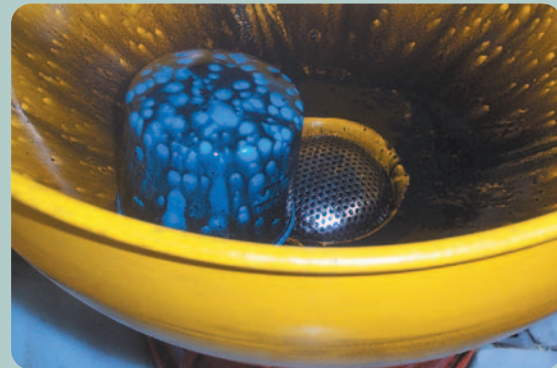


### STORAGE EXAMPLE 3

This is an example of a 200 litre used oil collection drum in a moderately large factory. The drum itself is not banded, however the entire factory is banded at each entryway. The drum is mounted on a steel frame that has four castors on it, so the entire unit can be readily moved from one machine to the next, eliminating the need to carry pails of used oil around the factory. A pump is permanently bolted to the frame and is used to suck the oil from different machines directly into the used oil drum. This concept is useful for industrial sites, and could possibly be adapted to work in automotive workshops, provided the floor was smooth, and entryways banded.



### COLLECTION EXAMPLE 1

Here is an idea for transferring the oil from its collection vessel to the storage vessel. This shows a wide collection funnel on top of the intermediate bulk container from storage example 1. The funnel is fitted with a strainer that prevents parts and tools being lost in the tank, this also acts as a flashback arrestor in the event of a fire.

### COLLECTION EXAMPLE 2

This example is a home-made collection trough inside a workshop. It is made from the base of a 200 litre drum which is connected by piping to an outdoor oil store. While not sophisticated, it is perfectly functional, and has steel pot cleaners stuffed down the outlet to act as a strainer and prevent parts being lost!



- Collection troughs or funnels should be wide enough to reduce the risk of spills when transferring liquids, and be fitted with a strainer so that parts can be left to drain without the risk of losing them into the collection tank.

CONTACT YOUR LOCAL COUNCIL FOR MORE INFORMATION



Developed by Waitakere City Council

## Tips for Better Used Oil Management

Used oil is considered the largest non-water-based liquid waste stream in New Zealand. As well as being ecotoxic (harmful to the environment, both water and land), it can also be contaminated with a number of other toxic (harmful to people) products such as heavy metals, and cancer-causing agents such as some solvents. Although it is ecotoxic and often toxic as well, used oil is not covered by the Hazardous Substances and New Organisms Act 1996 because it is a waste product. The information below contains some simple guidelines to help improve your business' used oil management practices, and reduce some of the risks associated with used oil.



## Used Oil Storage



Used oil can be stored in a number of ways. Most workshops and industrial plants collect their oil in 200 litre drums, while some use larger 1000 litre Intermediate Bulk Containers (IBC's), and a few larger and older premises may still have an underground tank.

- Have a designated used oil tank or drum, for used oil only.
- Tanks should hold a maximum of 1000 litres. If your tank is larger than 450 litres then it should be secured in place.
- Openings should be at the top of the tank and be large enough to transfer the used oil into it without risking a spill.
- Fit a strainer to the tank so you don't lose your tools or other objects into the tank!
- Make sure the tank is vented.
- Clearly mark the safe fill level on the tank.
- The suction line (if fitted) should extend as close as possible to the bottom of the tank.
- Locate your tank and its piping in a bunded area (secondary containment structure) that is capable of holding 110% of the used oil capacity.
- If your tank is located outside, it should be in a covered area to prevent rainwater getting in.
- Situate your used oil store away from stormwater drains.
- Clearly label your tank to stop cross-contamination.



Note: Check with your collector what is allowed and what is prohibited to ensure your tank/drum is labelled accordingly

## Recycling Used Oil

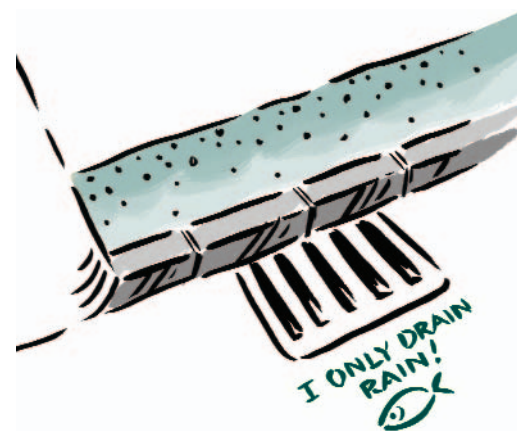
There are a number of companies operating who will collect your used oil for recycling. Some recyclers will even pick it up for free, but only if the used oil is 'clean.' The trick to keeping it 'clean' is stopping contamination or mixing with water, solvents, solids and other sludges. Used oil recyclers often increase charges if the used oil is contaminated and some may even refuse to collect it completely so it pays to keep it 'clean'!

- Have regular collections of your used oil by an approved used oil collector.
- Keep used oil out of stormwater drains – remember these lead directly to your local waterways where you enjoy swimming and other recreational activities.
- Keep used oil out of the soil.

*Remember penalties under the Resource Management Act for inappropriate disposal are severe.*

### What about disposing of my Used Oil Filters?

- Puncture used oil filters over the collection funnel and allow them to drain into your used oil tank.
- Send emptied filter bodies to a scrap metal recycler.



*Remember that although used oil may be a waste to your business, to others it is a valuable resource. A large proportion of used oil goes to the Milburn cement kiln in the South Island, where it is used as fuel for the kiln.*

## Emergency MANAGEMENT



Used oil is a messy product and difficult to handle. Spills are classed as minor if it is less than 5 litres of used oil; moderate if it is up to around 50 litres; and major if it is anything over 50 litres.

All companies handling used oil need a spill kit. This should consist of some loose absorbent material such as peat, Absorbent W, vermiculite (also known as kitty litter), clay, sand, cement, dust or even soil. Because used oil is not very mobile, and usually not very flammable, almost anything is better than nothing! As well as loose product, it is useful to have some sort of booms that can be placed across streams, stormwater drains or around spills, or pillows that can be used to stuff down drains, mop up spills or place under dripping machinery. Make sure you have a formal spill response plan posted on or near your spill kit so staff know what to do!

Once the spill has been contained, collect all the contaminated material for appropriate disposal by a waste contractor approved for collecting hazardous waste.

- Have a formal Spill Response Plan written about how to handle a spill in your workplace.
- Have a spill kit(s) stored close to at risk areas.
- Have a practice to clean up a spill at least once a year for staff training.

*Remember that the most important thing to do is to keep used oil out of the soil and waterways (and that means stormwater drains) using any means available, as once it is in there it is very hard to remove, and has a significant impact on the environment.*

## Practical Used Oil CASE STUDIES

### STORAGE EXAMPLE 1

This is a 1000 litre used oil IBC with a drain funnel in the inlet. Oil filters can be placed in this funnel while they drain. The plastic inner tank is surrounded by a metal secondary skin that acts as a bund. These IBC's are generally placed on pallets so they can be lifted onto a truck using a forklift.



### STORAGE EXAMPLE 2

Here is an example where both fresh and used oil are stored in steel oil bar tanks and contained in a homemade bund. The bunding consists of a timber frame built from tanalised timber around the tanks, large enough to contain any spills, and is lined with a heavy duty polyethylene liner. Inside this is absorbents to catch any leaks or spills, and the result is functional, inexpensive, and easy to install homemade bund!



- All used oil tanks should be in a bunded area that is capable of holding 110% of the tanks capacity.