

ENVIRONMENTAL GUIDELINE FOR General management of Hazardous waste



GUIDELINE: GENERAL MANAGEMENT OF HAZARDOUS WASTE IN NUNAVUT

AS AMENDED BY:

USE OF GUIDELINE

A guideline is not law and is therefore not enforceable. It does however, assist an inspector to determine what action(s) may be required of him or her. Paragraph 2.2(c) of the *Environmental Protection Act* allows the Minister to "develop, co-ordinate and administer" guidelines. The Act [subsection 5(1)] makes it an offence to discharge a contaminant into the environment, subject to some exceptions [subsection 5(3)]. When a discharge occurs and it is inconsistent with the guidelines, the discharge is considered an unacceptable risk. The inspector may then consider issuing an order or laying an information.

A guideline allows for some leniency in applying the law. A court would probably be inclined to consider the application of a guideline favorably because the public is aware of the standards they are expected to meet.

This Guideline is not law.
It is prepared by Environmental Protection Service,
Department of Sustainable Development
Government of the Nunavut

Guideline for the General Management of Hazardous Waste in Nunavut

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GUIDELINE FOR THE GENERAL MANAGEMENT OF HAZARDOUS WASTE IN NUNAVUT

1 Introduction

Waste is produced in the normal course of operation of any industrial, commercial or institutional operation. Because of their chemical, physical or biological properties, some wastes are more dangerous than others. These are known as a hazardous waste and require special handling and disposal to prevent impact on human health and the environment.

This guideline has been developed by the Environmental Protection Service of the Department of Sustainable Development. Its intent is to:

- provide information for the proper management of hazardous waste in Nunavut,
- increase awareness of hazardous waste in Nunavut, and
- establish a "cradle to grave" monitoring system for hazardous waste from generation to final disposal.

Section 2.2 of the *Environmental Protection Act* (EPA) gives the Minister of Sustainable Development of the Government of Nunavut (GN) the authority to develop, coordinate and administer guidelines. This guideline complements existing acts and regulations concerning hazardous waste which should be consulted for interpretation and application. Section 2.5 of the guideline provides additional information on regulatory roles and responsibilities.

This guideline is for the general management of hazardous waste and should be read in conjunction with applicable specific hazardous waste guidelines. Contact the Environmental Protection Service for a listing of these guidelines.

1.1 Definitions

<i>Carrier</i>	Any person engaged in the transport of hazardous waste whether or not for hire or reward.
<i>Commercial</i>	Actions undertaken for hire or reward.
<i>Commissioner's Land</i>	Lands in Nunavut that have been transferred by Order in-Council to the Government of Nunavut. This includes highways, block land transfers and most lands within municipalities.
<i>Consignor</i>	A person who offers a consignment of hazardous waste for transport.
<i>Contaminant</i>	Any noise, heat, vibration or substance and includes such other substances as the Minister may prescribe that, where discharged into the environment, (a) endangers the health, safety or welfare of persons, (b) interferes or is likely to interfere with normal enjoyment of life or property, (c) endangers the health of animal life, or

d) causes or is likely to cause damage to plant life or property.
Environmental Protection Act

<i>Dangerous goods</i>	Any product, substance or organism included by its nature or by the <i>Transportation of Dangerous Goods Regulations</i> (TDGR) in any of the classes listed in the schedule provided in the <i>Transportation of Dangerous Goods Act</i> (TDGA). Transportation of Dangerous Goods Act (Canada)
<i>Empty container</i>	A container that has been emptied, to the greatest extent possible, using regular handling procedures, but its contents shall not exceed 1% of the container's original capacity or 2 litres, whichever is less. This does not include containers which previously contained mercury or class 2.3, 5.1, or 6.1 materials of TDGR.
<i>Generator</i>	The owner or person in charge, management or control of a hazardous waste at the time it is generated or a facility that generates hazardous waste.
<i>Hazardous waste</i>	A contaminant which is a dangerous good that is no longer used for its original purpose and is intended for recycling, treatment, disposal or storage. A hazardous waste does not include a contaminant that is: (a) household in origin; (b) included in class 1, Explosives or class 7, Radioactive materials of TDGR; (c) exempted as a small quantity; (d) an empty container; or (e) intended for disposal in a sewage system or by landfilling that meet the applicable standards set out in schedules I, III or IV of the <u>Guideline for Industrial Waste Discharges in Nunavut</u> .
<i>Hazardous waste management facility</i>	A facility which is used for the collection, storage, treatment, recycling or disposal of hazardous waste.
<i>Incompatible waste</i>	Hazardous wastes which, when in contact with one another or other substances under normal conditions of storage or transportation, could react to produce heat, gas, fire, explosion, corrosive substances or toxic substances.
<i>Landfilling</i>	The deposit of waste, on land, as described in the GN Department of Community Government and Transportation's document <u>Guidelines for the Planning, Design, Operation & Maintenance of Solid Waste Modified Landfill Sites in the Northwest Territories</u> .
<i>Long term storage</i>	The storage of hazardous waste for a period of 180 days or more but does not include materials in transit.
<i>Manage</i>	To handle, transport, store, recycle, treat, destroy or dispose of hazardous waste.

<i>Receiver</i>	A person to whom a quantity of hazardous waste is being or intended to be transported. Also referred to as a consignee.
<i>Sewage system</i>	A system for the collection, transmission, treatment or disposal of any liquid waste containing animal, vegetable, mineral, human or chemical matter in solution or in suspension.
<i>Small quantity</i>	Hazardous waste that is generated in an amount that is less than 5 kilograms per month if a solid or 5 litres per month if a liquid; and where the total quantity accumulated at any one time does not exceed 5 kilograms or 5 litres. This does not apply to wastes that are mercury or in classes 2.3, 5.1 or 6.1 of TDGR. These wastes must be generated in an amount less than 1 kilogram per month if a solid or 1 litre per month if a liquid; and where the total quantity accumulated at any one time does not exceed 1 kilogram or 1 litre.
<i>Transport authority</i>	The regulations controlling the management of hazardous waste under that mode of transport. These include: Road and rail - <i>Transportation of Dangerous Goods Act (TDGA) and Regulations (TDGR)</i> . Air - <i>International Civil Aviation Organization Technical Instructions (ICAO)</i> . Marine - <i>International Maritime Dangerous Goods Code (IMDG)</i> .
<i>TDGA/TDGR</i>	The <i>Transportation of Dangerous Goods Act and Regulations (Canada)</i> .
<i>Treatment or Treat</i>	The handling or processing of a hazardous waste in such a manner as to change the physical, chemical or biological character or composition of the hazardous waste in order to eliminate or reduce: (a) one or more environmental hazard of the waste; and/or (b) the volume.

2 Roles and Responsibilities

2.1 Environmental Protection Service

The Environmental Protection Service (EPS) of the Department of Sustainable Development is the Government of Nunavut's (GN) agency responsible for initiatives which control the discharge of contaminants and their impact on the natural environment. EPS is responsible for ensuring that environmentally acceptable management procedures, emission levels and disposal methods are maintained. By practice EPS programs are applied primarily to Commissioner's Land, lands administered by municipal governments or GN undertakings. Legislative authority is provided by the *Environmental Protection Act (EPA)* and *Pesticide Act*. Contact EPS for a listing of relevant regulations and guidelines.

EPS monitors the movement of hazardous waste from the generator to final disposal through use of a tracking document called a waste manifest. A waste manifest form must

accompany all hazardous waste in transit regardless of the means of transport. In order to complete the manifesting requirements, all parties (the generator, carrier, receiver) must be registered by EPS and the registration number entered in the appropriate location on the waste manifest form. Registration numbers and waste manifest forms are available from EPS.

Under the EPA, the *Spill Contingency Planning and Reporting Regulations* set the standards for reporting spills of contaminants and preparing spill contingency plans.

2.2 Generators of Hazardous Waste

The responsibility for proper waste management rests with the generator and should be considered part of the cost of doing business.

The generator is ultimately responsible for ensuring hazardous waste will be properly managed from the time it is generated to final disposal. Waste must be properly stored, transported, treated and disposed. Contractors can manage waste on behalf of the generator however, the generator is responsible for ensuring, in advance, that the waste management method is acceptable.

In general, the generator is responsible for the following:

- Classifying, labeling and storing the hazardous waste properly.
- If waste is to be transported off site the generator should:
 - register as a generator of hazardous waste;
 - ensure a waste manifest is properly completed and accompanies the shipment and
 - ensure the waste is transported by a registered hazardous waste carrier to a registered receiver.
- Registering their hazardous waste management facility, if required.
- Ensuring the proper disposal of hazardous waste by an acceptable method.
- Ensuring workers are trained in the management of hazardous waste including emergency response in the event of a discharge.
- Complying with all other regulatory requirements for hazardous waste management including transportation, occupational health and public health.

2.3 Carriers of Hazardous Waste

Carriers must be registered with EPS prior to transporting hazardous waste. Hazardous waste must be transported in accordance with the appropriate transport authority: *Transportation of Dangerous Goods Regulations* (TDGR); *International Civil Aviation Organization* (ICAO) or *International Maritime Dangerous Goods Code* (IMDG). TDGR requires that drivers be trained in the aspects of transporting dangerous goods related to their assigned duties.

2.4 Receivers of Hazardous Waste

Receivers (consignees) of hazardous waste in Nunavut must be registered with EPS as a receiver. The operator of a hazardous waste management facility in Nunavut may be required to register the facility with EPS. Section 3.4 provides information on registering a hazardous waste management facility.

2.5 Other Regulatory Agencies

The following agencies are involved in activities relevant to hazardous waste management in Nunavut:

The Transportation-Motor Vehicles Division of the GN Department of Community Government and Transportation is responsible for administering the *Transportation of Dangerous Goods Act and Regulations* (Canada). The Department is also responsible for driver, vehicle and load safety under additional transport legislation.

Under the *Safety Act, Occupational Health and Safety Regulations* address the safety of workers and the work place. The Act states that the employer shall maintain their establishment and take all reasonable precautions to ensure the safety and health of every person in the establishment. The Regulations also prescribe standards for protective clothing and equipment to be used by workers. *Work Site Hazardous Materials Information System Regulations* (WHMIS) were adopted to ensure employee training and safe storage and handling of controlled products at the employer's work site. Consultation with a Safety Officer from the Prevention Services Division of the Workers' Compensation Board is the responsibility of every waste generator or employer.

The Office of the Fire Marshal has authority over the storage of flammable, combustible and hazardous materials under the National Fire Code. Consult with the GN Department of Community Government and Transportation's regional Fire Marshal or your community Fire Chief.

Waste management activities may affect public health. Environmental Health Officers of the regional Public Health Boards should be consulted regarding requirements under the *Public Health Act*.

The GN Department of Community Government and Transportation (CG&T) administers Commissioner's Lands. CG&T's responsibility includes the granting of leases, licences and land use permits on these lands and is also involved in the planning, funding, operation and maintenance of municipal infrastructure such as landfills and sewage treatment systems.

Indian and Northern Affairs Canada is responsible for hazardous waste management on federal lands through the *Territorial Lands Act* and *NWT/Nunavut Waters Act*.

Environment Canada is responsible for the management of hazardous waste from federal facilities and lands under the *Canadian Environmental Protection Act* (CEPA). CEPA regulates the release to the environment and storage of polychlorinated biphenyls (PCBs) under the *Chlorobiphenyls Regulation, Storage of PCB Material Regulations, and Federal Mobile PCB Treatment and Destruction Regulations*. Because they regulate these areas, sections 3.2, 3.3, 3.4 and 4.4 of this guideline do not apply to PCBs. International

shipments of waste dangerous goods are monitored under the *Export and Import of Hazardous Waste Regulations and the PCB Waste Export Regulations*.

The National Energy Board regulates frontier exploration, drilling, production and inter-jurisdictional transmission in the oil and gas industry. The management of land based drill sumps is in conjunction with the appropriate land regulator.

Natural Resources Canada has the authority to administer explosives under the *Explosive Act*. Canadian Nuclear Safety Commission (formerly the Atomic Energy Control Board) administers the handling and disposal of radioactive materials in Canada and licenses institutions and companies to possess and use radioactive materials.

Under land claim agreements, renewable resource management institutions have been given broad authority for land use planning, impact assessment, and administration of land and water activities in settlement areas outside municipal boundaries. Through the setting of terms and conditions in licensing and permitting procedures, such institutions will have authority over waste disposal.

Figure 1 provides a flow chart to assist in determining the primary regulatory contact for hazardous waste management. Contact the Environmental Protection Service if assistance is required.

3 Storage and Management of Hazardous Waste

3.1 General

The definition of hazardous waste in this guideline incorporates the term "dangerous goods" which is defined in the Transportation of *Dangerous Goods Act* (Canada). The Transportation of Dangerous Goods Regulations (TDGR) has a system for classifying dangerous goods. Because the term "dangerous goods" is used in the definition of hazardous waste, the classification system used in TDGR can be applied to hazardous waste. Appendix A indicates the 9 chemical classes used.

Hazardous waste must not be mixed or diluted with any substance or divided into smaller quantities to avoid meeting the definition of a hazardous waste.

Figure 2 is a flow chart illustrating the decision process for managing a hazardous waste under this guideline.

3.2 General Requirements for Storage Containers

Hazardous waste should be stored in containers according to the following:

- In the original containers, where possible, or in containers manufactured for the purpose of storing hazardous waste. The containers must be sound, sealable and not damaged or leaking. The Transport Authority regulates container specifications.
- Clearly labelled according to the requirements of the Work Site Hazardous Materials Information System (WHMIS) of the *Safety Act* or the relevant Transport Authority, if transport is planned.
- Bulked into 16 gauge or equivalent metal or plastic 205 litre drums, as appropriate.
- The containers should be sealed or closed at all times, unless in use.

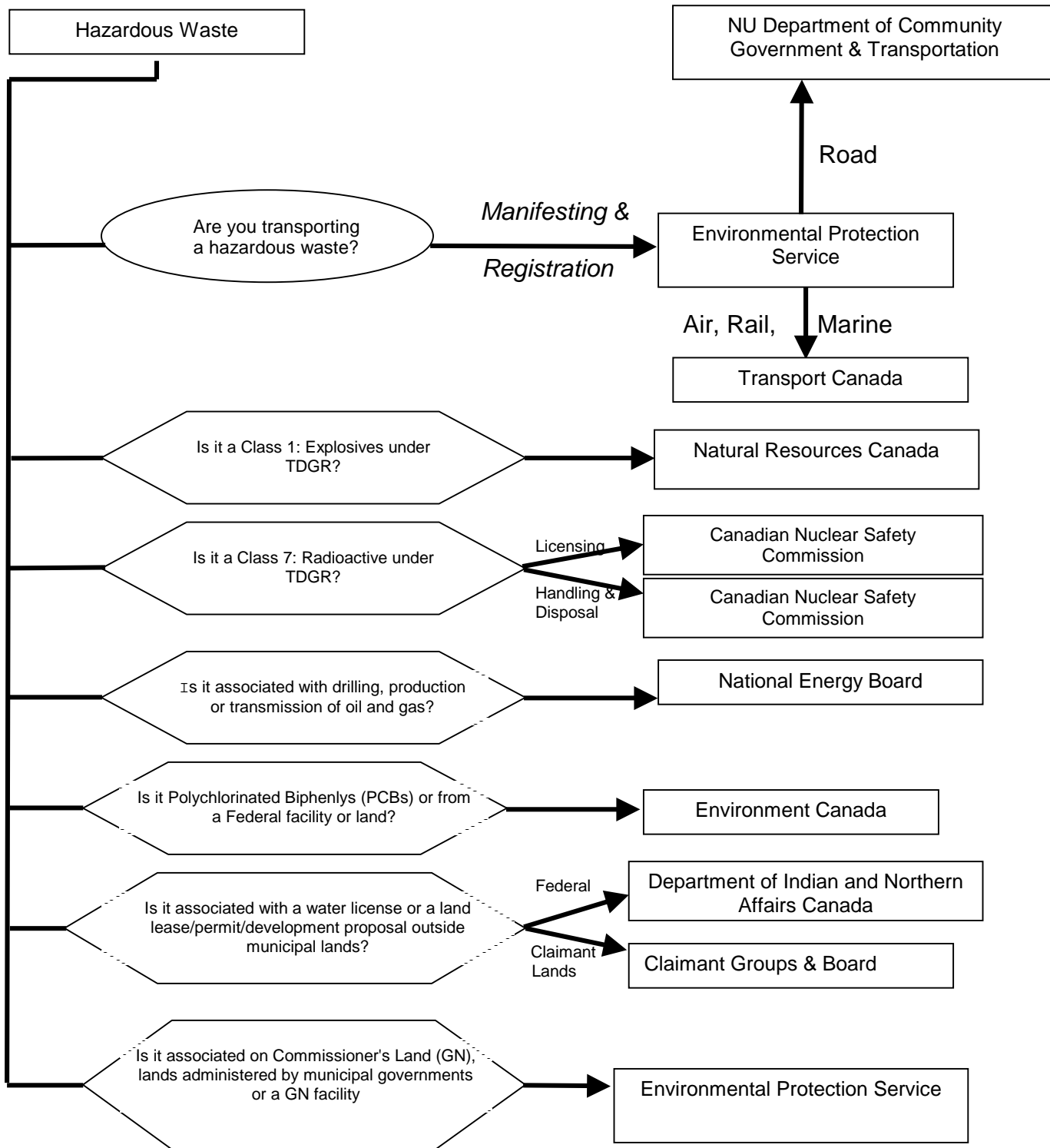


Figure 1: Primary Regulatory Contact for Hazardous Waste Management

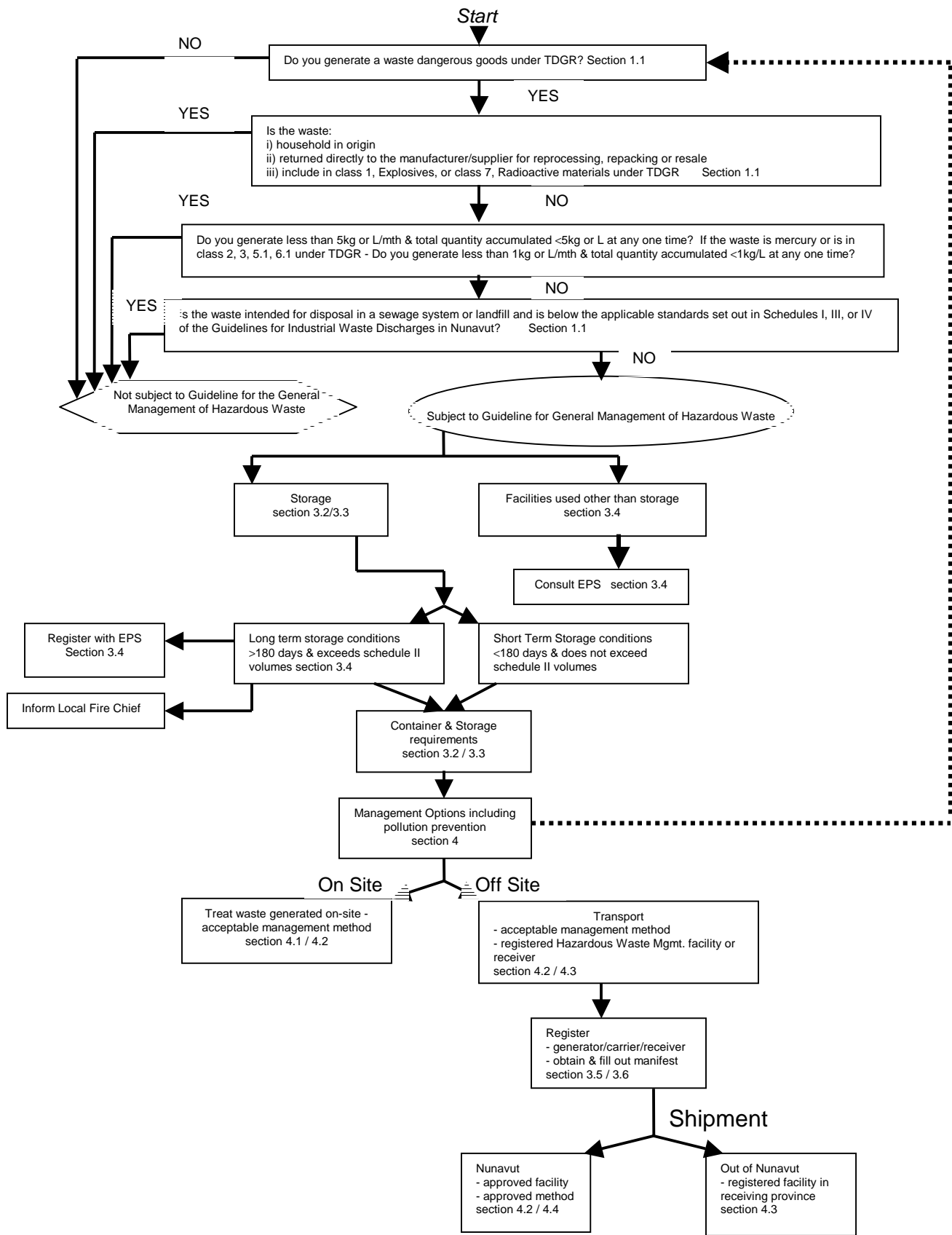


Figure 2: Decision Flow Chart for Managing a Hazardous Waste

3.3 General Requirements for Storage Facilities

The storage of hazardous waste is not an acceptable long term waste management solution.

Hazardous waste must be stored in a safe and secure manner. In general, hazardous waste should be stored according to the following:

- Drainage into and from the site is controlled to prevent spills or leaks from leaving the site and to prevent run off from entering the site.
- Incompatible wastes are segregated by chemical compatibility to ensure safety of the public, workers and facility.
- In a secure area with controlled access. Only persons authorized to enter and trained waste handling procedures should have access to the storage site.
- Regular Inspections are performed and recorded. Containers are placed so that each container can be inspected for signs of leaks or deterioration. Leaking or deteriorated containers should be removed and their contents transferred to a sound container.
- Maintain a record of the type and amount of waste in storage.
- Storage sites have emergency response equipment appropriate for the hazardous waste stored on site.
- Where the site is to be used for long term storage and the amount of waste in storage exceeds the quantity requirements set out in Schedule I, the site should be registered in accordance with Section 3.4 of this guideline.
- Storage sites are expected to meet all local bylaw and zoning requirements. It is recommended that the local Fire Chief be advised of the storage facility and its content for emergency planning and response purposes.

3.4 Registering a Hazardous Waste Management Facility

Hazardous waste management facilities may require registration with the Environmental Protection Service.

Storage Facility:

A storage facility can be a building, locker, compound or area used to store hazardous waste. A storage facility should be registered with EPS if:

- the facility is used or is intended for the storage of hazardous waste for a period of 180 days or more, and
- quantities to be stored exceed the quantities set out in Schedule I for individual waste classes or if the aggregate quantity for all classes of waste stored exceed 5000 Kg/L.

When registering a storage facility the following information should be provided:

- Company name, address, phone number and contact person, including position.
- Location and description of the facility.
- Expected types, quantities and method of storage of the hazardous waste.
- Approvals required to operate and occupy the land for that purpose.

This information should also be provided to the local Fire Chief for emergency planning and response purposes.

Management Facility other than Storage:

Hazardous waste management facilities, other than a storage facility, which manage hazardous waste for commercial purposes require registration with EPS prior to operation. These include facilities which treat, reprocess, consolidate, destroy or recycle hazardous waste. When registering a facility the following information should be provided:

- Company name, address, phone number and contact person, including position.
- Location and description of the facility.
- A description of the waste management activities to be conducted.
- Expected types, quantities and method of storage of the hazardous waste.
- Approvals required to operate and occupy the land for that purpose.

The information requirements for an environmental review of a hazardous waste management facility may be found in the Environmental Information Guide For Industrial Projects on Commissioners Lands. The Guide provides the information requirements for relevant GN agencies to review the environmental impacts of a project. A proponent should review the Guide and contact EPS before making a submission.

3.5 Registering Hazardous Waste Generators, Carriers and Receivers

If hazardous waste is to be transported off site, the generator, carrier and receiver must be registered with EPS. Once registered, an identification number will be assigned which is required to complete the waste manifest under TDGR. A carrier or receiver may either be registered in Nunavut or in the province or territory in which the company is based.

The following information should be provided when applying for a registration number:

Generator:

- Company name, address, phone number and contact person, including position.
- Location and description of the activity taking place which results in the generation of the hazardous waste.
- Expected type, quantity and method of storage of hazardous waste.

Carrier:

- Company name, address, phone number and contact person, including position.
- Proof of transport liability insurance.
- Operating authority for transport in Nunavut.
- Confirmation that the company meets the training requirements of the transport authority.

Receiver:

- Company name, address, phone number and contact person, including position.
- Location and description of the management facilities and activities for hazardous waste.
- Expected type, quantity and method of storage of hazardous waste.

3.6 Waste Manifest Requirements

The *Transportation of Dangerous Goods Regulations* require that a completed hazardous waste manifest form accompany shipments of hazardous waste. Manifests are available from EPS.

The completed manifest form provides:

- Detailed information on the types and amounts of hazardous waste shipped;
- A record of the firms or individuals involved in the shipment; and
- Information on the storage, treatment or disposal of the waste and confirmation that they reached their intended final destination.

The Generator (Consignor), Carrier and Receiver (Consignee) must each complete their portion of the manifest. The information provided on the manifest as well as other TDGR requirements (i.e.: labeling and placarding) are also intended to assist first responders (police, ambulance, fire fighters) with hazard information should a transportation accident occur.

Waste manifest completion instructions are provided on the reverse side of each manifest. Further assistance in completing a waste manifest may be obtained by referring to the [User's Guide for the Hazardous Waste Manifest](#) produced by Environment Canada or by contacting the Department of Community Government and Transportation-Motor Vehicles Division.

4 Waste Management

Waste management is intended to reduce or eliminate the effects of waste on the environment, to provide for public and worker safety and to maximize the efficient use of resources. Once hazardous waste has been created the proper treatment and disposal can be expensive. While it is the responsibility of the waste generator to pay for all disposal costs, various waste management options are available to reduce the cost and volume of waste requiring treatment. A more effective and proactive management practice is to eliminate or reduce the generation of the waste. This is referred to as pollution prevention.

Minimizing or avoiding the creation of pollutants and waste can be more effective in protecting the environment than treating them, or cleaning them up after they have been created.

Canadian Council of Ministers of the Environment

4.1 Pollution Prevention

Pollution prevention methods are designed to eliminate the creation of waste. Whereas pollution control options treat waste after it has been created, pollution prevention measures avoid the creation of waste.

Waste generators in Nunavut can reduce costs and prevent pollution by implementing reduction, reuse and recycling programs through changes in operational procedures, maintenance practices and raw material usage. An overall waste management plan should incorporate these ideas.

1. Reduce

The aim of reduction is to eliminate the production of a hazardous waste by using raw materials more efficiently. Methods of reduction include substitution or reduction of a raw material, production redesign, process changes, and improved maintenance activities. Methods which are technically and economically practical in any given situation should be used to reduce or eliminate waste streams.

2. Reuse and Recycle

Reusing or recycling hazardous waste in operating processes within the generating facility is another means of pollution prevention. Alternatively other users may be found to reuse the material that would otherwise require treatment or disposal. The Department of Sustainable Development encourages the reuse and recycling of hazardous waste in the following ways:

- (a) Waste exchanges and associations offer some opportunity for the reuse or recycle of waste. Waste exchanges put potential users of waste materials in contact with waste generators. Appendix B lists a number of waste material exchanges and management associations.
- (b) Recycle programs are in place for some hazardous wastes such as waste oil, waste fuels and solvents. For information on recycling programs, contact the waste management associations in Appendix B or EPS.

4.2 Treatment or Disposal

It is not acceptable for hazardous waste to be abandoned, poured down sewers, dumped on land or discarded at a landfill.

Treating hazardous waste to reduce or eliminate their hazard is the final option after implementing appropriate pollution prevention options. It is the responsibility of the generator to treat or dispose of their hazardous waste properly. Although a discussion of treatment and disposal methods is beyond the scope of this guideline, the following are general points for consideration:

- The generator is required to determine and follow the proper management method for their waste. Sources of assistance include:

- the manufacturer's Material Safety Data Sheet (MSDS) provided with the raw materials.
 - the manufacturer.
 - complying with this guideline and other relevant legislation.
 - waste management consultants and associations.
- **Open burning of hazardous waste is not acceptable.**
 - Treated hazardous waste may be directed for landfilling or to a municipal sewage system providing that the standards outlined in the Guideline for Industrial Waste Discharges in Nunavut are met. The municipal authority and the facility's water licence should also be consulted.
 - Different types of hazardous wastes should not be mixed together in the same container. It is important to control the quality of any waste to ensure it can be recycled or disposed of properly. Contaminating wastes with other wastes may prevent reuse/recycling options and increase disposal costs.
 - Hazardous waste containers must be properly managed. Containers should be emptied, to the greatest extent possible, using regular handling procedures, or by triple rinsing with an appropriate cleaning agent. They should be rendered unusable by puncturing or crushing prior to disposal. This is especially of concern for containers which could eventually be used for water or food storage. Rinsings must be managed according to their waste characteristics.

4.3 Disposal Outside of Nunavut

Hazardous waste can be sent to a hazardous waste management facility outside of Nunavut if the receiving facility is registered in the receiving province or territory and is approved to manage that waste.

Environment Canada monitors international shipments through the *Export and Import of Hazardous Waste Regulations* (EIHWR) of CEPA. The International Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal controls the shipment of hazardous waste across international borders. Contact Environment Canada when considering international shipments.

A list of Canadian waste management facilities is available by contacting the associations representing the waste industries. These associations are listed in Appendix B.

4.4 Alternative Management Methods

EPS will give consideration to proposals for alternate management methods that provide an equivalent level of environmental protection to those identified in this guideline.

5 Conclusion

This guideline presents a brief introduction into the management of hazardous waste. It is intended as a source of basic information about the issues involved in the management of hazardous waste. It does not replace the existing legislation which is referenced in the guideline. Please contact the appropriate agency before proceeding. For more information contact:

1. Environmental Protection Service
Department of Sustainable Development
P.O. Box 1000, Station 1195
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 975-5900; Fax: (867) 975-5990
2. Motor Vehicles Division
Department of Community Government and Transportation, Headquarters
Government of Nunavut
P.O. Box 207
Gjoa Haven, Nunavut, X0E 1J0
Phone (867) 360-4614; Fax (867) 360-4619
3. Prevention Services Division
Workers' Compensation Board
P.O. Box 669
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 979-8500; Fax: (867) 979-8501
(867) 873-7468 (accident report); Fax: (867) 873-0262
1-800-661-0792
4. Office of the Fire Marshal (Nunavut Emergency Services Division)
Department of Community Government and Transportation
P.O. Box 1000, Station 700
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 975-5316; Fax: (867) 979-4221
5. Community Development Division
Department of Community Government and Transportation
P.O. Box 1000
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 975-5339; Fax: (867) 979-5811
6. Department of Health and Social Services
P.O. Box 1000, Station 1000
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 979-5766; Fax: (867) 979-5780
7. Indian and Northern Affairs Canada
P.O. Box 2200
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 975-4500; Fax: (867) 975-4560
8. Environmental Protection Branch
Environment Canada
P.O. Box 1870
Iqaluit, Nunavut, X0A 0H0
Phone: (867) 979-3660; Fax: (867) 975-4645

9. Environment Branch
National Energy Board
444 - 7th Avenue SW
Calgary, AB, T2P 0X8
Phone: (403) 292-4800; Fax: (403) 292-5503

10. Explosives Division, Western Region
Natural Resources Canada
244755 Lake Bonavista Drive
Calgary, AB, T2J 0N3
Phone: (403) 292-4766; Fax: (403) 292-4689

11. Western Regional Office
Canadian Nuclear Safety Commission
850, 220 - 4th Avenue SE
Calgary, AB T2G 4X3
Phone: (403) 292-5181; Fax: (403) 292-8985
Radiation Emergency (24 Hour) (613) 995-0479

Schedule 1: Registration Volumes

Minimum quantity of hazardous waste¹ necessary for registration as a Hazardous Waste Storage Facility.

<u>Waste Classification TDG</u>		<u>Quantity² (Kg or L)</u>
1	Explosives	50 ³
2.1	Compressed Gas (flammable)	500 ⁴
2.2	Compressed Gas (non-corrosive, non-flammable non-toxic)	5000 ⁴
2.3	Compressed Gas (toxic)	200 ⁴
2.4	Compressed Gas (corrosive)	500 ⁴
3.1	Flammable Liquids (flash point <-18°C)	1000
3.2	Flammable Liquids (flash point >-18°C)	2000
3.3	Flammable Liquids (flash point >23°C <61°C)	4000
4.1	Flammable Solids	5000
4.2	Spontaneously Combustible Solids	1000
4.3	Solids which React Violently with Water	500
5.1	Oxidizing Substances	1000
5.2	Organic Peroxides	50
6.1	Poisonous Substances	1000
6.2	Infectious Substances	500 ⁴
7	Radioactive	any amount ³
8	Corrosive Substances	1000
9.1	Miscellaneous	1000
9.2	Environmentally Hazardous	50 ⁵
9.3	Dangerous Waste	5000
Total Aggregate Quantity of Hazardous Waste		5000

¹ This applies to hazardous waste and not dangerous goods.

² Quality refers to liquids when the amount is expressed in liters (L) and solids when expressed in kilograms (kg).

³ Controlled under the authority of the Federal *Explosives Act* or *Atomic Energy Control Act*.

⁴ Total liquid volume capacity of the container.

⁵ PCB Storage is regulated by Environment Canada under the *Canadian Environmental Protection Act*.

6 Bibliography

Government of Alberta, Alberta Environmental Protection - Alberta User Guide for Waste Managers, Edmonton, (1996).

Government of Nunavut, Department of Sustainable Development - Guideline for Industrial Waste Discharge, Iqaluit, (2002).

Government of Nunavut, Department of Sustainable Development - Environmental Information Guide For Industrial Projects, Iqaluit, (2002).

Heinke, G. and Wong, J., Guidelines for the Planning, Design, Operation & Maintenance of Solid Waste Modified Landfill Sites in the NWT, Volume 1 & 2. Department of Municipal and Community Affairs, Yellowknife, (1990).

NWT Water Board, Northwest Territories Waters Act, Canadian Gazette Part II, Vol.127, No.13, (1993).

Appendix A: Dangerous Goods Classifications

Class 1: Explosives¹



Class 2: Compressed Gases

Division 2.1: Flammable Gases

Division 2.2: Non-Flammable Gases

Division 2.3: Poison Gases

Division 2.4: Corrosive Gases



Class 3: Flammable Liquids

Division 3.1: Flash Point < -1 8°C

Division 3.2: Flash Point > -1 8°C and < 23°C

Division 3.3: Flash Point > 23°C and < 61°C



¹ Class 1 and 7 are regulated under federal legislation and not subject to this guideline.

Class 4: Flammable Solids, Substances Liable To Spontaneous Combustion, Dangerous When Wet

Division 4.1: Flammable Solids

Division 4.2: Spontaneously Combustible

Division 4.3: Dangerous When Wet



Class 5: Oxidizers, Organic Peroxides

Division 5.1: Oxidizers

Division 5.2: Organic Peroxides



Class 6: Poisonous, Infectious Substances

Division 6.1: Poisonous

Division 6.2: Infectious Substances



Class 7: Radioactive Materials¹



Class 8: Corrosives



Class 9: Miscellaneous Dangerous Goods

Division 9.1: Miscellaneous Dangerous Goods

Division 9.2: Hazardous to the Environment

Division 9.3: Dangerous Wastes



Appendix B: Waste Exchanges and Associations

Exchanges

Alberta Action on Waste	1-800-463-6326 (780) 427-6982
British Columbia Waste Exchange	(604) 732-9253
Canadian Chemical Exchange	(450) 436-2525 1-800-561-6511
Ontario Waste Exchange	(416) 778-4199
Quebec Waste Materials Exchange	(418) 643-0394
Saskatchewan Waste Materials Exchange	(306) 931-3242

Associations

Assn. Quebecoise des Techniques de L'eau	(514) 874-3700 Fax
Canadian Chemical Producers Association - Chemical Referral Centre	(613) 237-6215
Canadian Water & Wastewater Association	(613) 747-0524
Environmental Services Association of Alberta	1-800-661-9278 (780) 429-6363
Northern Territories Water and Waste Association	(867) 920-8081
Ontario Waste Management Association	(905) 791-9500
Water Environment Association of Ontario	(905) 726-1300 1-888-355-1300
Western Canada Water & Wastewater Association	1-877-283-2003

If you would like to be placed on a mailing list to receive guideline amendments or for public consultation on Environmental Protection Service legislation please fill this out and mail or fax to:

Environmental Protection Service
Department of Sustainable Development
P.O. Box 1000, Station 1195
Iqaluit, Nunavut, X0A 0H0
Fax: (867) 979-5990

Users of this guide are encouraged to report any errors, misspellings, etc. contained within, to EPS at the above address.

Mailing List for Environmental Protection Service Information

Name: _____

Title: _____

Address : _____

Phone / Fax Number: _____