## HAZARDOUS MATERIALS MANAGEMENT GUIDE FOR NUNAVIK

for the general public

Guide No. 2





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This guide is the second in a series of three guides. Guide No. 1 is intended for municipalities and regional organizations that regularly handle hazardous materials. Guide No. 3 is a reference guide for municipalities and organizations responsible for environmental contamination responses and contaminated-site remediation.

## **1 INTRODUCTION**

The objective of the *Residual Hazardous Materials Management Guide for Nunavik* is to identify hazardous products and explain how they may be handled and stored safely. The Guide also aims to increase awareness among the general public of the impacts of hazardous materials on human health and the environment.

#### 1.1 Hazardous Products

Hazardous materials pose risks to human health and the environment. To reduce these risks, special disposal techniques are required. Various types of hazardous products are found in homes, garages and sheds in Nunavik. The most common are:

- Vehicle fluids (oil, antifreeze, fuel, brake fluid, windshield-washer fluid, transmission fluid, etc.). These fluids are highly flammable and toxic, and may contaminate the ground and water.
- Household cleaning products (bleach, ammonia, disinfectants, carpet freshener, air freshener, window cleaners, furniture polish, etc.). The most common ingredients in household cleaning products are: alkalis, acids, detergents and other toxic chemicals. The strongest products may irritate and burn the skin and eyes. If swallowed, they may cause internal harm and be fatal.
- Laundry products (laundry detergent, fabric softener, etc.). Phosphates, which are often contained in laundry detergents and some cleaning products, are one of the biggest sources of pollutants in lakes, rivers and oceans.
- Health and beauty products (hair spray, hair remover, fingernail polish, fingernail polish remover, hair-colouring products, medication, etc.). Products containing formaldehyde, paraben and petroleum may cause allergies and cancer. Most hair sprays and aerosols are highly flammable and toxic. Expired medication may be returned to the pharmacy or the CLSC in your community. Health professionals will then make sure that it is transmitted properly for disposal.
- **Barbecue products** (propane, charcoal briquettes, lighter fluid, etc.). These products are a fire risk. In addition, the burning of charcoal and wood releases hydrocarbons and produces soot that pollutes the air and may aggravate heart and lung troubles (polycyclic aromatic hydrocarbon or PAH).
- Home maintenance products (paint, varnish, stain, oil, mouse and rat poison, etc.). These products may contain carcinogens and are highly flammable.

- **Batteries.** Batteries contain heavy metals that may leak and contaminate the ground and water. Batteries also contain corrosive materials that may irritate and burn the skin.
- Household appliances. Household appliances, such as refrigerators, freezers and air conditioners, contain halogenated hydrocarbons. These appliances also contain coolant that produces chlorofluorocarbons (CFCs). CFCs collect in the atmosphere, contributing to the depletion of the ozone layer.
- Light bulbs (fluorescent tubes, mercury-vapour lamps and high-intensity discharge lamps). These products may contain mercury. Long-term exposure to mercury is dangerous for human health and the environment.
- Insect repellants and horticultural products (fertilizer, pesticides, herbicides, gasoline, oil, etc.). The toxic substances contained in these products may be hazardous to humans, plants and domestic animals. Always use natural, slow-release fertilizers.

#### 1.2 Hazardous Product Labels

Hazardous products should always be handled with precaution. Read the labels and follow directions carefully. Pictograms appear on the packaging of these products to illustrate the hazards. With or without signal words, they are intended to serve as warnings. Pictograms may also appear inside symbols that indicate the product's degree of hazard.

WARNING	DANGER	CAUTION
$\diamond$	0	$\bigtriangledown$
Special hazard Special requirements	Severe hazard Immediate harm	Moderate hazard Long-term / hidden harm

Examples of	<b>pictograms:</b> Designates a <b>poisonous</b> or <b>toxic product</b> that is harmful or fatal if swallowed, inhaled or absorbed through the skin.
M	Designates a <b>corrosive</b> product that, due to its chemical elements or its vapours, may destroy living tissue (for example, skin, lungs, etc.) and other materials on contact.
*	Designates a product that may cause <b>irritation</b> (such as inflammation and swelling) of the skin, eyes, mucous membranes and respiratory system.
	Designates a <b>flammable</b> product that may catch on fire easily and produce flames.
	Designates an <b>explosive</b> product that may explode if heated or punctured.
Examples of	f symbols:
$\bigtriangledown$	Indicates a moderate degree of hazard that may produce long-term or hidden harm. Special <b>care</b> must be taken with these products.
$\Diamond$	Indicates a special hazard with special requirements. It represents a warning.
Ο	Indicates a <b>severe hazard</b> that may produce immediate harm.

#### **1.3 Potential Effects**

The mismanagement or non-management of hazardous materials may be harmful for humans, plants and animals. Several human health problems are caused by exposure to hazardous materials. Long-term exposure to these materials may even harm vital organs, affect the immune system and be fatal. For example, water contaminated with hazardous materials could infiltrate an entire community water supply system, impacting on human health and the environment.

## 2 HAZARDOUS MATERIALS MANAGEMENT

#### 2.1 Pollution Prevention: Reduce, Reuse, Recycle and Reclaim

An effective and proactive management practice is to eliminate or reduce the use of hazardous materials. This is referred to as pollution prevention or the 3 R-R method: reduce, reuse, recycle and reclaim.

#### Reduce

Reduce refers, first and foremost, to using fewer resources as well as decreasing our consumption of goods. Basic cleaning products can be made with items you already have at home. For example, windows may be cleaned with a mixture of water and vinegar. Lemon juice is also an effective cleaner.

#### Reuse

Before recycling or throwing anything out, ask yourself if it can be reused. You may have a new use for the materials or decide to make them available to others. For example, a recently purchased product, which has been properly stored and labelled but is no longer needed, may be given to a friend, neighbour or community group for their use.

#### Recycle

Recycling is a process whereby reusable materials, instead of being thrown out, are collected and transferred to a designated location for reprocessing. The materials are then used to produce similar or new products.

#### Reclaim

Reclamation is a process whereby value is added to residual materials. For example, energy recovery may be practised by burning used oil in a certified furnace.

#### 2.2 Safety

When handling hazardous materials, safety should always be the number one concern. To reduce exposure, personal protective equipment should be worn, such as rubber gloves, a mask, safety goggles and other related gear. This equipment does not eliminate the hazard, but it does reduce the risk of accident and injury.

#### 2.3 Storage Tips

All of us have in our homes, garages and sheds products that may be hazardous if not used, stored and disposed of properly. These products pose serious risks to human health and the environment. If however they are handled properly, they may be relatively safe.

#### Keep out of reach of children.

Cleaning and other chemical products may be fatal. They should be stored in cabinets out of the reach of children. Locked cabinets are even safer. Teach your children about the hazards posed by chemical products.

#### Post emergency telephone numbers.

Keep emergency telephone numbers next to your telephone or post them on your refrigerator. These numbers should include the fire department, the police, the Québec poison control centre (1-800-463-5060), and the local health centre or CLSC.

#### • Don't place chemical products near food.

Chemicals may spread and should therefore never be placed near food that could become contaminated.

#### • Don't store flammable liquids or gases in homes.

Propane cylinders, gas cans, fire starters and vehicle fluids should not be stored in homes. Compressed gasses, like propane, should be stored outside or in wellventilated sheds. Never store flammable liquids or gases near heat or ignition sources, and only in their original container or approved containers for flammable liquid or gas.

#### • Keep chemical products in their original containers.

Chemical products should never be transferred to another container, unless the container is properly labelled and compatible with the chemical product. More specifically, chemical products should never be transferred to empty food containers, like yogurt containers or Mason jars.

#### Use alternative products.

Less hazardous products may be used for common household chores. Use products labelled biodegradable, phosphate-free and eco-certified.

#### 2.4 Disposal

Hazardous products should never be burned, or disposed of in your community or the environment. Moreover, many hazardous products should not be disposed of as regular trash or poured down the sink or toilet. Hazardous products should be transferred to a locally designated hazardous residual materials collection site. Contact your Northern village to learn the location of this site or to encourage municipal leaders to set one up.

## **3 CONCLUSION**

This guide represents a brief introduction to hazardous materials management. While it is intended as a source of information, it in no manner whatsoever replaces applicable Québec and Canadian regulations.

If you are aware of a spill or for further information about hazardous materials, contact the Kativik Regional Government or the Québec government:

#### Kativik Regional Government

Renewable Resources, Environmental and Land Use Planning Department Environmental Specialist P.O. Box 9 Kuujjuaq QC JOM 1C0 Tel.: 819-964-2961 Toll free: 1-877-964-2961 Fax: 819-964-0694 www.krg.ca

#### Ministère du Développement durable, de l'Environnement et des Parcs

Regional Analysis and Expertise Branch for Abitibi–Témiscamingue and Nord-du-Québec Emergency Coordinator

180 Rideau Blvd., Suite 1.04 Rouyn-Noranda QC J9X 1N9 Tel.: 819-763-3333, ext. 256 Hot line: 1-866-694-5454 Fax: 819-763-3202 www.mddep.gouv.gc.ca

#### NOTES:



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# HAZARDOUS MATERIALS MANAGEMENT GUIDE FOR NUNAVIK

for the general public

**HAZARDOUS WASTE** 



#### • Your local municipality, or

- KRG: 1-819-964-2961, or
- MDDEP: 1-866-694-5454



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الما معدولة ولاك Administration régionale Kativik Kativik Regional Government