

Environmental Programs

Special Waste Regulations

Special Waste Regulations – General Information

Introduction

Special wastes can negatively affect human health and the environment if they are not handled and disposed of properly. Improper handling of special waste can cause soil, groundwater and surface water contamination, air pollution, direct poisoning to people and wildlife, and fires and explosions. The *Special Waste Regulations* ensure that special wastes are safely and responsibly handled, stored, transported and disposed of.

Definition of Special Waste

Under Yukon's *Special Waste Regulations*, the following substances are special wastes:

- 1) Waste oil – this is oil that has become unsuitable for its intended purpose due to the presence of impurities or the loss of original properties. Any mixture containing waste oil in excess of 3% by weight is considered waste oil.
- 2) Biomedical waste – this includes human anatomical waste, animal waste, microbiology laboratory waste, human blood and body fluid waste, and waste sharps typically generated from human or animal health care facilities, medical or veterinary research and teaching establishments, and clinical and research laboratories.
- 3) Dangerous goods no longer used for their original purpose – these are dangerous goods as defined in the federal *Transportation of Dangerous Goods Regulations* (TDGR) that are not used for their originally-intended purpose, as well as some hazardous wastes as defined in the *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations* (EIHWRMR).

Common special wastes in Yukon include used lubricating oil, used antifreeze, dead batteries, and leftover cleaners, solvents, paints, pesticides, industrial chemicals, and petroleum products.

Requirement for a Permit

Under the *Special Waste Regulations*, a permit is required to generate, dispose, collect, transport or otherwise handle special waste if greater than or equal to the following quantities of special waste are handled over the course of 30 days or stored onsite at any one time:

- In the case of waste oil, 20L;
- In the case of other liquid special wastes, 5L;
- In the case of one or more solid special wastes, 5kg; or
- In the case of a mixed solid and liquid special waste, 5kg or 5L.

The requirement to obtain a special waste permit does not apply to households that generate special waste, store that waste on their property, and transport it to a licensed collection facility or have it collected by a licensed facility.

In accordance with the requirements of the regulation, the Environmental Programs Branch issues two different types of special waste permits, depending on the activities being undertaken:

- 1) Special waste generator permits are issued to businesses or individuals that generate special wastes as a result of their regular commercial activities.
- 2) Special waste facility permits are issued to businesses or individuals that collect special wastes generated by other persons or businesses. This includes sites where special wastes are dropped off by other people and operations that pick up special wastes from others and transport them to a destination.

A special waste generator or facility permit may also authorize the permitted individual or business to transport special waste or dispose of special waste, such as through the incineration of waste oil. In order to be permitted to transport special waste in Yukon, a spill response plan describing the actions that will be taken in the event of a spill of the special wastes to be transported must be submitted as part of the permit application.

Common Permit Exemptions

Although most businesses and individuals that generate special waste require a permit under the *Special Waste Regulations* as described in the previous section, there are some specific cases where the requirement to obtain a permit is waived. These exemptions are granted because some substances are adequately regulated by other agencies or under other pieces of legislation.

- 1) Asbestos – All asbestos removal projects must comply with occupational health and safety legislation, as these projects have the potential to damage or disturb asbestos and asbestos-containing products, increasing the risk of inhalation of dangerous asbestos fibres. Because the safe handling of asbestos is addressed by the Yukon *Occupational Health and Safety Regulations*, **a special waste permit is not required to generate, store, transport or collect asbestos**. In order to dispose of asbestos, a permit under the *Solid Waste Regulations* is required.
- 2) Treated Wood – Due to the nature of how treated wood is intended to be used (e.g., in commercial, industrial and residential applications), **a permit is not required to generate, store, transport or collect treated wood waste**. A permit under the *Solid Waste Regulations* is required to dispose of treated wood.

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- 3) Biomedical waste – Best practices for the handling of biomedical waste are described in the “[Guidelines for the Management of Biomedical Waste in Yukon](#).” **A permit is not required to generate and store biomedical waste, transport it to a licensed collection facility, or have it picked up by a licensed collection facility, as long as the biomedical waste is handled in accordance with the Guidelines for the Management of Biomedical Waste in Yukon.** A permit is required to treat, dispose of, or collect biomedical waste from others or handle biomedical waste in a manner not addressed in the Guidelines.
- 4) Batteries – The Rechargeable Battery Recycling Corporation of Canada operates a voluntary industry stewardship program for the recycling of batteries called [Call2Recycle](#). In order to facilitate the responsible end of life recycling of batteries, **a permit is not required for businesses and individuals that generate batteries and transport them to a designed Call2Recycle collection site. A permit is also not required for the collection, storage and transportation of batteries by designated Call2Recycle collection sites and transporters.**
- 5) PCBs (polychlorinated biphenyls) – Because the storage and use of PCBs and products containing PCBs are regulated under the *Canadian Environmental Protection Act*, **a permit is not required to generate, store, transport, or collect PCBs.** A special waste permit is required to dispose of or treat PCBs or PCB-containing substances.

If you are unsure whether or not your activity requires a permit, please contact the Environmental Programs Branch.

Additional Information – TDGR and the EIHWHRMR

In 2008, Transport Canada amended the TDGR to remove the Class 9 dangerous goods known as “environmentally hazardous substances” and “leachable toxic substances.” These substances are a risk to human health and the environment because they contain specific hazardous substances or generate a toxic leachate when exposed to acidic conditions like those potentially encountered in a landfill. The criteria for these types of dangerous goods were moved from the TDGR to Schedules 5 and 6 the federal *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations* (EIHWHRMR), respectively.

In order to ensure an equivalent level of safety in the ongoing management of these environmentally hazardous and leachable wastes, the Yukon government considers all of the following substances to be dangerous goods when determining if a substance is a special waste in Yukon:

- 1) Dangerous goods as defined in the TDGR;
- 2) Substances containing a constituent listed in column 1 of Schedule 5 of the EIHWHRMR, if the concentration of the constituent exceeds the concentration in column 2 of that schedule; and
- 3) Substances containing a constituent listed in column 2 of Schedule 6 of the EIHWHRMR, if the leachable concentration of the constituent equals or exceeds the threshold in column 3 of that schedule.

Regarding the third criterion, a Toxicity Characteristic Leaching Procedure (TCLP) test is conducted on non-liquid wastes to determine if the leachable concentration exceeds the

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threshold established in Schedule 6 of the EIHWHRMR. For liquid wastes (wastes containing less than 0.5% dry solid material), the concentration of the constituent in the liquid is compared directly to the leachable standard.

A TCLP test must be conducted if analytical testing demonstrates that the total concentration of the constituent (in ppm) is 20 times greater than the leachable limit or, in the absence of analytical testing, if there is reason to suspect that the total concentration of the constituent may be 20 times greater than the leachable limit. If the total concentration is less than 20 times greater than the leachable limit, it can be assumed that the leachable limit would not be exceeded in a TCLP test.

As an example, the table below shows common metal contaminants regulated in Schedule 6 of the EIHWHRMR and the total concentration of the contaminant in a non-liquid waste that triggers the requirement for a TCLP test:

Contaminant	Leachable Limit (mg/L)	Total Concentration Triggering TCLP ($\mu\text{g/g}$)	Contaminant	Leachable Limit (mg/L)	Total Concentration Triggering TCLP ($\mu\text{g/g}$)
Arsenic	2.5	50	Chromium	5.0	100
Barium	100	2,000	Lead	5.0	100
Boron	500	10,000	Mercury	0.1	2.0
Cadmium	0.5	10	Selenium	1.0	20

Additional Information – Determination of Special Waste

Sometimes it may be difficult to know whether a particular substance is considered a special waste. A few examples of common special wastes are provided below with rationale for why they are regulated to help you understand Yukon's regulatory system for special wastes:

- 1) Waste antifreeze – Over the course of being used, propylene or ethylene glycol may become contaminated with nitrates and metals such as cadmium, lead, chromium, boron and selenium. For this reason, all used antifreeze is special waste because it is assumed to exceed the leachable limit for one or more of these constituents as established in Schedule 6 of the EIHWHRMR.
- 2) Photochemical waste – Fixer and cleaner wastes from photo processing are assumed to be special waste because they are corrosive (acidic). They waste may also contain contaminants such as chromium, silver, hydroquinone, formaldehyde, sodium sulphite, mercuric chloride, cadmium, ferrocyanide, and volatile organic compounds (VOCs). Waste photochemical developers are generally not hazardous waste, unless they have a pH above 12.5 or below 2.0 or contain regulated concentrations of contaminants of concern, such as volatile organic compounds (VOCs).
- 3) Contaminated soil – Contaminated soil is special waste if the sum of all petroleum hydrocarbon fractions (volatile, light and heavy) is 30,000 $\mu\text{g/g}$ (ppm) or greater or if there is a visible free phase of hydrocarbons. Contaminated soil is also considered special waste if it contains any

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parameter equal to or in excess of the concentrations in Schedule 5 of the EIHWHRMR or a leachable concentration of any constituent listed in Schedule 6 of the EIHWHRMR that meets or exceeds the leachable threshold for that constituent.

- 4) **Contaminated water** – Contaminated water is special waste if the concentration of volatile hydrocarbons (VH_{W6-10}) is 15,000 µg/L or more or if the concentration of extractable hydrocarbons (EH_{W10-19}) is 5,000 µg/L or more. Contaminated water is also special waste if a free phase (separate layer) of hydrocarbons forms on top of the water, if it contains any parameter equal to or in excess of the concentrations in Schedule 5 of the EIHWHRMR (assuming a density of water of 1 kg/L), or if the concentration of any contaminant meets or exceeds the leachable limit for that contaminant in Schedule 6 of the EIHWHRMR.

If you would like to demonstrate that a particular substance normally assumed to be a special waste (e.g., waste antifreeze) should not be considered a special waste, you must conduct appropriate analytical testing. Please contact the Environmental Programs Branch for testing requirements.

Spills of Special Waste

The *Spills Regulations* describe the size and kinds of spills that must be reported. The person who possesses or controls a special waste at the time of a spill, or who causes a spill, is responsible for reporting it and for notifying anyone who may be adversely affected by it. Containment and clean-up action should begin as soon as possible to protect human health and the natural environment.

**Spills must be reported immediately to the
Yukon Spills Report Centre in Whitehorse at (867) 667-7244
(24 hour service) or an Environmental Protection Officer.**
Collect calls are accepted.

Other Topics

Fact Sheets are also available on the following topics:

- Storage and Handling of Special Waste
- Disposal of Special Waste
- Requirements for Waste Oil
- Spill Response Plans

For more information on the Special Waste Regulations, please contact:

Environmental Programs Branch
Department of Environment (V-8)
Box 2703
Whitehorse, YT Y1A 2C6

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Toll Free: 1-800-661-0408 ext. 5683
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