

How to Report

Spills must be reported to the **NU Spill Report Line** without delay in one of the following ways:



Calling the NU Spill Line
at (867) 920-8130



Emailing a completed Spill
Report to spills@gov.nt.ca



Faxing a completed Spill
Report to 867-873-6924

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 Special and Hazardous Wastes. This Guideline does not replace the need for the owner or person in charge, management, or control of contaminants 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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1 List of Acronyms and Units

Acronym	Definition
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CEPA	Canadian Environmental Protection Act
CGS	Government of Nunavut Community and Government Services
CSA	Canadian Standards Association
ENV	Government of Nunavut Department of Environment
DG	Dangerous Goods
ECCC	Environment and Climate Change Canada
EPA	Environmental Protection Act (NU) (1988)
HVAC	Heating, ventilation, and air conditioning
NA	Nunavut Agreement (1993)
NIRB	Nunavut Impact Review Board
NPC	Nunavut Planning Commission
NuPPAA	Nunavut Planning and Project Assessment Act (2013)
NWB	Nunavut Water Board
NWT	Northwest Territories
NU	Nunavut
OHS	Occupational Health and Safety Regulations (2016)
Pb	Lead (element)
PCB	Polychlorinated Biphenyls
PPE	Personal Protective Equipment

Acronym	Definition
SDS	Safety Data Sheets, also Material Safety Data Sheets (MSDS)
TCLP	Toxicity Characteristic Leaching Procedure
TDG	Transportation of Dangerous Goods Regulations (2001)
ULC	Underwriters Laboratories of Canada
WHMIS	Workplace Hazardous Materials Information System
WSCC	Workers' Safety and Compensation Commission

Units	Description
Kg	Kilogram (1,000 grams)
µg	Microgram (1/1,000,000 gram)
mg	Milligram (1/1,000 gram)
mg/L	Milligrams per litre (ppm)
ppm	Parts per million

2 Introduction

This Guideline is intended to help Nunavummiut in managing **Special** and **Hazardous Wastes**. It provides information on how to handle, store, transport, and ship **Special** and **Hazardous Wastes** in Nunavut.

It is important to note that this document is a Guideline, and does not have the force of law. However, there are many laws in Nunavut, both Federal and Territorial, that apply to the management of **Hazardous Wastes** and other **Contaminants**. It is the responsibility of every citizen and organization to ensure that they are following all laws when dealing with products that can be harmful to the health of their communities and the environment.

This Guideline covers how to prevent environmental impacts from **Special** and **Hazardous Wastes**. These wastes can be harmful to human health, and caution must be used when handling them. Safely handling these wastes requires **Personal Protective Equipment (PPE)** and other safety measures that are specific to the type of waste being handled. It is not the role of the Department of Environment to advise on appropriate **PPE** while handling these wastes. Always refer to the **Safety Data Sheets (SDS)** for the type of waste for guidance on what **PPE** to wear.

Employers have additional responsibilities to ensure safety in the workplace. See [Section 5.1](#) for more information.

This Guideline presents general information about **Special Wastes** and **Hazardous Wastes** before giving guidance on specific types of waste.

The definitions of most words in **Bold** can be found in the [Forms to register as a Hazardous Waste Management Facility are presented in Appendix D.](#) section at the end of the Guideline.

3 What is Special Waste?

The Government of Nunavut Department of Environment (ENV) defines **Special Waste** as any unwanted substance that can bring significant harm to people or the environment. It is a waste that must be handled, stored, and disposed of separately from regular solid waste like plastic, cardboard, food scraps, etc.

Examples include:



Waste
Motor Oil



Waste
Asbestos



Waste **Mercury**-Containing
Products like **Fluorescent**
light bulbs

If you have questions regarding whether or not a waste is considered a **Special Waste** in Nunavut, please contact the ENV. Contact information for ENV headquarters in Iqaluit is provided on the first page of this Guideline. You can also contact your local Conservation Officer or Environmental Protection Officer.

4 What is Hazardous Waste?

Hazardous Waste is defined as any waste material or substance that is flammable, corrosive, toxic, or reactive. It can be generated from industrial processes, or produced by households. This includes wastes that are mixtures of hazardous and non-hazardous materials. **Hazardous Waste** may be in a solid, liquid, or gaseous form, and can pose serious risks to human health and the environment.

Hazardous Waste is further defined in the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (2021)* under the *Canadian Environmental Protection Act (1999)*.¹ See [Section 8.3](#) for more details.

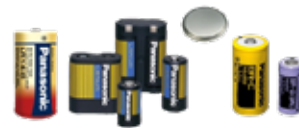
Some common examples of **Hazardous Waste** include:



Waste
Heating Fuel



Some Waste
Paints



Waste Batteries

If you have any questions regarding whether or not a waste is considered **Hazardous Waste**, please contact the ENV or Environment and Climate Change Canada (ECCC).

All **Hazardous Wastes** are also considered **Special Wastes** by the ENV.



¹ Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (2021) SOR/2021-25

5 Roles and Responsibilities

5.1 Waste Owners



Anyone who owns or generates **Special Waste** is responsible for storing it safely.

Special Wastes are **Contaminants** under the *Environmental Protection Act (EPA)* (1988).

The *EPA* states that any **Contaminant** spill must be cleaned up by the **Responsible Party**.

The **Responsible Party** is the person or organization that released or permitted the release of a **Contaminant** into the environment.

The **Responsible Party** also must report any spill that is greater than (or may be greater than) the **Reportable Quantities** under *Spill Contingency Planning and Reporting Regulations* (1993)² to the **NU Spill Report Line**.

Nunavut's 24-Hour Spill Report Line:



867-920-8130



spills@gov.nt.ca



Reportable Quantities depend on the **Contaminant** in question. A table of **Reportable Quantities** is presented as [Appendix H](#).

A Spill Report Form that can be used to report the details of a spill is included as [Appendix J](#).

Those who own **Special Wastes** must also ensure these wastes are handled, stored, and disposed of properly.

Anyone who owns and/or generates **Hazardous Wastes** must register with the ENV as a **Hazardous Waste Generator** (for more information see [Section 8.3](#)).

Owners must find out what the requirements are for each of their types of waste. This Guideline is a good place to start for general information, but you will need to find out more about your specific situation.

² Spill Contingency Planning and Reporting Regulations (1993) NWT Reg (Nu) 068-93, Section 9

Members of the Public:

Contact your Hamlet Office to find out what waste types are accepted at the community landfill, and what the requirements are for bringing **Special Waste** there.

Community Governments and Landfill Managers:

- Contact the GN Department of Environment (ENV) to find out more about what should be done to store and dispose of **Special Wastes**.
- Contact the GN Department of Community and Government Services (CGS) to find out more about funding programs and opportunities to manage and ship out **Special Wastes**.
- Contact Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) for information regarding your Nunavut Water Board (NWB) **Water License** and its terms and conditions.
- Contact private waste management contractors to assist with management and disposal of wastes.

Private Waste Management Contractors:

Contact the GN Department of Environment to find out more about rules surrounding the handling, storage, and disposal of **Special Wastes**.

Your facility may be subject to Federal legislation. It may also qualify as a **Project** under the *Nunavut Agreement (NA)* (1993), the *Nunavut Planning and Project Assessment Act (NuPPAA)* (2013) and therefore be subject to review by the Nunavut Planning Commission (NPC) and Nunavut Impact Review Board (NIRB). Some facilities may require a Water License from the Nunavut Water Board. Contact Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) for more information.



5.2 Department of Environment

The Department of Environment (ENV) is responsible for enforcing the *Environmental Protection Act (EPA)* (1988) which applies to the release of **Contaminants**.

As **Special Wastes** are **Contaminants**, Officers of the ENV:

- Work to prevent **Special Waste** spills through education programs, inspections and enforcement measures.
- Ensure **Responsible Parties** report and clean-up spills by conducting inspections and enforcement measures.

5.3 Workers' Safety and Compensation Commission

The Workers' Safety and Compensation Commission (WSCC) derives its authority from the *Workers' Compensation Act* (1988) and *Safety Act* (1988). The Commission is responsible for promoting and regulating worker and workplace health and safety in Nunavut. The laws above require an employer to maintain a safe workplace and ensure the safety and wellbeing of workers. The **Workplace Hazardous Materials Information System (WHMIS)** is used to provide information to workers on the safe use of any hazardous material in the workplace.



5.4 Crown-Indigenous Relations and Northern Affairs Canada

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) enforces several pieces of environmental legislation in Nunavut including the *Territorial Lands Act* (1985), *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (2002), *Nunavut Planning and Project Assessment Act* (2013) and the *Fisheries Act* (1985).

CIRNAC officers enforce the terms and conditions of **Water Licenses** issued by the Nunavut Water Board (NWB).



The *NWT-NU Spills Working Agreement* (2014) gives CIRNAC responsibility to act as **Lead Agency** in cases where spills occur at facilities authorized under federal legislation (such as landfills and mines), as well as most spills on territorial land and spills on water, with exceptions made for spills from ships, mystery spills and spills from oil and gas facilities.³

³ NWT-NU Spills Working Agreement (2014), p.12

5.5 Environment and Climate Change Canada

Environment and Climate Change Canada (ECCC) is responsible for enforcing the *Canadian Environmental Protection Act (CEPA)* (1999),⁴ including regulations for the movement of **Hazardous Waste** through the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021).



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

The *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021) apply to the transportation of wastes that meet the definition of **Hazardous Waste** under the Regulations. Some of the requirements of these regulations include registration and manifesting requirements that are discussed in more detail in [Section 8](#).

5.6 Transport Canada



Transport
Canada

Transports
Canada

Transport Canada is responsible for enforcing the *Transportation of Dangerous Goods Act* (1992) which includes the *Transportation of Dangerous Goods Regulations* (2001). Some **Special Wastes** meet the criteria for **Dangerous Goods** under the Regulations. It is the responsibility of the shipper (consigner) to determine if their shipment is **Dangerous Goods** and if so, that it meets the requirements of the Regulations.

See [Section 8](#) for more Information.



⁴ Canadian Environmental Protection Act 1999 S.C. 1999 c. 33

6 Safety

All **Special Wastes** can be harmful to people. Anyone handling **Special Waste** should take the necessary steps to stay safe. Safety is the responsibility of the waste owner or handler. The Specific Guidance sections beginning with [Section 10](#) show the potential dangers of each type of waste and what **Personal Protective Equipment (PPE)** should be worn when handling it. This information is provided as an introduction for the convenience of readers; however, anyone handling **Special** or **Hazardous Waste** must seek appropriate training.

For workers, the *Occupational Health and Safety Regulations (OHS)* (2016) under the *Safety Act* (1988) hold employers responsible for ensuring their safety.

The **Workplace Hazardous Materials Information System (WHMIS)** is designed to comply with these regulatory requirements.

WHMIS classifies hazardous products into hazard classes and categories according to specific rules.

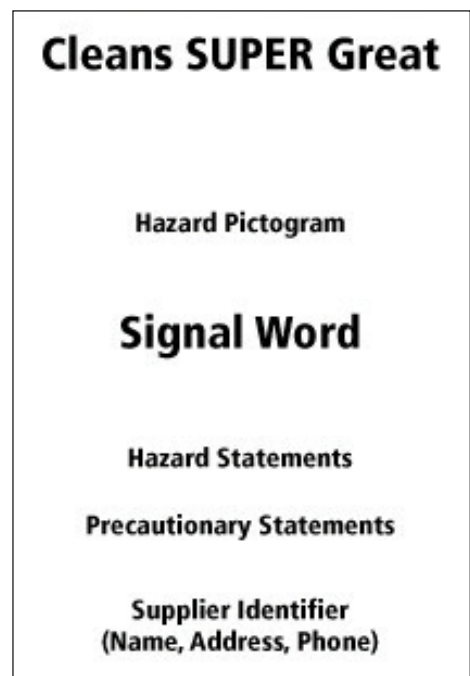
WHMIS also communicates hazard and precautionary information using labels and **Safety Data Sheets (SDS)**. These sheets are sometimes also referred to as Material Safety Data Sheets (MSDS).

WHMIS regulations require employers to:

- Obtain current **SDS** for all products that are hazardous according to **WHMIS**.
- Make the **SDS** available to all workers.
- Properly label hazardous products.
- Provide education and worksite-specific training about hazardous products, and the necessary precautions.
- Ensure appropriate control measures are in place to protect the health and safety of workers.

Labels must have the following elements:

1. Name of Product
2. Hazard Pictogram
3. Hazard Statements
4. Precautionary Statements
5. "See **SDS** for more information"⁵



⁵ Canadian Centre for Occupational Health and Safety (2021)

Safety Data Sheets (SDS) must be available to workers for the products they are handling.

SDS have four main purposes. They provide information on:

- **Identification:** Product and supplier
- **Hazard Identification:** Health and physical hazards, and if provided, environmental hazards
- **Prevention:** Steps that you can take to work safely, and to reduce or prevent exposure or an emergency
- **Response:** Appropriate responses in various situations (e.g., first aid, fire, spill)

If workers are routinely exposed to hazardous substances, the employer must provide, and require the worker to use, adequate **Personal Protective Equipment (PPE)**.⁶

The Specific Guidance sections in this Guideline (see [Section 10](#)) show what **PPE** should be worn when handling each type of waste. The **SDS** of a particular material will say which types of PPE are needed for the safe handling of that material.

Employers should consult the *Occupational Health and Safety Regulations* (2016) for a detailed description of their responsibilities.

6.1 Labelling



Most wastes will not be in their original containers.

The *Occupational Health and Safety Regulations* (2016) refer to these as **Decanted Products**.

Occupational Health and Safety Regulations (2016) state that employers must ensure that a label is applied to these containers.⁷

All wastes should be clearly marked with a label that will not fall off.

MIXED GASOLINE 

HAZARDS
LIQUID DRAWN INTO LUNGS MAY CAUSE SEVERE HEALTH EFFECTS. VAPOURS MAY CAUSE EYE, NOSE, THROAT AND LUNG IRRITATION, HEADACHES AND DROWSINESS. CAUSES SUFFOCATION (ASPHYXIA) IF VAPOUR GAS LEVELS ALLOWED TO ACCUMULATE. MAY CAUSE BLOOD OR BLOOD PRODUCING SYSTEM, CENTRAL AND PERIPHERAL (E.G. FINGERS AND TOES) NERVOUS SYSTEM DISORDER AND OR DAMAGE. AVOID BREATHING VAPOURS OR MISTS. MAY CAUSE EYE AND SKIN IRRITATION. THIS MATERIAL MAY CAUSE REPRODUCTIVE EFFECTS AND CANCER IN LABORATORY ANIMALS AND MAY CAUSE OTHER ADVERSE HEALTH EFFECTS UPON PROLONGED AND/OR REPEATED EXPOSURE.

SAFE HANDLING
MATERIAL ACCUMULATES STATIC. GROUND CONTAINER. DO NOT PRESURIZE, CUT, HEAT, WELD OR EXPOSE CONTAINERS TO SPARKS, OPEN FLAME OR OTHER IGNITION SOURCES. KEEP CONTAINER CLOSED. USE WITH LOCAL EXHAUST VENTILATION. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

FIRST AID
REMOVE CONTAMINATED CLOTHING. DO NOT INDUCE VOMITING. KEEP AT REST. REMOVE AFFECTED PERSON FROM EXPOSURE. GIVE ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. FLUSH EYES AND/OR SKIN WITH LARGE AMOUNTS OF WATER. SEEK PROMPT MEDICAL ATTENTION.

SEE SAFETY DATA SHEET FOR FURTHER DETAILS

DIESEL FUEL OIL

DANGER

FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION. MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. MAY CAUSE DROWSINESS OR DIZZINESS. SUSPECTED OF CAUSING CANCER. MAY CAUSE DAMAGE TO THYMUS, BLOOD, AND LIVER.

FLAMMABLE HARMFUL/IRRITANT HEALTH HAZARD

PREVENTION
Keep away from heat, sparks, and open flames. No Smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment and non-sparking tools. Take precautionary measures against static discharge. Do not breathe vapors. Wash hands and any other contaminated skin thoroughly after handling. Wear protective gloves. Use only outdoors or in a well ventilated area.

RESPONSE
IF SWALLOWED: Immediately call a poison center or doctor. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower and soap. Wash contaminated clothing before reuse. IF EXPOSED OR CONCERNED: Get medical advice. Call a poison center or doctor if you feel unwell. IN CASE OF FIRE: Use foam, water spray or fog. Dry chemical, carbon dioxide or sand may be used for small fires only. Do NOT use water in a jet.

STORAGE
Store in a secure, cool and well-ventilated place. Keep container tightly closed.

DISPOSAL
Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

For more information reference SDS

⁶ Occupational Health and Safety Regulations, Nu Reg 003-2016, Section 101

⁷ Occupational Health and Safety Regulations, Nu Reg 003-2016, Section 329

Here are some general labelling tips:



WHMIS-compliant label stickers can be ordered online.



Vinyl stickers last longer in Nunavut's weather. Paper stickers do not last.



Stickers must be placed on a clean and dry part of the container.













Glue or spray adhesive may be needed to make sure that the sticker does not come off in bad weather.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**.

WHMIS HAZARD SYMBOLS

	Exploding bomb (for explosion or reactivity hazards)		Flame (for fire hazards)		Flame over circle (for oxidizing hazards)
	Gas cylinder (for gases under pressure)		Corrosion (for corrosive damage to metals, as well as skin, eyes)		Skull and Crossbones (can cause death or toxicity with short exposure to small amounts)
	Health hazard (may cause or suspected of causing serious health effects)		Exclamation mark (may cause less serious health effects or damage the ozone layer*)		Environment* (may cause damage to the aquatic environment)
	Biohazardous Infectious Materials (for organisms or toxins that can cause diseases in people or animals)				

* The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by WHMIS 2015.

7 General Waste Principles

7.1 Limit Waste Generation

The best way to deal with **Special Waste** is to prevent it from being created in the first place. For example, when replacing light bulbs, consider purchasing LED bulbs, which are mercury-free, rather than CFL bulbs, which contain small amounts of mercury.



7.2 Recycle When Possible

Some **Special Wastes** can be recycled. For example, waste oil can be burned in a waste oil furnace. Some fuels contaminated with water may be frozen in the winter and pumped out for re-use. Organizations that produce or store large amounts of waste should look into recycling options.



7.3 Storage Principles



Special Wastes must be stored in containers intended for storing that type of waste. Small quantities can be placed in plastic containers like oil or windshield wiper fluid jugs. For larger quantities, steel drums and plastic totes are the preferred containers.



Different wastes must not be mixed together. This can lead to dangerous chemical reactions. It may also complicate recycling, shipping, and spill response.



Storage locations must be carefully planned to prevent accidents, allow for inspections of containers, and protect containers from weather as much as possible. Additional measures to prevent leakages into the environment could include the use of impermeable barriers (e.g., placing containers on concrete or using tarps for waterproofing).



Containers must be sealed. Any open container will get water inside if left outdoors. Open containers are also a spill risk if they are bumped or knocked over. Wastes must be transferred out of leaking containers immediately.

Labelling

It is important to label the contents of each container with the type of waste. This will help in the case of spills and will be important when it comes time to ship the products.

General “Hazardous Waste” labels can be purchased online and filled in with a permanent marker or felt-tipped pen.

Containers that previously held a **Special Waste** must be emptied to the greatest extent possible. Cleaned containers should be rendered unusable by puncturing or crushing prior to disposal to prevent their reuse. This is especially important for containers that could be reused for water or food storage.



7.4 Storage with Aim to Ship

Most **Special Wastes** in Nunavut must be shipped to southern Canada for proper recycling and disposal at an approved facility. With this in mind, the best way to store **Special Wastes** is to properly package and label them for shipping so that you can ship them when you have the chance. This packaging helps to prevent spills and proper labelling is important for cleanup efforts if spills do occur.



8 Shipping

8.1 How to Ship

Shipping of wastes is organized by contacting a searift operator early in the season to arrange for transportation and reserve cargo space on the vessel. Transportation of waste from the storage site to the searift vessel may need to be organized separately.

Shipping requirements are different for each type of waste. The best way to verify shipping requirements is to contact the shipping company. They will provide details for the waste you want to ship, as well as the storage and packing requirements.



Important

Contact the shipping company to verify their requirements before preparing your waste for shipping.



8.2 Transportation of Dangerous Goods

Some **Special Wastes** fall under the *Transportation of Dangerous Goods Regulations (TDG)* (2001).





8.2.1 What qualifies as Dangerous Goods?

It is the responsibility of the shipper to find out if a waste is **Dangerous Goods (DG)**. The **Safety Data Sheets (SDS)** for each waste type will state whether it is **Dangerous Goods**. This is typically listed in the 'Transportation Information' section of the **SDS**.



"Part 2 – Classification" of the *TDG Regulations* explains the requirements for determining if a product is **Dangerous Goods**.

The following table provides general guidance; however, this information should be verified in the *TDG Regulations* and by the shipper.

 Product	 Product
Gasoline	Yes
Heating fuel, Diesel	Yes
Oil	No
Jet A, Jet B	Yes
Products containing PCBs	Yes
Glycol	No
Oil and fuel mixtures	Generally, no (depends on flashpoint)
Asbestos Waste	No
Waste Paint	Some
Waste Batteries	Yes
Mercury -Containing Products	Yes
Waste Solvents	Yes
Waste Lead Paint	Generally, no (depends on lead content)

8.2.2 Requirements

Under the *TDG Regulations*, no person may transport **Dangerous Goods** unless:

- The person complies with all applicable prescribed safety requirements;
- The **Dangerous Goods** are accompanied by all applicable prescribed documents; and,
- The means of containment and transport comply with all applicable prescribed safety standards and display all applicable prescribed **Safety Marks**.⁸



8.2.3 Training

To comply with part (a), above, anyone who handles, offers services for transport, or transports **Dangerous Goods** must be adequately trained and hold a certificate.⁹



The training requirements can be found in the *TDG Regulations*.

Most training required for the transportation of **Dangerous Goods** is available online. Employers are responsible for ensuring staff members are certified.

⁸ Transportation of Dangerous Goods Regulations, SOR 2001-286, Section 1.7

⁹ Transportation of Dangerous Goods Regulations, SOR 2001-286, Section 1.7



8.2.4 Containment

In order to transport **Dangerous Goods**, they must be contained in accordance with the *TDG Regulations*.

Steel drums are not to be re-used for transporting **Dangerous Goods** unless they are reconditioned in an approved facility.¹⁰

Some shippers have an Equivalency Certificate allowing them to re-use steel drums for **Dangerous Goods**. See Equivalency Certificates at the end of this section.

More detailed information regarding allowed means of containment can be found in the *TDG Regulations*.

8.2.5 Safety Marks



Each container holding **Dangerous Goods** must be labelled with **Safety Marks**.

Dangerous Goods Safety Marks must be:

- Visible
- Legible
- Displayed against a background of contrasting colour
- Made of durable, weather-resistant material that will resist detachment or deterioration in the conditions they will be exposed to
- Displayed in the appropriate colour (**Safety Marks** must not be faded)¹¹

The sizes and types of labels that must be used is quite specific. The requirements are described in the *TDG Regulations*.

Safety Marks



The easiest way to comply with the requirements is to order **Safety Marks** from an online retailer.

¹⁰ Transportation of Dangerous Goods Regulations, SOR 2001-286, Section 5.12

¹¹ Transportation of Dangerous Goods Regulations (2001) SOR 2001-286, Section. 4.6

Containers holding **Dangerous Goods** must be labelled with:

1. **Primary Class** Label (and subsidiary class if applicable)
2. **Shipping Name**
3. **UN Number**

The **UN Number** refers to **United Nations Number**. Hazardous materials have a unique number that is used to identify it during transportation.



Useful Tip

Primary Class, UN Number and Shipping Name can all be included on one sticker.



8.2.6 Overpack

An **Overpack** is when several containers of **Dangerous Goods** are packaged together. An example of an **Overpack** is a pallet on which drums are strapped.

If a **Safety Mark** for each class of dangerous goods inside the **Overpack** is not visible through the **Overpack**, the word “Overpack” must be displayed on at least one side. If the **Safety Marks** are not visible through the **Overpack**, the primary class label and each subsidiary class label for each of the **Dangerous Goods**, as well as the shipping name and **UN Number**, must be displayed on the **Overpack**. Also, depending on the size of the **Overpack**, this information is required on either one or two opposite sides.¹²



8.2.7 Equivalency Certificates

Sometimes a shipper may want to transport **Dangerous Goods** in a way that doesn't comply with the *TDG Regulations*. If this method of transportation carries the same level of safety in transporting those **Dangerous Goods**, it is possible to obtain an Equivalency Certificate from Transport Canada. This certificate allows the shipper or transportation company to modify some of the requirements of the *TDG Regulations* only if an equivalent level of safety is assured.

Organizations can review Part 14 of the *TDG Regulations* and contact Transport Canada at tdgapprovals@tc.gc.ca or 1-855- 298-1520 for more information.

Equivalency Certificate
(Approval issued by the competent authority of Canada)

Certificate No.: 001 12008 (Rev. 1)
Certificate Type: 4
Certificate Issuer: Delson Services Environnementale Inc.
Mode of Transport: Road, Rail, Marine
Effective Date: December 17, 2018
Expiry Date: January 31, 2025

LEGEND
For the purpose of this equivalency certificate, documents referred to by an abbreviation have the following meaning:
TDG Act: Transportation of Dangerous Goods Act, 1992
TDG Regulations: Transportation of Dangerous Goods Regulations
TPP4800: Transport Canada Standard TP4800, "Small Containers for Transport of Dangerous Goods, Classes 2, 3, 5.1, 6 and 8, a Transport Canada Standard," 2nd Edition, October 2016, published by the Department of Transport.

NOTES
Note 1: Subsection 37(8) of the TDG Act stipulates that any non-compliance with the conditions of this equivalency certificate causes the provisions of the Act and Regulations to apply as though this equivalency certificate did not exist.
Note 2: This equivalency certificate provides no regulatory relief other than specifically stated herein. Therefore, all other requirements of the TDG Act and the TDG Regulations apply.

FORM 0000024 Page 1 of 1 Canada

¹² Transport Canada (2018b)



8.3 Hazardous Waste Manifesting

The *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021) under the *Canadian Environmental Protection Act* (1999), regulate the movement of **Hazardous Wastes** in Canada.

Hazardous Waste is defined as any waste material or substance that is flammable, corrosive, toxic, or reactive. It can be generated from industrial processes, or produced by households. This includes wastes that are mixtures of hazardous and non-hazardous materials.

Hazardous Waste may be in a solid, liquid, or gaseous form, and can pose serious risks to human health and the environment. For specific guidance on what qualifies as **Hazardous Waste**, refer to Schedules 1, 2, 5-9, 11, and 12 of the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021).¹³

Hazardous Wastes transported within Canada (in quantities more than 5L or 5 kg) must be accompanied by a **Movement Document/Manifest** (see [Appendix F](#)).¹⁴

The **Movement Document/Manifest** :

- Accompanies the waste from its point of origin to its point of disposal
- Describes the waste
- Shows when it changes hands between generators, carriers and receivers – this hand-off is called the chain of custody

Before **Hazardous Waste** can be transported, the following steps need to be taken:

1. The person or organization that produced the waste must register with the ENV as a **Hazardous Waste Generator** (see forms in [Appendix C](#)).
2. The person or organization that is transporting the waste must register with the ENV as a **Hazardous Waste Carrier** (see forms in [Appendix B](#)).
3. A **Movement Document/Manifest** must be obtained and completed. You can obtain a **Movement Document/Manifest** from the ENV.
4. The completed **Movement Document/Manifest** must accompany the shipment to its final destination at a waste disposal facility.

Commercial facilities that store **Hazardous Waste** in quantities larger than the amounts listed in [Appendix H](#) should register as **Hazardous Waste Management Facilities**. A table of large quantities that require registration is included as [Appendix H](#).

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#).

¹³ *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021), SOR/2021-25

¹⁴ *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021), SOR/2021-25



8.4 Requirements of the Shipping Company

Whether a product is **Dangerous Goods** or **Hazardous Waste** or not, each shipping company will have requirements that need to be met for handling each piece of cargo.

These will include requirements for containment, labelling and packaging.

Specific companies should be contacted for their requirements before arranging shipping.

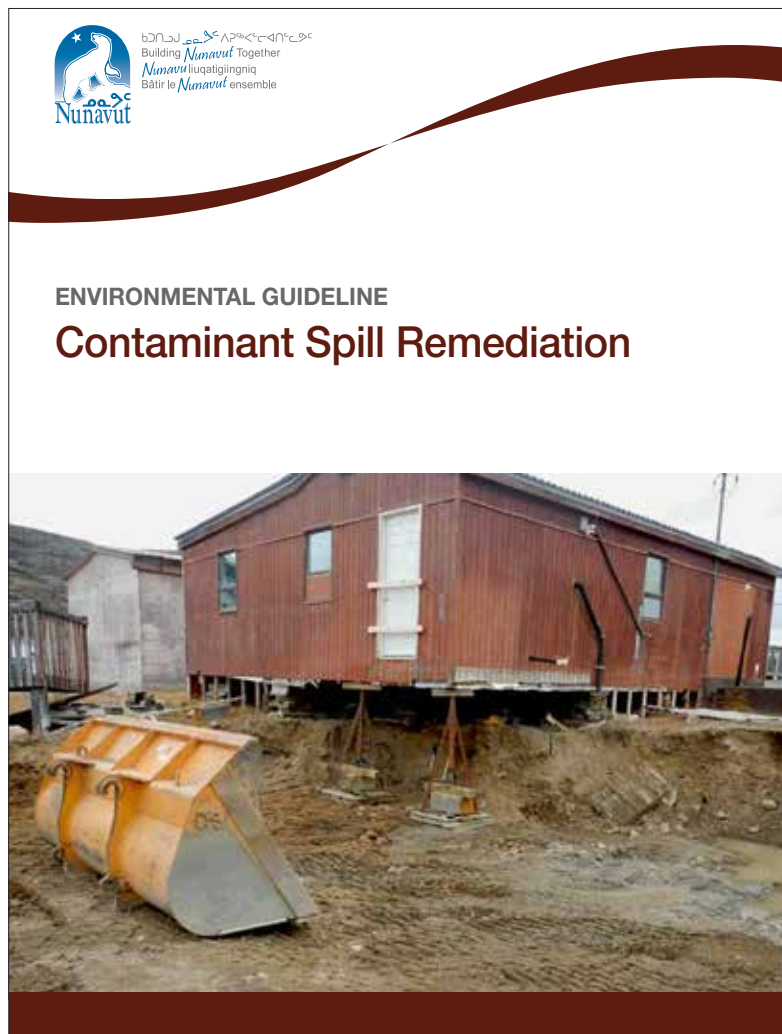


9 Spill Response and Clean-up

Spills of **Special Wastes** must be cleaned up quickly and properly in accordance with the *EPA*. Specific safety measures should be followed as outlined in the following Waste Specific Guidance sections.

For information about spill **Remediation**, refer to the Environmental Guideline for *Contaminant Spill Remediation* also from the ENV. Spills of **Special Wastes**, such as gasoline, can present a fire or explosion hazard.

Safety Data Sheets (SDS) should be consulted before handling hazardous materials.



10 Waste Fuels and Oil

10.1 What Are the Risks?



Some fuels, such as gasoline, can create a fire or explosion hazard, especially if they evaporate into a confined space.



Many chemicals within fuels and oils are toxic and harmful to the health of humans, animals, and plants.



Some fuels can travel great distances easily through the ground, water, and air.



Many fuels, especially oils, can last a long time in the environment.

Fuels and oils are **Contaminants** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.



10.2 Protection Measures



This is a brief overview of safety measures that should be taken when handling waste fuels and oils.

Adequate **Personal Protective Equipment (PPE)** should always be worn when handling **Special Waste**.

SDS should be consulted for **PPE** requirements.



Safe handling:

No smoking in the area. Area should be well ventilated. Avoid sparks by grounding the container and equipment to prevent discharge of static electricity. Avoid contact with skin, eyes, and clothing. Repeated exposure can have long term health effects.



Important

Gasoline (and associated products like Jet-B) evaporate easily, and the mixture of evaporated gasoline and air can explode. These products are very dangerous.



Personal Protective Equipment (PPE):

Protective gloves, eye protection, and face protection should be worn. If operating in a confined space, a respirator is required. Refer to the **SDS** for specific **PPE** requirements.



Separation:

It is important to keep different types of wastes separate.

If you have a facility that accepts waste, be sure that people dropping off waste are supervised to ensure that wastes are not mixed.

Every location where wastes are generated or dropped-off should have clearly marked drums or totes with funnels so that wastes can be poured in without leaks.

Waste Oil



Waste Fuel



Waste Glycol



Oily Water





Important

Water that has been in contact with fuel or oil is now contaminated and must not be dumped into the drain or environment. It can be filtered with special equipment or shipped south as **Oily Water**.



Waste oil should be drained from oil filters.

This is done by puncturing the casing and letting it drain for 24 hours.

Waste oil should be drained from oil filters.

This is done by puncturing the casing and letting it drain for 24 hours.

In many cases, wastes such as fuels and oils are mixed with water or **Glycol**. It is usually a good idea to separate wastes before shipping to reduce disposal costs.

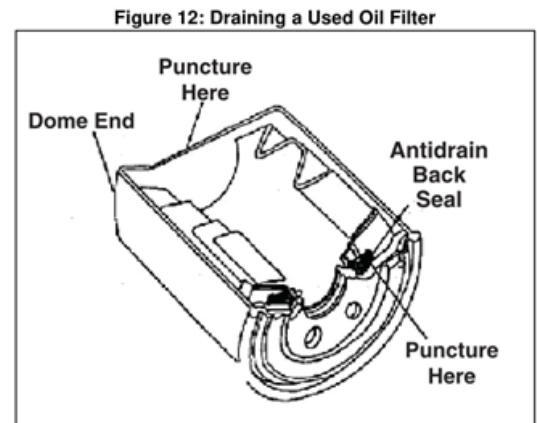


Image Source: USEPA, Used Oil and Hazardous Waste Management for Auto and Aircraft Repair Shops in Alaska, January 2013.

Here are a few tips for separating mixed wastes:

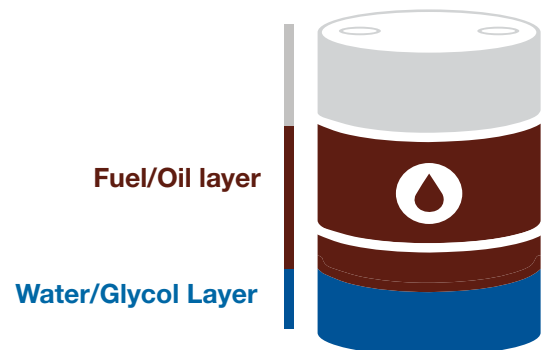
Testing Drums:

Wastes will naturally separate into a Fuel/Oil layer and a Water/Glycol layer.

You can get an idea of what is inside a drum by using a clear rigid plastic tube (sometimes called a drum thief).

The tube is inserted into the drum and the top end sealed with a thumb. When pulled out the tube will show the layers present inside the drum.

If the bottom layer is green, it is **Glycol**.



Pumping:

A pump can then be used to remove as much of the fuel/oil layer as possible. This is done by putting the pump intake above where the tube showed the water layer ended. Fuel can be pumped out using a small electric pump or a manual pump.

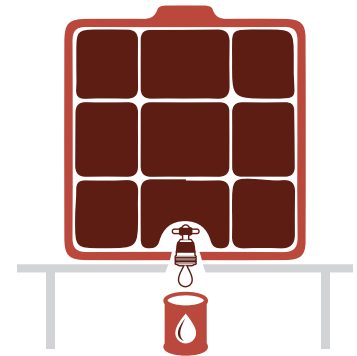
The drum will now have a water layer with some remaining fuel and oil. This can be separated more with the **Tote Method** below or shipped as **Oily Water**.

Tote Method:

A transparent tote can be used to separate fuel/oil from water. Mixtures of fuel/oil and water can be poured in to make the layers visible.

If the tote is high enough, a drum can be placed underneath, and the water layer drained from the bottom.

This water layer can be shipped as **Oily Water**.



Important

When transferring waste products, a spill berm should be used.

There are many products available for purchase online.



10.3 Containment

Waste fuel and oil must be properly contained at all times. Containment can be **Primary Containment** or **Secondary Containment**.

Primary Containment:

Fuels and oil must be stored in containers made for the purpose.

This usually means steel drums, plastic drums, or totes.



STEEL OR PLASTIC DRUM



PLASTIC TOTE

Containers must be:



Sealed at all times to prevent spills and water getting inside.



Not leaking or damaged.



Placed in an area where they are safe from being knocked over by equipment or vehicles.



Placed in an area far from sensitive areas like streams and lakes.



Stored in a way that makes inspection for leaks possible.

It is a good idea to contain products with an **Aim to Ship**. This means containing products in containers that meet requirements for shipping. Product-specific requirements should be verified with the shipper. Generally, fuels that are **Dangerous Goods** must be contained according to the *TDG Regulations*.

The *TDG Regulations* state the following:

- Class 3 Flammable Liquids must be shipped in UN Standardized small means of containment that meet the TP14850 standard.
- For steel drums, they cannot be reused unless reconditioned in a registered facility.¹⁵

Useful Tip



Some shippers have **Equivalency Certificates** that allow them to ship Waste Fuels that are **Dangerous Goods** in reused drums that have not been reconditioned. Shippers should be contacted for more information.

The image shows a sample 'Equivalency Certificate' issued by the competent authority of Canada. It includes fields for Certificate No. (03 12008 (Rev. 1)), Certificate Type (4), Certificate Holder (Sanson Services Environmental Inc.), Mode of Transport (Road, Rail, Marine), Effective Date (December 17, 2019), and Expiry Date (January 31, 2025). The form also contains a LEGEND and NOTES section.

¹⁵ Transportation of Dangerous Goods Regulations, SOR 2001-286, Section 5.12

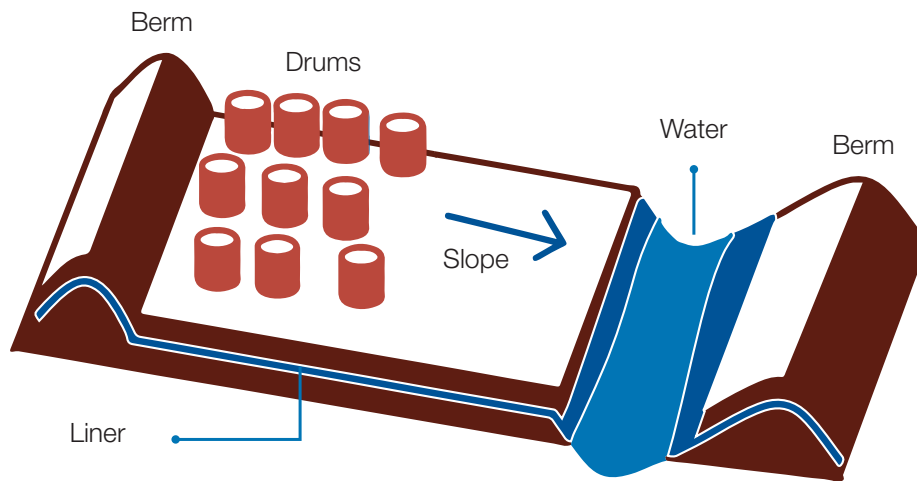
Secondary Containment:

It is a good practice to place large quantities of waste fuel and oil in **Secondary Containment** when possible.

This usually means a lined, bermed area.

The area should be constructed in a way that water will drain to a low point where it can be pumped out for treatment or disposal.

Drums left in a pool of water will rust and leak, or will not be able to be transported.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.

10.4 Burning Waste Oil And Fuel

Waste oil furnaces are a good way to save money and recycle wastes.

Waste fuel should only be burned using boilers or furnaces that have been certified and approved for that purpose by the Canadian Standards Association (CSA), Underwriters Laboratories of Canada (ULC) or another certified testing agency acceptable to the Nunavut Fire Marshal's office. In all cases, combustion gases must be vented directly to the outside air. Appliances that are not certified or installed in accordance with manufacturers' specifications may represent significant environmental, fire and personal health and safety risks.





Important

Waste oil furnaces can produce harmful smoke and should not be installed in residential areas.



Waste oil can contain metals and other chemicals that may be harmful when the oil is burned.

Maximum Levels of Impurities in Waste Oil and Waste Fuel Feedstock:¹⁶

Burning waste oil and fuel may trigger legislation outside of ENV's jurisdiction. Anyone operating such a furnace must ensure to comply with all applicable legislation.

Maximum Concentration (Parts Per Million)		
Chemical	Waste Oil	Waste Fuel
Cadmium	2	2
Chromium	10	10
Lead	100	100
Total Organic Halogens (as chlorine)	1000	1500
Polychlorinated Biphenyls (PCBs)	2	2
Ash Content		0.6% by weight

¹⁶ Used Oil and Waste Fuel Management Regulations, NWT Reg 064-2003, Schedule A

10.5 Transportation



Waste fuel and oil being shipped south for disposal needs to be contained, packaged, and labelled according to all applicable regulations and the requirements of the shipping company.

It is the responsibility of the shipper to determine if each product is **Dangerous Goods**, subject to the *Transportation of Dangerous Goods (TDG) Regulations* (2001) and **Hazardous Waste**, subject to the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021).

Transportation of Dangerous Goods



For wastes that qualify as **Dangerous Goods**, here are some classifications:

Shipping Name	Classification	Product Identification Number	Packing Group
WASTE Diesel Fuel; Fuel Oil; Gas Oil; or Heating Oil Light	3	UN1202	III
WASTE Gasoline; Motor Spirit; or Petrol	3	UN1203	II
WASTE Kerosene	3	UN1223	II
WASTE Petroleum Distillates N.O.S.; or Petroleum Products N.O.S.	3	UN1268	I, II or III

Drums packaged together may need to be labelled as **Overpack** (see [Section 8.2.6](#) for more information).

Hazardous Waste Manifesting



Hazardous Wastes need to be accompanied by a **Movement Document/Manifest** when in transportation (see [Appendix F](#)).

See [Section 8.3](#) for more information on transporting **Hazardous Wastes**.

Anyone storing more than 4000 L (or 20 drums) of waste oil and fuel should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#).



11.1 What Is It?

Asbestos is a naturally-occurring mineral that forms long fibres.

Asbestos has been used by people for centuries because it is highly resistant to heat and wear. Due to these useful traits, **Asbestos** was mixed into many different products on a large scale from the early 1900s up until the 1980s. We now know that **Asbestos** can be very harmful if inhaled, causing or exacerbating respiratory issues, including cancer.

The ENV defines **Asbestos Waste** as any waste containing asbestos in a **Concentration** of greater than 1% by weight.

Asbestos Waste is a **Contaminant** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.



Here is a list of some common products that may contain **Asbestos**:



Plaster



Cement Pipes



Spackling Compounds



Chalkboards



Ductwork



Boiler Insulation



Fireproofing Materials



Heating and Electrical Ducts



Vinyl Sheet Flooring



Joint Compounds



Roofing Shingles



Ceiling Tiles



Wallboard



Vinyl Floor Tile



Electrical Wiring Insulation



Blown-in Insulation



Cement Siding



Pipe Insulation



Important

The only way to know for sure if a product contains **Asbestos** is to contact the manufacturer or have the product tested by sending a sample to a laboratory.



11.2 What Are the Risks?



When products containing **Asbestos** are touched or moved, they can release **Asbestos** fibres and dust into the air.



When people breathe in **Asbestos** fibres and dust, it can damage lung tissue and cause scars to form, which makes breathing difficult (Asbestosis). It can also cause cancer (Mesothelioma).



When there is a lot of **Asbestos** in the air and people breathe it in for a long time, the risk of health issues is greater.

There are many factors that determine how dangerous a given **Asbestos Waste** can be.

One of the most important is **Friability**, which means how easily the material can be crumbled, which can lead to dust containing Asbestos fibres in the air.

Asbestos Waste can be separated into two categories: **Friable Asbestos Waste**, which can be crumbled by hand, and **Non-Friable Asbestos Waste**, which cannot be crumbled by hand.¹⁷



Important

Because of these risks, the handling and removal of **Asbestos** should only be undertaken by trained and qualified persons.



The *Asbestos Safety Regulations* (1992) under the *Safety Act* (1988) establishes responsibilities for employers, workers, suppliers and contractors. Additionally, WSCC has very specific guidance on how **Asbestos** must be handled in the workplace. The *Asbestos Abatement Code of Practice* can be found on the WSCC website at www.wsccl.nt.ca.

11.3 Protection Measures



This is a brief overview of safety measures that should be taken when transporting **Asbestos**.

Trained professionals must be consulted to give advice on identifying the type of **Asbestos Waste**, and the steps required to properly remove, contain, transport, and otherwise handle **Asbestos Waste**. The ENV strongly recommends that **Asbestos** removal and disposal should be left to professionals.



Anyone in an area where **Asbestos Waste** is being handled should wear protective respiratory equipment, protective clothing, and eye protection. Ensure respirators are fitted with the correct type of **Filter Cartridge** that can stop **Asbestos**.



All **Asbestos Waste** and debris should be placed in clearly labelled, sealed and airtight containers.

¹⁷ Workers' Safety and Compensation Commission (WSCC) (2018), p. 10

11.4 Containment



- Wet **Asbestos Waste** should be stored in airtight, non-leaking plastic or steel drums.
- Dry **Asbestos Waste** should be double bagged in **6 mil** plastic bags. If waste products are sharp and may puncture bags, they should be packed within drums.
- Containers should be tightly sealed when not in use to prevent release of **Asbestos** fibres.
- Each container must be clearly labelled “ASBESTOS,” “Carcinogenic,” and “Do not inhale dust.”
- Containers should be wiped down so as not to have **Asbestos** on the outside.
- If **Asbestos Waste** is being stored in an institutional, commercial, or industrial location, or if the **Asbestos** is being transported, the containers must also be labelled in accordance with the Workplace Hazardous Materials Information System (WHMIS).
- Place all labelled containers in a secure and clearly marked area.
- Containers should be protected from the weather and physical damage.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.

Anyone storing more than 500 kg of **Asbestos Waste** should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented as part of [Appendix D](#).

11.5 Transportation



Asbestos Waste should never be transported in bulk, but within sealed storage containers as described in the previous section.

A compaction-type waste haulage vehicle must never be used to transport **Asbestos Waste**.

Transportation of Dangerous Goods

Properly packaged **Asbestos Waste** is not considered **Dangerous Goods**. See Special Provision Number 139 of the *Transportation of Dangerous Goods Regulations* (2001) for more information.



11.6 Disposal

Asbestos Waste may be disposed of at a municipal landfill site in Nunavut provided that authorization and approval have first been obtained from the local municipal government. Some municipalities may have by-laws that outlaw the disposal of **Asbestos** in the municipal landfill.

Upon arrival at the landfill site, the **Asbestos Waste** should immediately be buried and covered with at least 30 centimetres (one foot) of soil to ensure further direct contact with people and heavy equipment is avoided.

Care should be taken to ensure the **Asbestos** containers (e.g., plastics bags or drums) are not broken or ruptured while being covered.

Any **Asbestos Waste** that is within punctured, broken, or leaking containers must be repackaged in drums or two **6 mil** plastic bags prior to its disposal.

Where local disposal of **Asbestos Waste** is not available, it must be transported south for disposal.

12 Waste Paint



12.1 What Is It?

The two main types of paint are water-based (latex or acrylic) and oil-based. Water-based paint can be washed off with water and does not smell strongly. Oil-based paint has to be cleaned with a **Solvent** like **Paint-Thinner** (e.g., Varsol). It has a strong smell and is more flammable.

Both water-based paints and oil-based paints can be **Aerosol Paints**. **Aerosol Paints** come in a can with compressed gas (also known as spray paint).

The guidance in this section also applies to varnishes, wood finishing oils, etc.

Solvents used to clean oil-based paints should be managed according to guidance provided in [Section 17](#).

Waste paint is a **Contaminant** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.

12.2 What Are the Risks?



This is a brief overview of safety measures that should be taken when handling waste paint. This is only a starting point and the appropriate **Safety Data Sheets (SDS)** should be consulted for more details.



Oil-based paint is flammable, so there should be no smoking around waste paint.



Many paint products pose risks to human health. Occupational exposure to paints can increase the risk of some cancers.



All paints can cause harm to the natural environment, especially if they end up in a waterway.



Paint spills can be a hazard to workers and the environment.

12.3 Protection Measures

Proper **PPE**, like gloves and eye protection, should be worn when handling waste paint.

Because the risks presented by paints vary, **SDS** should be consulted.



12.4 Containment

Because waste paint must be shipped south for disposal, containment should be organized with an **Aim to Ship**.

Waste paint should be left in its original container. If a container is leaking or cannot be sealed, the paint should be carefully transferred to a bucket with a proper lid. This bucket can then be placed and sealed in a drum. Different types of paint should never be mixed.

Paint cans can be collected in bulk and stored in containers that can be sealed to prevent leaks.



Important

Different types of paint should be stored separately. Reading the label can tell you if the paint is oil-based or water-based.

Water-based Paint: Will say “Water-Based” or “Latex” or “Acrylic”

Oil-based Paint: Will say “Oil Paint” or “Alkyd Paint”

Aerosol Paint: Will be in a small can with a spray nozzle.



12.4.1 Container Type

If containers are going to be left outdoors, they must be solid enough to hold up to weather. Containment options include:



**STEEL OR
PLASTIC DRUM**



TUBSKID

If containers are going to be stored and shipped in a seacan, they can be packaged in soft material like cardboard.

Large cardboard boxes can be stapled to a skid. A large garbage bag can then be placed inside to catch any leaked product. A lined cardboard box is acceptable for storing and shipping waste paint only if it is in its own container. Do not pour paint out of a container, such as a can or jug, into the cardboard box.

Before packaging, check with your shipping company to ensure your packaging type meets their shipping requirements for the materials you are shipping.



BOX IN A SEACAN

12.4.2 Labelling



It is important to label the contents of each container with the type of paint, and “aerosol” if it contains spray paint. This will help in the case of spills and will be important when it comes time to ship the products.



12.5 Transportation



Waste paint must be sent south for disposal and recycling.

Waste paint being shipped needs to be contained, packaged, and labelled according to all applicable regulations and the requirements of the shipping company.

It is the responsibility of the shipper to determine if each product is **Hazardous Waste**, subject to the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021); **Dangerous Goods**, subject to the *Transportation of Dangerous Goods (TDG) Regulations* (2001); or both.

To find out if a specific paint is **Dangerous Goods**, the **SDS** for that product must be checked.

Some shippers may choose to simply label all containers of waste paint as **Dangerous Goods**.

Drums, tubskids or seacans containing cans of waste paint that are **Dangerous Goods** must be labelled as **Overpack**. See [Section 8.2.6](#) for more information.





Hazardous Waste Manifesting

Hazardous Wastes in transportation must be accompanied by a **Movement Document/Manifest**, which can be obtained from the ENV (see [Appendix F](#)).

See [Section 8.3](#) for more information on transporting **Hazardous Wastes**.

Anyone storing more than 500 L of waste paint should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#).

13 Waste Lead Paint



Lead paint can be found on old buildings



Lead paint was often used on industrial structures like tank farms

13.1 What Is It?

Lead is a naturally occurring metal. In the past, lead was added to paint to increase drying speed, durability, and to resist moisture that causes corrosion.

Regulations now prevent most of the manufacturing and use of lead paint in Canada, but it can still be found on structures painted before this ban. These commonly include metal bridges, water tanks, and oil storage tanks.

This Guideline addresses the management of dried paint containing lead.

The likelihood of houses and other buildings containing lead paint depends on when they were built. There is a high likelihood that buildings constructed before 1960 contain lead paint. If the building was constructed after 1980, it is unlikely that lead paint was used on interior walls, but there may be lead in paint used on the outside. Buildings constructed after 1992 likely do not contain lead paint, as all consumer paints produced in Canada by that time were lead-free.

Paint with significant lead content is still used to paint industrial buildings, traffic signs, and some metal structures.

The amount of lead varies between different types of paint. If paint contains a **Concentration** of lead above the levels in this Guideline, it can be harmful to health and is considered a **Special Waste**.

It is the responsibility of the waste owner to determine what measures have to be taken to safely dispose of their lead-containing products. **Laboratory Testing** is necessary to determine the presence of lead in paint.



Lead is a soft metal



Important

How to sample dried paint:

A sample of the waste must be taken to send to the laboratory for analysis.

This sample must be representative of the waste containing the paint.

This means that if paint will be removed from a surface, paint chips must be sampled and tested.

If the surface itself will be removed and disposed of, a Core Sample can be taken, which includes the layers of paint and a section of the painted surface.¹⁸



A drill can be used to take a core sample for lead testing.

Lead is a **Contaminant** under the *EPA*, giving the ENV authority to prevent discharges into the environment and set criteria for what lead-containing products are classified as Special Waste.

There are two ways to analyze dry paint samples to see if they present a risk to the environment: the **TCLP** test and **Total Concentration**.

TCLP

The **TCLP** test (Toxicity Characteristic Leaching Procedure) was developed by the United States Environmental Protection Agency (US EPA) and is meant to simulate conditions in a landfill. It tests how much lead will come out of the waste and enter water over time.

Paint having a leachate value for lead of 5.0 milligrams per liter (mg/L) or more is a **Special Waste**.¹⁹

¹⁸ U.S. Environmental Protection Agency (US EPA) (2016)

¹⁹ Title 40 - Protection of Environment, Chapter I, Subchapter I - SOLID WASTES, Part 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE, Subpart C - Characteristics of Hazardous Waste, Section 261.24 - Toxicity characteristic.

Total Concentration

If a waste owner has many types of waste that need to be sampled, it may be less expensive to test for **Total Concentration**. This is also called “Total Constituent Analysis.”

If the **Total Concentration** of lead in the sample is below 100 parts per million (ppm), the sample cannot give a result above 5 mg/L in the **TCLP** test.²⁰ This means it is not **Special Waste**.

Any waste samples that show results above 100 ppm in **Total Concentration** must be considered **Special Waste** unless a **TCLP** test confirms leachate lead content is less than 5 mg/L.

13.2 What Are the Risks?

Lead is a particularly dangerous and **Toxic** metal. It can enter water through runoff of lead-contaminated soils and from sewage and industrial waste streams.

Exposure to high amounts of lead may lead to negative health effects like anemia or kidney damage, and in the worst case, can result in death.

Exposure to low amounts of lead over a long period of time can cause damage to the brain and nervous system. Unborn fetuses, infants, and young children are especially sensitive to even low levels of lead, and exposure can lead to issues like learning disabilities.



Lead can enter the body by eating in lead-contaminated areas or inhaling lead dust and smoke.

Lead is also dangerous for wildlife, and can cause negative health effects similar to those experienced by humans.

13.3 Protection Measures

Depending on the work being performed on or around waste lead paint, different protection measures are required.

The owner of the waste must ensure that lead paint does not contaminate soil or water and that community members and workers are protected.

The specific measures that will need to be taken depend on the project itself and the methods used to remove the lead waste.

If lead paint is being removed from a surface, the containment system must comply with the *Steel Structures Painting Council Guide 6(95): Guide for Containing Debris Generated during Paint Removal Operations*. A copy of the Guide can be obtained through the Council’s web site at www.sspc.org/standards.

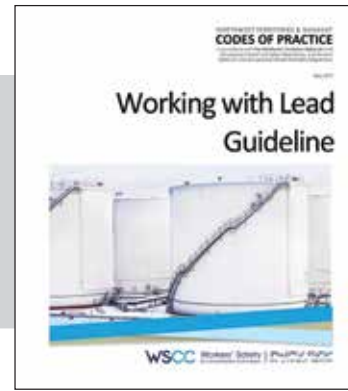
Workers must wear **Respiratory Protection**. More information can be found in the *WSCC Working with Lead Guideline*.

²⁰ “Rule of 20,” US EPA



Useful Tip

The WSCC *Working with Lead Guideline* outlines the responsibilities of workers and employers related to waste lead paint. It can be found at wsc.nt.ca.



13.4 Containment

If lead paint is being removed from a surface, it must be contained during the removal process.

Several removal methods exist, both wet and dry. The selected method must prevent lead contamination from entering the environment through dust in the air or in discharge water. All methods involve setting up containment around the work area. The removal and containment of lead paint debris is complex and hazardous and should only be undertaken by trained and qualified persons. The WSCC, Nunavut Chief Medical Officer of Health, and the Regional Environmental Health Officer must also be consulted during the planning phase of the removal project to ensure all necessary worker and public health and safety measures are in place. [Appendix I](#) presents a summary of several methods commonly used for lead paint removal.²¹

Lead is a **Contaminant** under the *EPA* and any spills into the environment are prohibited.



Important

The removal and containment of lead paint and lead paint debris should only be undertaken by trained and qualified people.



Steel or Plastic Drums



Tubskid



Poly Bin



Poly Bin

²¹ ASTM International (2019)



13.4.1 Labelling

It is important to label the contents of each container with the type of waste. This will help in the case of spills and will be important when it comes time to ship the products.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.

13.5 Transportation



Waste lead paint must be shipped south for disposal.

Waste lead paint may meet the criteria to be classified as a **Dangerous Good**. Refer to the *TDG Regulations Part 2* for more information.

Shippers should contact their shipping company to make sure that the packaging of wastes meets their requirements.



Hazardous Waste Manifesting

Hazardous Wastes in transportation must be accompanied by a **Movement Document/Manifest**, which can be obtained from the ENV (see [Appendix F](#)).

See [Section 8.3](#) for more information on transporting **Hazardous Wastes**.

Anyone storing more than 500 kg of waste lead paint should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#).

14 Waste Batteries



14.1 What Is It?

There are two main types of batteries, **Dry Cell Batteries** (these contain a paste **Electrolyte**) and **Wet Cell Batteries** (these contain a liquid **Electrolyte**).



Note

Electrolyte is the substance that allows electricity to move through the battery.

Type of batteries	Sub-type	Where are they found?
Dry cell	Alkaline Batteries (Contain potassium hydroxide)	Small household batteries (e.g., AA, AAA, 9V)
	Nickel batteries (often rechargeable)	Electronics
	Lithium-Ion Batteries	Tools, etc.
Wet cell	Lead-acid Batteries	ATV and car batteries



Important

















Lithium-Ion Batteries are more common because they can hold more energy than other kinds of batteries.

They have special considerations because they contain flammable **Electrolytes**. If damaged or charged incorrectly they can catch fire or explode.

Lithium-Ion Batteries are found in most rechargeable electronics like laptops and cell phones, as well as power tools and electric vehicles.



Examples of common electronic devices containing lithium cells or batteries

Video Cameras	Walkie Talkies (2-way radio)	GPS Devices	Radio controlled toys
			
Cameras	Scanners	Cellular Phones	MP3 players
			
Bluetooth Headsets	Smartphones/mobiles	Laptop Computers	Shavers
			
Power Drills	Tablets	Portable DVD Players	Measuring Equipment
			

Examples of different small battery types:



The chemicals inside batteries are **Contaminants** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.

14.2 What Are the Risks?



Corrosive substances can injure, burn, and destroy exposed skin and contaminate water and soil.²²

Some **Toxic** chemicals found in batteries include heavy metals, such as lead, cadmium, and nickel. If these metals are released into the environment, they can accumulate in people and animals and cause a variety of health problems, including damage to the kidneys, lungs, and reproductive organs. It is important that batteries are handled and disposed of properly so that these chemicals don't leak out of batteries into the environment.

Every battery has two terminals, or electrical connection points: a positive terminal (marked with a "+" sign) and a negative terminal (marked with a "-" sign). If a piece of metal or other conductive material is in contact with both terminals, and there is charge left in the battery, a **Short Circuit** can occur; electricity can pass through the material and cause a fire.



14.3 Protection Measures

Battery Acids are composed of **Electrolytes**, such as potassium hydroxide and sulphuric acid. **Lead-acid Batteries** (e.g., car batteries) contain sulphuric acid. This is a dangerous chemical that causes burns to the skin and eyes. If handling leaking **Lead-acid Batteries**, workers should wear face shields. The **SDS** for sulphuric acid should be consulted for more information.



Useful Tip

Spills of sulphuric acid can be neutralized with baking soda and rinsed with water.



To prevent **Short Circuits**, batteries should be stored in a way that terminals cannot make contact with metal or other conductive material. For small batteries, tape can be placed around the positive terminal.

²² Concordia University (2016)

14.4 Containment

Because waste batteries need to be shipped south for disposal, containment should be organized with an **Aim to Ship**.

Thought should be given to eventual shipping in the following ways:

14.4.1 Separation

Different types of batteries should be stored separately.

Reading the battery label can tell you if it is an **Alkaline Battery**, **Lithium-Ion Battery**, or **Wet Cell Battery**.

Batteries should be removed from electronics or tools and packaged separately.

Batteries should be pulled out of electronics, tools, old cars, ATVs, and snowmobiles.

Small electronics containing built-in **Lithium-Ion Batteries** can be placed in containers and shipped as-is. These containers can be labelled as: LITHIUM-ION BATTERIES CONTAINED IN EQUIPMENT.



14.4.2 Container Type

If containers are going to be left outdoors, they must be solid enough to hold up to weather. Containment options include:



Steel or Plastic Drums



Tubskid



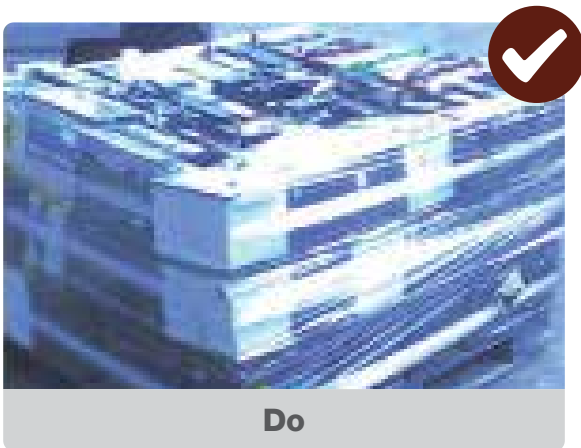
Poly Bin



Poly Bin

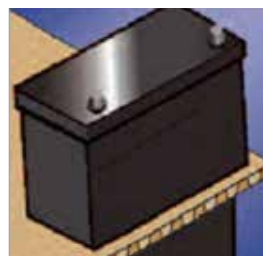


If protected from weather in a seacan or with heavy duty tarps, **Lead-acid Batteries** can also be placed directly on a wooden pallet and shrink wrapped.



Lead-acid Batteries need to be stacked with cardboard between them (see image below).

The *TDG Regulations* require batteries to be packaged according to Packing Instruction 801. These instructions are included as [Appendix G](#).



14.4.3 Labelling

TDG Regulations do not require that **Safety Marks** be placed on batteries themselves because they are **Dangerous Goods** and not means of containment.²³



If containing **Lead-acid Batteries** on a pallet, the pallet is considered to be the means of containment.

The **Safety Marks** must be displayed on the shrink wrap.

Anyone storing more than 500 kg of waste batteries should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#).

²³ Transport Canada (2018a), p.9



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.



Useful Tip

The Canadian Battery Association can be contacted for information regarding recycling **Lead-acid Batteries**.
See: canadianbatteryassociation.ca.



14.5 Transportation



Waste batteries must be sent south for disposal and recycling.

Waste batteries being shipped need to be contained, packaged, and labelled according to all applicable regulations and the requirements of the shipping company.

Waste batteries have value, so some of the shipping costs can be offset through battery return or recycling programs. Contact the Canadian Battery Association (see tip on the following page) for more information.

14.6 Transportation of Dangerous Goods

Most batteries are classified as **Dangerous Goods**.

Below are several potential **Dangerous Goods** transportation labels for shipping waste batteries:

Shipping Name	Classification	Product Identification Number
BATTERIES, WET, FILLED WITH ACID	8	UN2794
BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE SOLID	8	UN3028
LITHIUM ION BATTERIES (including lithium ion polymer batteries)	9	UN3480
LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	9	UN3481



Lead-acid Batteries on a pallet do not need to be labelled as **Overpack**.²⁴

Palletized drums containing batteries must be labelled as **Overpack**. See [Section 8.2.6](#) for more information.

Hazardous Waste Manifesting

Hazardous Wastes in transportation must be accompanied by a **Movement Document/Manifest**, which can be obtained from the ENV (see [Appendix F](#)).

See [Section 8.3](#) for more information on transporting **Hazardous Wastes**.



²⁴ Transport Canada (2018a), p.9



15.1 What Is It?

Most anti-freeze relies on a chemical called **Glycol**, which lowers the freezing temperature of water. **Glycol** is also used to raise the boiling point of water in heat-transfer systems like radiators.

There are two types of **Glycol**:

Both types of **Glycol** are **Contaminants** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.



Ethylene Glycol

- **Toxic** to people and animals
- Better than **Propylene Glycol** at transferring heat.



Propylene Glycol

- Non-toxic

15.2 What Are the Risks?

Ethylene glycol is highly toxic to people, domestic animals, and wildlife, even in small amounts. **Ethylene glycol** has a sweet taste, sometimes leading to poisoning in children and dogs, and attracting wildlife. In people, **Ethylene Glycol** toxicity usually results from drinking it. Negative health effects appear in three stages occurring within the first 12 hours, then within 24 hours, and the last within 72 hours of ingestion. **Ethylene Glycol** first harms the nervous system, then the heart and lungs, and lastly, the kidneys. Immediate medical treatment is necessary to prevent organ damage and death.²⁵



²⁵ Agency for Toxic Substances and Disease Registry (ATSDR) (2020).

15.3 Protection Measures:

Because **Ethylene Glycol** is **Toxic**, it must be properly contained at all times.



**STEEL OR
PLASTIC DRUM**



TUBSKID

Workers should wear proper **PPE**, such as eye and face protection, when handling **Glycol**. **Glycol** should always be handled in well-ventilated areas.

15.4 Containment

Glycol must be stored in suitable containers. Containment options include steel drums, plastic drums, or totes.



Containers must be:



Sealed at all times to prevent spills and water getting inside.



Not leaking or damaged.



Placed in an area where they are safe from being knocked over by equipment or vehicles.



Placed in an area far from sensitive areas like streams and lakes.



Stored in a way that makes inspection for leaks possible.

Labelling



It is important to label the contents of each container with the type of antifreeze. This will help in the case of spills and will be important when it comes time to dispose of the products.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.

15.5 Transportation



Waste **Glycol** is not classified as **Dangerous Goods** or **Hazardous Waste** and therefore is not subject to the *Transportation of Dangerous Good Regulations (2001)* or the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (2021)*.

15.6 Disposal



Most southern jurisdictions allow **Glycol** to be disposed of with municipal sewage.

Nunavut's Municipal **Water Licenses** do not currently allow the disposal of **Glycol** into sewage lagoons.

Glycol should therefore be packaged and shipped to southern Canada for disposal.



16.1 What Is It?

Mercury is a naturally occurring element. When it is pure, it is a shiny, silver-coloured metal that is liquid at room temperature. It can also exist as a gas in the air.

Because it is an element, it cannot break down into other substances. However, when elemental **Mercury** is released into the environment, it gets absorbed by bacteria, which then release it as a compound called methylmercury, a highly **Toxic** substance for people and animals.

Here are the main types of products containing **Mercury** in Nunavut:

Fluorescent light bulbs and other lights



Linear **Fluorescent**
Bulb



Compact
Fluorescent Bulb



High Pressure Sodium
Vapour Discharge Bulb



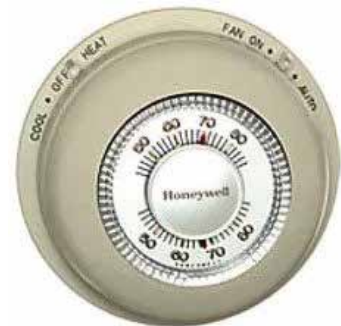
Neon Light

Thermometers



Thermostats

Older thermostats may have a bulb (ampoule) containing **Mercury** inside.



Button-cell Batteries

These are used in hearing aids, watches, toys, calculators, etc.



Switches and Relays

Electronic devices may contain **Mercury** in things like float switches (e.g., bilge pump) temperature switches (e.g., hot water boiler) and pressure switches (e.g., heating, ventilation, and air conditioning (HVAC)).



Mercury is a **Contaminant** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.

16.2 What Are the Risks?

Mercury is **Toxic**, even in very small amounts. Once elemental **Mercury** is converted to methylmercury, it is absorbed into the body more easily. This is dangerous as methylmercury is a potent neurotoxin that can damage the brain.



Mercury can last a long time in the environment, and can build up in animals in two ways. As animals grow and age, mercury is picked up from the environment over time; this is called **Bioaccumulation**. As larger animals eat smaller animals, mercury moves up the food chain and becomes more concentrated, especially in top predators (e.g., seals, bears) and in people; this is called **Biomagnification**.

16.3 Protection Measures

Reduce

The best way to avoid the potential harm caused by **Mercury** is to avoid products containing **Mercury** in the first place.

When buying products to ship to Nunavut, the buyer should find out if they contain **Mercury**. This information can be obtained from the manufacturer, or will be visible on the product description or label.

Here are some examples of alternative products without **Mercury**:

- **Fluorescent** and other lights: LEDs are now the best option for almost all lighting applications. They are less expensive to operate and are not harmful to the environment.
- Thermometers: Digital thermometers are now the best option.
- Switches and Relays: Products are now available for almost every application that do not require **Mercury**.



16.3.1 Separation

Products containing **Mercury** must be separated from other waste. Landfill managers should inform their communities that **Fluorescent** bulbs and other **Mercury**-containing items need to be disposed of separately.



16.3.2 Prevent Release

In commercial products, **Mercury** is most often contained in a bulb. For example, it is contained in a small bulb in thermometers and switches, and inside of **Fluorescent** light bulbs and tubes. It is important to keep these bulbs intact so that the **Mercury** is not released.



Important

Bulbs containing **Mercury** must not be broken!

Doing so will release the **Mercury**, which then has potential to harm those in the area and possibly enter the environment.

16.3.3 Personal Protective Equipment

Mercury can cause harm if inhaled. It is also an irritant to the skin and eyes.

Workers handling **Mercury**-containing products should wear appropriate **PPE** including eye/face protection, skin and body protection, and respiratory protection, such as a respirator with an appropriate **Filter Cartridge** that will catch **Mercury** in the air.



16.3.4 In Case of a Spill

It can be very dangerous to touch liquid **Mercury** directly or breathe **Mercury** vapour.



Immediately isolate the spill area by keeping people and animals away, closing all interior doors that lead to other rooms in the building and turning off heaters and HVAC systems.



Ventilate the area by turning on fans that vent directly to the outdoors and opening windows and exterior doors.



Protect yourself by changing into old clothing and shoes that can be thrown away after cleanup.



Remove all jewellery as **Mercury** can adhere to metal.



Put on gloves, preferably made of rubber, nitrile, or latex.



After quickly ventilating the area, leave for at least 30 minutes and then follow the instructions for the type of surface to be cleaned.



On a hard surface (e.g., linoleum, tile, or concrete), push the **Mercury** beads together using razor blades, stiff paper, or cardboard. Pick up the beads using a dustpan or stiff paper, and carefully transfer the **Mercury** into a wide-mouth container or plastic bag. Shine a flashlight at an angle to locate beads of **Mercury**, which will reflect light from the flashlight. Check for **Mercury** in cracks or in hard-to-reach areas where beads may be hidden or trapped. Check a wide area beyond the spill.



Any remaining beads of **Mercury** can be picked up using tape, cotton balls, or a moist paper towel. All debris should be placed inside the container or bag and the lid sealed tightly with tape.



On a soft surface (e.g., carpet, couch, or clothing), it is best to cut out the contaminated materials and place them into a sealable container or plastic bag.



In every case, place the sealed container or plastic bag containing the **Mercury** and contaminated items into another container or bag for additional protection against breakage and leakage.



Wash your hands thoroughly and take a shower immediately after the cleanup.²⁶



Important

Never allow people who are wearing clothing or shoes contaminated with **Mercury** to walk around the building.

Never use a broom or ordinary vacuum cleaner to clean up **Mercury**.

Never pour **Mercury** down a drain and never wash **Mercury** contaminated clothing in a washing machine.

²⁶ National Collaborating Centre for Environmental Health (NCCEH) (2015)

All spills of **Mercury** must be reported immediately to the **NU Spill Report Line** at (867) 920-8130 or spills@gov.nt.ca.

The local nursing station or health authority should also be notified immediately.



Useful Tip

Mercury spill kits are commercially available from safety supply companies to assist in the clean-up of spilled **Mercury**.



16.4 Containment



Products and bulbs containing **Mercury** should be packaged in boxes or drums in a way that they will not break during storage or transportation. Breakage of lamps and thermometers should be minimized to prevent mercury releases. This can be done by ensuring that they are gently placed in the box, or through the installation of flaps.

A variety of boxes designed to hold **Fluorescent** tubes can be ordered online.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.

16.5 Transportation



Mercury-containing products cannot be disposed of in Nunavut; however, many recycling companies in southern Canada accept **Mercury**-containing products.

Transportation of products and bulbs containing **Mercury** is typically not subject to the *TDG Regulations*. However, if the total amount of **Mercury** shipped is greater than 1kg or the products are shipped by aircraft, the *TDG Regulations* do apply.²⁷ Because **Mercury**-containing products have very small amounts of **Mercury**, and shipping usually occurs through sea-lift, most shipments are not likely to be subject to *TDG Regulations*.

The *Code of Practice for the Environmentally Sound Management of End-of-life Lamps Containing Mercury* produced by ECCC should be referenced for more information on disposal.²⁸

Hazardous Waste Manifesting



Hazardous Wastes in transportation must be accompanied by a **Movement Document/Manifest**, which can be obtained from the ENV (see [Appendix F](#)).

See [Section 8.3](#) for more information of transporting **Hazardous Wastes**.

Anyone storing more than 100 kg of **Mercury**-containing waste should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#)

²⁷ Transportation of Dangerous Goods Regulations, SOR 2001-286, Special Provision 127

²⁸ Environment and Climate Change Canada (ECCC) (2017)

17 Waste Solvents



17.1 What Is It?

Solvents are chemicals that dissolve other substances. They have many uses and are commonly employed by both citizens and businesses.

Here are a few common **Solvents** found in Nunavut:

Product	Commercial Name	Uses
Paint Thinner (Mineral Spirits or Turpentine)	Turpentine, Varsol, Methyl Hydrate (Methanol)	Cleaning up oil-based paints, thinning varnish and paint, cleaning
Ammonia	Ammonia All Purpose Cleaner, Windex	Cleaning
Acetone		Degreasing, preparing metal for painting, dissolving glues
Tetrachloroethylene (Perchloroethylene)	PERC, PCE (brake cleaner)	Degreasing, cleaning metal surfaces, auto shops

Solvents are **Contaminants** under the *EPA*, giving the ENV authority to act to prevent discharges into the environment.

17.2 What Are the Risks?

This is a brief overview of safety measures that should be taken when handling waste **Solvents**. This is only a starting point and the appropriate **SDS** should be consulted for more details. Owners of waste are responsible for making sure products are handled safely.



Many **Solvents** are flammable (e.g., paint thinner, acetone), so there should be no smoking around them.



Solvents are **Toxic** chemicals that can cause burns to the eyes, skin, and, if ingested, the throat.



Because they evaporate easily, **Solvents** can be a hazard to people breathing them in.



Solvents can cause harm to the natural environment, especially if they end up in a waterway. Ammonia, for example, is very hazardous to aquatic life.²⁹



Solvent spills can be a hazard to workers and the environment. Do not open containers to look inside.

17.3 Protection Measures

The best way to avoid the risks presented by waste **Solvents** is to avoid their use when possible. This can be done by buying cleaners that do not contain **Solvents** or by making your own simple cleaning solutions.



Waste Solvents should be handled in ventilated areas.



Anyone handling Solvents should wear appropriate PPE: respiratory protection, gloves and eye protection.



For specific products, SDS should be consulted.

²⁹ ThermoFisher Scientific (2021)

17.4 Containment

Because waste **Solvents** must be shipped south for disposal, containment should be organized with an **Aim to Ship**.

Waste **Solvents** should be kept in their original containers if possible. If not, a plastic sealable container like a windshield wiper fluid jug or jerry can will work.

Large quantities can be poured into a drum.

Different types of **Solvents** must never be mixed as this could cause a dangerous chemical reaction.

Small containers of waste **Solvent** can then be combined in containers that can be sealed to prevent leaks.



17.4.1 Separation



Important

Different types of **Solvent** should be stored separately. Reading the label can tell you what it is. If receiving waste, be sure to ask that waste containers be labelled with the type of **Solvent**.



Types to be packaged separately include:



Mineral Spirits
(Varsol)



Turpentine



Methyl Hydrate
(Methanol)



Acetone



Ammonia



Tetrachloroethylene

Container Type

If containers are going to be left outdoors, they must be solid enough to hold up to weather.

Steel or plastic drums or tubskids are good options to contain bottles and jugs of waste solvents. Solvents should not be poured or mixed together in these larger containers, but kept separate.



**STEEL OR
PLASTIC DRUM**



TUBSKID

If containers are going to be stored and shipped in a seacan they can be packaged in soft material like cardboard.

Large cardboard boxes can be stapled to a skid. A large garbage bag can then be placed inside to catch any leaked product. Be sure to keep solvents in their original containers. Cardboard boxes are not meant to contain liquids, and solvents should not be poured into the box or mixed together.

Before packaging, check with your shipping company to ensure that you meet their shipping requirements.



BOX IN A SEACAN

17.5 Labelling

It is important to label the contents of each container with the type of **Solvent**. This will help in the case of spills and will be important when it comes time to ship the products.



Important

On commercial sites, products should also be labelled in accordance with the **Workplace Hazardous Materials Information System (WHMIS)**. See [Section 6.1](#) for more information on **WHMIS** labelling requirements.

17.6 Transportation



Waste **Solvent** must be sent south for disposal and recycling.

Waste **Solvent** being shipped needs to be contained, packaged, and labelled according to all applicable regulations and the requirements of the shipping company.

It is the responsibility of the shipper to determine if each product is **Dangerous Goods**, subject to the *Transportation of Dangerous Goods (TDG) Regulations* (2001), and/or **Hazardous Waste**, subject to the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (2021).

To find out if a **Solvent** is **Dangerous Goods**, consult both the **SDS** for the product and the *TDG Regulations*.

Drums, tubskids or seacans containing containers of waste **Solvent** that is **Dangerous Goods** must be labelled as **Overpack**. See [Section 8.2.6](#) for more information.

Below are some examples of shipping information for **Solvents** that are **Dangerous Goods**.

Shipping Name	Classification	Product Identification Number
Paint Related Material (including paint thinning compound)	3	UN1263
Turpentine	3	UN1299
Methanol	3	UN1230
Ammonia	8	UN1005
Acetone	3	UN1090
Waste Flammable Liquid	3	UN1993





Hazardous Waste Manifesting

Hazardous Wastes in transportation must be accompanied by a **Movement Document/Manifest**, which can be obtained from the ENV (see [Appendix F](#)).

See [Section 8.3](#) for more information on transporting **Hazardous Wastes**.

Anyone storing more than 500 L of waste **Solvent** should register as a **Hazardous Waste Management Facility**.

Forms to register as a **Hazardous Waste Management Facility** are presented in [Appendix D](#).

18 Definitions

Aerosol Paint:

Paint in a can of compressed gas (spray paint).

Aim to Ship:

This means that storage methods are used that support eventual shipping to southern Canada. This is different than storing wastes for local disposal.

Asbestos:

A naturally-occurring mineral that forms long fibres. **Asbestos** is very resistant to heat and wear. Because of this, it was mixed into many different products up until the 1980s. We now know that **Asbestos** is very harmful when breathed in.

Analytical Sampling:

The measurement of contaminant **Concentration** in a small amount of matter taken from an area under investigation. The measurement is performed in a laboratory where instruments can precisely and accurately detect the **Contaminant** in question and provide a **Concentration**.

Battery Acids:

Substances such as potassium hydroxide and sulphuric acid in batteries that can burn skin and contaminate water and soil. **Battery Acids** are composed of **Electrolytes**.

Bioaccumulation:

The gradual accumulation of a substance, such as heavy metals, into the tissues of a living organism. As animals grow and age, such substances are picked up from their environment, increasing over time. Compare with **Biomagnification**.

Biomagnification:

The concentration of a substance, such as heavy metals, into the tissues of a living animal through a food chain. As larger animals eat smaller animals, the substances from the smaller animals become concentrated in the larger animals. Concentrations are especially high in top predators (e.g., seals, bears, people). Compare with **Bioaccumulation**.

Concentration:

The amount of chemical or substance per unit mass or volume. **Contaminant** concentration is typically expressed as milligrams per liter (mg/L) or micrograms per liter ($\mu\text{g/L}$) in water, milligrams per kilogram (mg/kg) in soil, and food and micrograms per cubic meter ($\mu\text{g/m}^3$) in air. **Concentrations** may also be expressed as parts per million (ppm) or parts per billion (ppb).

$$1 \text{ mg/liter} = 1 \text{ ppm or } 1000 \text{ ppb}$$

$$1 \text{ }\mu\text{g/liter} = 1 \text{ ppb}$$

$$1 \text{ mg/kg} = 1 \text{ ppm or } 1000 \text{ ppb}$$

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;”

Core Sample:

A sample taken by drilling through several layers of a structure like a wall. The “disc” obtained is the sample.

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

Decanted Products:

Products that have been poured out of the container in which the product was received from a supplier.

Dangerous Goods Class:

Category of Dangerous Good listed in the *Transportation of Dangerous Goods Act* (1992).

Dry Cell Batteries:

Batteries that have a solid or paste **Electrolyte**.

Electrolyte:

The substance that allows electricity to move through the battery.

Ethylene Glycol:

A type of **Glycol** poisonous to people and animals. Compare with **Propylene Glycol**.

Filter Cartridge:

The part of a respirator that removes substances from the air that a person breathes in. Each cartridge type removes only certain substances, so the correct type of cartridge has to be chosen.

Fluorescent:

A type of light bulb that produces light by sending electricity through **Mercury** vapour.

Friable Asbestos Waste:

Waste that contains more than 1% **Asbestos** that can be crumbled by hand.

Glycol:

A type of colorless alcohol that prevents freezing.

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)*.

Hazardous Waste Management Facility:

A regulated facility set up to receive **Hazardous Waste**. These facilities will undertake some combination of treatment, storage, and/or disposal of hazardous waste, ensuring wastes are not released into the local environment or water resources.

Laboratory Sampling:

Sampling sent to a laboratory that has been formally recognized by the Canadian Association of Environmental Analytical Laboratories (CAEAL) as being competent to perform the specified tests.

Lead Acid Battery:

A battery that uses lead and sulphuric acid to store energy. Lead Acid Batteries are **Wet Cell Batteries**. Car batteries are Lead Acid Batteries.

Lithium-Ion Battery:

A battery that uses lithium metal to store energy. Lithium-Ion Batteries are **Dry Cell Batteries** and rechargeable. These batteries contain flammable Electrolytes and can be a safety hazard if damaged or charged incorrectly.

Mercury:

A chemical element that is a heavy silvery-white metal which is liquid at ordinary temperatures. Mercury can be harmful to human and animal health.

Movement Document/Manifest:

A document with a unique number that accompanies a shipment 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.

Non-Friable Asbestos Waste:

Waste that contains more than 1% **Asbestos** that cannot be crumbled by hand.

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.

Overpack:

An assembly of many containers formed for convenience of handling and stowage.

Paint Thinner:

A **Solvent** used to clean and dilute oil-based paints. Examples include mineral spirits, turpentine, naphtha, etc.

Polychlorinated biphenyls (PCB):

Highly **Toxic** industrial compounds that pose serious health risks to fetuses, babies and children.

Personal Protective Equipment (PPE):

Equipment used to protect workers from the harmful effects of chemicals or physical injury that may occur in a given area.

Project under the Nunavut Agreement:

"[...] a physical work that a proponent proposes to construct, operate, modify, decommission, abandon or otherwise carry out, or a physical activity that a proponent proposes to undertake or otherwise carry out, such work or activity being within the Nunavut Settlement Area [...]"³⁰

Propylene Glycol:

A type of Glycol not toxic to people and animals.

Remediation:

The actions taken to reverse or limit the damage caused by a **Contaminant** spill.

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 as [Appendix H](#).

Respiratory Protection:

A device used to protect someone from breathing in harmful chemicals in the air.

Responsible Party:

The person or organization that discharged or permitted the discharge of a **Contaminant** into the environment and is thus responsible for repairing or limiting the resulting damage to the environment.

Safety Mark:

"[...] a label, placard, orange panel, sign, mark, letter, word, number or abbreviation that is used to identify **Dangerous Goods** and to show the nature of the danger posed by them."³¹

Secondary Containment:

A barrier used to contain a product if the container holding it leaks or spills. This barrier can be built into the container itself (e.g., double-bottom tanks), or the barrier can be a separate structure the container is placed into.

³⁰ Nunavut Agreement (1993)

³¹ Transportation of Dangerous Goods Regulations (2001) SOR 2001-286 s 1.4

Short Circuit:

A unintended path for electricity to travel through, formed by accidental contact between the positive and negative terminal of a battery.

Solvent:

A chemical that can dissolve other substances. Some solvents are very strong and can quickly dissolve a variety of substances.

Special Waste:

The Department of Environment defines **Special Waste** as any unwanted substance that can bring significant harm to people or the environment. It is a waste that must be handled, stored, and disposed of separately from regular solid waste.

Toxicity Characteristic Leaching Procedure (TCLP):

The **Toxicity Characteristic Leaching Procedure** is a test developed by the United States Environmental Protection Agency that is meant to simulate conditions in a landfill. It tests for the presence and concentration of contaminants in a given sample and will determine how they interact with water or other liquids moving through a landfill.

Terminals:

Electrical contact used to connect a battery to a device that will be powered by the battery, or recharge the battery.

Total Concentration

The total amount of lead within the lead paint described as parts per million (ppm). Using the threshold value as an example, 100 ppm, this means that for every 1 kilogram (kg = 1000g) of lead paint, there are 100 milligrams (mg = 1/1000g) of lead in that paint. This test is sometimes called the Total Constituent Analysis. **TCLP** on the other hand, refers to how much lead could leach out into water, rather than the total amount of lead in the sample.

Toxic:

Poisonous. A toxic substance will be harmful to life.

UN number:

A four-digit number that identifies hazardous materials in the rules of international transport. An example is UN 1203 used for gasoline.

Water License:

A license issued by the Nunavut Water Board to use water and/or discharge waste to water.

Wet Cell Batteries:

Batteries that have a liquid **Electrolyte**.

6 Mil:

Mil means thousandths of an inch. **6 Mil** is 6 thousandths of an inch, or about 0.15 mm.

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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: Summary Table for Special Wastes

Waste	Risks	PPE	Containment	Dangerous Goods/ Hazardous Waste
Gasoline, Jet B, Naptha	 Harmful  Flammable Material			
Diesel, Heating Fuel, Kerosene, Jet-A	 Health Hazard  Harmful to the Environment	 		YES
Waste Oil	 Harmful to the Environment	 	 	NO
Asbestos Waste	 Health Hazard		 	NO
Waste Paint	 Harmful  Flammable Material  Health Hazard  Harmful to the Environment	 	 	YES Refer to label and SDS  
Waste Batteries	 Harmful or Fatal  Flammable Material  Harmful  Health Hazard	 	 	YES  

Appendix A: Summary Table for Special Wastes

Waste	Risks	PPE	Containment	Dangerous Goods/ Hazardous Waste
Waste Antifreeze	 Health Hazard  Harmful	 	 	NO
Mercury-Containing Products	 Harmful or Fatal  Harmful  Harmful to the Environment	  		NO
Lead Paint	 Health Hazard  Harmful  Harmful to the Environment	  	 	May be Dangerous Goods if lead content is high enough
Waste Solvents	 Health Hazard  Flammable Material	  	 	YES 

Appendix B: Hazardous Waste Carrier Registration Form

Users' Guide to the Hazardous Waste Carrier Registration Form

Section 1 – Identification

Provide the carrier's full legal name and contact information. The legal name of the Company as it is registered in Nunavut is to be provided. The corporate and site (dispatch) addresses are to be provided if they are not the same. If the carrier is located in a remote area (i.e. mining camp), provide the geographic coordinates (UTM and Latitude/Longitude) and name of the most prominent nearby geographic feature (i.e. "Sam Hill Bay").

Section 2 – Description of Waste Transported

Shipping Name, TDG Number and TDG Class. Provide the proper shipping name, TDG Number and TDG Class in accordance with the federal *Transportation of Dangerous Goods Act and Regulations*. This is the same shipping name, number and class that must be recorded on the manifest form or movement document.

Quantity Transported. Provide the estimated average quantity of each waste transported during a single monthly period. Liquid wastes are reported in litres (L) while solid wastes are reported in kilograms (Kg). For one-time only transport of waste, provide the actual quantity to be transported in litres or kilograms.

Frequency of Transport. Enter the appropriate code from the following list which best describes the frequency at which each waste is transported – ongoing, intermittent or one-time only.

Section 3 – Waste Management Information

Mode of Transport. Identify the mode of transport used. Check all that apply.

Hazardous Waste Generator(s) Used. Only generators that have been registered in Nunavut or the province or territory in which the company is based may transfer hazardous waste to another party. Provide the name and registration number of each known company from which waste will be transported. If applying for registration in anticipation of transporting waste at an unspecified future time, provide this information at a later date.

Hazardous Waste Receiver(s) Used. Only receivers and hazardous waste management facilities that have been registered in Nunavut or the province or territory in which the company is based may receive hazardous waste. Provide the name and registration number of each known company that will receive the transported waste. If applying for registration in anticipation of transporting waste at an unspecified future time, provide this information at a later date.

Emergency Response and Spill Contingency Plan. An Emergency Response and Spill Contingency Plan sets out the contacts, equipment and procedures to be used in the event of a spill or accident involving dangerous goods or hazardous waste. Provide a copy of your company's plan if one has been developed. Plans in electronic format are preferred.

Section 4 – Certification

The carrier's contact person or authorized representative must sign and date the form to certify the information provided is correct, accurate and complete. Include the date and person's signature, printed name, position title, phone number and email address.

Use additional pages as required in order to provide complete information.

Appendix B: Hazardous Waste Carrier Registration Form

Section 3 - Waste Management Information

Mode of Transport (check all that apply) Road _____ Rail _____ Marine _____ Air _____

Hazardous Waste Generator(s) Used _____

Hazardous Waste Receiver(s) Used _____

Do you have an approved Emergency Response and Spill Contingency Plan? Yes ____ (attach copy) No ____

Section 4 - Certification

I certify that the information provided on this form is correct, accurate and complete.

Signature of Contact Person _____ Date (dd/mm/yy) _____

Print Name of Contact Person _____ Title _____

Phone _____ Email _____

For Department Use Only

Carrier Number NUC# _____ Approved by _____ Date _____



REGISTRATION FORM HAZARDOUS WASTE GENERATOR

Instructions

1. The following information must be provided in order to register as a hazardous waste generator in Nunavut and to obtain a generator number. Incomplete applications will be returned to the applicant.
2. Completed registration forms are to be forwarded to the Manager of Pollution Control, Department of Environment, Government of Nunavut, Box 1000, Station 1360, Iqaluit, Nunavut, X0A 0H0. Electronic registration forms are preferred and may be forwarded to EnvironmentalProtection@gov.nu.ca.
3. Use additional pages to provide information as required.
4. Applicants should refer to the accompanying users' guide for further assistance on completing the generator registration form.

Section 1 - Identification

Generator (Legal Name) _____

Mailing Address _____

_____ Postal Code _____

Principle Contact Person _____ Title _____

Phone _____ Email _____

Alternate Contact Person _____ Title _____

Phone _____ Email _____

Section 2 - Description of Waste Generated (provide a separate table if required)

Site Location(s) where Waste is Generated _____

Shipping Name (Description)	TDG Number	TDG Class	Quantity Generated each Month (L or Kg)	Frequency of Generation

Appendix C: Hazardous Waste Generator Registration Form

Section 3 - Waste Management Information

General Type of Business _____

Source of Waste _____

Hazardous Waste Carrier(s) Used _____

Hazardous Waste Receiver(s) Used _____

Do you have an approved Emergency Response and Spill Contingency Plan? Yes ____ (attach copy) No ____

Section 4 - Certification

I certify that the information provided on this form is correct, accurate and complete.

Signature of Contact Person _____ Date (dd/mm/yy) _____

Print Name of Contact Person _____ Title _____

Phone _____ Email _____

For Department Use Only Generator Number NUG# _____ Approved by _____ Date _____
--



REGISTRATION FORM HAZARDOUS WASTE MANAGEMENT FACILITY

Instructions

1. The following information must be provided in order to register as a hazardous waste management facility in Nunavut and obtain a management facility number. Incomplete applications will be returned to the applicant.
2. Completed registration forms are to be forwarded to the Manager of Pollution Control, Department of Environment, Government of Nunavut, Box 1000, Station 1360, Iqaluit, Nunavut, X0A 0H0. Electronic registration forms are preferred and may be forwarded to EnvironmentalProtection@gov.nu.ca.
3. Use additional pages to provide information as required.
4. Applicants should refer to the accompanying users' guide for further assistance on completing the management facility registration form.

Section 1 - Identification

Applicant (Legal Name) _____

Corporate Address _____

_____ Postal Code _____

Facility Address _____

_____ Postal Code _____

Principle Contact Person _____ Title _____

Phone _____ Email _____

Alternate Contact Person _____ Title _____

Phone _____ Email _____

Section 2 - Description of Waste to be Managed (provide a separate table if required)

Site Location(s) where Waste is Managed _____

Shipping Name (Description)	TDG Number	TDG Class	Quantity Managed each Month (L or Kg)	Frequency of Acceptance

Appendix D: Hazardous Waste Management Facility Registration Form

Section 2 – Continued

Attach a complete description of the proposed facility, safety measures, equipment and management processes to be used. Include engineered drawing where applicable.

Section 3 - Waste Management Information

Type of Business (check all that apply) Receiver of Waste _____ Manage Self-generated Waste _____

Type of Activity (check all that apply) Collect and Store _____ Transfer _____

Treat _____ Recycle _____ Dispose _____

Hazardous Waste Generator(s) Used _____

Hazardous Waste Carriers(s) Used _____

Do you have an approved Emergency Response and Spill Contingency Plan? Yes _____ (attach copy) No _____

Section 4 - Certification

I certify that the information provided on this form is correct, accurate and complete.

Signature of Contact Person _____ Date (dd/mm/yy) _____

Print Name of Contact Person _____ Title _____

Phone _____ Email _____

For Department Use Only

Management Facility Number NUF# _____ Approved by _____ Date _____

Appendix D: Hazardous Waste Management Facility Registration Form

Users' Guide to the Hazardous Waste Management Facility Registration Form

Section 1 – Identification

Provide the Applicant's full legal name and contact information. The legal name of the Company as it is registered in Nunavut is to be provided. The corporate address and facility addresses are to be provided if they are not the same. If the facility is located in a remote area (i.e. mining camp), provide the geographic coordinates (Latitude/Longitude) and name of the most prominent nearby geographic feature (i.e. "Sam Hill Bay").

Section 2 – Description of Waste to be Managed

Site Location(s) where Waste is Managed. Provide the actual physical site location(s) at which the hazardous waste is managed. Identify more than one site as required. The site location should include street name and community or, if located in a remote location, provide the geographic coordinates (Latitude/Longitude) and name of the most prominent nearby geographic feature (i.e. "Sam Hill Bay").

Shipping Name, TDG Number and TDG Class. Provide the proper shipping name, TDG Number and TDG Class in accordance with the federal *Transportation of Dangerous Goods Act and Regulations*. This is the same shipping name, number and class that must be recorded on the manifest form or movement document.

Quantity Managed. Provide the estimated average quantity of each waste managed during a single monthly period. Liquid wastes are reported in litres (L) while solid wastes are reported in kilograms (Kg). For one-time only managers of waste, provide the actual quantity managed in litres or kilograms.

Frequency of Acceptance. Enter the appropriate code from the following list which best describes the frequency at which each waste is received for management – ongoing, intermittent or one-time only.

Description of Facility. Provide a complete description of the proposed facility, safety measures, equipment and management processes to be used on-site. This includes, but is not limited to, maps and descriptions of the adjacent area (i.e. roads and ditches, houses and other buildings, sensitive environments including streams, rivers, lakes and marine shorelines), facility site and building floor plans, spill containment structures, fire suppression, security and other safety-related systems, equipment and processes for the collecting, storing, transferring, recycling, treating or disposing of waste and maximum daily waste management capacities. Engineered drawings are to be provided of all relevant structural, mechanical, electrical and safety systems.

Section 3 – Waste Management Information

Type of Business. Is waste received from other generators or generated on site? Check all that apply.

Type of Activity. Provide the general type of management activity being conducted with the waste (collect and store, transfer, treat, recycle or dispose). Check all that apply.

Hazardous Waste Generator(s) Used. Only generators that have been registered in Nunavut or the province or territory in which the company is based may transfer hazardous waste to another party. Provide the name and registration number of each known company from which waste will be received. If applying for registration in anticipation of managing waste at an unspecified future time, provide this information at a later date.

Hazardous Waste Carrier(s) Used. Only carriers that have been registered in Nunavut or the province or territory in which the company is based may transport hazardous waste. Provide the name and registration number of each known transport company through which waste will be received. If applying for registration in anticipation of managing waste at an unspecified future time, provide this information at a later date.

Appendix D: Hazardous Waste Management Facility Registration Form

Emergency Response and Spill Contingency Plan. The *Spill Contingency Planning and Reporting Regulations* require each person to file a contingency plan where the quantity of waste stored exceeds those criteria set out in Schedule A of the *Regulations*. Provide a copy of your contingency plan if one has been developed or if the prescribed stored quantities are exceeded. Plans in electronic format are preferred.

Section 4 – Certification

The applicant's contact person or authorized representative must sign and date the form to certify the information provided is correct, accurate and complete. Include the date and person's signature, printed name, position title, phone number and email address.

Use additional pages as required in order to provide complete information.

Return the completed registration form to:

Environmental Protection Division
Department of Environment
Government of Nunavut
Inuksugait Plaza, Box 1000, Station 1360
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 975-7729
Email: EnvironmentalProtection@gov.nu.ca

After processing, a copy of the form and management facility number will be provided to the contact person.

Appendix E: Criteria for Registration as a Waste Management Facility

Waste	Quantity
Waste oil and fuel	4000 L
Asbestos waste	500 kg
Waste paint	500 L
Waste batteries	500 kg
Waste mercury products	100 kg
Waste lead paint	500 kg
Waste solvent	500 L

Appendix G: Packing Instruction 801

Packing Instruction 801³²

This instruction applies to UN 2794, UN 2795, UN 3028



1. The dangerous goods must be handled, offered for transport or transported in a rigid outer packaging, wooden slatted crate, or on a pallet provided the following provisions are met:
 - a. batteries stacked must be adequately secured in tiers separated by a layer of electrically non-conductive material;
 - b. battery terminals must not support the weight of other superimposed elements;
 - c. batteries must be packaged or secured to prevent inadvertent movement;
 - d. batteries must not leak in any position and inclination expected in normal conditions of transport or must be made leakproof by individually packaging or by any other equally effective method to prevent the potential release of electrolyte; and
 - e. batteries must be protected against short circuits.
2. In addition, used batteries may also be transported in metal or solid plastic bins, provided the following provisions are met:
 - a. the bins must be resistant to the electrolyte that was contained in the batteries;
 - b. the bins must not be filled to a height greater than the height of their sides;
 - c. the outside of the bins must be free of residues of electrolyte contained in the batteries;
 - d. under normal conditions of transport, no electrolyte must leak from the bins;
 - e. measures must be taken to ensure that filled bins cannot lose their content; and
 - f. measures must be taken to prevent short circuits, for example by discharging the batteries or by individually protecting the battery terminals.

³² Transport Canada (2010)

Appendix H: 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 I: Lead Paint Removal Containment Methods

Dry Adhesive Blast Cleaning, within Full Containment with Negative Pressure:

Sand (silica) or recyclable metallic abrasives remove the existing paint while a sealed enclosure prevents abrasives and paint debris from escaping. An airlock or resealable entrance enables workers to enter and exit the enclosure without the escape of blasting residue. Filtration equipment is used to ensure exhaust air is free of dust and other airborne residue.

Vacuum Blast Cleaning, within Containment:

A vacuum is attached to the abrasive blasting equipment to provide a closed-loop containment system during paint removal. The system is capable of separating the removed coating and returning clean abrasive to the working surface. Additional containment sheets are attached around and under the work area to contain abrasives and paint debris in the event of an accidental release from the vacuum shroud.

Vacuum-shrouded Power Tool Cleaning, within Containment:

Power tools equipped with vacuums and High Efficiency Particulate Air (HEPA) filters are used to remove the existing paint. Similar to 'Vacuum Blast Cleaning within Containment,' a secondary containment structure is placed under and around the work area to contain any residue materials that may not be captured by the vacuum shroud.

Power Tool Cleaning without Vacuum, within Containment:

Power tools are used to remove the existing paint, but unlike "Vacuum shrouded Power Tool Cleaning," a completely sealed enclosure similar to 'Dry Adhesive Blast Cleaning within Full Containment with Negative Pressure' prevents the escape of residue materials.

Water Jetting or Wet Abrasives Blast Cleaning, within Containment:

Water jetting, or wet adhesive blasting, removes the existing paint while an impermeable containment system captures all water wastes. The collected water is filtered to ensure lead concentrations do not exceed 5 milligrams per liter (5 parts per million) in accordance the applicable permit or license. Laboratory analysis results must be submitted to Nunavut's Department of Environment and notification provided to the local community government prior to the water being discharged to a community sewage lagoon. Recycling the filtered water reduces the volume of waste generated.³³

³³ Steel Structures Painting Council (SSPC) (2018)

Appendix J: 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	<div style="border: 2px solid black; padding: 5px;"> REPORT NUMBER _____ </div>		
	B		OCCURRENCE DATE: MONTH – DAY – YEAR				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 STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (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 I: 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.

