stakeholders including refrigeration & air conditioning, halons (fire extinguishing agents), sterilants, solvents and foams, environment & union groups, educational institutions and government liaisons. **MOPIA** has an elected Executive, Board of Directors and a full-time Executive Director and staff. The association is a non-exclusionary coalition of representatives that welcomes direct participation through a nominal annual membership fee. We are non-partisan and have no direct political affiliation.

Active Outreach

MOPIA participates in various local, provincial, national and international outreach initiatives. Each spring and summer, **MOPIA** hosts a series of provincial compliance awareness sessions for stakeholders.

MOPIA is active on the national and international level. We were an endorsing agency to the International Conference on Climate Change and CFC Alternatives held during the 1990s. **MOPIA** also attends most United Nations Ozone Secretariat Montreal Protocol Meetings (MOP) and sessions pertinent to our stakeholders hosted by Environment and Climate Change Canada (ECCC) and others such as Shecco, RMC, and UN agencies.

MOPIA continues to host open and transparent Annual General Meetings to ensure our stakeholders are informed and involved with our initiatives.

MOPIA has also collaborated with UNEP DTIE and the global community by hosting international capacity building study tours to Manitoba. We continue to liaise and dialogue with innovators and developing nations around the world.

MOPIA has continued to respond and progress to the needs of our stakeholders. New and innovative approaches to outreach, including consumer, public and industry awareness continue to be initiated.

Continuing industry compliance awareness promotions are developed to inform the media and public of the importance of the efforts of our stakeholders efforts and those of **MOPIA**.

Let us know if you have any suggestions to make Manitoba's atmosphere protection program among the best in the World!

MOPIA'S MISSION

To provide information and assistance (the leadership, administrative and technical support) to all stakeholders in an effort to uniformly phase-out and eliminate the use of ozone-depleting substances in the Province of Manitoba.

Don Thomson, John Kubilanski, Mark Miller and Kent Cielen, at 40th OEWG Vienna (2018)

George Kurowski (Instructor - Refrigeration & Air Conditioning) at Red River College - Winnipeg

Michael Blackey, Ms. Samira Korban-de Gobert (editor-OzoNews) & Mark Miller

Meghan Skordenski, Michael Blackey, Stephen O. Andersen & Mark Miller in Geneva at the 24th MOP (2012)

ACTION IN / BY MANITOBA

***MOPIA** is a self sustaining, environmental program model, unique to the world.*

- *Manitoba is the first province to mandate halon certification and permits*
- *First province to mandate certification training for technicians*
- *Best stakeholder engagement and awareness program*
- *Actively engaged with the international community on tackling ozone depletion and climate change*
- *Supporting capacity building with nations around the world, including Bahrain, Jamaica, Burkeno-Faso, Uruguay, Fiji, China, Senegal, and others.*

*See: **www.gov.mb.ca/sd/***

Minister of Conservation and Climate The Honourable Sarah Guillemard.

The Manitoba Government is consulting with Manitobans on how best to tackle the many challenges of climate change.

AWARD WINNING

- INNOVATIVE
- EXPERIENCED
- RESOURCEFUL

***MOPIA** was awarded the Provincial Sustainability Award by former Premier Gary Filmon in the 1990's. **MOPIA** went on to be nominated for the US EPA Stratospheric Award and others.*

Pictured are former Chairs Bob Stark, Dawn Turner and Mark Miller (Executive Director).

John Kubilanski, Mr. Shende, & Mark Miller in Dubai at the 27th MOP (2015)

Mr. Chasserot (shecco.com), Mark Miller & Brent Hoare (greencooling.com) in Brussels at ATMOsphere Conference

Meghan Skorodenski & Mark Miller at the 25th MOP in Bangkok (2013)

Mark Miller (MOPIA), Mr. Jim Curlin (UNEP), and Don Thomson (HTOC)

A NOTE FROM MOPIA'S EXECUTIVE DIRECTOR

I have seen a lot of positive achievements made through the implementation of The Montreal Protocol over the past 26+ years! I have been fortunate to be a small part of this success by working with stakeholders locally and around the world. A difference has been made due to local ingenuity and innovation, unique regulatory approaches and by sharing expertise around the earth. More progress must be made to continue of efforts to tackle climate change. Many refrigerants are among the most potent greenhouse gases and for that alone, our collective efforts must continue.

MOPIA is 6,000+ technicians strong! With among the strongest penalties for non compliance around the globe, our initiative is effective, a model for others to learn from and strives to address the evolving challenges of the times. Manitoba is a leader on many of these fronts. Ozone and climate protection strategies must continue to be a serious priority for all levels of government. From the emergence and embracing of clean energy and technologies, our world will be inevitably challenged with changing political and corporate dynamics. Our world in 2030 will be much different than today, with many more climate refugees, possible food and water shortages, pressures of geopolitical forces and international terrorism (biological warfare agents and the like).

In Canada, both the federal and provincial governments are striving to implement new regulatory controls to restrict the use of HFCs (potent GHGs) with the passing of the Kilgali Amendment (28th Meeting of the Parties, 2016). This is a significant step forward to protect the climate system. It will also mean the introduction of new refrigerants, and other gases, technologies and methods to handle these alternatives.

MOPIA will strive hard to keep aware and on the leading edge for our stakeholders – knowledgeable about emerging technology and regulatory strategies via our broad international liaisons. Our training will continue to be second to none and we aim to achieve many more successes. **MOPIA** has done many innovative projects and with your input we will continue to be among the most efficient, informative and creative NGOs in the world for the benefit of our stakeholders and the earth's environment!

My best regards,

Mark Miller

MOPIA'S (ExCOM) EXECUTIVE COMMITTEE

John Kubilanski
Chair of the Board of Directors

Kent Cielen
Treasurer

Michael Blackey
Vice-Chair

Kirk Esau
Member-at-large

Meghan Skorodenski
Secretary

MOPIA'S BOARD OF DIRECTORS

*Members of **MOPIA's** Board are professionals with a wealth of expertise, ranging from positions as educators, manufacturers, managers, service technicians, administrators, and senior government officials. Their knowledge and breadth of experience fosters **MOPIA's** unique leadership role. You too may qualify to become a board member. Contact **MOPIA** to learn how.*

Laverne Dalgleish

Botho Kramer

Don Thompson

Janice Braga

https://ozone.unep.org/ozone-day/ozone-life-35-years-ozone-layer-protection

WHAT ARE ODSs?

ODSs also include Halocarbons (HFCs)

Ozone-depleting substances (ODSs) may commonly include air conditioning & refrigerant gases, halons, cleaning solvents, foam cushioning and insulation products, fumigants and sterilants. ODSs are also used in a variety of other applications such as an additive to make another substance or other products. In some instances, classes of ODSs have been banned for use. An example of this is Class 1 ODS used as an aerosol product carrier and in food containers.

Refrigeration and air conditioning systems are closed loops. This means that the refrigerant is contained within the sealed system of the unit. However, if the refrigerant escapes, this substance (gas) may ascend 15 – 40 kilometres above the earth and reaches through the ozone layer (nature's protective umbrella). At this point, the ODS molecule is broken down by the ultraviolet radiation from the sun. This occurs since the ozone layer is no longer able to protect the CFC or HCFC molecule from the full impact of the sun's ultraviolet radiation. Furthermore, this causes the chlorine atom to break off and start destroying the ozone. Each chlorine atom can destroy up to 100,000 ozone molecules before being washed out of the sky sometimes with rain. Scientists believe that it may take between 40-100 years for the atmosphere to thoroughly cleanse itself of chlorine containing chemicals.

Chlorofluorocarbons (CFCs) are extremely stable synthetic chemical compounds that have existed since the early 1930's. They were first developed as refrigerants for refrigerators and air conditioners.

In later years, CFCs became a popular blowing agent in the manufacture of foams, for such things as construction materials, drinking cups and furniture cushions. Other uses for CFCs were found in chlorinated cleaning solvents used to degrease metals or clean electrical circuit boards. Aerosol sprays and hospital sterilization applications also used CFC products.

Hydrochlorofluorocarbons (HCFCs) are less stable, not as damaging to the ozone layer and therefore more environmentally friendly than CFCs. Their use as a refrigerant should be viewed as a short term alternative and they should be looked upon as a bridging compound only.

HFCs (Hydrofluorocarbons) are also regulated and controlled substances in Manitoba. They do not contribute to ozone depletion but do have global warming characteristics and as such must be handled in the same safe manner as earlier generation refrigerants including CFCs and HCFCs. The Kilgali Agreement of The Montreal Protocol now includes HFCs which will mandate their eventual phase-out of production and use by nations. Canada is already proposing use restrictions. At present, a new generation of substances (HFOs, a.k.a. hydrofluoroolefins) is appearing within the marketplace and these are not currently regulated but we recommend they be handled responsibly as they may become regulated and its always best to recovery and reuse than emit to the atmosphere.

Halons are chemicals that are used primarily for fire protection in aviation and by the military. They contain a chemical called bromine, which destroys the ozone layer. In fact, the potential of halons for destruction of the ozone layer is much greater than that of the most common CFCs.

NATURAL REFRIGERANTS

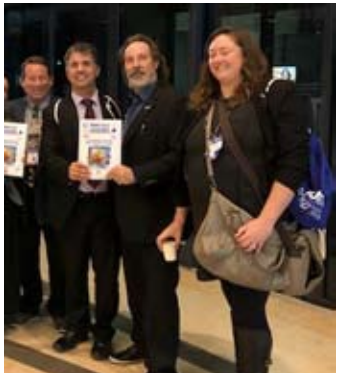
Natural refrigerants are a variety of gases that are typically less harmful to the environment than HFOs, HCFCs and HFCs. They have little global warming potential (GWP). They include carbon dioxide, ammonia and hydrocarbons (propane / butane).

Check out these sites for more information:

www.refnat4life.eu
www.hydrocarbons21.com
www.ausref.org.au
www.r744.com

NATURAL REFRIGERANTS TRAINING IN MANITOBA

***MOPIA** is working with the UK Institute of Refrigeration and Centro Studi Galileo to offer natural refrigerant training in Canada. This is under development and should be available soon. Check **MOPIA's** website for the latest on how to enroll.*



MOPIA is developing training options on natural refrigerants including hydrocarbons, R290 and others.

UNIVERSAL RATIFICATION

ACTION TO PROTECT THE OZONE LAYER

The Montreal Protocol

The Montreal Protocol is the world's most successful environmental treaty to address policies and control substances that cause harm to the environment and human health. This was initiated in response to the growing scientific consensus that ODSs and halons would ultimately deplete the ozone layer. In 1981, the United Nations Environment Program (UNEP) began negotiations to develop multilateral protection of the stratospheric ozone layer. In March 1985, these negotiations resulted in the Vienna Convention for the Protection of the Ozone Layer. The Convention provided a framework for international cooperation in research, environmental monitoring and information exchange.

Back in September 1987, 24 nations, including the United States, Canada, Japan, the Soviet Union, the European Community (EC) and country members of the EC, signed The Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol entered into force on January 1,1989. The Protocol also contains the requirement of technical and scientific assessments, to be undertaken at least every four years. Today, **197** nations, all UN-recognized countries in the world, have ratified The Montreal Protocol.

Shortly after the 1987 Protocol was negotiated, new scientific evidence conclusively linked CFCs to depletion of the ozone layer and confirmed that depletion had already occurred. Consequently, many countries called for further actions to protect the ozone layer by expanding and strengthening the original control provisions of The Montreal Protocol.

There have been successive amendments to The Montreal Protocol since its inception, and these can all be seen at: ***www.ozone.unep.org***

MOPIA has been an active participant in many Montreal Protocol meetings. These have been useful in learning about emerging technologies, regulatory approaches and dialogue with senior policy and environmental specialists.

See all Montreal Protocol text and amendments at:

https://ozone.unep.org/treaties/montreal-protocol/amendments

MOPIA presented to a UNDP Latin America Webinar (June 2021) on End of Life ODS Management. Seen here is Mark Miller during the live webinar.

Kilgali Agreement - HFC Phasedown

Parties to The Montreal Protocol agreed to amend the protocol at their 28th meeting in Rwanda (2016).

The Kigali Agreement is expected to reduce the manufacture and use of HFCs by up to 85% from their respective baselines by 2045. This reduction is expected to mitigate global temperature rise by 0.5 Celsius by 2100.

There is a global thrust to control HFCs, given their high global warming potential (GWP). Canada, along with many other nations, is taking a leadership role to control and reduce the reliance on HFCs. Environment and Climate Change Canada is proposing to regulate HFCs in Canada in various ODS sectors as soon as 2018. These will be potentially controlled under the Canadian Environmental Protection Act. Please refer to the actual text for more information.

For details visit
https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-2-f&chapter=27&clang=_en

https://ozone.unep.org/kigali-amendment-implementation-begins

Control of Ozone Depleting Substances in Manitoba

In Manitoba, the control and use of ODSs is governed by the ***Manitoba Ozone Depleting Substances and Other Halocarbons Act and Regulation***. In addition, the Government of Canada (Environment and Climate Change Canada) has Regulations dealing with the import, export, manufacture, use and sale of numerous ODSs. Other Canadian provinces also have separate Regulations governing ODSs and their substitutes. For the transportation of an ODS, provincial and/or federal legislation relating to the transportation of dangerous goods apply. Contact Transport Canada. In addition, certain associations (i.e. Canadian Standards

Association, Underwriters Laboratory) have the responsibility to approve proper equipment (recovery units, tanks, weights or scales). It should be noted that other government departments may have policies or Regulations governing ODSs and their substitutes or alternatives. Today, it is known that the use of various originally controlled substances have been reduced or entirely eliminated. These include most CFCs and halons.

Manitoba was the first province to implement mandatory certification training in Canada back in 1992. To date, some 14,000+ technicians have participated in the training that provided information to individuals about Regulation responsibilities and environmental awareness. It is not a trade license.

Manitoba's Leadership Role

Manitoba also initiated the most innovative and successful model for stakeholder participation through the creation of **MOPIA**. In fact, **MOPIA** is being recognized widely as a practical and cost-effective model to facilitate compliance with government Regulations. **MOPIA** has a dynamic collaboration & consultation approach that encourages the most directly affected and knowledgeable to participate.

Manitoba's initiative is in harmony with the National Action Plan for the Recovery, Recycling and Reclamation of Chlorofluorocarbons. This was developed by the Federal and Provincial Governments to support Canada's commitments under "The Montreal Protocol". Manitoba's initiative is also consistent with *The Environmental Code of Practice for the Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems* (2015) adopted by Environment and Climate Change Canada. The prescribed timetables and sections in the act and the Regulation are a result of direct and extensive consultation with industry and other stakeholders.

Since January 1996, no new CFCs have been manufactured or imported in Canada. This means if there are CFC containing products to be repaired after that date, only recycled and reclaimed refrigerants will be available, and only for white goods as a refill ban is in effect for all other equipment. Therefore, we must conserve and prepare for the new ODS technologies. To this end, we should practice the following four R's:

Reuse
Recycle
Recover
Reclaim

Refrigerant Stewardship & Destruction of Surplus and/or Contaminated Refrigerants

Many wholesalers of refrigerants across Canada are part of a national initiative to received back used, cocktailed or surplus refrigerants from the stationary A/C and HVAC sectors. These refrigerants are then sent to RMC (Toronto) for processing and possible final destruction at plants designated to carry out this work (located in Alberta, Illinois and Texas).

RMC REFRIGERANT MANAGEMENT CANADA

For more information, visit:

www.refrigerantmanagement.ca

Note that the mobile and white goods sectors are not necessarily partners in the national refrigerant responsible care program.

Refrigerants from these sectors need to be disposed of safely and according to any environmental Regulations.

ALTERNATIVES AND/OR REPLACEMENTS

Globally, the manufacture of class 1 CFCs has been eliminated, and the use and production of HCFCs continue to be reduced. In Manitoba, alternative refrigerants and ODS substitutes have become widely available. These primarily include HFCs, HFOs, ammonia, carbon dioxide and hydrocarbons. Recognized alternatives are published periodically by the U.S. Environmental Protection Agency (EPA) under their Significant New Alternatives Policy Program (SNAP). **MOPIA** does not endorse the use of any particular product or company. We encourage the use of energy-efficient, safe and environmentally friendly products.

Check with Original Equipment Manufacturers (OEMs) on their use specifications, insurance agencies on their stipulations (i.e. MPI) and their position/policy on the use of a product/gas and the various standard organizations including the Fire Commissioner, Canadian Standards Association, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Transport Canada and others.

MOPIA encourages individuals to investigate and source alternative/substitute substances, taking note that certain substances have global warming potential (GWP) and/or may have health exposure limits for humans. Always read a substances Material Safety Data Sheet (MSDS) prior to use. Your local wholesaler or product agent is probably the best source for information.

NOTE: "Drop-in" replacements should be used cautiously (according to manufacturer specifications where available), and must not be added to a system if a different refrigerant is in the system. This must be properly recovered first. See **MOPIA's** "Don't D.I.Y." poster online (page 73).

THE MANITOBA ODS ACT

THE OZONE-DEPLETING SUBSTANCES ACT (highlights)

The Ozone Depleting Substances Act (C.C.S.M. c.080) was given Royal Assent on March 8, 1990 and was proclaimed into force on July 1, 1992.

The Act acknowledges that the escape of ozone-depleting substances is harmful to public health and the natural environment by destroying ozone in the upper atmosphere.

The objective of the Act is to reduce and eventually eliminate the release of ozone-depleting substances into the atmosphere. The Act applies to substances that are designated as "ozone-depleting substances" within the Act itself or by the Regulation. Specific requirements are defined by the Regulations under the authority of this Act.

Enforcement of the Act and the Regulation

Environment officers employed by **Manitoba Conservation and Climate** are responsible for enforcement of the Act and Regulation, **not MOPIA personnel**. Any tips of abuse, misuse or actions contravening the Regulation may be reported to Manitoba Conservation and Climate (204.945.7100, or **ods@gov.mb.ca**) for follow-up and / or investigation.

Who to Contact in the Province

See page 77 for Government Contact Information, or visit: ***www.gov.mb.ca/sd/***

PENALTIES UNDER THE ACT

Offences and Penalties
Section 8 (Act)

Persons or companies found in non-compliance with any provisions of the Regulation are liable to prosecution. It should be noted that Manitoba has among the highest notarized fines in the Act among all Parties to The Montreal Protocol.

Non-compliance under The Act allows for penalties of up to $50,000 and/or 6 months in prison for individuals and $500,000 for companies on a first offence.

Offences and Penalties: Corporations
Section 8 (Act)

In the case of a second or subsequent offence, to a fine not exceeding $1,000,000, and for each day or part of a day that the offence continues after the day in respect of which the corporation is first charged with the offence, the corporation is liable to a fine not exceeding $10,000.

Other Penalties
Section 8 (Act)

3. A judge may, in addition to a fine or other penalty under subsection (1) or (2), require a convicted person
    a. to pay, as an additional fine, compensation for damages or to make restitution to a person who suffers loss or damage as a consequence of the commission of the offence, in such amount as the judge considers appropriate;
    b. to pay, as an additional fine, an amount that represents the monetary benefit that is acquired by, or accrues to, the convicted person as a result of the commission of the offence

MANITOBA'S REGULATION

The ***Manitoba Ozone Depleting Substances and Other Halocarbons Regulation 103/94*** (the ODS Regulation) came into effect on May 27, 1994. It provides detail to the guidelines specified in the Act. In broad terms, the Regulation further defines the Act by providing details of handling regulated products.

PROCESS FOR CHANGE

Since **MOPIA's** inception in 1993, **MOPIA** has been working proactively with representatives from both provincial and federal governments and our stakeholders to ensure our Regulation is current and relevant. **MOPIA** continues to keep engaged and attune to various regulatory strategies and new technologies in other locations, including outside North America.

Stakeholder comments are always encouraged to ensure a fair and level playing field for those affected by the regulatory framework. **MOPIA** has been hosting outreach and program awareness sessions across Manitoba. These events have assisted us to directly understand each region's unique needs and help consolidate ideas for potential (future) regulatory amendment recommendations.

Outreach sessions are held typically on an annual basis during the spring and summer. Watch MOPIA's website for details.

Administrative Assistance

In 1994, the Manitoba Government appointed **MOPIA** to assist in delivering components of the Regulation. **MOPIA** works with those with a direct interest, to assist industry and the public, and move towards reducing & eliminating ODS consumption in Manitoba.

KEY RESPONSIBILITIES FOR SERVICE TECHNICIANS

MOPIA has chosen to highlight selected regulatory responsibilities under Manitoba's Regulation 103/94 in this Compliance Guide. This guide does not include or highlight all regulatory responsibilities. You should navigate the entire Regulation to ensure you have a complete understanding of your requirements. Please review the following and consult the actual text if necessary to best ensure you understand what is legally required in the handling of regulated products.

1) Annual Renewal of Technician Certification

All service technicians must renew their certification annually by June 1st of each year through **MOPIA**. This may be done with payment of the annual fee in-person at **MOPIA**, by return mail, fax, over the phone, or online at **www.mopia.ca** (by credit card).

MOPIA sends renewal reminders to all 5,000+ technicians one month in advance of the June 1st due date via mail and in the future we plan to via email to reduce our environmental footprint.

2) Record Data Sheets

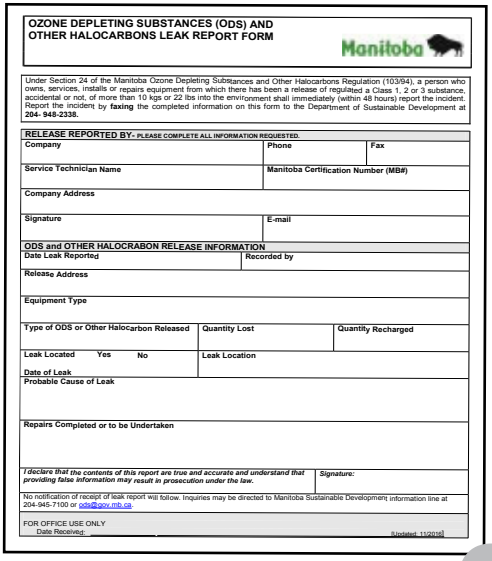
Technicians & companies must mail, fax or email copies of their record data sheets once per year by February 1st to **MOPIA**. The records should document the use of regulated substances for the period January 1st to December 31st of the previous year. Even if you have not used any regulated refrigerant or halon during the year, we need to record this within our database. Be sure to let **MOPIA** know your name and Certification Number or you may be "flagged" for possible investigation for not submitting records.

3) Reporting of All Leaks (Intentional or not) over 22 lbs / 10 kgs

The technician working on a system containing a refrigerant gas (or halon) who discovers a leak must report the leak, both in their annual services records, and, it exceeds 22 lbs., to **Manitoba Conservation and Climate** immediately (same day of the incident or discovery).

For those that do not comply, charges may be served by an Environment Officer. A one-page leak report form (as shown below) must be completed and faxed in to Manitoba Conservation and Climate, or sent electronically to **ods@gov.mb.ca**. **MOPIA's** website has a copy of this form, or you can call **MOPIA,** to email or fax a Leak Report Form to you.

Call 204.945.7100.
Rural residents call 1.800.282.8069 extension 7100.



OZONE DEPLETING SUBSTANCES (ODS) AND OTHER HALOCARBONS LEAK REPORT FORM

Manitoba

Under Section 24 of the Manitoba Ozone Depleting Substances and Other Halocarbons Regulation (103/94), a person who owns, services, installs or repairs equipment from which there has been a release of regulated a Class 1, 2 or 3 substance, accidental or not, of more than 10 kgs or 22 lbs into the environment shall immediately (within 48 hours) report the incident. Report the incident by **faxing** the completed information on this form to the Department of Sustainable Development at **204- 948-2338.**

RELEASE REPORTED BY- PLEASE COMPLETE ALL INFORMATION REQUESTED.

Company	Phone	Fax
Service Technician Name	Manitoba Certification Number (MB#)	
Company Address		
Signature	E-mail	

ODS and OTHER HALOCRABON RELEASE INFORMATION

Date Leak Reported	Recorded by	
Release Address		
Equipment Type		
Type of ODS or Other Halocarbon Released	Quantity Lost	Quantity Recharged
Leak Located Yes No Date of Leak	Leak Location	
Probable Cause of Leak		
Repairs Completed or to be Undertaken		
I declare that the contents of this report are true and accurate and understand that providing false information may result in prosecution under the law.	Signature:	

No notification of receipt of leak report will follow. Inquiries may be directed to Manitoba Sustainable Development information line at 204-945-7100 or ods@gov.mb.ca.

FOR OFFICE USE ONLY
Date Received: _____ Updated: 11/2016

4) Leak Test Requirements
Section 12 of the Regulation

1. No person shall recharge or top-up equipment that contains a Class 1, 2 or 3 substance unless the person first
   a. conducts a leak test in accordance with the procedure approved by the Minister; and
   b. if the leak test reveals a leak, repair the leak so that the leaking can no longer occur

   See page 64 in the Appendices of this Guide for the approved procedure.

The approved leak testing methods are available from **MOPIA**. It is still mandatory to use a technique that does not allow for the venting of any refrigerant (i.e. ODS refrigerants must not be added to test for leaks).

KEY RESPONSIBILITIES FOR COMPANIES

Certification & Training Required for those working with Halons

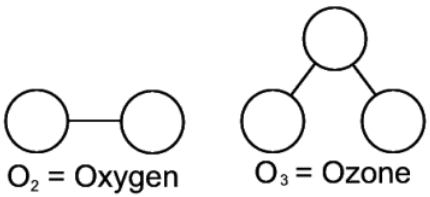
Individuals and/or companies who service, recharge or repair fire protection equipment (containing halons) will need to be trained & certified. **MOPIA** administers the halon training module. Halons are restricted for use in very limited applications.

Purchasing Regulated Parts / Refrigerants

To purchase components or substances in the Regulation, you must be certified or maintain a secondary distributor permit.

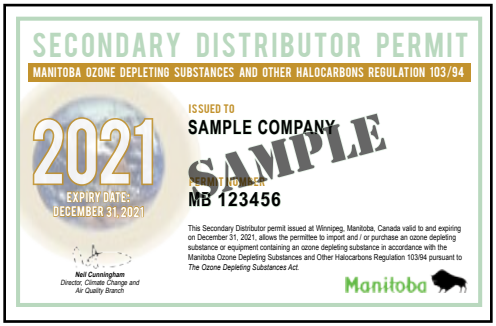
OZONE & CLIMATE FACT

HCFCs & HFCs contribute significantly to effects on our atmosphere dynamics. In fact, some HFCs contribute thousands of times greater to climate change than carbon dioxide. It has been projected that HFCs could contribute upwards of 30% of all GHGs by 2050, if not controlled under The Montreal Protocol.



Secondary Distributor Permits / Numbers

Companies or shops that purchase regulated refrigerants (ODSs), parts or equipment containing an ODS may choose to apply for a secondary distributor permit. This allows the business to purchase and maintain ODS products under the company SD Permit rather than an employee's technician certificate. The permit generally applies to mid to larger sized companies (3+ employees) who purchase regulated products and/or ODS components, or companies who purchase product for contracting out servicing to certified technicians.


SECONDARY DISTRIBUTOR PERMIT

MANITOBA OZONE DEPLETING SUBSTANCES AND OTHER HALOCARBONS REGULATION 103/94

2021

EXPIRY DATE: DECEMBER 31, 2021

ISSUED TO

SAMPLE COMPANY

SAMPLE

PERMIT NUMBER

MB 123456

This Secondary Distributor permit issued at Winnipeg, Manitoba, Canada valid to and expiring on December 31, 2021, allows the permittee to import and / or purchase an ozone depleting substance or equipment containing an ozone depleting substance in accordance with the Manitoba Ozone Depleting Substances and Other Halocarbons Regulation 103/94 pursuant to *The Ozone Depleting Substances Act*.

Neil Cunningham
Director, Climate Change and Air Quality Branch

Manitoba

Garages, repair shops, service stations and the like may apply to receive a secondary distributor permit number (SD#). The SD# will allow the employer (company) to purchase refrigerant and/or equipment rather than using a personal certification number.

This is a HFO 1234yf refrigerant cylinder, first seen in Manitoba in 2013. They are half the size of a typical ODS cylinder, as its introductory price is substantially higher than many HFCs.

Service By Trained Technician
Section 6

No person other than a trained service technician shall install, repair or service air conditioning, refrigeration or other equipment containing a class 1, 2, or 3 substance.

- This applies to anyone who attaches gauges to the sealed system, recharge, service or repair an air conditioning system or refrigeration equipment but it will not apply to people who perform preventative maintenance such as changing filters or washing units. It does not apply to electronic or electrical personnel who are not working on the gas side of a unit.

Recovery of Ozone Depleting Substances
Section 7

All regulated refrigerants (i.e. HCFCs, HFCs, etc) must be recovered and recorded and never vented. A service technician shall;

a. have available at the job site operational equipment that can recover and contain an ozone-depleting substance; and

b. recovers and recycles any ozone-depleting substance that would otherwise be released during the procedure.

- "Available" means, recycling/reclamation equipment must be accessible at all times. For example if gauges are placed on a unit and refrigerant is going to be put into the unit, you must have a reclaimer on sight. Any time you have a tank of refrigerant at a unit/system you must have a reclaimer on-site! If you have a leak, according to The Federal Code of Practice (2015), you must make a permanent repair. If you had a leak and thorough leak testing shows no indication of a current leak, then you may replace the refrigerant.

- Each technician, who is on their own and is in the act of charging or recharging, must have a recovery vessel or recycler available, on-site.
- In the case of a large system, such as a food store with display cases, if you can isolate the component that is leaking that you found visually or by electronic means, you would follow this example:

  1) *pump the unit down, to evacuate the component that was leaking*
  2) *recover the residue gas from the component*
  3) *make the repair*
  4) *pressure test the component that was repaired with dry nitrogen*
  5) *pull down to 500 microns or less and hold 15 minutes or to manufacturer's specifications.*
  6) *open the isolating valves and add refrigerant to the unit (as required)*
  7) *record the appropriate paper work*

- In the case of an environmental emergency, call 204.944.4888 or 1.855.944.4888 (24 hours). An environmental emergency is any release or imminent release of a contaminant that may pose a risk to public health or the environment. ***www.gov.mb.ca/sd/waste_management***

Repair and Service Records to be Kept
Section 8

Every technician that works on the refrigerant side of a system must keep refrigerant records.

1. a person who installs, repairs, services, recharges or does any other work referred to in Section 8, on air conditioning, fire extinguishing or refrigeration equipment shall:

   a. make a record (log book, invoice, work order, customer's bill) setting out the following:
   - the type of repair or service provided
   - date and location
   - whether an ozone-depleting substance was removed, recovered, charged or recharged
   - the type of ozone-depleting substance that has been recovered or recharged into the system

   b. leave a copy of the record with the owner or operator of the equipment that has been serviced or repaired.
   - This means a thorough record (log book, invoice, work order or customer's bill), noting the specifics of each job, must be maintained. As well, a detailed receipt must be given to the customer Please note the example in the appendix-record data sheet and the receipt following.

Example of a customer receipt:

MOPIA A/C & Refrigeration
1082 Main Street
06/21/2021

Details: Residential A/C System
- unit found M.T. of refrigerant
- unit leak checked (dry nitrogen)
- leaking shredder valve repaired
- unit leak checked (dry nitrogen)
- evacuate & dehydrate system to 500 microns
- critical charge dialed into unit
- unit leak checked with soap or electronic means
- 4 lbs. - 8 oz. HCFC-22 recharged into unit

Technician's Name
MB 19761

See Page 61 for an example of a Record Form

Use of ODS Sterilant
Section 9

- ODS Steriliants are prohibited for use.

Use of ODS Solvent
Section 10

- No person shall use a Class 1 substance to dissolve another substance for the purpose of commercial cleaning of electrical or electronic equipment.
- Since January 1, 1996, no person shall use a Class 1 substance to dissolve another substance for the purpose of cleaning any object or thing.

Flushing and Testing
Section 11

1. No person shall add a Class 1, 2 or 3 substance to any equipment for
   a. flushing or leak testing the equipment; or
   b. testing fire extinguishing equipment.

Addition of Contaminants Prohibited
Section 14

- No foreign material, substance or waste is to be added, mixed or dissolved into a recovered ozone-depleting substance. The addition of dye detection materials to show leaks in refrigeration systems is not considered a contaminant by most refrigerant manufacturers. The mixture of another refrigerant or other products to an existing refrigerant (cocktail) will not be accepted by refrigerant manufacturers for reclaiming and is a violation.

Disposal of Equipment or Refrigerant
Section 16

- All ODSs must be recovered or recycled from air conditioning, fire extinguishing or refrigeration equipment prior to their disposal. An ODS decommissioned label should be applied to the product. Contact **MOPIA** for details.

- All registered vehicles A/C in Manitoba sent through MPI are decommissioned formally.
- White goods must have their refrigerant recovered before scrapping. Some cities and municipalities offer or allow white goods disposal at their dumps (waste disposal grounds) free or for a fee. Contact your municipality for details.

Return of Class 1, 2 or 3 ODSs to Sellers
Section 17

- Sellers of regulated substances must accept back product they sell from a certified technician. The intent is the wholesale will work with RMC or others to properly dispose of the product(s).

Sale of Class 1, 2 and 3 ODSs in Containers or Equipment
Section 19

- The sale, transfer or display of an ozone-depleting substance and/or product may only be made to a trained service technician or secondary distributor. (Note: This also includes HCFCs, rooftop units, split systems and any other equipment that makes up or is attached to a closed refrigerant loop).
- Please note that you may only sell to individuals who have presented their certification card at the time of purchase or secondary distributors.
- It is highly discouraged to sell parts / refrigerant over the phone or internet unless you can guarantee the product will be used by that specific card holder or secondary distributor. The onus is on you to ensure the proper sale transaction and documentation has occurred. You must verify that numbers are valid. Contact **MOPIA** for details.

- White goods must have refrigerant recovered before being crushed / recycled. Municipal waste disposal grounds (local dumps) across Manitoba often accept, offer options or have conditions on accepting white goods. See municipal waste and links here:
  www.gov.mb.ca/sd/mb_recycling

Certification of Technicians
Section 20

MOPIA, Red River & Assiniboine Colleges, RSES and HRAI offer certification training for technicians handling regulated ODSs.

Certain trades are recognized in Manitoba and require additional apprenticeship credentials to work on HVAC/R or air conditioning systems, in addition to your **MOPIA** certification. For instance, anyone working with regulated ODSs require **MOPIA** certification in addition to their trade accreditation (where applicable).

1. The Minister may certify a person as a trained service technician if he/she has completed a course in the proper repair, recovery and recycling procedures including the recovery of ozone-depleting substances. This is not a trade license. It only refers to training with regard to environmentally safe practice. Technicians are subject to trade certification requirements which may be under the authority of Apprenticeship Manitoba
   https://www.gov.mb.ca/wd/apprenticeship/
2. The Minister may issue certification numbers to persons who have successfully completed a recognized certification program which includes passing an examination. **MOPIA** offers one-day certification classes throughout Manitoba on an ongoing basis.

- Your wallet certification card (shown above) allows you to purchase regulated refrigerants and equipment / parts in Manitoba. Servicing, repairing, charging, recharging air conditioning, refrigeration and halon equipment may require trade designation, as per Manitoba Apprenticeship.
- Contact **MOPIA** if you require details on when, where and who offers recognized Regulation and environmental awareness certification courses.

Labels Required on Equipment
Section 25

MOPIA maintains a supply of recognized labels for your purchase. You may create similar labels yourself, as long as they are consistent to the standard.

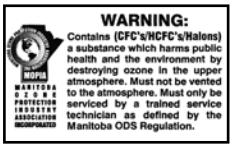
New Equipment:

- All new air conditioning, refrigeration or fire extinguishing equipment must display a prominent and permanent label that indicates the type of gas contained. The labels found on most newer model domestic refrigerators, car air conditioners and commercial equipment are acceptable. They should include or be similar to the samples shown (A and B) on page 36.

Recharging:

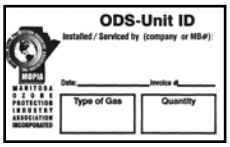
- This requirement is intended for retrofits of existing units, when changing refrigerant gases, or built up systems that have no fixed label on them. Please take note of example on page 36 (see B):
- The required label must include the following:
  a) type of refrigerant
  b) date of recharging
  c) name of person or business that performed the service

REQUIRED LABELS



A - WARNING LABEL

All A/C units operating with an ODS should have this affixed to the unit.



B - ODS-UNIT ID

All A/C units must have a label identifying the refrigerant type and quantity. If you are retrofitting a unit with a different gas, ensure it has a new label. Any time a refrigerant is substituted, you must affix a new **ODS-UNIT ID** label on the unit.

C - REFRIGERANT RECOVERED DECLARATION

Use this label when the unit has had the refrigerant recovered. This identifies it as empty and available for recycling, scrap or other purposes. These are commonly used on vehicle write-offs and white goods.

Bus Stop with A/C in Dubai, UAE

FOAMS

Stakeholders should be aware that federal legislation and policies negotiated under The Montreal Protocol do affect the manufacture and importation of foams containing ODSs.

Remember, the actual Regulation 103/94 text should be consulted for any & all legal interpretations.

For more information, visit ***www.cufca.ca***

OZONE & CLIMATE FACT

If we continue using and exploiting the earth's resources at our current rate of consumption, we eventually would need 1.7 planets to support the demand on the earth's ecosystems.

Climate change is a challenge that spans all regions, with especially severe consequences for less developed countries.

CFCs and HFCs are among the most potent greenhouse gases.

https://www.nationalobserver.com/2017/08/09/opinion/heres-how-many-earths-we-need-meet-our-populations-demand

AUTOMOTIVE SECTOR

There were 46,928 new vehicles on Manitoba streets & driveways in 2020. Approximately 90% of these vehicles have air conditioning.

See: ***https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2010000201&pickMembers%5B0%5D=1.8***

Prior to 1995, all vehicle air conditioning contained CFC-12 as the refrigerant. Today, you will more commonly find HFCs & HFO refrigerants in new vehicles. Automotive repair specialists will have to adapt to the new and changing refrigerants and systems.

Regular Maintenance: Never Top-up a Unit!

Manitoba has a severe climate, both in summer and winter. Most often due to this inherent weather and some manufacturer designs, certain automobile air conditioning systems require regular maintenance to reduce leaking or the potential for leaks. It is good advice to recommend that consumers place their air conditioning systems on a defrost mode at least once a month (or as recommended by the manufacturer) to reduce the risk of a leak.

Front seals and compressors have been noted as recommended areas to inspect. They are often components that take the burden of strain during our climate and our inherent pothole seasons (spring & fall).

A Common Shop Scenario

If a consumer asks to have their air conditioner checked and you find a leak after recovering the remaining refrigerant, you should tell the consumer (point out the fault) and indicate the leak must (upon the consumer's approval) be repaired permanently.

Also, note that the compressor or other components of the A/C system may eventually fail if the unit / leak is not permanently repaired. If the consumer chooses not to have the leak repaired, do not add or replace any ODS refrigerant recovered prior to finding the leak. Otherwise, continued leaking will likely occur.

The consumer should be advised that to knowingly allow a regulated refrigerant to leak is in contravention to Manitoba's *ODS and Other Halocarbons Regulation* and that they must not use a hydrocarbon or other refrigerant to top-up the system as this is called a cocktail which is prohibited under the Regulation, as well.

Advise them that refrigerants released into the environment are harmful as they contribute to climate change and are harmful to human health. They must take immediate action to repair the leak at your shop or someone else's, but it must be done and duct tape isn't a permanent repair!

The Automotive Industries Association, Mobile Air Conditioning Society, Manitoba Motor Dealers Association and other consumer oriented "automotive" groups (such as the Canadian Automotive Association - CAA) are also sometimes good sources for further information regarding these issues.

CFC CHILLER PHASE-OUT

CFC containing chillers in Manitoba have been restricted since 2015. This was a significant step forward in protecting our environment against ozone depletion and climate change.

OZONE & CLIMATE FACT

When CFCs reach the ozone layer, a chemical reaction takes place in which the CFC releases chlorine that breaks down ozone molecules. One chlorine molecule from a chlorofluorocarbon can destroy 100 000 molecules of ozone. CFCs can last up to one hundred years, continuously breaking down the ozone layer.

Our entire ocean ecosystem is at risk because ultraviolet rays can kill planktons, which are a fundamental part of the aquatic food chain.

https://www.ducksters.com/science/environment/ozone_layer.php

HALON REQUIREMENTS

Fire Extinguishing Agents

Halons are potent, ozone-depleting and climate change gases. While halons are no longer produced anywhere in the world and can not be imported into Canada, they remain in use in both the aviation and military sectors as well as areas identified under The Montreal Protocol as “Critical Use”. Halons continue to be used in certain other countries around the world. However, they must rely on recycled stocks of halon. Halon use in Manitoba is now limited and restricted for very definite applications (i.e. aviation or military).

Manitoba was among the most innovative and progressive jurisdictions to address halons. **MOPIA’s** provincial halon working group was instrumental in creating successful strategies to eliminate non-essential halon use throughout Manitoba. Manitoba developed specific and comprehensive certification training for the industry as well as, implemented halon use permits so we could identify and monitor all users of halon in our province. **MOPIA** was actively involved and participated on Environment Canada’s Halon Working Group until its demise. Since 2001, Mr. Don Thomson, (a former **MOPIA** President and current board member) has actively participated as the Canadian Representative on the UNEP’s Halon Technical Options Committee (HTOC).

Halons are no longer produced or imported into Canada. Certain nations do use halons but their use is quickly diminishing.

See: ***https://ozone.unep.org/science/assessment/teap***

MANDATORY RECORD KEEPING

All servicing that involves the recovery and/or adding of an ODS requires record keeping on your record data sheet or a form provided by **MOPIA**. There are online, fillable record data sheets available on **MOPIA's** website.

In essence, every ounce of an ODS should be accounted for. In many instances, this may require weighing a bottle after every job. In other circumstances, recovery units or gauges are available to measure the amount of substance added or recovered.

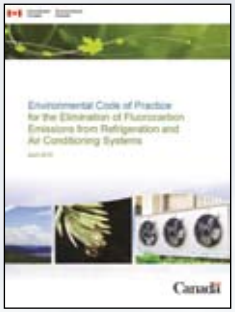
You are free to choose or develop your own record system as long as it meets the requirements of the Regulation. It is suggested that you contact **MOPIA** prior to using a new form or system. **MOPIA** can review your record system to help ensure you are properly recording the required information.

You must submit a copy of your record data sheets once a year by February 1st to **MOPIA**. In addition, keep a copy of your records on file. Manitoba's Conservation and Climate Environment Officers are working to ensure compliance. They may visit your workplace and request evidence that records are being kept. Those who do not submit records may be prosecuted.

Secondary Distributor Record Requirements

All shops that have been issued secondary distributor permits must maintain records. **MOPIA** provides each permit holder with a sample generic record form for their use. Indicate the type of unit you have purchased, quantity and sale information as specified in the Regulation. Records must be maintained for a period of 3 years from the date of a purchase / sale transaction.

FEDERAL LEGISLATION



All federal government works and undertakings (i.e. rail, waterways, military, departments, First Nations communities) are governed by The Federal Halocarbons Regulations, separate from any provincial Regulations.

Information on the Federal requirements may be obtained from Environment and Climate Change Canada:
https://pollution-waste.canada.ca/environmental-protection-registry/regulations/view?Id=129

THE MONTREAL PROTOCOL STORY - WHO'S WHO

UNEP DTIE Chief (retired) Mr. Rajendra Shende and MOPIA's Executive Director Mark Miller collaborated on a number of worthy international environmental initiatives for more than 20 years.

They are both notarized within UNEP's Montreal Protocol "Who's Who" Profile on Global Ozone Protection.
https://www.unep.org/ozonaction/resources/montreal-protocol-whos-who/montreal-protocol-whos-who

WHITE GOODS / APPLIANCES

White goods must have their ODS recovered prior to final disposal. Your local waste disposal ground may accept your white goods, but check with them first for any fees and conditions.

White goods include such items as the following:

a) *domestic fridges*

b) *domestic freezers*

c) *window air conditioners*

d) *any 115-230 volt self contained plug-in units:*

   i) *drinking fountains*

   ii) *pneumatic air dryers*

   iii) *dehumidifiers (residential)*

Manitoba's only comprehensive white goods recycling plant is located in Winnipeg. This plant extracts upwards of 95% of a unit's parts, including foam and refrigerants.
www.puresphera.com/en/

COMMON Q & A's

What is the Code of Practice?

Environment and Climate Change Canada, in consultation with the provinces and stakeholders, developed a Code of Practice (2015) that is useful for various industry sectors in guiding them in proper procedures for servicing or handling equipment in respect to the Regulation(s). The Code is supplementary to the Regulation in Manitoba, but many provinces refer to The Code as regulatory - in other words it forms part of their regulatory approach.

Access the Code of Practice at:
www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=D918C063-1

Are HFC 134a, 401a and similar refrigerants regulated or controlled?

Yes, HFCs including any refrigerant with a blend or mixture is regulated in Manitoba. These are Class 3 substances under Manitoba's *ODS and Other Halocarbons Regulation*.

Is HFO1234yf regulated in Manitoba?

No. Contact **MOPIA** regarding any recent amendments which may include new ODS alternatives or substitutes. In general, handle all products safely as if they were regulated and potentially harmful to you and the environment.

Can a unit (i.e. car, fridge, freezer, air conditioner refrigeration unit) be topped up?

No! A service technician must first and always recover the remaining ODS, then check for leaks, permanently repair the leak and then they may replace the refrigerant with the recovered and/or virgin product.

How do individuals become certified?

In Manitoba, some community college programs include certification training. **MOPIA** offers correspondence and in-class training. Visit **mopia.ca** for details.

How do I become directly involved with MOPIA?

MOPIA is non-exclusionary. You may become as active as you wish by becoming a member. We will provide you with meeting notices and supplemental information to get you started. **MOPIA** is an International success story. Call 204.338.2222 for a membership application. Be part of the solution!

Who should I call to report a negligent act?

Manitoba Conservation and Climate Environment Officers follow-up on tips or issues of non-compliance. A list of the regional offices is on page 77 of the appendix.

Who can I sell ODS equipment / components to?

Only to certified technicians or secondary distributors. Includes items such as compressors, refrigerant, coils, lines, etc., as indicated in the Regulation.

It says to report a leak over 10 kg in the Regulation, but to who and how "immediately"?

Reporting an ODS leak (unintentional/intentional) over 10 kgs/22 lbs. is mandatory. Whether you have come to a system or job site that has lost its charge or have accidentally damaged a line / component, leaks must be documented. Complete a Leak Report form and send to Manitoba Climate and Conservation by fax (204.948.2338) or to **ods@gov.mb.ca**. Document the site details such as location, type of system, amount of ODS lost to the atmosphere, cause of the accident and what was done to stop any further leaking. Leaks over 22 lbs. should be reported within one day of the incident.

The leak was not my fault, I came to the system and it was empty or leaking (over 10 kgs I 22 lbs) Do I still have to report it?

Yes, whether intentional or not, you must report a loss of an ODS over 10 kgs. It does not automatically mean you will be charged. More importantly it means you are complying with the Regulation. You must report these leaks by calling 204.945.7100.

What do I do with my old fridge, freezer or old car I wish to dispose of?

You must ensure the ODS (refrigerant) has been recovered before scrapping or in some cases selling (i.e. for scrap). Some municipalities in Manitoba have contractors who may come to your home or the local dump to recover the ODS in a unit. You should contact your local waste disposal ground or municipal office to see if they have such an arrangement.

EFFICIENCY MANITOBA

In some urban centres, appliance shops or scrap yards may offer to recover the ODS from your appliance for a fee. In addition, the City of Winnipeg may be contacted to pick-up a "white good" (appliance). For details, call 311 in Winnipeg.

Also check Efficiency Manitoba for any rebates or appliance recovery programs that apply.
https://www.efficiencymb.ca

What role does Environment & Climate Change Canada play regarding ODSs?

Environment & Climate Change Canada enforces Regulations dealing with the import, export, manufacture, use and sale of various ODSs. For example, only authorized importers can bring regulated ODSs into Canada. Export permits are required. Sale, importation and manufacture of most aerosol containers (10 kilograms or less of CFCs) are prohibited. There are also restrictions on ODSs in food and beverage containers. Environment Canada works with other provinces, including MOPIA, to facilitate compliance with The Montreal Protocol.

See CEPA legislation:
https://pollution-waste.canada.ca/environmental-protection-registry/regulations/view?Id=14

Where can I get additional labels, Regulations, compliance guides, etc?

Labels are available for purchase through **MOPIA**. Visit our website for details.

If I'm working on a unit, can my apprentice or assistant hook up gauges, recover and / or replace ODS gas?

Absolutely not, unless the person has a valid Manitoba ODS certification card issued through **MOPIA**.

Do facilities exist to destroy ODSs?

Facilities in the USA exist to handle contaminated and recovered ODSs. As well, there is a potential site in Alberta (Swan Hills). ODSs are permanently destroyed by high temperature combustion (incineration).

Refrigerant Management Canada supports the disposal of surplus and contaminated refrigerants from the stationary air conditioning and refrigeration sectors. Visit: ***www.refrigerantmanagement.ca***

What are other provinces doing about ODSs?

In Canada, all provinces have ODS legislation in the form of Regulations. In general, they are all quite similar but do differ on certain specific issues. If you are planning to work in another province, contact their respective provincial Department of Environment for information on their ODS Regulations. Contact **MOPIA** for more information on other provincial ODS legislation.

How often & where do I send the record data sheets?

Send them once a year by February 1st to **MOPIA**, via email, fax or mail.

After every job, you must record the amount of ODS added and other job specific details.

Also, use different sheets for different ODSs. This will allow you to run down or add up the balance. It will be easier to follow and identify when a tank is full of recovered ODS (if you don't immediately replace recovered ODS into the unit you are working on).

What is the purpose of annual renewal?

Annual renewal was designed to ensure constant contact with those maintaining ODS certification. Also, many individuals come & go in the industry and this will better ensure the accuracy of who is working with ODSs at any given time. Other statistical information can be collected through questions on the renewal forms. Note that the renewal is also designed to assist Manitoba Conservation and Climate Environment Officers and for statistical data.

What should I do if my card is stolen, lost or misplaced?

Contact **MOPIA** immediately. **MOPIA** may re-issue you a new card & number.

What type of scale must I use?

Any scale that is accurate within 10%. At this time no specific scale has been designated by the Regulation. However, federal guidelines are being assessed and will be made known to you.

Are there any standards for reclaim / recovery units?

They must be accurate, fully functional and preferably IULC, CSA or ARI approved.

Halons - ULC/ORD - cL058.5-2004

Refrigerants - ARI standard 740-98

see sections 7(2) and 7(3)

Can I purchase a hydrocarbon or other replacement refrigerant over the counter and drop-it-in my A/C system?

Various (unregulated) hydrocarbon and substitute refrigerants are being sold at retail outlets. If they are being sold to the public, they must only be non-regulated (not ODSs) gases, including hydrocarbons and certain other substances. They are sold under the RedTek, Duracool, Repla and several potential other brands. These substances may be purchased by the public without being certified, but - they must not add these substances into an A/C system that contains a regulated substance as this is creating a cocktail or mixture, prohibited by the legislation. In addition, many of these substances may interact poorly or potentially damage the A/C system in this manner as the original equipment may not have been designed to work with the new or alternative substance without further retrofitting or parts or equipment. In all cases, the public should research, consult or have a certified trained technician service the equipment, as they have the training, specialized tools and equipment to properly service systems. Venting any HCFC or HFC to the environment is punishable by penalties under the Act, intentionally or by accident.

Is HFO 1234yf refrigerant compatible with HFC 134a air conditioning systems?

Generally, no. New recovery units and other air conditioning components may be required. Consult the manufacturer before using any new refrigerant, or you risk voiding your warranty or worse, damaging equipment.

Out of Province Sales

An out of province purchaser who is working in Manitoba must be certified. An out of province purchaser outside Manitoba may purchase refrigerant if:

a. they have certified technicians
b. they conform to Regulation 103/94 responsibilities
c. have contacted **MOPIA** regarding a secondary distributor permit

Sales of split systems to non-certified persons

The sale of split systems must be to certified technicians and secondary distributors only.

Certification of counter-persons

Counter-persons should receive instruction / education but not certification provided they do not hook up hoses, charge, service or repair units. Technical representatives should be certified as they demonstrate products and techniques.

Certification of students in a classroom

Students in a learning environment (high school) will function under the certification and guidance of the instructor. Students must obtain certification if they are handling regulated products.

Reclaim units purchase inquiries

Recycling units should be CSA approved, ULC approved for purity (Air Conditioning and Refrigeration Industry), ARI-700 standard for purity or the SAE-J1991 standard for purity, ARI-740 standard for performance. Home built recovery units should only be constructed with the approval of the Department of Labour and Immigration.

www.gov.mb.ca/labour

Tag on equipment

A service record of maintenance and repair should be attached to equipment to provide a service history for future technicians as well as the owner.

Discharge of contents from a hose: reclaimer

The maximum length of hose without shut off valves is to be limited to 36". You may use any length of charging hose as long as you can shut off and isolate the refrigerant in the hose and remove the refrigerant with a recycler or a recovery unit.

Approved Cylinders

Use only approved cylinders – Department of Transportation approved. (Propane tanks are not acceptable.) Cylinders must be colour coded in accordance to Workplace Hazardous Materials Information System (WHMIS). They must also be refillable and recyclable. For more:

www.tc.gc.ca/eng/tdg/moc-cylinder-menu-363.html

Appliance sector

The appliance sector may require that only virgin quality refrigerant products are used otherwise the warranty is null and void. All domestic appliance technicians should be aware that this direction is from the appliance manufacturers' associations. (Some service shops have been recycling CFC-12 for years successfully.) The onus and liability for refrigeration system failure will be the responsibility of the service technician.

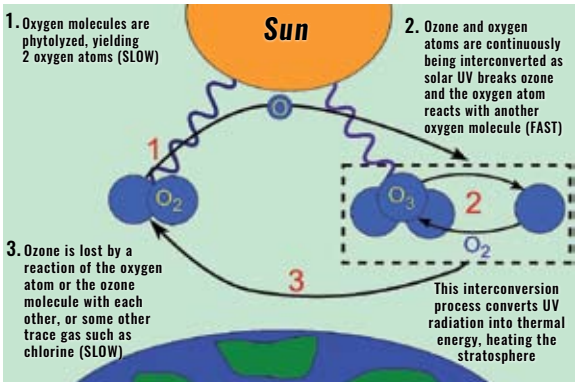
Weights and measures

At present scale and record keeping requirements (provided they are accurate within 10%) are acceptable for record keeping purposes.

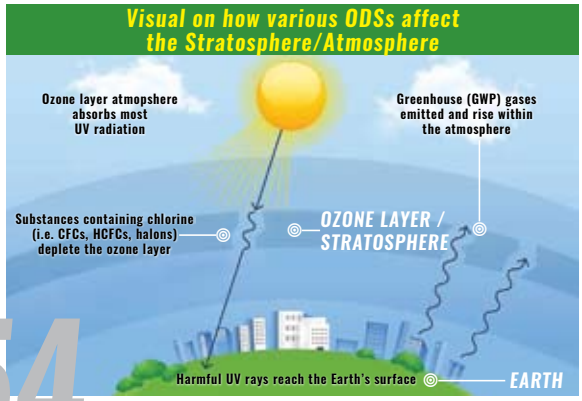
APPENDICES

OZONE IN THE ATMOSPHERE

In the upper atmosphere, a protective layer of ozone (O_3) shields us from the sun's damaging rays, while at ground level this same gas is a serious air pollutant (smog). Most of the ozone in the atmosphere occurs between 15 and 40 km, with the heaviest concentration between 20 and 30 km. Compressed it is only 3mm thick.

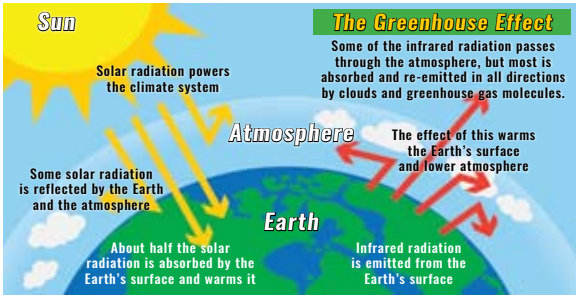


https://www.worldatlas.com/articles/what-is-the-ozone-hole.html



CLIMATE CHANGE DYNAMICS

Global warming / climate change is caused by the accumulation of certain gases in the atmosphere due to human activities. These gases prevent the sun's rays from escaping the earth's atmosphere after having bounced off the earth's surface. Some of the gases which are contributing to the greenhouse effect are carbon dioxide, nitrous oxide, methane, CFCs and some of their alternatives (such as HFCs). The impacts of climate change are significant and far reaching.



1. Solar energy penetrates the Earth's atmosphere
2. Most of this energy is absorbed by the Earth's surface and re-emitted as infrared radiation.
3. Greenhouse gases absorb and re-emit some of this radiation, warming the Earth's surface and the lower atmosphere.

RECENT CLIMATE REPORTS

Canada's Changing Climate Report
www.nrcan.gc.ca/environment/impacts-adaptation/21177

Global Climate Change
https://www.ncdc.noaa.gov/sotc/global/

World Meterological Organization
https://public.wmo.int/en/our-mandate/climate/wmo-statement-state-of-global-climate

OZONE DEPLETING POTENTIAL (ODP) & GLOBAL WARMING POTENTIAL (GWP)

Common refrigerants and Ozone Depletion Potential (ODP) and Global Warming Potential (GWP) are indicated below.

- *Ozone Depletion Potential (ODP) of a chemical compound is the relative amount of degradation it can cause to the ozone layer*
- *Global Warming Potential (GWP) is a measure of how much a given mass of a gas contributes to global warming. GWP is a relative scale which compares the amount of heat trapped by greenhouse gas to the amount of heat trapped in the same mass of Carbon Dioxide. The GWP of Carbon Dioxide is by definition 1. Be aware that GWPs are highly controversial.*

Refrigerant	Ozone Depletion Potential (ODP)	Global Warming Potential (GWP)
R-11 - Trichlorofluoromethane	1.0	4000
R-12 - Dichlorodifluoromethane	1.0	2400
R-1234yf - Hydrofluoroolefin	0	4
R-13 B1 - Bromotrifluoromethane	10	0
R-22 - Chlorodifluoromethane	0.05	1700
R-32 - Difluoromethane	0	650
R-113 - Trichlorotrifluoroethane	0.8	4800
R-114 - Dichlorotetrafluoroethane	1.0	3.9
R-123 - Dichlorotrifluoroethane	0.02	0.02
R-124 - Chlorotetrafluoroethane	0.02	620
R-125 - Pentafluoroethane	0	3400
R-134a - Tetrafluoroethane	0	1300
R-143a - Trifluoroethane	0	4300
R-152a - Difluoroethane	0	120
R-245a - Pentafluoropropane	0	0
R-401A (53% R-22, 34% R-124, 13% R-152a)	0.37	1100
R-401B (61% R-22, 28% R-124, 11% R-152a)	0.04	1200
R-402A (38% R-22, 60% R-125, 2% R-290)	0.02	2600
R-404A (44% R-125, 52% R-143a, R-134a)	0	3300
R-407A (20% R-32, 40% R-125, 40% R-134a)	0	2000
R-407C (23% R-32, 25% R-125, 52% R-134a)	0	1600
R-502 (48.8% R-22, 51.2% R-115)	0.283	4.1
R-507 (45% R-125, 55% R-143)	0	3300
R-717 Ammonia - NH3	0	0
R-718 Water - H20	0	0
R-729 Air	0	0
R-744 Carbon Dioxide - CO2	0	1*

* CO2 is the GWP reference

FEDERAL HALOCARBON REGULATIONS

Federal facilities and undertakings are governed by Canada's Halocarbon Regulations, under the authority of *the Canadian Environmental Protection Act.* **MOPIA** recommends you consult these Regulations specifically, as they are federal, not provincial in scope.

Canadian Phase-out

Canadian position on phase-out of production and consumption of ozone-depleting substances

HALONS:
• 100% elimination by January 1, 1994*

CARBON TETRACHLORIDE:
• 100% elimination by January 1, 1995*

CFCs:
• 100% elimination by January 1, 1996*

METHYL CHLOROFORM:
• 100% elimination by January 1, 1996*

HCFCs:**
HCFCs are a controlled substance under the Canadian Environmental Protection Act, 1999, and its Ozone-depleting Substances Regulations, 1998, because of their ozone-depleting potential. Importation and manufacturing of new or "virgin" HCFCs is regulated by a federal allowance system. The Canadian government has adopted the following phase-out schedule for HCFCs based on the terms of The Montreal Protocol:

Jan. 1, 2010:
No new R-22 equipment manufactured or imported

Canadian Phase-out (continued)

HCFCs (continued)

Jan. 1, 2015:
Annual allowable amount of HCFCs reduced by 90%

Jan. 1, 2020:
Annual allowable amount of HCFCs reduced by 99.5% except HCFC-123, which can be imported or manufactured until 2030 to service large air conditioning units (chillers) under the remaining .5% allowance. No new HCFC equipment to be manufactured or imported.

Jan. 1, 2030:
HCFCs no longer permitted to be imported or manufactured.

HFCs:
Canada has adopted the Kigali Amendment of The Montreal Protocol. This includes phasing down HFC consumption, which began in 2019 by 10%, and we'll see further reductions including a cut of 85% by 2036. Visit Canada's HFC phase-down plan at: ***https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/ozone-regulations-amendments-questions.html***

HBFCs:
100% elimination by January 1, 1996*

METHYL BROMIDE:
- Freeze began January 1, 1995
  (Except quarantine and pre-shipment applications)

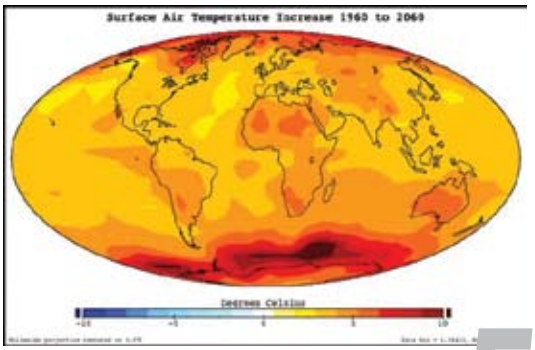
* The Parties agreed on a provision for possible exemptions to the phase-out dates for "essential uses", to be determined by the UNEP Technology and Economic Assessment panel according to essential use criteria adopted by the Parties. Canada will consider such exemptions on a case by case basis.

** Controls on HCFCs relate to consumption only, not production. Controls for all other substances relate to production and consumption (consumption = production + imports - exports).

For additional Canadian ODS phase-out information, see: ***https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/consultation-2019-modification-ozone-depleting-substances-regulations.html***

EMERGING FACTS & STATS

Without mitigating actions, global temperatures are projected to rise by 4°C above pre-industrial levels by the end of the century.



See: ***www.noaa.gov/climate***

THERMOSTAT MERCURY RECOVERY PROGRAM

TRP
EASY. SAFE. FREE.
THERMOSTAT RECYCLING

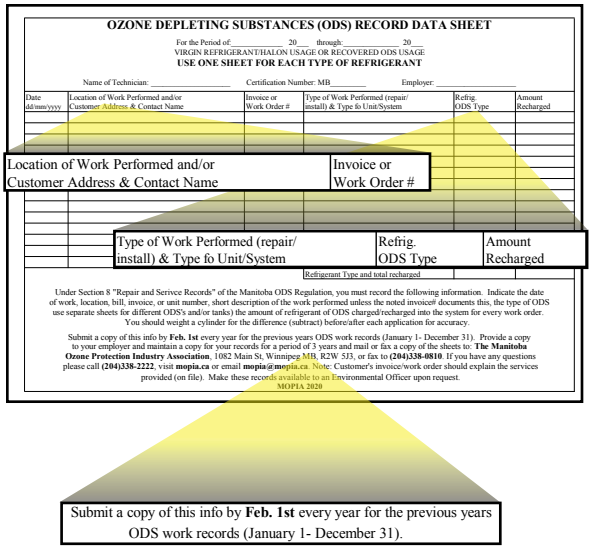
Canada's Thermostat Recovery Program (TRP) is a thermostat collection program delivered in partnership with various HVAC/R stakeholders in nearly every province across Canada.

It began in 2006 with the goal of encouraging the uptake of newer, more energy efficient programmable thermostats, the Thermostat Recovery Program (TRP) is Canada's safe and responsible collection and disposal service for unwanted mercury-containing and electronic thermostats.

Thermostats contain approximately 2.5-10 grams of mercury, and so the safe collection and disposal of mercury is critical, keeping it out of Manitoba's landfills and water tables.

Find a TRP depot nearest you at:
https://www.hrai.ca/trp

RECORD DATA SHEET



OZONE DEPLETING SUBSTANCES (ODS) RECORD DATA SHEET

For the Period of:_____ 20____ through:_____ 20____
VIRGIN REFRIGERANT/HALON USAGE OR RECOVERED ODS USAGE
USE ONE SHEET FOR EACH TYPE OF REFRIGERANT

Name of Technician: _____ Certification Number: MB_____ Employer: _____

Date dd/mm/yyyy	Location of Work Performed and/or Customer Address & Contact Name	Invoice or Work Order #	Type of Work Performed (repair/ install) & Type fo Unit/System	Refrig. ODS Type	Amount Recharged

Location of Work Performed and/or Customer Address & Contact Name

Invoice or Work Order #

Type of Work Performed (repair/ install) & Type fo Unit/System

Refrig. ODS Type

Amount Recharged

Refrigerant Type and total recharged

Under Section 8 "Repair and Serivce Records" of the Manitoba ODS Regulation, you must record the following information. Indicate the date of work, location, bill, invoice, or unit number, short description of the work performed unless the noted invoice# documents this, the type of ODS use separate sheets for different ODS's and/or tanks) the amount of refrigerant of ODS charged/recharged into the system for every work order. You should weight a cylinder for the difference (subtract) before/after each application for accuracy.

Submit a copy of this info by **Feb. 1st** every year for the previous years ODS work records (January 1- December 31). Provide a copy to your employer and maintain a copy for your records for a period of 3 years and mail or fax a copy of the sheets to: **The Manitoba Ozone Protection Industry Association**, 1082 Main St, Winnipeg MB, R2W 5J3, or fax to **(204)338-0810**. If you have any questions please call **(204)338-2222**, visit **mopia.ca** or email **mopia@mopia.ca**. Note: Customer's invoice/work order should explain the services provided (on file). Make these records available to an Environmental Officer upon request.

MOPIA 2020

Submit a copy of this info by **Feb. 1st** every year for the previous years ODS work records (January 1- December 31).

Every time a regulated refrigerant is recovered or added (charged/recharged) into an A/C or refrigeration system, the type of refrigerant, quantity, and related info must be recorded and also submitted (once per year) by February 1 to **MOPIA** including the service technician's certification number and name. If you did not use any regulated substance during a given year, you must still report to **MOPIA** your "no use" status.

Record data sheets are available on **MOPIA's** website, or you may create your own in-house, as long as they record the required info including date, type of refrigerant, amount, service reference or detail, etc.

REFRIGERANT DISPOSAL

Refrigerant Management Canada (RMC) is a not-for-profit corporation administered by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) and the Canadian refrigeration and air conditioning industry. The program is an industry-led environmental care program committed to the responsible disposal of surplus ozone-depleting refrigerants such as CFCs and HFCs from the stationary refrigeration and air conditioning industry sectors. Visit: ***www.refrigerantmanagement.ca***

OZONE & CLIMATE FACT

Chlorine is considered a major factor in stratospheric ozone depletion. However, chlorine from swimming pools, household bleach and sea salt (sodium chloride) does not contribute to ozone destruction due to the fact that they are water soluble and reactive. Therefore, these chemicals are removed from the lower atmosphere, never reaching the stratosphere in significant amounts. However, human-made halocarbons, such as CFCs, are able to migrate to the stratosphere because they are extremely stable compounds and have the potential to destroy thousands of ozone molecules.
Visit: ***www.ozonelayer.noaa.gov/science/basics.htm***

Mark Miller and Bernie Kozmeniuk in Dauphin. Bernie was an original member of Manitoba's ODS working group back in 1993, and continues to service white goods in the parkland region of Manitoba.

APPROVED LEAK TESTING

You must eliminate the venting of any regulated refrigerant or replacement gas, it is mandatory to leak test by not adding any ODS. Where possible, use nitrogen and/or soap & water, as the known industry standards. Other methods are acceptable (see below).

Please note that is also good practice to recover non-ODS refrigerants. Some of these substances are potentially harmful as heat trapping greenhouse gases and/or may be harmful to human health. Separate recovery units are required to contain the various refrigerants. Cross contamination of refrigerant gases may cause air conditioning equipment damage if replaced in a unit and is contrary to the Regulation. In addition, contamination of an ODS is prohibited in the Regulation.

Approved leak testing methods

Under ***The Manitoba Ozone Depleting Substances and Other Halocarbons Regulation*** (Section 12), no person shall recharge or top-up equipment that contains an ozone-depleting substance (ODS) unless the person first conducts a leak test and repairs the identified leak permanently. Technicians may choose one or more of the following leak test methods to ensure a units system is/will work effectively after any ODS is added following the system's repair. The following is the prescribed leak test procedure and list of acceptable leak testing methods recognized by Manitoba Conservation and Climate. They are subject to change.

Prescribed leak test procedures

1. If the system still contains an ozone-depleting substance (ODS), proceed to item #3.
2- If the system has lost its charge and no longer contains an ODS, it must first be pressurized to a minimum of 150 psi (1034 kPa) or such a pressure as not to rupture the system using dry nitrogen.
3 Use one of the appropriate method(s) indicated under “Acceptable Leak Testing Methods” to detect the presence and location of a leak.
4 If no leak is detected after fully and thoroughly leak checking, you may recharge the system.
5. If a leak is found, isolate that component if possible. Recover any ODS from the component or system.
6. Once any remaining ODS has been recovered, repair or replace the component or system.
7. Perform another leak test method to confirm that the leak has been repaired. If any leaks are found, repeat items #1-7 until all leaks have been repaired.
8. Evacuate the system in accordance with the manufacturers recommended evacuation/ dehydration levels. When the manufacturers information is unavailable evacuate to 29.87 in Hg. (500 microns) and hold for a minimum of 10 minutes (as described in the “Acceptable Leak Testing Methods” Standing Vacuum Test).
9. The system has now been evacuated and dehydrated. The system must now be recharged using the same ODS or replacement refrigerant in accordance with the Manufacturers Certified Installation, Specifications and Service Manuals and the Code of Practice for the Reduction of Chlorofluorocarbon Emissions from Refrigeration and Air Conditioning Systems (published by Environment and Climate Change Canada). These items are subject to the Minister’s approval and amending and updating.

An ozone-depleting substance must not be added to nitrogen or dry air for use as a trace gas. However, you may use the remaining (remnant) ODS gas that was in the system to immediately check for leaks.

Acceptable leak testing methods

There are many different techniques for leak testing, with varying degrees of accuracy depending on the system being tested. The following guidelines are acceptable procedure for leak testing of various stationary refrigeration and air conditioning systems.

The following techniques have been identified by **MOPIA** and are acceptable by Manitoba Conservation and Climate. The most appropriate leak test method for the circumstance should be chosen and performed by an ozone-depleting substances certified individual (“trained service technician”). The completion of a leak test is not a guarantee against leaks in the future, and therefore is not meant to replace an existing preventative maintenance program.

1. Electronic leak detection
2- Halide flame leak detection
3. Soap and bubble test
4. Ultrasonic leak detection
5. Fluorescent dye leak detection
6. Standing vacuum test
7. Standing nitrogen pressure test

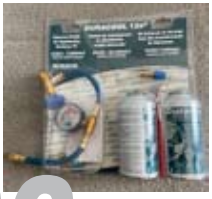
Please note: Any additional leak testing technologies that are developed and accepted within the refrigeration and air conditioning industry may become acceptable and added to these guidelines. They must first be approved under M.R. 103/94. It is recommended that you periodically check with **MOPIA** for the latest list of acceptable leak test procedures.

AUTO OZONE FACT

Mobile/Auto air conditioning is in upwards of 85% of new vehicles manufactured and has accounted for among the largest single source of ODS related GHG emissions.

It's critical/mandatory to permanently repair leaks and never top-up a refrigerant. The use of over the counter hydrocarbon refrigerant kits must have any ODS refrigerant recovered first - no cocktailing/blending as this is contrary to the Regulation and may damage the A/C system.

The use of hydrocarbon refrigerants, available for purchase from retail stores, must only be used when an A/C system manufacturer specifies its use. Never add a hydrocarbon refrigerant into a system that has a different type of refrigerant in it. This can cross contaminate and damage the A/C unit, and in addition is contrary to the Manitoba ODS Regulation to cocktail or mix refrigerants in any system.



For more information:
www.mmda.mb.ca
www.mucda.mb.ca
www.macsw.org
www.atamb.ca

CERTIFICATION TRAINING

MOPIA offers certification training for technicians servicing HCAC/R and other refrigerant containing equipment. Online learning as well as correspondence packages are currently available. **MOPIA** will also offer in classroom training when public health restrictions permit.

Since 1993, some 18,000 people have been trained and certified in Manitoba.

MOPIA's certification training focuses on environmental and Regulation awareness. It is not a replacement for any trade, industry hands-on or practical experience. It is mandatory to have and maintain this certification for anyone working on the gas side of a HVAC/R and other refrigerant containing systems/equipment. Penalties for non-compliance or not being certified include up to $50,000 and/or 6 months imprisonment.

*Students being taught by Mr. Botho Kramer, one of **MOPIA's** certification trainers who was a Red River College HVAC/R instructor for over 30 years.*

PRODUCT RECOVERY / STEWARDSHIP

MOPIA is working with Indigenous Services Canada and First Nations communities across Manitoba to provide capacity building and refrigerant environmental stewardship resources.

Across Manitoba, several communities (both urban and rural) including some First Nations have waste disposal grounds or areas where abandoned autos, white good appliances and other equipment that contains a potent greenhouse gas refrigerant are disposed. **MOPIA** is conscious of the challenges of their proper stewardship and is continuing to determine reasonable approaches to find solutions.

ENFORCEMENT & PENALTIES

Non compliance under provincial and federal Regulations controlling refrigerants and ODSs are liable for penalties, fines and possible prison sentencing.

Penalties for non-compliance exist for technicians AND companies. They include fines of up to $50,000 and/or 6 months imprisonment and much higher for companies. You MUST be certified to handle regulated refrigerants and submit record data forms among other responsibilities.

See details at:

www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=8F711F37-1

http://web2.gov.mb.ca/laws/statutes/ccsm/o080e.php

INDUSTRY & PUBLIC OUTREACH

MOPIA has conducted a number of outreach programs to alert the industry and public on issues specific to MOPIA's mandate on Ozone Depleting and Climate Change Substances.

Topping-up A/C systems of any kind with a regulated refrigerant is prohibited. A complete leak test must be performed to permanently repair a leak before additional gas is added.

Adding a hydrocarbon or other substitute refrigerant into a system that contains a different regulated refrigerant is also prohibited and may cause system / equipment damage.

MOPIA has issued several purchasing bulletins, including this one which highlights who may purchase regulated refrigerants and parts. Visit our website or contact MOPIA if you would like a copy to post.

Who may purchase Refrigerants (HCFCs, HFCs) and A/C Equipment & Parts?

MOPIA REFRIGERANTS PURCHASING BULLETIN SPRING/SUMMER • 2021

Only companies that have a Secondary Distributor Permit and/or individuals who are recognized as a Manitoba Certified Trained Service Technician may purchase and import regulated air conditioning, HVAC/R type product(s) in/to Manitoba.

Regulated products include nearly all refrigerants (including CFCs, HCFCs & HFCs) and any new or used equipment or components that make up or attached to a closed refrigerant loop.

It's a violation to sell any regulated product to a company or a person who does not either have a valid SD Permit or a valid personal certification card issued by MOPIA and authorized by the Minister of Sustainable Development (see sample below). As a seller of product, you are responsible to verify and document the permit or certification number. Significant penalties exist under the Ozone Depleting Substances Act CCSM 080 for those who contravene this regulatory compliance responsibility!

See it on-line at: http://web2.gov.mb.ca/laws/statutes/ccsm/o080e.php

Two ways to purchase or import Refrigerant and A/C Equipment & Parts

SECONDARY DISTRIBUTOR PERMIT
2021
SAMPLE
SAMPLE COMPANY
SD 12456

SD Permit

Annual Permit • Effective January 1 - December 31 each year • $50.00

A Secondary Distributor (SD) Permit is required in the Province of Manitoba for companies that purchase regulated (new or used) air conditioning equipment or parts and/or substances (refrigerants), as defined under the Manitoba ODS and Other Halocarbons Regulation. The SD Permit is intended for air conditioning and refrigeration wholesalers, distributors, agriculture, auto and truck dealerships, service centres, body shops, other air conditioning related mechanical contractors, etc.

SD Permit holders are reminded that all transactions of regulated products must be recorded to which MB # tech or SD permit holder they were sold and this information must be made available to an Environment Officer upon their request.

2023-#22
Environmental Awareness Training Certification
SAMPLE
John Smith
MB-12456
Expiry Date: June 1, 2022

Manitoba Certified Service Technician

Annual Certification • Renewable June 1 each year • $25.00

Every Manitoba Certified Trained Service Technician who renews their card annually is issued a wallet sized I.D. card indicating an individual certification number. These persons may purchase regulated products. Ask to see their card! You'll need to record their certification number on the purchase of regulated product(s). If in doubt, contact MOPIA for verification. The certification in not transferable.

An SD Permit and/or certification is not required for purchasing White Goods (i.e. fridges, freezers), but it is for any of their parts connected to the closed refrigerant loop.

Secondary Distributors are reminded that, as per Manitoba Regulation 103/94, all transactions of regulated products must be recorded and made available to an Environment Officer upon request.

This purchasing bulletin was prepared for you by:
MOPIA.CA
Email or call us for more info: mopia@mopia.ca
or 204.338.2222 • 1.888.667.4203
1082 Main Street, Winnipeg, Manitoba, Canada R2W 5J3

Only Certified technicians who hold a valid certification card may purchase regulated refrigerants and parts along with companies in Manitoba that hold a Secondary Distributor permit. Wholesalers and anyone selling regulated products must see/record the certification number or SD Permit number of each regulated item they are selling. Penalties for not doing so are up to $500,000 on a first offence.

REGULATED PRODUCTS

Below is one of the purchasing bulletins issued by MOPIA highlighting what is regulated and restricted to certified persons and Secondary Distributor Permit holders.

Regulated Refrigerants include CFCs, HCFCs and HFCs

MOPIA REGULATED PRODUCTS PURCHASING BULLETIN SPRING/SUMMER/FALL 2020

The Manitoba Ozone Depleting Substances and Other Halocarbons Regulation 103/94 lists all regulated refrigerants. They include CFCs, HCFCs and HFCs, such as R134a, R123, R22, R410, R507 and their various blends. Only persons with a valid Manitoba certification card may handle (i.e. charge, evacuate an A/C system) these.

Hydrocarbons (propane/butane type products) are not regulated under the Regulation but must not be added directly to a unit that has a regulated refrigerant (cocktails are illegal).

Refrigerant containers must be refillable (may have a core / deposit charged by the wholesaler) size compliant meeting Transport Canada (i.e. within hydrostatic test date) and Environment Canada specifications.
For more details visit: www.tc.gc.ca/eng/tdg/moc-cylinder-faqoncylinders-473.html

MUST BE REFILLABLE

All Parts (new or used) Connected to the Closed Refrigerant Loop are Regulated*

*meaning the purchase and servicing is also restricted

These products include but are not limited to items such as:

- Compressors
- Hoses
- Lines
- Roof-Top Units
- Split Systems
- Evaporators
- Condensers
- Filter Dryers

And anything else whereby refrigerant passes through.

Who can purchase Regulated Refrigerant(s) and A/C Equipment & Parts?

Regulated products include nearly all refrigerants (including CFCs, HCFCs & HFCs), any service equipment, any hoses, any gauges, any containers and any new or used equipment or components that make up or attach to a closed refrigerant loop.

Signficant financial penalties

It is a violation to sell any regulated product to a person or company who does not have a SD permit number or to a person who is not certified in the Province of Manitoba. If you are a seller of any regulated products (anything attached to the closed refrigerant loop or refrigerants"), you must record (verify) whom you sold the products to (including the persons name and certification number or company SD number). Significant penalties exist for those who contravene this regulatory compliance responsibility! These include fines up to $100,000 for persons, plus jail time and up to $1 million for corporations and restitution, compensation and other fines as the judge warrants. Compliance enforcement does happen across Manitoba.

See: https://www.gov.mb.ca/sd/envprograms/airquality/index.html
https://gov.mb.ca/sd/ece/contact.html

This Regulated Products Bulletin was prepared for you by MOPIA
Contact us for more info: www.mopia.ca • email: mopia@mymts.net
or 204.338.2222 / 1.888.667.4203
1082 Main Street, Winnipeg, Manitoba, Canada R2W 5J3

Regulated products in Manitoba include all refrigerants listed within the Manitoba ODS and Other Halocarbons Act, including CFCs, HCFCs, HFCs and new or used equipment/parts connected to the closed refrigerant loop of an HVAC/R or air conditioning system / equipment.

Persons need certification to access regulated refrigerants and parts/equipment. Wholesalers and distributors face major penalties if they sell to persons not carrying the proper and valid certification.

Penalties for non-compliance or illegal activity contrary to the Regulation include fines of up to $50,000 and/or up to 6 months in prison for persons and up to $500,000 for companies. Ensure you comply. Environment Officers with Manitoba Conservation and Climate and also Environment and Climate Change Canada enforce the Regulations. Tips are appreciated, received and are investigated.

***MOPIA** issued this consumer awareness bulletin (July 2013) to inform the public that topping-up A/C may pose negative circumstances and is illegal if a different refrigerant mixes with a class 1, 2 or 3 refrigerant. **MOPIA** hopes to generate media interest in protecting consumers from misinformation and improper A/C servicing.*

John Kubilanski (MOPIA Chair) along with Mr. Shende at a Montreal Protocol session.

See UNEP (Ozone Secretariat) at: ***https://ozone.unep.org/***

MOPIA'S TEAM

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MOPIA offers language services in English, French and Tagalog (pending).

MOPIA has taken actions to follow provincial public health orders and mitigate the risk of Coronavirus for our staff and stakeholders. Safety of our staff and stakeholders is paramount.

ENVIRONMENTAL RESOURCES / LINKS

There are a number of environmental organizations in Manitoba that are interested in atmosphere protection.

The Manitoba Eco-Network is the umbrella organization for most of Manitoba's environmental groups. If you require information on specific topics or need to contact other provincial groups, they are your best source for information.

www.mbeconetwork.org

Climate Change Connection:

www.climatechangeconnection.org

The Heating, Refrigerating and Air Conditioning Institute of Canada (HRAI)

www.hrai.ca

Canadian Cancer Society

https://action.cancer.ca/en/

Manitoba Environmental Industries Assoc. (MEIA)

www.meia.mb.ca

International Institute of Refrigeration

www.iifiir.org

UN Environment OzonAction OzoNews

www.unenvironment.org/ozonaction/

***MOPIA** hosted international study tours to Manitoba showcasing our innovative program approach to the world. Pictured here are representatives from UNEP, Uruguay, Burkino Faso & Bahrain*

PROVINCIAL ENVIRONMENT OFFICERS CONTACT INFORMATION

Contact the Manitoba Conservation and Climate Enforcement Office nearest you:

www.gov.mb.ca/sd/

Manitoba Conservation and Climate Change
204.250.4170
Email: **ods@gov.mb.ca**

Leak Report Line
Fax leak report form to: 204.948.2338
Email: **ods@gov.mb.ca**
(all leaks over 22lbs/10kgs) must be reported

Tip Line
To report individuals / companies out of compliance, contact your Regional Enforcement and Compliance office, as seen below.

Environmental Compliance and Enforcement Contact Information

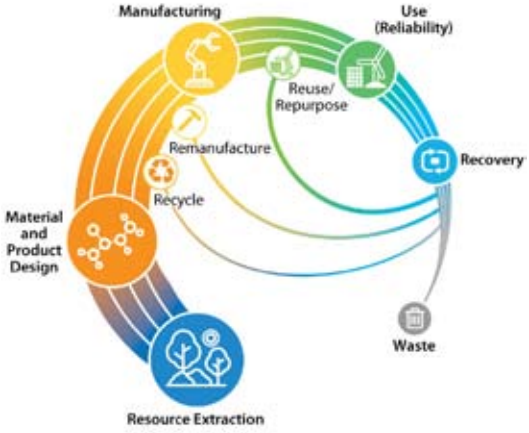
Northeast Region	Thompson	204.677.6703
Northwest Region	The Pas	204.627.8499
Western Region	Brandon	204.726.6565
Western Region	Dauphin	204.622.2030
Central Region	Portage	204.239.3608
Central Region	Winnipeg	204.945.5305
Central Region	Selkirk	204.785.5030
Eastern Region	Lac du Bonnet	204.345.1486

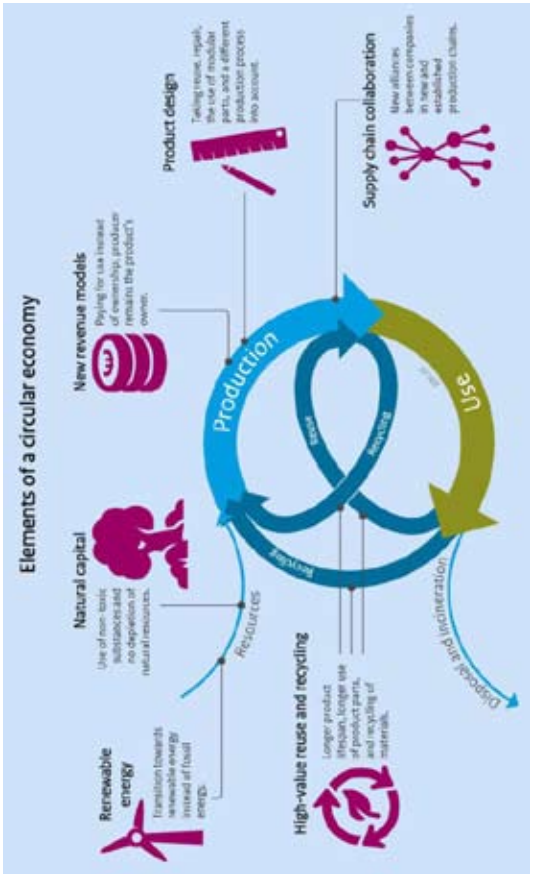
Consumer Protection Office
204.945.3800
800.782.0067 toll-free
www.gov.mb.ca/cca/cpo/

EXTENDED PRODUCER RESPONSIBILITY & CIRCULAR ECONOMY

An end-of-life (EOL) product is one that's use is retired, or its fabrication is discontinued. A product reaches the end of its life when manufactures stop making and servicing the product. A new version of the product is often designed to replace the old one. Electronics are an example of products that are commonly discontinued and rapidly reach their end-of-life.

Extended Producer Responsibility (EPR) is a practice in which manufactures are responsible for the recovery or disposal of products they produce when they are no longer in use. This practice encourages manufacturers to makes products that are less wasteful and easier to recycle. Examples of EPR recycling and disposal programs in Manitoba include beverage containers, tires, electronics and batteries.





A circular economy is a system that emphasizes an environmentally sustainable approach where product materials follow a cycle of being consumed, reused, recycled, and redesigned for another cycle of use. Circular economies feature sound (EPR) practices for end-of-life products.

Initiating effective extended producer responsibility (EPR) programs will be key in disposing environmentally hazardous products such as white goods. **MOPIA** is eager to include white goods in a Made in Manitoba EPR solution.

STAY INFORMED

AND REDUCE OUR ENVIRONMENTAL FOOTPRINT

WITH MOPIA'S MONTHLY BULLETIN

MOPIA is aiming to go paperless by 2023.

Sign up for our bulletins and also get:

- Regulation Changes
- Enforcement / Compliance Information
- Industry News
- Climate and Ozone Updates
- Certification and Training options

VISIT WWW.MOPIA.CA TO SEE THE LATEST ISSUES AND SIGN UP FOR EMAIL ALERTS.

LEADERS IN OZONE & CLIMATE PROTECTION

MANITOBA OZONE PROTECTION INDUSTRY ASSOCIATION

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PHONE: 204.338.2222
TOLL-FREE: 1.888.667.4203
FAX: 204.338.0810
MOPIA@MOPIA.CA • WWW.MOPIA.CA

IF YOU HAVE ANY INFORMATION TO SHARE THAT YOU THINK MAY BE USEFUL TO OTHERS, PLEASE CONTACT MOPIA. WE MAY BE ABLE TO PUBLISH YOUR INFORMATION IN ONE OF OUR MONTHLY BULLETINS, POST ON OUR WEBSITE OR IN A FUTURE COMPLIANCE GUIDE.

PRINTED IN MANITOBA ON
100% POST-CONSUMER PAPER WITH VEGETABLE BASED INKS

PART OF

MANITOBA'S CLIMATE CHANGE SOLUTION

- **Internationally Recognized**
- **Self Sustaining**
- **Unique & Visionary**

MOPIA's collaborative approach in spearheading Manitoba's actions to tackle the challenges of ozone depletion and climate change has offered innovative solutions that are unique to the world. From training, stakeholder awareness to database and information management.

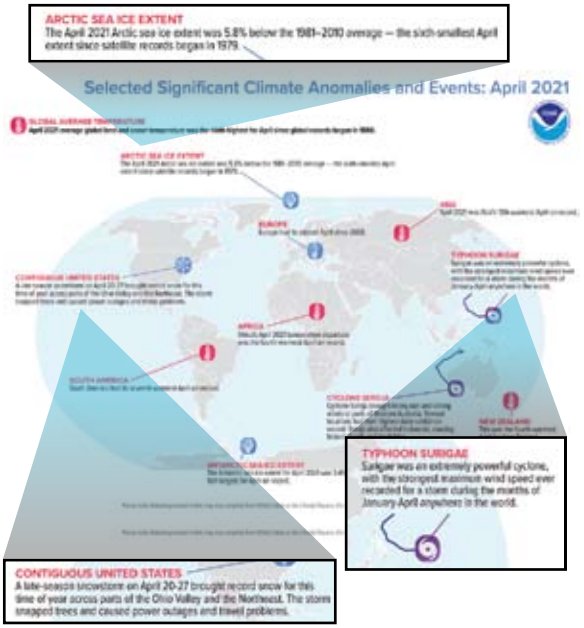
On the international stage, MOPIA is an active participant with a unique role. Having hosted made-in-Manitoba capacity building study tours with the United Nations (DTIE) to participating on the Halons Technical Options Committee and a World Bank Mission to China. MOPIA focuses locally engaging stakeholders with regulatory awareness, with Environment and Climate Change Canada and Manitoba Sustainable Development on ODS and climate change solutions, management and strategy.

BE PART OF THE SOLUTION !!

WWW.MOPIA.CA

BROADEN your Global Perspective on Climate Change

Each month new climate variations take place around the world. Climate Change effects impact Manitoba's agriculture, First Nations/Indigenous communities, watersheds and forests. These will undoubtedly continue to intensify unless significant action is taken to mitigate climate change. **NOAA** highlights these anomalies on their website with their **Global Climate Report.**



Visit ***https://www.ncdc.noaa.gov/sotc/global/*** for regional and global reports and statistics on temperature changes, precipitation, and the monthly Climate Anonmalies and Events map, as shown above.