

Storage and Handling of Special Waste

Special wastes can negatively affect human health and the environment if they are not stored and handled 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. If you generate, store, or handle special waste, you will likely need a permit under the Special Waste Regulations. Please consult the "[Special Waste Regulations – General Information](#)" document for more information on permitting.

Typical methods of storing liquid special wastes include containers (e.g., 45-gal drums) and storage tanks. It is recommended that small volumes of special waste (i.e., less than 205L or 45 gal) be stored in a container while larger volumes should be stored in a storage tank, which provides a more secure means of storage. If you store greater than 4,000L of petroleum products or 2,000L or greater of other hazardous substances in a storage tank, a permit under the Storage Tank Regulations is required.

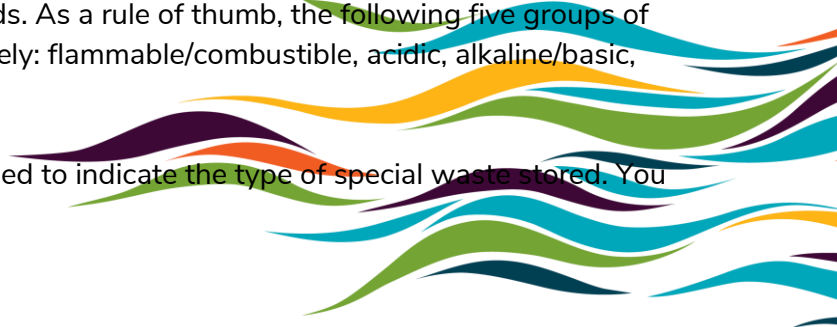
This guidance document focuses exclusively on the storage of special waste in containers. Further information on the requirements for storage of liquid special wastes in storage tanks can be obtained at <https://yukon.ca/en/doing-business/licensing/get-storage-tank-permit>.

General Requirements

Storage: All special wastes must be stored out of the elements and off the ground to prevent damage due to corrosion and freeze/thaw cycle. Due to atmospheric pressure fluctuations, the drums may also draw any water accumulated on the top into the drum ("breathing drums"). Proper off-ground storage can be, for example, accomplished by storing containers of special wastes on a pallet or inside a garage on a concrete floor. If stored outdoors, special waste containers should be protected from rain and snow. For example, store special wastes under a roof or cover containers with tarps or plywood. Alternatively, store drums with a block under one side of the drum so that the bung is not at the lowest point of the top surface. This option is only acceptable for drums stored without stacking.

It is very important that only the same type of special waste is stored in the same container because some substances may react adversely with one another and the resulting mixture is likely to be much more costly and difficult to dispose of. Furthermore, different containers storing incompatible substances should not be stored in the same immediate location due to the risk of fires, explosions, or other hazards. As a rule of thumb, the following five groups of materials should always be stored separately: flammable/combustible, acidic, alkaline/basic, oxidizing, and reactive.

Labelling: Containers must be clearly labelled to indicate the type of special waste stored. You



should also consider including other pertinent information such as the source of the special waste, date the waste was generated or received and the volume/weight stored. It is good practice to label empty containers indicating what wastes have been stored last in the containers.

Containers: Special wastes must be stored inside containers that are compatible with the material being stored. Containers must be closed at all times during storage, except when special wastes are to be added to or removed from the container.

Access: Special wastes should be stored and handled in a location where public access is prevented, except as may be required during regular operating hours. In most cases, this can be accomplished by any of the following measures:

- Storing the special waste in an area that is not readily visible to the general public that may be accessing or passing by the site;
- Constructing a barrier around the special waste storage and handling areas, such as a moveable fence or flagging tape;
- Installing signage that warns against unauthorized access to the special waste storage and handling areas; or
- If you collect special waste from others, installing signage stating that people must check in with the site manager prior to dropping off any special waste.

Above measures are recommended practices for all facilities that store special waste. Please consult your special waste permit for specific permit conditions applicable to your facility.

Secondary Containment

Secondary containment is a good way to prevent leaks and spills from contaminating nearby surface water, groundwater, and soil, and is less expensive to install than cleaning up a spill. A secondary containment system may consist of:

- An impermeable, non-combustible clay or plastic liner within a bermed area;
- An impermeable concrete pad with curbed edges; or
- Spill containment trays (for small containers), pallets (for drums), or platforms (for bulk containers such as 1,000L totes).
- Drip pan, spill tray, or a second container to store a drum inside (for individual drums).

The secondary containment system should be designed to hold 110% of the volume of special waste stored inside the contained area. For example, if storing 100L of special waste, the secondary containment area should have a volume of 110L, taking into consideration the amount of the volume

The Environment Act and regulations may be viewed online at www.gov.yk.ca/legislation/env.html, or at any Yukon Public Library, territorial agent, territorial representative or regional services office. You may purchase copies at the Inquiry Centre, Yukon Government Administration Building, 2071-2nd Avenue in Whitehorse, request by email queens.printer@gov.yk.ca or mail: Yukon Government Queen's Printer, Box 2703 (W-4), Whitehorse, Yukon, Y1A 2C6 (phone 867-667-5146 or toll free 1-800-661-0408, extension 5146).

that is taken up by the special waste containers themselves. If containers are stacked, the total volume of the containers should be considered to determine appropriate spill containment design.

It is recommended that secondary containment be installed if you are storing more than 4,000L of special waste in containers. Even when storing smaller amounts of special waste, secondary containment is still a good way to protect against contamination from leaks and spills.

Consider having empty containers available to transfer contents of leaking containers, if required.

National Fire Code of Canada

The National Fire Code of Canada applies throughout Yukon and includes requirements for the storage of flammable and combustible liquids in containers, as well as in storage tanks. Flammable liquids have a flash point below 37.8°C, which includes substances like gasoline, solvents, and paints and paint thinners. Combustible liquids have a flash point below 93.3°C, which includes substances like diesel and waste oil. You can check the Safety Data Sheet (SDS), previously known as Material Safety Data Sheet (MSDS), for your product to determine the flash point.

When storing containers with flammable and combustible liquids outdoors:

- Groupings, or “piles,” of containers must not exceed the volume limit specified in the Fire Code:
 - For waste oil, 85,000L per pile
 - For gasoline, 15,000L per pile
 - For diesel, 35,000L per pile
 - For other flammable or combustible liquids, contact the Fire Marshal’s Office.
- Each grouping of containers must be separated from other piles of containers by a minimum of 1.5 metres.
- Flammable and combustible liquids may not be stored within 6 metres of a building. This requirement does not apply if the building is used primarily for the storage or handling of flammable or combustible liquids and no more than 5,000L of liquid is stored next to the building.
- Flammable and combustible liquids may not be stored within 6 metres of the property line.
- There must be an access route at least 6 metres wide that allows fire department access to within 60 metres of any of the piles of flammable or combustible liquids.

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Different requirements apply to the storage of flammable or combustible liquids indoors. Contact the Fire Marshal's Office at cs.fmo@gov.yk.ca, (867)-667-5230 or toll-free at 1-800-661-0408 ext. 5230, for details.

Inspections and Record Keeping

Containers used to store special waste must be inspected regularly to ensure that they are not leaking or damaged. Special waste permit holders must conduct, at minimum, weekly inspections for leaks (e.g., looking for pooled liquid or stained ground), monthly inspections to verify the total volume of each type of special waste stored onsite, and annual inspections to assess whether any of the containers need to be repaired or replaced. If a container is found to be damaged or leaking, the special waste needs to be immediately transferred to an intact container. Therefore, it is good practice to have some empty containers available for emergency special waste transfer.

Written or electronic records of these inspections must be kept for 3 years and shown to an environmental protection officer upon request. A record also needs to be kept outlining where special wastes are stored on the site, including the type and volume of special waste stored in each location. This information could assist emergency responders in the case of an emergency.

Additional Info – Waste Batteries

Stored batteries should be enclosed in a continuous sheet of plastic to protect the batteries from the elements and prevent any leaking acid from reaching the environment. Once the batteries have been wrapped in plastic, they can be strapped to a wooden pallet to prevent the batteries from moving around and to keep them off the ground. If placing more than one layer of batteries on a pallet, do not stack them more than three metres high and ensure that each layer is separated by a sheet of plywood or other suitable material. If stacking pallets on top of one another, ensure that no more than two pallets are stacked to reduce the risk of the pallets falling over.

Additional Info – Transportation of Dangerous Goods

The federal *Transportation of Dangerous Goods Regulations* apply to any containers holding waste dangerous goods (i.e. special wastes) that are to be transported by vehicle. Depending on the type and quantity of material being transported, the requirements of the Regulation regarding approved container types and labeling may be applicable. Consult the [Transportation of Dangerous Goods Regulations](#) for more information. Please consult the "[Special Waste Regulations – Transportation of Special Waste](#)" document for more information on special waste transportation requirements in Yukon.

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Spills

The *Spills Regulations* and the list below describe the size and kinds of spills that must be reported.

- For special waste, any release equal to or greater than:
 - within a 24 hour period,
 - 500 grams of solid special waste
 - 500 millilitres of liquid special waste
 - 500 g or 500 mL, whichever is less, of mixed solid and liquid special waste
 - within a 30 day period,
 - 5 kilograms of solid special waste
 - 5 litres of liquid special waste
 - 5 kg or 5 L, whichever is less, of mixed solid and liquid special waste
- For non-waste petroleum products or other flammable liquids, any release equal to or greater than 200L.

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 Spill Report Centre in Whitehorse at (867) 667-7244
(24 hour service) or an Environmental Protection Officer.
Collect calls are accepted.

For more information on the Environment Act, please contact:

Government of Yukon
Environmental Protection and Assessment
Branch (V-8)
Box 2703
Whitehorse, Yukon
Y1A 2C6

Phone: 867-667-5683
Toll Free: 1-800-661-0408, ext. 5683
Fax: 867-393-6205
Email: envprot@gov.yk.ca
Web: www.yukon.ca

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