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Building *Nunavut* Together
Nunavut liuqatigiingniq
Bâtir le *Nunavut* ensemble

ENVIRONMENTAL GUIDELINE

Ozone-Depleting Substances



This Guideline has been prepared by the Department of Environment's Environmental Protection Division and approved by the Minister of Environment under the authority of Section 2.2 of the Environmental Protection Act.

This Guideline is not an official statement of the law and is provided for guidance only. Its intent is to increase the awareness and understanding of the risks, hazards, and best management practices associated with Ozone-Depleting Substances. This Guideline does not replace the need for the owner or person in charge, management, or control of Ozone-Depleting Substances to comply with all applicable legislation and to consult with Nunavut's Department of Environment, other regulatory authorities, and qualified persons with expertise in the management of these substances.

Copies of this Guideline are available upon request from:

Department of Environment Government of Nunavut
P.O. Box 1000, Station 1360, Iqaluit, NU, X0A 0H0
867-975-7700

An electronic version of this Guideline is available at www.gov.nu.ca/environment/

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List of Acronyms and Units

Acronym	Definition
CFCs	Chlorofluorocarbons
CSA	Canadian Standards Association
ENV	Department of Environment
ECCC	Environment and Climate Change Canada
EPA	Environmental Protection Act (1988)
HCFCs	Hydrochlorfluourocabons
HRAI	Heating, Refrigeration, and Air Conditioning Institute of Canada
HFO	Hydrofluoroolefins
NFMO	Nunavut Fire Marshal's Office
ODS	Ozone-depleting Substances
RMC	Refrigerant Management Canada
ULC	Underwriters Laboratories of Canada
WHMIS	Workplace Hazardous Materials Information System

A layer of invisible gas in the atmosphere, called the **Ozone Layer**, surrounds the Earth and blocks harmful **Ultraviolet Rays** originating from the sun. This layer is about fifteen to thirty kilometres above the Earth's surface.

Certain chemical substances, such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and **Halons**, cause damage to the **Ozone Layer**. These chemical substances, known as **Ozone-Depleting Substances**, are released into the air through the use of compounds like refrigerants and solvents.

All countries have agreed to stop using **Ozone-Depleting Substances** by signing an international agreement called the *Montreal Protocol*, which came into effect in 1989.

This Guideline provides information on the actions that must be taken for the safe recovery and disposal of the most common **Ozone-Depleting Substances**, and focuses on refrigeration, air conditioning, and fire protection equipment.

This Guideline does not address the production, import, or export of new or recovered **Ozone-Depleting Substances** as these activities are controlled under federal regulations administered by Environment and Climate Change Canada (ECCC).

For further information and guidance, owners or those in charge, management, or control of **Ozone-Depleting Substances** are encouraged to review all applicable legislation and consult the Department of Environment, other regulatory agencies, or qualified persons with expertise in the management of these substances.

The definitions of most words in **Bold** in this guide can be found in the [Definitions](#) section at the end of the guideline.

3 What are Ozone-Depleting Substances?

Ozone-Depleting Substances (sometimes called halocarbons) have low toxicity, low boiling points, and low flammability. This is why they have been widely used as refrigerants, fire-extinguishing agents, and propellants in aerosols.

Unlike many other substances that are released into the air, **ODS** do not return to Earth through precipitation or get broken down by other chemicals, but can remain in the atmosphere for several decades or more. This means they can continue to damage the ozone layer over long periods of time, and global actions, including the *Montreal Protocol* (1987), are required to phase out the use of these chemicals.

Ozone-Depleting Substances are broadly grouped into the following categories:



Chlorofluorocarbons

Chlorofluorocarbons (CFCs) were developed in the 1920s. They began to replace ammonia as a refrigerant gas in the 1930s and as an aerosol propellant in the 1940s. By the 1980s they were widely used as coolants in refrigerators and air conditioners, solvents in degreasers and cleaners, and as blowing agents in the production of foam.



Halons

Halons are chemicals very effective for extinguishing fires. They were used in all types of fire-extinguishing equipment.



Hydrochlorofluorocarbons

Hydrochlorofluorocarbons (HCFCs) have been developed for use as transitional or temporary replacements for **CFCs** because they don't last as long in the atmosphere and therefore do less damage to the **Ozone Layer**. **HCFCs** are used mainly for foam blowing, refrigeration and air conditioning, solvent cleaning and, to a lesser extent, aerosols and fire protection.

This table describes the characteristics of many common **Ozone-Depleting Substances**.¹

Abbreviation	Name	TDG Classification	Ozone-Depleting Potential ²	Lifetime in years ³
Chlorofluorocarbons (CFCs)				
CFC-11	Trichlorofluoromethane	None	1.0	45
CFC-12	Dichlorofluoromethane	UN 1029 Class 2.2 Non-flammable Gas	1.0	100
CFC-113	Trichlorofluoroethane	None	0.8	85
CFC-114	Dichlorotetrafluoroethane	None	1.0	300
CFC-115	Chloropentafluoroethane	UN 1973 Class 2.2 Non-flammable Gas	0.6	1700
Halons (Bromofluorocarbons)				
Halon 1011	Bromochloromethane	UN 1887 Class 6.1 Toxic Substance	0.12	
Halon 1211	Bromochlorodifluoromethane	None	3.0	11
Halon 1301	Bromotrifluoromethane	UN 1009 Class 2.2 Non-flammable Gas	10.0	65
Halon 2402	Dibromotetrafluoroethane	None	6.0	
Hydrochlorofluorocarbons (HCFCs)				
HCFC-22	Chlorodifluoromethane	UN 1018 Class 2.2 Non-flammable Gas	0.055	11
HCFC-123	Dichlorotrifluoroethane	None	0.02	1
HCFC-124	Chlorotetrafluoroethane	UN 3297 Class 2.2 Non-flammable Gas	0.022	6
HCFC-141b	Dichlorofluoroethane	None	0.11	9
HCFC-142b	Chlorodifluoroethane	None	0.065	18
HCFC-225ca	Dichloropentafluoropropane	None	0.025	2
HCFC-225cb	Dichloropentafluoropropane	None	0.033	6

¹ Environment and Climate Change Canada (2013). *Ozone-depleting Substances*.

² "Ozone-Depleting Potential" is a measure of the capability of a chemical to destroy ozone. It is measured against CFC-11 which has an Ozone-Depleting potential of one (1.0). As an example, one molecule of Halon 1301 has the potential to destroy ten times more ozone than one molecule of CFC-11.

³ "Lifetime" is the number of years it takes for the substance to break down in the lower atmosphere.



3.1 Impacts

The **Ozone Layer** absorbs **Ultraviolet Rays** from the sun. As this protective layer gets damaged, more **Ultraviolet Rays** reach the earth where they cause sunburns, skin cancer, eye cataracts, weakening of the immune system and aging of the skin.

The environment can also be affected. At the bottom of the food chain, plankton populations in the ocean have been reduced by increased **Ultraviolet Rays**. Damage and impacts to vegetation, food crops, wildlife, and domestic animals can also occur.



Roles and Responsibilities

4.1 Owners



Building owners may be affected by phase-outs and management requirements of **ODS**.

ODS are most often found in air conditioning systems, refrigeration equipment or in fire-extinguishing systems.

It is the responsibility of building, equipment, and vehicle owners to be aware of any **Ozone-Depleting Substances** in their air conditioning, refrigeration and fire-extinguishing equipment.

Owners should hire certified service technicians for any repairs, refills, or disposals of ODS-containing devices.

Owners have the responsibility to prevent releases of **ODS** and to ensure equipment is serviced in accordance with this guideline.

It is important to remember that even if a contractor is working on equipment, the owner of that equipment is responsible for ensuring that the **ODS** inside are managed safely.



Important note on BTEX

Leaks or damage to equipment containing **ODS** must be repaired as quickly as possible.

Owners of fire-extinguishing equipment containing **Halons** must plan to phase them out.⁴

4.2 Retailers



Retailers are responsible for selling **ODS** only to certified service technicians.

If a certified service technician purchases an **ODS** for use as a refrigerant (other than as a component in another product), the retailer must require the certified service technician to sign an acknowledgment certified service technician to sign an acknowledgment of receipt of the **ODS**.

The vendor must keep a sales record indicating:



The type of **ODS** sold



The date of sale



The name of the buyer



The company the buyer is working for

Retailers are encouraged to take-back and dispose of full or partially full containers of **ODS**.

⁴ Federal Halocarbon Regulations, 2003.



4.3 Service Technicians

Service technicians must follow acceptable servicing procedures as required by the *EPA*.

They must not fill leaking equipment and must use proper recovery/recycling equipment and methods to prevent the release of **ODS** into the environment.

For air conditioning and refrigeration equipment where the servicing may result in the release of an **ODS**, a service technician must be certified through completion of “Canada’s Ozone Layer Protection Program” offered by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI).

The program is available online at the HRAI website: www.hrai.ca

Only a certified service technician is allowed to purchase or possess an **ODS** for the purpose of servicing air conditioning or refrigeration equipment. Companies employing service technicians must maintain records indicating which employees are certified.

For fire-extinguishing equipment, there is no environmental awareness training course available. Service technicians must follow acceptable servicing procedures as required by the *EPA* when servicing fire-extinguishing equipment containing an **ODS**.



Important

Ozone-Depleting Substances are **Contaminants** under the *Environmental Protection Act* (1988).

Any leaking equipment must immediately be taken out of service and the leak stopped.

When servicing, testing or discarding fire-extinguishing, air conditioning or refrigeration equipment a technician must recover for reuse, recycling or disposal any **ODS** that would otherwise be released during these procedures or that would remain in equipment being discarded.

ODS are environmentally hazardous substances. Spills above 1L must be reported to the **NU Spill Report Line** at **(867) 920-8130** or spills@gov.nt.ca. See [Appendix A: Reportable Quantities](#) for a list of **Reportable Quantities**.





4.4 Department of Environment

The Government of Nunavut Department of Environment (ENV) is responsible for enforcing the *Environmental Protection Act (EPA)* (1988), which prohibits the discharge of **Contaminants** to the environment and enables the Minister of Environment to undertake actions to ensure appropriate management measures are in place.⁵

The ENV enforces the *Spill Contingency Planning and Reporting Regulations* (1993) which require **Responsible Parties** to report spills of **Contaminants** above or likely to be above the **Reportable Quantities** ([Appendix A: Reportable Quantities](#)).

The ENV also assists Environment and Climate Change Canada (ECCC) to enforce the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021) under the *Canadian Environmental Protection Act* (1999). Shipments of *Hazardous Waste* must be accompanied by a *Movement Document/Manifest*, which can be obtained from the ENV.

4.5 Environment and Climate Change Canada



Environment and Climate Change Canada (ECCC) is responsible for controlling the import, manufacture, sale, and export of **Ozone-Depleting Substances** through legislation, such as the *Ozone-depleting Substances and Halocarbon Alternatives Regulations* (2016) under the *Canadian Environmental Protection Act* (1999).

ECCC also enforces the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021) under the *Canadian Environmental Protection Act* (1999). According to the Regulations, any transportation of **Hazardous Waste** within Canada must be accompanied by a **Movement Document/Manifest**.

⁵ Environmental Protection Act (1988).



5.1 Phase-out Objectives

In accordance with the *Montreal Protocol* (1987), Canada has been eliminating the manufacture, import, and export of **Ozone-Depleting Substances**, and phasing out their sale and use as suitable replacements become available.

The *Ozone-Depleting Substances and Halocarbon Alternatives Regulations* (2016), under the *Canadian Environmental Protection Act* (1999), specify limits on the use, manufacture, import, and export of many **ODS**.

For example, the import and manufacturing of **HCFCs** are now restricted in Canada.⁶ Owners of refrigeration and air conditioning equipment should be transitioning to alternative refrigerants.

Additional information on **HCFC** use and phase-out can be found at the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) website: www.hrai.ca

When equipment containing **ODS** needs to be serviced, older refrigerants must be drained and disposed of and newer refrigerants that do not damage the **Ozone Layer** must be used. An example of these newer refrigerants is **Hydrofluoroolefins (HFOs)**.

⁶ Ozone-depleting Substances and Halocarbon Alternatives Regulations (2016).

5.2 Containers



According to the *Ozone-depleting Substances and Halocarbon Alternatives Regulations* (2016), **HCFCs** must be stored in refillable containers.⁷

Refillable containers are less prone to leakage, and eliminate emissions caused by the disposal of throwaway and recyclable containers. Refillable containers should be designed and manufactured to contain the specific type of **ODS** being stored.

Prior to disposal of a container, any residual **ODS** must be recovered.

After being drained, technicians must place a label on the container with:



The date of the recovery



Name of the certified technician



Name of the servicing company



An indication that the container no longer contains any **ODS**

Record Keeping and Labelling



All new equipment imported into, installed or sold in Nunavut that contains an **ODS** should be clearly and permanently labelled with the quantity and type of **ODS** contained in the equipment.

The label should be amended if the equipment has been emptied of **Ozone-Depleting Substances** or if the equipment is recharged with a different **ODS**.

Service technicians who service refrigeration, air conditioning, or fire-extinguishing equipment containing an **ODS** should keep an accurate log of the particulars of the service event including quantities, date, and the names of the business and technician involved.

An up-to-date service record should be maintained in close proximity to equipment containing **Ozone-Depleting Substances**, or with the owner of the facility. The record should be kept for the operating life of the equipment and be made available for inspection upon the request of an Inspector appointed under the **EPA**.

⁷ Ozone-depleting Substances and Halocarbon Alternatives Regulations (2016) s(39), s(47).

5.3 Air Conditioning and Refrigeration Equipment



All compressor rooms housing stationary refrigeration and air conditioning systems should have refrigerant detectors and alarms installed in accordance with the Canadian Standards Association (CSA) publication *CSA B52: Mechanical Refrigeration Code* (2018) to detect refrigerant leaks and emissions.

A refrigerant level greater than 10 parts per million in the compressor room is an indication that one or more of the systems is leaking. While refrigerant alarms are important, they are not substitutes for the physical leak testing of the system itself, which should take place a minimum of one time each year.

Any technician who services air conditioning or refrigeration equipment containing **ODS** must be certified and hold appropriate trade qualifications (see [Section 4.3](#)).

Servicing should be performed in accordance with ECCC's *Environmental Code of Practice for the Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems* (2015), and this Guideline.

A leak test must be completed before any air conditioning or refrigeration equipment is refilled.

An **ODS** must never be used for the purposes of leak testing.

Any leak must be repaired prior to the system being recharged with refrigerant or put back into service.

As part of phase-out requirements, refrigeration and air conditioning equipment should not be refilled with **CFCs**. If refrigerant is lost from these systems, the equipment should be replaced or properly retrofitted to use an alternate refrigerant.



Important

Chlorofluorocarbons (CFCs) must not be used to “top up” a system.

Alternative refrigerants that are not **ODS** should be obtained from the manufacturer of the equipment.



Refrigerant must be recovered during the servicing of equipment to avoid its venting or release into the atmosphere. All recovery equipment should meet the Air-Conditioning, Heating and Refrigeration Institute (AHRI) *Standard 740 – Performance Rating of Refrigerant Recovery/Recycling Equipment* or the **Underwriters Laboratories of Canada (ULC)** standard *Halon and Halocarbon Clean Agent Recovery and Reconditioning Equipment (C1058.5-2004)*.

Recovery and recycling equipment intended for use with small appliances such as household air conditioners, refrigerators or freezers must recover a minimum of 90% of the refrigerant in the cooling system of the appliance. Devices for recovery and recycling intended for use with small appliances that do not have an operational compressor must recover a minimum of 80% of the refrigerant in the cooling system of the appliance.

Once drained, a weatherproof label should be permanently attached to the equipment stating:



The date of servicing



Name of the certified technician



Name of the servicing company



A statement confirming the equipment no longer contains refrigerant

Household refrigeration and air conditioning equipment is exempt from this requirement as long as it is disposed of in a separate area of the landfill specifically set aside for this purpose.

Most automobile air conditioners now use an ozone-friendly refrigerant; however, in vehicles manufactured in 1993 or earlier, the air conditioning systems may use an **ODS**. If the air conditioning system in such a vehicle is faulty or leaking and requires repairs, technicians must not recharge that system with an **ODS**. Instead, a conversion kit that uses an alternative refrigerant (e.g., HFC-134a) should be used.

The Department of Environment recommends that local municipal governments hire certified service technicians to recover the refrigerant from stored appliances and cars in landfills when quantities warrant.



Important

The venting or release of refrigerants to the atmosphere for the purposes of disposal is unacceptable. It qualifies as a release of a contaminant, and is prohibited by the *Environmental Protection Act* (1988).



Only refillable containers should be used to store recovered refrigerants. These containers are less likely to leak and their use eliminates emissions caused by the disposal of throwaway or recyclable containers.

All containers should meet the specifications listed in the *Transportation of Dangerous Goods Regulations* (2001) and be labeled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**.

Chlorofluorocarbons (CFCs) that are recovered from equipment must be returned to the original supplier, an independent reclaimer, or a licensed disposal facility for destruction.

Contact **Refrigerant Management Canada (RMC)** by telephone at 1-800-267-2231 or at www.hrai.ca/refrigerant-management-canada for information on the nearest licensed disposal facility.

5.4 Fire-Extinguishing Equipment



The basic principles outlined in [Section 5.3](#), Air Conditioning and Refrigeration Equipment also apply to **Halon** fire-extinguishing equipment:



Extinguishants must be recovered during servicing and decommissioning



Releases of **Halons** must be avoided during training and equipment testing



Refillable containers should be used to store recovered **Halons**



Equipment must be serviced by certified service technicians.

Owners of fire-extinguishing equipment that contains **Halons** should develop a management plan in accordance with the phase-out objectives of the *Montreal Protocol* (1987).



Note:

An adjustment to the Montreal Protocol (1987) allows the consumption of HCFC-123 until December 31, 2029 for use as a fire-extinguishing agent and for the servicing of existing fire protection equipment that is in service as of December 31, 2019. This adjustment was adopted because there may be no other alternative for certain aircraft rescue and fire-fighting applications at the current time.



Fire-extinguishing equipment may not be recharged with **Halons**.

Existing **Halon** equipment must be properly maintained for as long it remains in service in order to avoid releases to the environment and to ensure the facility or asset is not without adequate fire protection.

The Nunavut Fire Marshal's Office (NFMO) should be consulted on suitable replacement fire-extinguishing equipment when decommissioning **Halon** systems.

The training of personnel and testing of equipment must not result in any release of **Halons**. Alternative procedures, such as video demonstrations and the use of **Halon** simulants, should be used to achieve the same testing and training objectives.

The servicing and decommissioning of **Halon** fire-extinguishing equipment must only be undertaken by a certified service technician.

All equipment and servicing procedures must comply with **Underwriters Laboratories of Canada** standard *Halon and Halocarbon Clean Agent Recovery and Reconditioning Equipment (ULC/ORD-C1058.5-2004)* and *The Servicing of Halon and Clean Agent Extinguishing Systems (CAN-ULC-S593-2021)*.

Additional design and service practices for fire-extinguishing equipment containing **Halons** are described in Environment and Climate Change Canada's *Environmental Code of Practice on Halons* (1996).

A leak test must be completed before any fire-extinguishing equipment is refilled. An **ODS** must never be used for the purposes of leak testing.

The venting or release of **Halons** to the atmosphere for the purposes of disposal is unacceptable and must be avoided. Should a release occur, it must immediately be reported to the **NU Spill Report Line** at **(867) 920-8130** or spills@gov.nt.ca.

Technicians servicing fire-extinguishing equipment must use equipment that can recover and contain an **ODS**.

Recovery and recycling equipment intended for use with fire-extinguishing equipment must comply with the **ULC** publication *Halon and Halocarbon Clean Agent Recovery and Reconditioning Equipment (ULC/ORD-C1058.5-2004)*.

Fire-extinguishing equipment must not be disposed of unless the **Halon** or any other **ODS** is removed by a service technician, prior to disposal.

Once empty, technicians must place a label on the container with:



The date of servicing



Name of the certified technician



Name of the servicing company



A statement confirming the equipment no longer contains refrigerant

Owners should contact the **Underwriters Laboratories of Canada (ULC)** for information on the nearest reclaimer or licensed **Halon** disposal facility.



5.5 Transportation

Several **Ozone-Depleting Substances** are classified as **Dangerous Goods** under the *Transportation of Dangerous Goods Regulations* (2001) of the *Transportation of Dangerous Goods Act* (1992).

Shipping information for several **ODS** that are **Dangerous Goods** is provided below. This is not an exhaustive list, therefore if you own, manage or control an **ODS**, you can contact **Transport Canada** and the shipping company to confirm shipping requirements:

Shipping Name: WASTE Bromotrifluoromethane; or Refrigerant Gas R-13b1

Classification: 2.2

Product Identification Number: UN1009

Shipping Name: WASTE Chlorodifluoromethane; or Refrigerant Gas R-22

Classification: 2.2

Product Identification Number: UN1018

Shipping Name: WASTE Chloropentafluoroethane; or Refrigerant Gas R-115

Classification: 2.2

Product Identification Number: UN1020

Shipping Name: WASTE Dichlorofluoromethane; or Refrigerant Gas R-21

Classification: 2.2

Product Identification Number: UN1029

Shipping Name: WASTE Bromochloromethane

Classification: 6.1

Product Identification Number: UN1887

Packing Group: III

Shipping Name: WASTE Ethylene Oxide and Chlorotetrafluoroethane Mixture

Classification: 2.2

Product Identification Number: UN3297

Further information on transporting **Dangerous Goods** can be obtained by contacting Transport Canada.

Ozone-Depleting Substances may also be classified as **Hazardous Waste** under the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021) of the *Canadian Environmental Protection Act* (1999).

All shipments of **Hazardous Waste** must be accompanied by a **Movement Document/Manifest**.

Also, **Hazardous Waste** generators and carriers operating in Nunavut must be registered with the Department of Environment (ENV).

Refer to the Environmental Guideline for *General Management of Special and Hazardous Waste*, also from the ENV, for additional information on the transportation of **Dangerous Goods** and **Hazardous Wastes**.

Chlorofluorocarbons (CFCs):

Group of man-made gasses that are the main cause of ozone depletion in the Earth's atmosphere. These compounds of chlorine, fluorine, hydrogen, and carbon were often used for aerosol propellants and refrigeratns. Since the *Montreal Protocol*, **CFCs** have been banned or restricted.

Contaminant:

A substance that has been released into the environment and has the potential to harm people, plants and/or animals.

Defined in the *Environmental Protection Act* (1988) as:

“any noise, heat, vibration or substance and includes such other substance as the Minister may prescribe that, where discharged into the environment,

- endangers the health, safety or welfare of persons,
- interferes or is likely to interfere with normal enjoyment of life or property,
- endangers the health of animal life, or
- causes or is likely to cause damage to plant life or to property;”

Dangerous Goods:

A product, substance or organism included by its nature or by the regulations in any of the classes listed in the schedule to the *Transportation of Dangerous Goods Act* (1992).

Schedule to the Act:

Class 1 Explosives, including explosives within the meaning of the “Explosives Act”

Class 2 Gases: compressed, deeply refrigerated, liquefied or dissolved under pressure

Class 3 Flammable and combustible liquids

Class 4 Flammable solids; substances liable to spontaneous combustion; substances that on contact with water emit flammable gases

Class 5 Oxidizing substances; organic peroxides

Class 6 Poisonous (toxic) and infectious substances

Class 7 Nuclear substances, within the meaning of the “Nuclear Safety and Control Act,” that are radioactive

Class 8 Corrosives

Class 9 Miscellaneous products, substances or organisms considered by the Governor in Council to be dangerous to life, health, property or the environment when handled, offered for transport or transported and prescribed to be included in this class

Halons:

Certain chemicals that are highly effective at extinguishing fires. They work by binding to parts of the fuel being burned, thus breaking the chemical reaction of combustion and putting out the fire. They are harmful to human health and are classified as **ODS**. The use and production of **Halons** has been limited.

Hazardous Waste:

A waste substance or material that is flammable, toxic, corrosive, or reactive. This includes wastes that are mixtures of hazardous and non-hazardous wastes. **Hazardous Waste** is further defined by the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021) under the *Canadian Environmental Protection Act* (1999).

Hydrochloroflourocarbons (HCFCs):

A group of chemicals that can replace **CFCs**. They are still **ODS**, but are much less damaging to the **Ozone Layer** than **CFCs**.

Hydrofluoroolefins (HFOs):

Chemical substances used as refrigerants that do not have any Ozone-Depleting potential. Unlike **CFCs** and **HCFCs**, **HFOs** do not cause damage to the **Ozone Layer**.

Montreal Protocol:

An international agreement, ratified by all countries in 1987, to stop using **ODS**.

Movement Document/Manifest:

A document with a unique number that accompanies a shipment of hazardous waste from its point of origin to its point of disposal. This document describes the shipment and is signed when it changes hands from the generator, carrier and receiver.

NU Spill Report Line:

A 24-hour service for reporting contaminant spills in Nunavut. A call can be made to **867-920-8130** or email sent to spills@gov.nt.ca.

Ozone:

An invisible gas, made of three oxygen atoms (O₃), that absorbs **Ultraviolet Rays**.

Ozone-Depleting Substances (ODS):

Chemicals like **CFCs**, **Halons**, and other similar substances that destroy **Ozone** in the atmosphere. They drift up into the **Ozone Layer**, where they are broken apart by **Ultraviolet Rays**. These parts then repeatedly break up **Ozone**.

Ozone Layer:

A layer of **Ozone** gas in the atmosphere that protects the Earth from **Ultraviolet Rays** from the sun.

Refrigerant Management Canada (RMC):

RMC is a not-for-profit corporation established by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) to ensure the responsible disposal of surplus **ODS** from refrigeration and air conditioning equipment.

Reportable Quantity:

The amount of a given product that when spilled requires a report to be sent to the **NU Spill Report Line**. This amount is shown in [Appendix A: Reportable Quantities](#).

Underwriters Laboratories of Canada (ULC):

An independent organization that conducts product safety testing, certification, and inspection.

Ultraviolet Rays:

Sunlight that is invisible to human eyes. Also called UV Radiation, these rays can cause a variety of health problems.

Workplace Hazardous Materials Information System:

Canada's national workplace hazard communications standard. Administered by Health Canada.

7 References

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For additional information on the remediation of contaminant spills, or to obtain a complete listing of guidelines, go to the Department of Environment website or contact the Department at:

Environmental Protection Division
Department of Environment
P.O. Box 1000, Stn. 1360
Iqaluit, Nunavut, X0A 0H0

Phone: (867) 975-7700
Fax: (867) 975-7742

www.gov.nu.ca/environment



Contingency plans are to be submitted to the above address.



Appendix A: Reportable Quantities

Spills of the following quantities must be reported to the **NU 24-hr Spill Line:**

867-920-8130 / spills@gov.nt.ca

 Contaminant	 Quantity
Explosives	Any amount
Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 L
Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 L
Compressed gas (toxic)	Any amount
Compressed gas (corrosive)	Any amount
Flammable liquid	100 L
Flammable solid	25 kg
Spontaneously combustible solids	25 kg
Water reactant solids	25 kg
Oxidizing substances	50 L or 50 kg
Organic peroxides	1 L or 1 kg
Poisonous substances	5 L or 5 kg
Infectious substances	Any amount
Radioactive substances	Any amount
Corrosive substances	5 L or 5 kg
Miscellaneous products or substances, excluding PCB mixtures	50 L or 50 kg
Environmentally hazardous substances	1 L or 1 kg
Dangerous wastes	5 L or 5 kg
PCB mixtures of 5 or more parts per million	0.5 L or 0.5 kg
Other contaminants	100 L or 100 kg

Appendix B: Spill Report Form

Fillable form: <https://gov.nu.ca/environment/documents/spill-response>



NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B OCCURRENCE DATE: MONTH – DAY – YEAR		B OCCURRENCE TIME			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE		SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS					
L	REPORTED TO SPILL LINE BY		POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
	M ANY ALTERNATE CONTACT		POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY		POSITION	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER
			STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC				SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME		CONTACT TIME	REMARKS	
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Appendix B: Spill Report Form

Instructions for Completing the NT-NU Spill Report Form

This form can be filled out electronically and e-mailed as an attachment to spills@gov.nt.ca. Until further notice, please verify receipt of e-mail transmissions with a follow-up telephone call to the spill line. Forms can also be printed and faxed to the spill line at 867-873-6924. Spills can still be phoned in by calling collect at 867-920-8130.

A. Report Date/Time	The actual date and time that the spill was reported to the spill line. If the spill is phoned in, the Spill Line will fill this out. Please do not fill in the Report Number: the spill line will assign a number after the spill is reported.
B. Occurrence Date/Time	Indicate, to the best of your knowledge, the exact date and time that the spill occurred. Not to be confused with the report date and time (see above).
C. Land Use Permit Number /Water Licence Number	This only needs to be filled in if the activity has been licenced by the Nunavut Water Board and/or if a Land Use Permit has been issued. Applies primarily to mines and mineral exploration sites.
D. Geographic Place Name	In most cases, this will be the name of the city or town in which the spill occurred. For remote locations – outside of human habitations – identify the most prominent geographic feature, such as a lake or mountain and/or the distance and direction from the nearest population center. You must include the geographic coordinates (Refer to Section E).
E. Geographic Coordinates	This only needs to be filled out if the spill occurred outside of an established community such as a mine site. Please note that the location should be stated in degrees, minutes and seconds of Latitude and Longitude.
F. Responsible Party Or Vessel Name	This is the person who was in management/control/ownership of the substance at the time that it was spilled. In the case of a spill from a ship/vessel, include the name of the ship/vessel. Please include full address, telephone number and e-mail. Use box K if there is insufficient space. Please note that, the owner of the spilled substance is ultimately responsible for any spills of that substance, regardless of who may have actually caused the spill.
G. Contractor involved?	Were there any other parties/contractors involved? An example would be a construction company who is undertaking work on behalf of the owner of the spilled substance and who may have contributed to, or directly caused the spill and/or is responding to the spill.
H. Product Spilled	Identify the product spilled; most commonly, it is gasoline, diesel fuel or sewage. For other substances, avoid trade names. Wherever possible, use the chemical name of the substance and further, identify the product using the four digit UN number (eg: UN1203 for gasoline; UN1202 for diesel fuel; UN1863 for Jet A & B)
I. Spill Source	Identify the source of the spill: truck, ship, home heating fuel tank and, if known, the cause (eg: fuel tank overflow, leaking tank; ship ran aground; traffic accident, vandalism, storm, etc.). Provide an estimate of the extent of the contaminated/impacted area (eg: 10 m ²)
J. Factors Affecting Spill	Any factors which might make it difficult to clean up the spill: rough terrain, bad weather, remote location, lack of equipment. Do you require advice and/or assistance with the cleanup operation? Identify any hazards to persons, property or environment: for example, a gasoline spill beside a daycare centre would pose a safety hazard to children. Use box K if there is insufficient space.
K. Additional Information	Provide any additional, pertinent details about the spill, such as any peculiar/unique hazards associated with the spilled material. State what action is being taken towards cleaning up the spill; disposal of spilled material; notification of affected parties. If necessary, append additional sheets to the spill report. Number the pages in the same format found in the lower right hand corner of the spill form: eg. "Page 1 of 2", "Page 2 of 2" etc. Please number the pages to ensure that recipients can be certain that they received all pertinent documents. If only the spill report form was filled out, number the form as "Page 1 of 1".
L. Reported to Spill Line by	Include your full name, employer, contact number and the location from which you are reporting the spill. Use box K if there is insufficient space.
M. Alternate Contact	Identify any alternate contacts. This information assists regulatory agencies to obtain additional information if they cannot reach the individual who reported the spill.
N. Report Line Use Only	Leave Blank. This box is for the Spill Line's use only.

