

Hamlet of Tuktoyaktuk

Water Licence Number: N5L3-0714

Hazardous Waste Management Plan

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Appendices

- Appendix A. Household Hazardous Waste Brochure, also available at:
http://www.enr.gov.nt.ca/sites/enr/files/brochures/household_hazardous_wastes.pdf

1. Introduction

1.1 Purpose

This Hazardous Waste Management Plan describes the facility and procedures used by the Hamlet of Tuktoyaktuk (Hamlet) to manage hazardous wastes in the community. The purpose of the plan is to:

- assist Hamlet staff with safe and sustainable management of hazardous waste
- document the Hamlet's practices to inform the Inuvialuit Water Board (IWB) and other stakeholders

1.2 Background Information

The Hamlet of Tuktoyaktuk is located on Kugmallit Bay of the Beaufort Sea west of the Mackenzie River delta, at 69°27' N latitude and 133°03'W longitude.

Tuktoyaktuk had an estimated population of 1026 in 2017 (NWT Bureau of Statistics, 2017).

The climate can be characterized by long cold winters and short cool summers. According to the Environment Canada Climate Normals (ECCCN, 1981 – 2010) collected at the Tuktoyaktuk Airport's weather station, the annual daily mean temperature is -10°C. The daily mean is -27°C in January and +11°C in July. The average annual precipitation is a total of 160.7 mm, consisting of 74.9 mm of rainfall and 103.1 cm of snowfall.

Figure 1 shows the location of the Hamlet.



Figure 1. Location of Tuktoyaktuk

Modified from original work of Algalv and Dr. Blofeld, Wikimedia Commons

1.3 Contact Information

P.O. Box 120, Tuktoyaktuk, NT X0E 1C0
Phone: 867-977-2286
Fax: 867-977-2110
Email: tuksao@northwestel.net

Attention: Senior Administrative Officer (SAO)

2. Hazardous Waste Containment Facility

2.1 Site Description

The Hamlet's temporary hazardous waste containment facility is located at the Municipal Yard, at 69°26'15"N latitude and 133°02'06"W longitude. Figure 2 is a map of the Hamlet showing the location of the Municipal Yard.

There are two access roads to the Municipal Yard: one from the Hamlet centre north of the Municipal Yard, and one near the air strip south of the Municipal Yard.



Figure 2. Location of Temporary Hazardous Waste Containment Facility at Municipal Yard

3. Security and Control

3.1 Public Access

Temporary chain link fencing around the Temporary Hazardous Waste Containment Facility is used to control public access to the facility.

3.2 Signage

There are two signs posted on the fence at the Temporary Hazardous Waste Containment Facility (THWCF), displaying the following information:

- Name of facility: HAMLET OF TUKTOYAKTUK MAINTENANCE GARAGE THWCF
- Telephone numbers for facility manager, hospital and local fire protection services: FACILITY MANAGER - 977 2479, HEALTH CENTRE – 977 2321, FIRE DEPARTMENT – 977 2222
- Showing the items that should be placed there (list of materials accepted at the facility): USED OIL, WASTE ANIT-FREEZE/SOLVENTS, BATTERIES, USED PAINTS, HOUSE HOLD HAZARDOUS WASTE
- Hours of operation: 8:30 AM TO 5:00 PM.
- List of material that are not accepted at the facility: ASBESTOS, CONTAMINATED SOIL, COMMERCIAL/INDUSTRIES HAZARDOUS WASTE.
- Tipping fees: HAMLET OFFICE ADMINISTRATION

4. Hazardous Waste Containment Facility – Staff

Table 1 below lists the Hamlet personnel responsible for Hazardous Waste Management and the Temporary Hazardous Waste Containment Facility.

Table 1. Hamlet Staff

Name	Phone	Email	Role
	867-977-2286	tuksao@northwestel.net	Senior Administrative Officer (SAO)
Katrina Cockney	867-977-2286	asao@tuktoyaktuk.ca	Acting Senior Administrative Officer
Davy Krengnektak	867-977-2479	tukforeman@northwestel.net	Municipal Services Manager (MSM)
			Operations staff

5. Staff Training

5.1 Staff Training

All personnel responsible for handling hazardous waste shall have Workplace Hazardous Materials Information System (WHMIS) training and shall follow appropriate safety procedures when handling hazardous waste.

Personnel working in or around the waste should receive (or have received) and maintain vaccination for Tetanus, Diphtheria (Td) and Hepatitis (A and B).

Municipal personnel will be trained for hazardous waste handling before participating in household hazardous waste collection events.

Table 2 lists any specialized training that has been taken by Hamlet staff responsible for hazardous waste management.

Table 2. Hamlet Staff Training

Training	Names of Staff with this training	Current or Expired?
Ozone Depleting Substances (halocarbons, refrigerants) technician	None	
Transportation of Dangerous Goods (TDG)	None	
Workplace Hazardous Materials Information System (WHMIS)	ROBERT B GRUBEN	N/A
Waste Management	None	
First Aid	DAVY KRENGNEKTAK ROBERT B GRUBEN SANDY ADAM	JULY 27, 2019 JULY 27, 2019 JULY 27, 2019
Hazardous Waste Operations and Emergency Response (HAZWOPER)	NIL	

5.2 Training Definitions

The definitions and descriptions below are from the IWB Hazardous Waste Management Plan – Template.

- Ozone Depleting Substances (halocarbons, refrigerants) technician

Definition: A technician who is otherwise qualified to service refrigerant equipment and has successfully completed the environmental awareness training course for refrigerants offered by the Heating, Refrigeration and Air Conditioning Institute of Canada. (1-day classroom course in addition to being a qualified technician)

This is required for draining refrigerants from vehicles, air conditioners, fridges, and other equipment. Refer to ENR's document *Environmental Guideline for Ozone Depleting Substances (ODS's) and Halocarbon Alternatives*: http://www.enr.gov.nt.ca/sites/default/files/guidelines/guideline_for_ozone_depleting_substances_and_halocarbon_alternatives.pdf.

- Transportation of Dangerous Goods (TDG)

Everyone who handles, prepares for transport or carries dangerous goods must be trained and certified. (Can be done online)

- Workplace Hazardous Materials Information System (WHMIS)

WHMIS training is required for any employee that requires this information to protect themselves from the hazards of the controlled products they handle at their workplace. (Can be done online)

- Waste Management

Training on municipal solid waste, solid waste collection, alternatives to solid waste, landfill operations and maintenance, regulatory requirements and occupational health and safety, such as the MACA School of Community Government Solid Waste Management course or through organizations such as Northern Alberta Institute of Technology (NAIT) and Solid Waste Association of North America (SWANA). (Classroom course)

- First Aid

First Aid training is recommended as a best practice for hazardous waste containment facility staff due to the inherent hazards of working at a hazardous waste site. (Standard First Aid is a 2-day classroom course)

- Hazardous Waste Operations and Emergency Response (HAZWOPER)

HAZWOPER training is recommended for larger sites, wherever practical. (40-hour classroom course)

6. Sources of Hazardous Waste

There are two main sources of hazardous waste generated in a community:

- I. Hazardous waste from the Industrial, Commercial, and Institutional Sector; and
- II. Household hazardous waste from residents.

The Hamlet of Tuktoyaktuk accepts household hazardous waste (HHW). The Hamlet does not accept hazardous waste from industrial/commercial/institutional sources.

Communities are not required to accept hazardous waste from the industrial/commercial/institutional sector. The industrial/commercial/institutional sector is required to transport their hazardous waste to a registered receiving facility. **Community disposal facilities are cautioned to register as hazardous waste receivers with ENR prior to accepting hazardous waste from the industrial/commercial/institutional sector.**

Any spill of hazardous waste or other hazardous materials, such as fuel, must be immediately reported to the 24-Hour Spill Report Line at (867) 920-8130, or by fax, email, or by filling out a form online. Additional information can be found on ENR's website: <http://www.enr.gov.nt.ca/programs/hazardous-materials-spills/reporting-spills> (or from <http://www.enr.gov.nt.ca>, click Programs, then Hazardous Materials Spills).

In the event of an **emergency involving dangerous goods**, call the Spill Report Line first. If there is no answer and you need help, you can call CANUTEC at 613-996-6666 or *666 on a cellular phone. For regulatory questions about Transportation of Dangerous Goods, you can find general contact information for CANUTEC and Transportation of Dangerous Goods regional offices online at: <https://www.tc.gc.ca/eng/canutec/menu.htm>

Household hazardous waste typically includes, but is not limited to, items such as used oil, paint, batteries, leftover cleaners, solvents, pesticides, thermostats, waste fuel, and aerosol cans that are generated by residents in their homes. A list of household hazardous waste is attached in Appendix A.

7. Hazardous Waste Collection and Disposal

7.1 Household Hazardous Waste Collection

The Hamlet of Tuktoyaktuk's hazardous waste program consists of periodic collections, one or two per year, during which citizens will bring their household hazardous waste to designated collection area(s). A designated drop off spot will be available year round at the facility. It is anticipated that the majority of the household hazardous waste (HHW) will be collected during HHW drop-off events organized by the Hamlet.

Advertising by the Hamlet of the collection event will begin a minimum of 30 days prior to each collection event. The advertisements give the location of the event as well as the dates and the time of day for bringing the wastes to the site. A household hazardous waste collection event will be held at a location easily accessible to the public. The collection event should be organized such that citizens can drive their vehicles through an area, and Hamlet staff will perform the unloading.

7.2 Hazardous Waste Storage

Hazardous wastes are stored temporarily at the Public Works Yard (Municipal Yard) in designated areas.

The temporary hazardous waste containment facility includes outdoor and indoor (shop) storage areas. Batteries are stored outside on pallets. There are separate plastic tote containers for:

- fuel, paint and solvents.
- contaminated water.
- contaminated soils.
- anti-freeze.
- Paint.
- Oils.
- Filters.

See Section 8 for more details about the temporary containment facility, including inspections.

7.3 Hazardous Waste Disposal

The accumulated hazardous waste will require ultimate disposal. Disposal is expected to occur every two to four years, when funding is available.

Hazardous waste is itemized and measured for volume and weight prior to leaving the temporary hazardous waste containment facility. Items are transported by truck to Whitehorse, YK for final disposal.

When hazardous waste is removed from the site, the MSM shall maintain a record of the date, description and volume of waste removed, and name of carrier. Table 6 in Section 8 shall be used to record this information. The MSM shall also obtain copies of the Transport of Dangerous Goods forms.

The Hamlet last disposed of hazardous waste in March 2017. The waste was packed by KBL Environmental, and transported by Manatoulin Transport to KBL Environmental in Whitehorse.

8. Hazardous Waste Information

8.1 Hazardous Waste Descriptions

The following descriptions are from the IWB Hazardous Waste Management Plan – Template.

Asbestos: Exposed asbestos fibres from construction and demolition debris present a risk to human health. The risks to human health are lowered to safe levels when asbestos is properly packaged according to the conditions set by the Worker Safety and Compensation Commission. Once this has taken place, a hole must be dug in advance of acceptance and the asbestos needs to be buried immediately. The location needs to be documented to prevent future disturbance. Further details can be found in ENR's document *Guideline for the Management of Waste Asbestos*: <http://www.enr.gov.nt.ca/sites/default/files/guidelines/asbestos.pdf>.

Lead-acid batteries are commonly found in vehicles. Both the lead and the acid are contaminants. Batteries in good condition can be stacked on pallets and banded or shrink-wrapped for transportation when enough have been collected to make shipping worthwhile. Store broken batteries in a pail or other container to prevent spills and avoid contact with battery acid. Further details can be found in ENR's document *Guideline for the Management of Waste Batteries*: <http://www.enr.gov.nt.ca/sites/default/files/guidelines/batteryguideline.pdf>.

Glycols: Waste antifreeze (Ethylene Glycol) is generated from vehicle maintenance. Propylene glycol is more common to the industrial/commercial sector where it is used for heating larger buildings. Glycols can be stored in pails or drums until the quantity warrants shipping. Further details can be found in ENR's document *Guideline for the Management of Waste Antifreeze*: <http://www.enr.gov.nt.ca/sites/default/files/guidelines/antifreezeguideline.pdf>.

Hydrocarbon-contaminated soil, snow, and water that result from spills or contaminated sites are managed as a hazardous waste in the NWT. Hydrocarbons include diesel, heating oil, gasoline, and other petroleum products. Communities wanting to store or treat contaminated soil, snow, or water may need to amend their water licence. Contact ENR for guidance on developing appropriate facilities.

Mercury is a severely toxic contaminant. Disposal needs to be reduced to levels as low as reasonably achievable. Thermostats, thermometers, mercury switches and fluorescent lamps all contain mercury. They can be safely stored in clearly marked pails. Drum-top crushing equipment can be used to remove the mercury from fluorescent bulbs. Other types of mercury-containing lights (i.e. street lamps or high intensity discharge lamps from the industrial/commercial sector) require specialized disposal methods and usually need to be transported to southern receiving facilities. For further information, see ENR's document *Guide to Recycling Mercury-Containing Lamps*: http://www.enr.gov.nt.ca/sites/default/files/brochures/mcl_recycling_per_web_2012_guide.pdf.

Oily debris can consist of rags, sorbent material, or containers used to store or clean up oil. These materials are contaminants that cannot be added to a typical soil treatment facility, but need to be kept segregated from other waste.

Ozone depleting substances (ODS), also referred to as halocarbons, are chemicals mainly used in air conditioning and refrigeration equipment. The release of these substances depletes the ozone layer and is prohibited. Refrigerants need to be recovered by a trained technician prior to disposal of items containing refrigerants, including refrigerators, freezers and vehicles. Specific training is required for anyone servicing equipment containing ODSs and halocarbon alternatives. For more information, see ENR's document *Environmental Guideline for Ozone Depleting Substances (ODS's) and Halocarbon Alternatives*: http://www.enr.gov.nt.ca/sites/default/files/guidelines/guideline_for_ozone_depleting_substances_and_halocarbon_alternatives.pdf.

Paint: Paint can contain a number of hazardous chemicals, including lead. Whenever possible, paint should be used rather than disposed of. If it can't be used, the disposal method depends on the type of paint (check the label). Oil-based paint should be stored in approved 205 litre drums, ready for shipping. Latex paints can be landfilled after they are completely dried out (they can be spread out on a board or sheet to dry). Industrial/commercial paints usually need specialized treatment methods and should not be collected at the community Solid Waste Disposal

Facilities. Check ENR's document *Guideline for the Management of Waste Lead and Lead Paint* (http://www.enr.gov.nt.ca/sites/default/files/guidelines/guideline_waste_lead_and_paint.pdf) for more information.

Propane tanks and aerosol cans are regulated as a dangerous good and are a potential explosion hazard at all times. Propane tanks can be returned to the retailer or supplier for safe storage and transport. Trained staff can safely evacuate the propane gas, making the tanks safe for scrap metal. Large propane tanks and other compressed gas canisters from the industrial/commercial sector should not be collected at the community hazardous waste containment facility.

Residue Fuel Tanks / Heating Oil Tanks / Residue Drums: Fuel storage tanks and drums often contain residue (e.g. sludge at the bottom), or may still contain flammable vapours. Tanks must be properly emptied prior to disposal as scrap metal. Empty drums need to be stored on their sides to prevent water from accumulating.

Used oil can be used as feedstock for a used oil furnace if the testing and other conditions in the *Used Oil and Waste Fuel Management Regulations Plain Language Guide* (http://www.enr.gov.nt.ca/sites/default/files/guidelines/used_oil_guide.pdf) are met. Used oil can be stored in clearly labelled good quality tanks or drums. Do not let drums or pails be contaminated with glycol or solvents. Do not accept excessive volumes from the industrial/commercial sector.

Waste Fuel: Residents generate waste fuel from the use of gas-powered equipment and need a local disposal option. Waste fuel from residents can be bulked into UN-approved steel drums at Household Hazardous Waste collection events, or on a daily basis. The decision to accept waste fuel from residents on a daily basis requires appropriate screening methods to screen out incompatible materials from residents and excessive volumes of fuel or solvents from the industrial/commercial/institutional sector.

Vehicles: End-of-life vehicles contain antifreeze, batteries, fuel, mercury switches and other lubricating fluids that are considered hazardous waste and need to be removed. Once the hazardous materials are removed, the rest of the vehicle can be treated as scrap metal. **Refrigerants from air conditioning systems will need to be removed by a trained technician.**

8.2 Accepted Wastes

Table 3 lists hazardous wastes accepted at the Hamlet of Tuktoyaktuk's Temporary Hazardous Waste Containment Facility. Household hazardous wastes expected to be received at the Municipal Yard include paint, pesticides, batteries, solvents, antifreeze, used motor oil, motor switches, halogen bulbs, etc.

The "maximum quantity stored onsite" column indicates how much of each material is allowed to accumulate at the temporary hazardous waste containment facility before being ultimately disposed of .

Table 3. Accepted and Not Accepted Hazardous Wastes

Hazardous Waste	Accepted from residential sector (Yes or No)	Accepted from industrial / commercial sector (Yes or No)	Quantity stored onsite	Maximum quantity stored onsite	Name and location of hazardous waste containment facility	Name and location of alternate facility for residential disposal:
Asbestos	NO	NO	NO	NO	N/A	N/A
Lead-acid batteries (e.g. car batteries)	YES	NO	30	30 ANNUALLY	HAMLET GARAGE YARD	N/A
Waste antifreeze/glycols	YES	NO	200 LITERS ANNUALLY	400 LITERS	HAMLET GARAGE YARD	N/A
Hydrocarbon contaminated soil, snow, water	YES	NO	200 LITERS ANNUALLY	400 LITERS	HAMLET GARAGE YARD	N/A
Mercury containing equipment	YES	NO	NO INVENTORY	100 LBS	HAMLET COLD STORAGE	N/A
Oily debris	YES	NO	NO INVENTORY	200 LBS	HAMLET GARAGE YARD	N/A
Ozone-depleting substances (ODS), halocarbons, or refrigerants	YES	NO	NO INVENTORY	200 LITERS	HAMLET GARAGE YARD	N/A
Paint	YES	NO	20-30 LITERS	800 LITERS	HAMLET GARAGE YARD	N/A
If paint is accepted:	Describe methods used to screen out paint types that are not accepted:					
	ALL PAINT ACCEPTED FROM RESIDENTIAL SECTORS. NO COMMERCIAL/INDUSTRIES.					
	Describe methods used to segregate (keep separate) different types of paint (e.g. acrylic (latex), oil-based, and lead-amended):					
	ALL PAINT SEGREGATED WHEN ITEMS ARE BEING SHIPPED FOR DISPOSAL.					
Propane tanks	YES	NO	YES	10 TANKS (20LBS)	SOLID WASTE DISPOSAL SITE (SWDS)	N/A
Residue fuel tanks, heating oil tanks, residue drums	NO	NO	N/A	N/A	N/A	N/A
If tanks and drums are accepted:	Describe conditions for acceptance (e.g. do they have to be punctured, drained, sludge removed, etc. before the facility will take them?) N/A					
Used oil	YES	NO	200 LITERS	1000 LITERS	HAMLET GARAGE YARD	N/A
Waste fuel	YES	NO	200 LITERS	1000 LITERS	HAMLET GARAGE YARD	N/A
Vehicles (from which batteries, fluids and mercury switches have not been removed)	NO (Note 1)	NO	30 VEHICLES	50 VEHICLES	SWDS	N/A

Note 1: Vehicles are accepted at the SWDS if batteries, fluids and mercury switches have been removed

8.3 Hazardous Waste Storage

Section 7.2 describes the general layout of the temporary hazardous waste storage site.

The Hamlet stores most liquid hazardous waste in large plastic tote containers to prevent spills and leaks. Containers are sealed/closed.

Good housekeeping should be maintained and any wastes stored should be segregated by type. For example, batteries should be together, paint cans together, etc.

All hazardous waste accepted at the Municipal Yard should be properly labeled and identified. For example, drums should be labelled with type of waste, date received, status, etc.

Safety Data Sheets (SDS) (formerly Material Safety Data Sheets, MSDS) should be obtained for all hazardous waste received. The SDS for hazardous materials should be kept at the temporary hazardous waste containment facility, updated as required and available for reference. MSDS for several products are provided in the *Hamlet of Tuktoyaktuk - Spill Contingency Plan*.

Table 4 describes the types of containment used at the Hamlet of Tuktoyaktuk facility. The types of containment are:

Primary containment is the container in which materials are stored, such as a drum, bag, bin, box, tote, or pallet.

Secondary containment may include a lined berm/dyke, metal box, concrete box or other physical barrier surrounding the primary containment.

Other methods to prevent spills and leaks may include storage arrangements such as “stored upright on pallets”, handling procedures, or other ways of preventing spills.

Security measures may include separately fenced areas, locked structures, or other methods.

All fluorescent bulbs are stored in plastic tote in the cold storage warehouse, to ensure they stay dry. Mercury-containing equipment is stored in a plastic covered container to prevent breakage.

Table 4. Containment Used at Hazardous Waste Containment Facility

Materials	Containment			
	Primary Containment (specify such as: not accepted, Bag, Bin, Box, Drum, Tote, Pallet, others)	Secondary Containment (specify such as: not accepted, Lined berm/dyke, Metal box, Concrete box, other)	Other method to prevent spills and leaks (specify)	Security measures
Lead-acid batteries	PALLET			FENCED IN
Waste antifreeze/glycols	TOTE			FENCED IN
Mercury containing equipment	PLASTIC CONTAINER WITH COVER			WAREHOUSE STORAGE
Oily debris	SEALED 200 LITER DRUMS			FENCED IN
Ozone-depleting substances (ODS), halocarbons, or refrigerants	200 LITER DRUM			FENCED IN
Paint	TOTE			FENCED IN
Propane tanks	PALLET			SWDS
Residue fuel tanks, heating oil tanks, residue drums	N/A			N/A
Used oil	TOTE			FENCED IN
Waste fuel	TOTE			FENCED IN
Vehicles	DRAINED OF LIQUIDS AND STORED AT SWDS			SWDS

8.4 Hazardous Waste Draining and Disposal

Hamlet staff do not remove ozone-depleting substances (refrigerants) from refrigerators, air conditioners, and other items.

The Hamlet currently only accepts vehicles at the Solid Waste Disposal Site if liquids, batteries, and mercury switches have been removed. Note that a trained technician must remove the refrigerant from vehicle air conditioning systems.

The Hamlet does not accept fuel tanks and drums unless they have been cleaned with detergent.

8.5 Inspection

The Hamlet's MSM should inspect the hazardous waste containment facility weekly, and record the results of each inspection. During an inspection, look for problems such as spills or poor housekeeping. At least once per month, update the inventory of materials stored at the site.

Also see Section 11, Record-Keeping.

8.6 Hydrocarbon-contaminated Soil, Snow and Water

The Hamlet only accepts hydrocarbon-contaminated soil, snow, and water from the residential sector. The Hamlet does not have a treatment facility for this waste.

8.7 Hazardous Waste Disposal

Table 5 shows how various types of hazardous materials are ultimately disposed of.

Table 5. Hazardous Waste Disposal by Type of Material

Materials	Not applicable	Landfilled at site	Managed at site (but not landfilled)	Shipped out for recycling or disposal	Other (specify)
Asbestos	N/A	-	-	-	
Lead-acid batteries	-	-	YES	YES	
Waste antifreeze/glycols	-	-	YES	YES	
Mercury-containing equipment	-	-	YES	YES	
Oily debris	-	-	YES	YES	
Ozone-depleting substances (ODS), halocarbons, or refrigerants	-	-	YES	YES	
Paint	-	-	YES	YES	
Propane tanks	-	-	YES	-	
Residue fuel tanks/drums	N/A	-	-	-	
Used oil	-	-	YES	YES	
Waste fuel	-	-	YES	YES	
Vehicles	-	-	YES	-	

Section 7.3 describes how the Hamlet disposes of hazardous waste. Table 6 below is a template for recording the transportation of hazardous waste to an approved hazardous waste disposal facility.

Table 6. Hazardous Waste Disposal Record

Description of hazardous waste shipped out for recycling or disposal	Quantity	Name of approved hazardous waste disposal facility	Location of approved hazardous waste disposal facility	Date	Means of transportation (carrier)

9. Reuse and Treatment

The Hamlet does not reuse hazardous waste (paint, etc.).

The Hamlet does not treat any hazardous wastes, including contaminated soil. Residential and commercial sectors are responsible for treatment and disposal of contaminated soil.

10. Tipping Fees

The Hamlet charges tipping fees for the following waste categories:

- General Municipal Solid Waste (MSW)
- Industrial/commercial waste (e.g. from contractors or businesses) not including hazardous waste

The Hamlet does not charge any fees for household hazardous waste accepted at the public works yard. The Hamlet does not currently charge tipping fees for vehicles that are drained of all fluids.

11. Record-Keeping

11.1 Records

The Hamlet should keep the following records related to the hazardous waste containment facility:

- inventory of hazardous material stored on site
- results of weekly inspections
- monthly reports

- annual reports
- hazardous waste disposal records (shipments off site) including details not required in annual reports

Hamlet personnel shall maintain an inventory record of all hazardous waste on site, including date of receipt, description, volume, generator, and method of storage. The MSM shall check the inventory at least once per month.

11.2 Monthly Reports

The Hamlet must keep a monthly summary of:

- All quantities of hazardous waste stored at the Hazardous Waste Containment Facility
- Any quantities of hazardous waste transported off site for disposal

11.3 Annual Reports

The Hamlet's Water Licence (N5L3-0714) requires an annual report be submitted to the IWB no later than the date stipulated in the current water licence for the previous calendar year.

The annual report must contain the following related to hazardous waste:

- A summary of the monthly and annual quantities of hazardous waste stored on site and transported off site, including the location and treatment or disposal plans for the remaining quantities;
- Any problems, modifications or repairs done to the temporary hazardous waste containment facility;
- A list of any spills and unauthorized discharges;
- A description of any spill training and/or other operator training carried out;
- A description of any studies requested by the Board that relate to hazardous waste management;
- Any updates and/or revisions to the approved Hazardous Waste Management Plan;
- Results of staff inspections on temporary hazardous waste containment facility, including all dams, berms, dykes, and control structures, and any corrective actions, as necessary; and
- All correspondence between the Inspector and the Licensee (Hamlet)

Annual reports should also describe any collection / drop-off events that were held for hazardous waste.

11.4 Location of Records

Records shall be kept in the Municipal Services Office for at least the current and previous water licence. Digital copies are preferred and should be backed up regularly.

12. Health and Safety

The Hamlet follows the safety procedures listed below to minimize health risks (to workers and the public) associated with hazardous waste handling and management:

- Wear safety boots, gloves, face shields and other personal protective clothing and equipment when handling or working near hazardous waste.

- Maintain appropriate First Aid Kit and eyewash station at site
- Keep the site tidy to reduce the risk of injuries due to slipping or tripping.
- Keep Safety Data Sheets on site to inform staff about the hazards, first aid measures, and other information about each hazardous waste.

The Hamlet follows these environmental safety procedures to protect the environment from adverse effects associated with hazardous waste handling and management:

- Provide containment for hazardous wastes as described in Section 8
- Inspect hazardous waste containment facility regularly (weekly)

13. Emergency Response

In all emergencies the MSM will be responsible for evacuating personnel, notifying the appropriate response agency and Hamlet SAO, and managing the situation prior to the arrival of the response agency. Refer to the landfill O&M manual for the Hamlet's detailed emergency response plan.

The Hamlet keeps empty barrels at the Municipal Yard in case of spills on site.

Refer to the following existing Hamlet emergency response plans as needed:

- Spill Contingency Plan, particularly the Procedures for Transferring, Storing and Managing Spill-Related Hazardous Waste (section 3.4 in the Spill Contingency Plan)
- Hazardous Material Spill Contingency reference guide (section 11.10 in the Municipal Solid Waste Disposal Facility O&M Plan)
- Personal Decontamination Procedure for contact with unknown substances (section 8.4 in the Solid Waste Disposal Facilities O&M Plan)
- Fire response plan and fire reference guides (sections 9, 11.1 and 11.2 in the Solid Waste Disposal Facilities O&M Plan)

Copies of the O&M manuals and plans are located at the Hamlet administrative office and at the Municipal Yard.

Emergency contact numbers are listed in Table 7 below.

Table 7. Emergency Contact List

Contact	Phone Number
Fire Department	867-977-2222
Police (RCMP)	867-977-1111
Medical (Tuktoyaktuk Health Centre)	867-977-2321
Medical (Inuvik Regional Hospital – Emergency Department)	867-777-8160
24 Hour Spill Report Line	867-920-8130
GNWT Environment and Natural Resources – Water Resource Officer (Inspector)	867-678-6676

14. References

AECOM, *Hamlet of Tuktoyaktuk - Municipal Solid Waste Disposal Facility Operation and Maintenance (O&M) Plan*, 2018

AECOM, *Hamlet of Tuktoyaktuk – Spill Contingency Plan*, 2018

GNWT, *Guideline for Hazardous Waste Management*, Oct 2017

Google Earth Pro 2018 (image and GPS coordinates)

Inuvialuit Water Board, *Hazardous Waste Management Plan – Template*, 2018.

NWT Bureau of Statistics, *Population Estimates by Community*, July 1, 2017

Appendix A

**Household Hazardous Waste Brochure
(GNWT ENR)**

HOUSEHOLD HAZARDOUS WASTES

Household Hazardous Wastes (HHW) are products used in your home, workplace and places of leisure and recreation. They can be flammable, corrosive, explosive or toxic, and harmful to you and the environment if they are not handled properly. Household hazardous wastes are materials like household cleaners, paints, batteries, solvents, oil, pesticides, fertilizers, mercury items, and aerosol cans.



REDUCE YOUR USE!

Avoid disposal of household hazardous waste.

- Purchase only what you need
- Share leftover materials
- Choose environmentally friendly alternatives
- Visit **www.lesstoxicguide.ca** for environmentally friendly products

CHOOSE LESS HARMFUL PRODUCTS

- Choose products low in phosphates, chlorine, dyes and perfumes.
- Water-based (acrylic/latex) paints contain less toxic solvents and thinners.
- Pull weeds by hand or spray with natural chemicals.

HHW STORAGE

All hazardous materials should be clearly labeled and stored in secure containers away from children and pets. Hazardous materials should never be stored in food containers and they should never be poured down the drain or thrown into your household garbage. Manufacturers' labels provide additional information about storage, transportation, and proper disposal.

HOUSEHOLD HAZARDOUS WASTES SHOULD BE BROUGHT TO AN HHW COLLECTION SITE

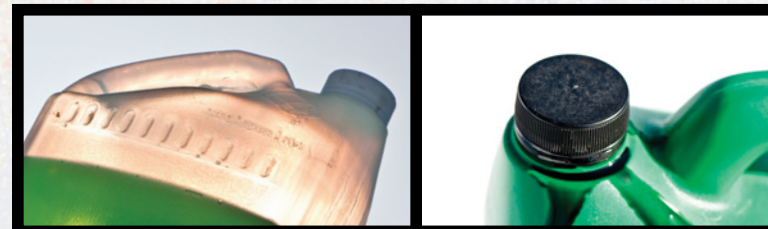


PAINTS, STAINS, AND ADHESIVES

KEEP FROM FREEZING FOR RE-USE!

Newer paint (oil & acrylic/latex), stains, and some adhesives contain less toxic materials and therefore have a greater re-use potential if they have not been frozen or exposed to air for extended periods of time.

Older oil-based paints and marine paints contain greater amounts of heavy metals and solvents which are toxic to humans, animals, and the environment. Paints, stains, and adhesives should be brought to a HHW collection event for disposal.



SOLVENTS, FUEL, OIL AND ANTIFREEZE

KEEP SEPARATE AND LABEL YOUR CONTAINER!

Solvents, fuel, oil, and antifreeze contain toxic materials and should be kept in secure containers away from children and pets. Used oil can be recycled or used for heat recovery in local approved burners. Flammable liquids must be stored in clearly marked, secure containers away from sparks and flames and brought to a HHW collection event for disposal.



BATTERIES

USE RECHARGEABLE BATTERIES - SAVE MONEY!

Lead Acid Batteries Greater than 1kg

Lead acid batteries greater than 1kg (usually found in boats and automobiles) should be disposed of at an approved community facility, or brought to a HHW collection event for disposal.

Rechargeable Batteries

Most rechargeable batteries, like those found in cellular phones, radios, portable tools, computers, and other electronic equipment contain toxic substances and should be disposed of through a HHW collection event or through the Rechargeable Battery Recycling Corporation (RBRC). Call 1-800-8-BATTERY or visit www.rbrc.org for more information. If you can't find a RBRC recycling box in your community, consider starting your own!

Disposable Batteries

Disposable alkaline batteries (sizes AAA – D and 9 volt) produced in North America no longer contain toxic substances, like mercury, and they are recyclable. Button cell batteries found in watches contain small amounts of mercury.

Alkaline and rechargeable batteries should be segregated and brought to a HHW collection event for disposal.

PESTICIDES

Pesticides, including insect repellents, herbicides, and wood preservatives are toxic and should be stored in secure containers to minimize human and animal exposure.

FERTILIZERS

Fertilizers are considered to have a low level of toxicity, but have the potential to react with other compounds and should always be kept away from flammable materials. Pesticides and fertilizers should be brought to a community HHW collection event for disposal.



EXPIRED MEDICATION

KEEP OUT OF THE SEWERS AND SEPTIC TANKS!

Unwanted or expired medication should be returned to the point of purchase wherever possible. Medication may also be stored in a secure container, labeled and brought to an HHW collection event for disposal.



MERCURY

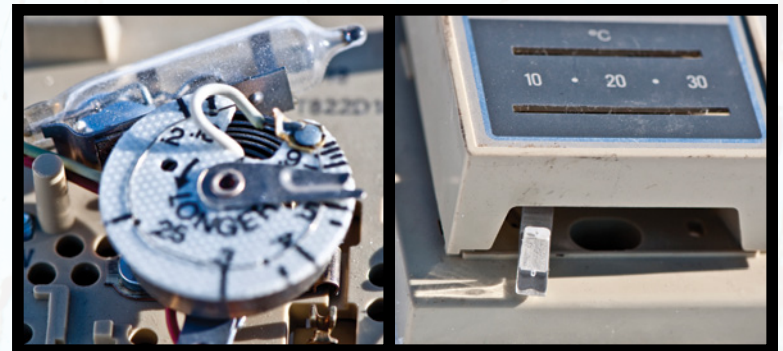
Fluorescent Bulbs

Fluorescent Bulbs save energy but contain small amounts of Mercury

Thermostats and Thermometers

Thermostats and thermometers contain high amounts of mercury.

Mercury containing items should be brought to a HHW collection event or a community bulb collection facility for disposal.





PROPANE TANKS AND AEROSOL CANS

Propane tanks and aerosol cans are potential explosion hazards and are dangerous to disposal facility operators as well as the public. Check your community listings for an appropriate place to dispose of propane tanks. Aerosol cans should be stored in a secure location and brought to a HHW collection event for disposal.



HOUSEHOLD CLEANERS

MIXING HOUSEHOLD CLEANERS CAN PRODUCE TOXIC GASES

Many household cleaners contain low amounts of toxic, synthetic chemicals, and other compounds. They should be stored in a secure container, away from children and pets, and should never be mixed. Unwanted household cleaners should be brought to a HHW collection event for disposal.

Another good resource for cleaner alternatives can be found at www.turi.org.



REMEMBER

Household Hazardous Waste should always be kept out of reach of children and pets, and receive proper storage, transportation, and disposal.

MATERIALS ACCEPTED AT HHW COLLECTION EVENTS AND COLLECTION SITES

Abrasive cleaners	Kerosene
Acetone	Laundry stain removers
Aerosol paints & sprays	Laundry starch
Air fresheners (aerosol)	Lighter fluid
All-purpose cleaners (solvent based)	Liquid cleaners
Ammonia	Lye
Ant/wasp spray	Mildew removers
Antifreeze	Muriatic acid
Autobody filler	Nail polish & remover
Barbecue starters	Oven cleaners
Batteries (alkaline, lead acid, rechargeable)	Paint
Bleach	Pharmaceuticals
Brake fluid	Photographic chemicals
Butane refills	Power steering fluid
Car waxes & polishes	Propane gas cylinder
Carbon tetrachloride	Rubbing alcohol
Contact cement	Septic tank degreaser
Degreasers (petroleum based)	Shoe polish
Disinfectants	Silver & brass polish
Drain cleaners	Solvents, (turpentine, varnish, lacquers)
Fertilizers	Spot removers
Floor wax strippers	Thermostats
Fluorescent light bulbs	Thermometers
Fuel	Toilet cleaners
Fuel additives	Transmission fluid
Grease	Tub & tile cleaners
Hair sprays (aerosol)	Used oil
Insecticides	Weed killers
	Windshield washer fluid
	Wood preservatives

WHERE DOES HHW GO WHEN IT'S COLLECTED?

Hazardous waste that cannot be managed locally is transported in secure containers to hazardous waste treatment facilities.

HAZARDOUS WASTES **NOT** ACCEPTED AT HHW COLLECTION EVENTS

- ⚠ No waste from businesses, industries or institutions
- ⚠ No explosives
- ⚠ No infectious materials
- ⚠ No radioactive waste
- ⚠ No ammunition

*Special arrangements may be made if you call in advance.
Please call (867) 920-8044.

PROTECT OUR ENVIRONMENT AND KEEP HAZARDOUS WASTE OUT OF OUR SEWERS AND LANDFILLS!



Northwest Territories Environment and Natural Resources

March 2010