Environmental Protection Authority
Te Mana Rauhī Taiao

Management and Handling of Used Oil

HSNOCOP 63

November 2013

APPROVED CODE OF PRACTICE

UNDER THE HAZARDOUS SUBSTANCES AND NEW ORGANISMS (HSNO) ACT 1996

New Zealand Government

Approval of code of practice

This code of practice HSNOCOP 63 Management and Handling of Used Oil is approved pursuant to Sections 78 and 79 of the Hazardous Substances and New Organisms Act. It is confirmed that the requirements of Sections 78 and 79 have been met.

This code of practice is approved as a means of compliance for used oil with the Group Standards:

Lubricants (Toxic) Group Standard 2006 – HSNO approval number HSR002607, and

Lubricants (Combustible, Toxic) Group Standard 2006 – HSNO approval number HSR002608.Approval of the code is limited to those matters in the document that relate to legislative requirements under the HSNO Act and controls set under the Act.

The intended publication date in the Gazette for the notice of approval is 21 November 2013.

Pursuant to Section 80(1)(a) of the Act, a copy of the code may be inspected at the Wellington office of the EPA, Level 10, 215 Lambton Quay, Wellington

Pursuant to Section 80(1)(b) of the Act, a copy of the code is available from the EPA website. www.epa.govt.nz.

Approved 11 November 2013.

Rob Forlong

Chief Executive Environmental Protection Authority

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Foreword

Why do we need a code of practice for the management and handling of used oil?

This code has been produced to provide clarity with and means of compliance with the HSNO Act controls for the management of used oil in New Zealand. Appropriate procedures and facilities must be available if the volume of used oil generated in this country is to be handled and disposed of in ways that are safe and environmentally sound.

This code provides guidance to used oil generators, collectors, transporters, processors and end users and regulatory authorities on compliance with regulatory and statutory controls on used oil.

It is intended to complement and be read in conjunction with the Hazardous Substances and New Organisms Act 1996 and its Regulations, the Health and Safety in Employment Act 1992, and the Resource Management Act 1991. The code does not replace or supersede any legislative requirements, but it does provide additional guidance on how workplace health and safety and the broader environment can be protected from the hazards of used oil. The code is not intended for use as a technical specification.

How does the code affect you?

If mishandled, used oil can be a workplace and environmental hazard. If contaminated with flammable liquids, it must be treated as a flammable substance under the HSNO Act. The code provides advice and information for workplace managers. It will assist you to meet your responsibilities under relevant legislation and to maintain a safe, healthy workplace.

The code also spells out the responsibilities applying to other people who collect, store, transport, use, on-sell or dispose of used oil. Everyone who works with used oil must do so safely and in an environmentally acceptable way.

Who prepared this code?

The code was developed by a working group comprised of representatives of the following organisations and interest groups, other key interest groups and individuals provided comment as requested. The code reflects the collective experience and expertise of the people involved in the management of used oil in New Zealand, especially with respect to balancing risk and practicality:

- Lubricant supply companies
- Used oil transporters and processors
- Major used oil users
- Motor Trade Association
- Environmental Protection Authority

- Ministry of Business, Innovation and Employment
- Local and regional government
- Ministry for the Environment

This code of practice supersedes the Guidelines for the Management and Handling of Used Oil issued by the Ministry for the Environment in December 2000.

Limitations of this code of practice

This code of practice specifies the HSNO requirements for the design and operation of used oil generation sites, used oil collection and storage sites and the bulk transportation of used oil. It does not specify:

- The HSNO requirements when used oil has a flash point lower than 60^{o}C, that is, has hazard classifications of 3.1A, 3.1B or 3.1C,or
- The HSNO requirements for hazardous substance locations and transit depots, or
- Controls relating to the adverse effects of unintended ignition of class 3 hazardous substances, or
- Controls relating to the packaging of used oil or
- Controls relating to the sale of used oil, or
- Controls for transportation of used oil in packages

1. Definition of used oil

In this document, the term ‘used oil’ is used. However, this is intended to be synonymous with the term ‘waste oil’ in the context of the contents of the document.

While it is appreciated that, in general, ‘used oil’ can be derived from many different sources and mixtures of different waste streams, have many different compositions and mean different things to different people, currently for the purposes of approval as a hazardous substance under the HSNO Act, used oil is taken to have the following definition:

> *any oil that has been refined from crude oil, or any synthetic hydrocarbon oil, that has been used, and as a result of such use, has become unsuitable for its original purpose due to the presence of impurities or contaminants or the loss of original properties.*

Used oil is oil from industrial and non-industrial sources and can be derived from any one of the substances in List A, or be a mixture of these substances. These substances have a flash point (closed cup) above 60^{o}C (i.e. they either have a HSNO classification of 3.1D or they do not have a flammable HSNO classification).

1.1. List A

- Engine oil – typically includes crankcase oils from gasoline, diesel and LPG/CNG engines
- Brake fluid
- Gear oils
- Transmission fluids
- Hydraulic oils and fluids
- Compressor oils
- Refrigeration oils
- Industrial process oils
- Electrical insulating oil except oil likely to contain PCBs
- Neat metalworking fluids and oils (excluding chlorinated products) – these must not be diluted with water or any product from List B
- Heat transfer oils
- Machining oils
- Ship’s slops, bilge water, tank cleanings produced by vessels during normal shipboard operations
- Bottom clean-out waste from virgin fuel storage tanks, virgin fuel oil spill clean-ups, or other oil wastes that have not been used, providing the flash point of the material is greater than 60^{o}C.

For the purposes of approval as a hazardous substance under the HSNO Act, used oil does not include any of the products in List B or a mixture of products in Lists A and B

1.2. List B

- Petroleum distillates used as solvents, such as turpentine, kerosene, parts washing solvents
- Petrol and/or diesel (including biofuels) – including mixtures from refuelling errors
- Antifreeze, radiator flushing, or other inhibitor packages (e.g. stabilising coolant additives (SCAs))
- Oils derived from animal or vegetable fats and oils – including those used as a lubricant
- Paint and paint brush washings
- Chlorinated oil or solvents
- Any virgin or used oil which may contain PCBs (> 5 mg/kg)
- Soluble cutting fluids

Many, although not all, of the products in List B will have a flash point (closed cup) below 60^{o}C. Regardless of flash point, List B products must not be mixed with List A products and then disposed of as used oil.

If used oil becomes contaminated with products from List B, the resulting product will usually become unsuitable for collection for re-use as a fuel (see Section 6). Small amounts of **some** List B products such as vegetable oils may not greatly change the actual properties of the List A products. However, mixing of List A and List B products is strongly discouraged as there is no guarantee that the resulting mixture would be suitable for used oil collection. If used oil becomes contaminated with List B products, it may not be covered by an approval under the HSNO Act and will need to be treated as hazardous waste.

Disposing of hazardous waste can be costly. The only way to be sure used oil does not become contaminated with hazardous waste is to never mix it with anything else, and store used oil separately from all solvents, chemicals and other incompatible products.

Within the scope of this document, used oil must either not have any flammable liquid classification under the HSNO Act or have a 3.1 D classification (Flashpoint between 60^{o}C and 93^{o}C).

1.3. Status of used oil under HSNO Act

The HSNO Act prohibits the import or manufacture of a hazardous substance unless it is done in accordance with an approval, which sets controls for the substance throughout its lifecycle, such as requirements for storage, identification, emergency management and disposal.

The approval covers the lifecycle of the substance, until it is:

a. disposed of, in accordance with the controls on the approval (for example, treating it so that it is no longer a hazardous substance (this includes burning), or exporting it from New Zealand as a waste); or
b. required to have a new approval (because a new hazardous substance has been manufactured, for example).

This means used oil may be covered by the HSNO Act in one of two ways. Either the HSNO controls that apply to the unused oil continue to apply when it has been used, or a new hazardous substance may have been manufactured which would require approval under the HSNO Act.

These two avenues are currently addressed by the following HSNO approvals.

1. Lubricants Group Standards
   The used oil is considered to be still part of the lifecycle of the original (HSNO) approved substance (for example, crankcase lubricating oil) as it has not yet been disposed of in accordance with the controls on the approval of that substance. There is a suite of seven Lubricants Group Standards which cover the types of materials given in List A above. However, since used oil is invariably a mixture of used original products, it is considered that used oil, which meets the definition and List A specifications above, will typically fall under one of two of these group standard approvals. These are:
   - Lubricants (Toxic) Group Standard – HSNO approval number HSR002607, with hazard classifications 6.3B, 6.7B, 9.1C
     (this group standard is appropriate for used oils with flash point greater than 93^{o}C)
   - Lubricants (Combustible, Toxic) Group Standard – HSNO approval number HSR002608, with hazard classifications 3.1D, 6.3B, 6.7B, 9.1C
     (this group standard is appropriate for used oils with flash point between 60^{o}C and 93^{o}C)

2. Approvals for ‘new’ ‘manufactured’ substances
   The used oil is considered to be a new substance that has been ‘manufactured’ through the mixing of various substances and the subjecting of this to treatment processes, for example to produce a fuel oil. Two approvals of this type are in place, as follows:
   - Fuel oil manufactured from waste lubricating oil - HSNO approval number HSR001522, with hazard classifications 3.1D, 6.3B, 6.7B, 9.1C (Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004)
     (this approval is appropriate for used oils with flash point between 60^{o}C and 93^{o}C)
   - Non-flammable fuel oil manufactured from waste lubricating oil – HSNO approval number HSR100772, with hazard classifications 6.3B, 6.7B, 9.1C
     (approved under section 28A HSNO Act 30 November 2012)
     (this approval is appropriate for used oils with flash point greater than 93^{o}C)

If the used oil is being used as a fuel then one of the two fuel oil approvals above must be complied with since the Group Standards exclude any fuels.

1.4. Controls on used oil under HSNO Act

The controls that will apply to used oil will be those from whichever of the above HSNO approvals is considered the most applicable to the material in question. A summary of the controls and the applicable threshold levels for these approvals is given in Appendix 1.

Where used oil has previously been considered to be a waste material and outside the scope of the HSNO Act, there may be some changes to the requirements for its management now that it is considered to be covered by a HSNO approval.

What does this mean for me?

Small operators

It is expected that there should be little change to requirements for small scale producers if they are already complying with existing best practice guidelines, such as the previous MfE Guidelines for the Management and Handling of Used Oil, or with the conditions of RMA consents.

Large operators

For large scale producers, collectors, transporters and users who are already managing their used oil under the HSNO approval for 'Fuel oil manufactured from lubricating oil' (HSNO approval number HSR001522), there will be no change to requirements.

For large scale operators who are not currently managing their used oil under a HSNO approval, there will be some new requirements. As noted above for small operators, in most cases these requirements will already be being met through compliance with best practice guidelines and with conditions of RMA consents. However, there are HSNO requirements for stationary container systems (bulk tanks) and tank wagons which will also apply and which require test certification.

Details on these requirements are given in section 5 and in the appendices to this document but a brief summary is included below.

What test certificates are needed?

Stationary container system test certificates are required for:

- Below ground tank with a capacity 250 litres or greater.
- Above ground tank with a capacity greater than 5,000 litres
- Above ground tank with a capacity of 60 litres or more when connected to a burner.

Tank wagons need test certification, which may include design, pre commissioning and in service test certificates.

How to obtain a test certificate

HSNO test certificates are issued by EPA approved test certifiers. The EPA maintains a register of approved test certifiers on the website www.epa.govt.nz

Test certificates may be issued against compliance plans or codes of practice approved by the EPA. (A current code that may be suitable is HSNOCOP 13: Management of Existing Stationary Container Systems up to 60,000 litres Capacity)

Requirements for transport of oil

As described above, tank wagons and transportable containers for used oil come under the HSNO regulations for these. Tank wagons require test certification.

There is no change to the status of used oil in relation to the Land Transport Rule: Dangerous Goods 2005. Unless the used oil has a flash point of 60^{o}C or below, or it has a HSNO ecotoxicity classification of 9.1A or 9.1B, it will not be considered to be a dangerous good, in respect of transport. Substances with these classifications are outside the scope of this document.

Does HSNO apply to used oil filters, oily rags, etc.?

Solid waste contaminated with used oil is not covered by the HSNO approvals for used oil discussed above.

Air discharge consents in addition to HSNO

Air discharge consents for burning used oil are required from Regional Councils (see section 8)

Emissions Trading Scheme (ETS) considerations in addition to HSNO

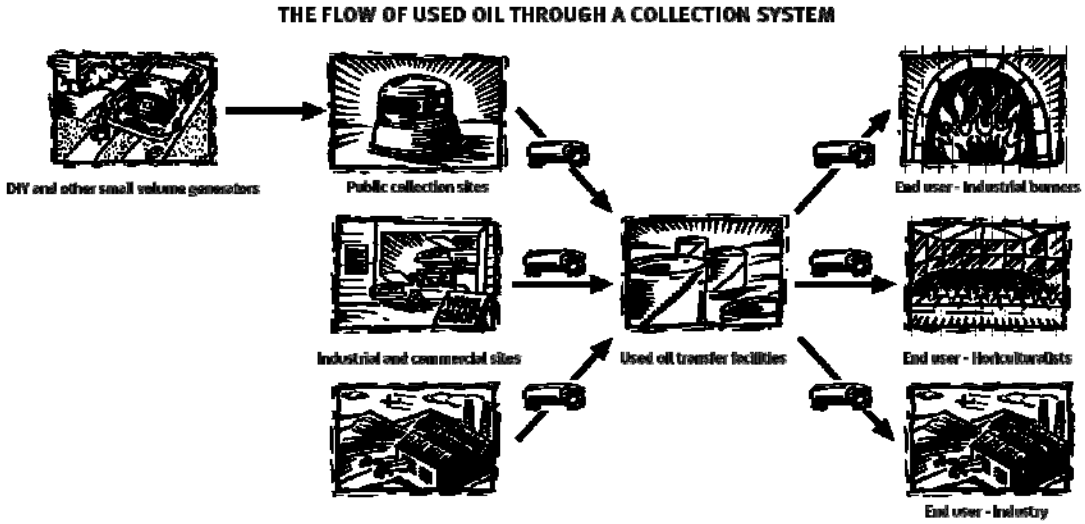
The Climate Change Response Act (2002) created a legal framework to ratify the Kyoto Protocol and to meet New Zealand's obligations under the United Nations Framework Convention on Climate Change and also to provide for a New Zealand Emissions Trading Scheme for greenhouse gases that reduces net emissions. The Environmental Protection Authority is responsible for the operations of the Emissions Trading Scheme. For further details of the activity of combusting used or waste oil, used tyres or waste, please see the guide referred to below , or contact 0800 CLIMATE (0800 254 628) www.eur.govt.nz/how-to/guides-hmtl/guides-pdf/ERGuideCombusting.pdf

2. The used oil collection system

The New Zealand used oil collection system can be divided up as follows:

- small volume generators
- public collection points
- industrial/commercial generators
- collectors and transporters
- storage and processing
- end users (e.g. cement kiln)

Figure 1 illustrates how the flow of used oil typically moves through the recovery system.



The effective collection and transport of used oils from the point of generation to end-use locations is essential if used oil is to be utilised or disposed of in an environmentally acceptable and safe way.

The following sections of this code address each of the components of the used oil collection system and provide advice to the relevant parties on their roles and responsibilities with regard to used oil in New Zealand. The aim is to:

- prevent contamination of used oil with inappropriate materials
- encourage small volume oil generators to deliver their used oils to local collection centres
- encourage retail outlets which sell lubricating oils to arrange for used oil collection facilities to be available to their customers and the general public
- encourage the provision of publicly available collection facilities in small municipalities and rural areas that are inadequately served by retail outlets selling lubricating oils
- provide safe and efficient collection and transportation procedures for used oil
- set out the operational and testing procedures and equipment to be used by any party aggregating used oil in a transfer or tank farm facility
- provide guidance and information on what is and what is not an appropriate use for used oil
- ensure the safe handling of used oil by those who collect, transport, store, process, use or dispose of used oil.

- Provide a means of compliance with the controls under the HSNO Act.

3. Small volume generators

Many people buy small amounts of lubricating oil to use at home. Collectively this ends up generating significant volumes of used oil. This section of the code aims to provide information to these "small volume generators" on how to handle and what to do with their used oil. It will also be of interest to organisations such as local authorities, which may field enquiries from the public.

3.1. Definition of a small volume generator

Small volume generators are those oil users who have no on-site used oil storage, and typically accumulate volumes of less than 60 litres of used oil at any one time. The large numbers of private motorists who change their own oil fall into this category.

3.2. What are your responsibilities?

People who maintain their own vehicle(s) and who change the engine and/or other oil(s) should comply with the following procedures:

- Place a drip pan directly under the vehicle's oil pan plug to collect as much as possible of the used oil and to prevent spills, before draining oil from the sump.
- If you are changing your oil filter, loosen the old filter (use a filter wrench if necessary), then spin it off and drain as much oil as possible into the drip pan. Place the filter upside down in a container. Drain for 24 hours. Add the used oil to what you already have in your collection container. If you can, take the old filter to a local scrap metal dealer, refuse transfer station or public collection point. If you don't have any other alternative, wrap the filter in newspaper and dispose of it through your domestic waste collection.
- Pour the used oil into a clean, empty container with a tight lid (e.g. the plastic container the clean oil was supplied in)**. DO NOT MIX IT WITH ANY OTHER SUBSTANCE.**
- Take the used oil to your nearest used oil public collection site (see Section 3.3).

3.3. Where do you take your used oil?

Public collection sites fall into two types: those where the public can leave the used oil in its container at a drop-off bin and those where the used oil is poured into a bulk tank.

Drop-off bins are available at a number of locations including:

- oil retail/reseller sites such as;
  - auto accessory stores
  - DIY stores
  - some rural stock and station agents

Bulk tanks are available at

- some refuse transfer stations
- some landfills

3.4. Inappropriate methods of disposal of used oil

The following methods of disposing of used oil are inappropriate and are in contravention of requirements under the HSNO Act, the RMA and the National Environmental Standards for Air Quality due to the actual or potential adverse environmental impacts:

- unauthorised disposal on the ground, or into watercourses, sewers or drainage systems
- burial
- using used oil for dust control, weed abatement, vegetation control, timber preservation by painting, staining or dipping, pest control or as a carrier fluid for agrichemicals (pesticides or herbicides)
- use as a marker, e.g. on playing fields
- placing used oil in rubbish bins to be collected as part of household waste (except for disposal of well drained used oil filters and oily rags)
- open-air burning
- combustion in, for example, kerosene burners, or as a fuel without an appropriate consent under the RMA[1]
- any other practices, in which the used oil may cause contamination of the ground and ground water, migrate to watercourses, contaminate air or have negative impacts on humans, plants, animals or other organisms.

[1] Regional councils are responsible for determining what discharges to the environment are permitted within their regions (subject to the Disposal requirements of HSNO). If you have any queries about disposing of used oil through, for example, burning for purpose of space heating, you should contact your regional council for advice.

4. Public collection sites

For the collection of used oil from small volume generators to be effective, there needs to be an appropriate number of public collection points available. This section aims to encourage retailers of virgin oil to the public to recover the used oil, and local authorities to take a more proactive role in used oil collection. It also provides a guide on what is required to comply as a used oil public collection site.

4.1. Definition of a public collection site

Any site or facility that accepts/aggregates and stores used oil collected from small volume generators is a public collection site.

Public collection sites fall into two types: those where the public can leave the used oil in its container at a drop-off bin and those where the used oil is poured into a bulk tank.

Drop-off bins are typically available at a number of locations including:

- oil retail/reseller sites such as;
  - auto accessory stores
  - DIY stores
  - some rural stock and station agents

Bulk tanks are typically available at

- some refuse transfer stations
- some landfills

4.2. What are your responsibilities?

All retailers of oil are strongly encouraged to promote the recovery and/or reuse of their oil. This can be enhanced by posting a sign at the point of sale either advising the consumer that the outlet accepts used oil, or that you have made arrangements for another outlet to accept used oil on your behalf.

Oil retail/reseller sites

All sellers of oil in packages of 20 litres or less are therefore encouraged to:

- have a suitable facility available to take back used oil at the point of sale at no charge to the consumer, or
- arrange for a third party within a 10 km radius in an urban area, and at an appropriate location in a rural area, to accept oil on their behalf, or
- join an existing product stewardship scheme for the safe disposal of used oil; and
- prominently display a sign advising customers of recommended recovery arrangements for the site.

If the aggregate quantity exceeds the quantities specified in Appendix 1 of this code (generally 1000 litres), the sites must comply with the requirements of Appendices 3 and 5.

Local authorities

Where a public collection site utilises bulk tanks, such as at refuse transfer stations and landfills, those facilities must comply with the provisions of section 5 and the appendices of this code.

4.3. Classification of public collection sites

Used oil public collection points are classified as either controlled collection or as general collection sites based on the ability to prove that the used oil on site is not contaminated by other products.

Controlled collection sites

A used oil public collection point can be classified as a controlled collection site when the site can demonstrate, by appropriate in-house procedures for handling used oil that it is protected from receiving unwanted or contaminated oils (see Appendix 3). In particular, it is protected from receiving flammable liquids.

General collection sites

Used oil public collection points that cannot show they are protected from receiving unwanted or contaminated oils will be classified as general collection sites.

The site requirements specified in Appendix 3 are to be applied and in particular the procedures outlined in *Additional management procedures for controlled collection sites* in Appendix 3 are to be applied to controlled collection sites to ensure that only used oil is put into the site's used oil storage container.

5. Industrial and commercial used oil generators

Industrial and commercial operators must store or dispose of their used oil in a manner that is not detrimental to human health and the environment.

Industrial and commercial generators may have complicated operations and must take care to segregate used oils generated from different processes to avoid contamination of the separate oil streams. This includes:

- not contaminating segregated oil with any other oily fluid that may appear to be the same substance, and
- not contaminating oils with flammable liquids.

5.1. Definition of an industrial or commercial used oil generator

Industrial and commercial generators are defined as those parties who in the course of their commercial operations generate or accumulate used oil. In all cases the site storage of used oil is unlikely to exceed 5000 litres.

Typical sites include:

- automotive vehicle repair workshops
- industrial manufacturing operations
- other commercial operators, for example sites generating used gear oil and sites generating used hydraulic oil.

These are essentially sites that are not public collection sites.

Industrial and commercial generators of used oil are classified as either a controlled collection site or as a general collection site.

Controlled collection sites are sites where the used oil has not been contaminated by other hazardous substances. This means being able to demonstrate by in house procedures that the used oil comes from closed systems where cross-contamination with other substances has not occurred during typical industrial processes, for example contamination with refrigerants or solvents.

General collection sites are sites where it cannot be demonstrated that the site is protected from receiving contaminated oils or unwanted substances.

The site requirements specified in Appendix 3 must be applied and in particular the procedures outlined in *Additional management procedures for controlled collection sites* in Appendix 3 must be applied to controlled collection sites to ensure that only used oil is put into the site's used oil storage container.

5.2. What are your responsibilities?

As a generator of used oil you must collect and store used oil in dedicated facilities which are designed, labelled and operated to minimise contamination and spillage. The used oil must be prevented from becoming contaminated with other substances such as petrol, diesel, solvents, agricultural chemicals, water, or engine coolants. If contamination with other substances does occur, the contaminated substance must be immediately disposed of. This should be done through a competent transporter of hazardous wastes.

You must provide separate dedicated facilities for each of the main types of used oil:

- automotive engine lubrication and circulating oils – including engine oil, transmission fluids, ATF, final drive and drive-line fluids, brake fluids and power steering fluids, hydraulic oils, turbine oils, heat transfer oils, compressor oils, industrial gear oils
- used metal working/cutting oils – including neat cutting, grinding, machine, rolling, quenching and coating oils, and undiluted soluble metal-working fluids (but excluding chlorinated products)
- electrical insulating oils. If these contain polychlorinated biphenyls (PCBs) or other chlorinated organics they must not be mixed with any other oil. If you suspect that the oil might contain more than 5 ppm PCBs, you should contact the EPA for advice on handling and disposal.

You must ensure that your staff have been trained to be aware of the procedures for the storage and handling of used oil, and of the need to keep used oil separate from other substances, especially flammable liquids.

5.3. Site Requirements

The site requirements, including management procedures which must be followed, are specified in Appendix 3.

The requirements for storage tanks are specified in Appendix 4 of this code.

Procedures for spills are specified in Appendix 5 of this code.

6. Collection and transportation

This section sets out the operational, testing, equipment and recording procedures to be used for the transportation of used oil in bulk.

6.1. Definition of a transporter

Used oil transporters are those parties who commercially collect used oil from more than one used oil generator or collection point and transport it to a used oil transfer facility or tank farm facility (as defined in Section 7.1). This does not include domestic users of oil who transport small quantities (e.g. less than 60 litres) of used oil from the point of generation to a collection site.

6.2. Your responsibilities

Used oil must be collected in a manner that is not detrimental to human health and the environment.

When collecting and transporting used oil you must ensure that the used oil has a flash point greater than 60°C i.e. it has either a flammable hazard classification of 3.1D or it does not have a flammable hazard classification. To do this you must either:

(i) conduct a flash point test or vapour test at each collection point, or

(ii) conduct a pre-collection audit of the site you are collecting oil from.

The site inspection should cover the following areas:

- storage equipment
- site management procedures
- general site tidiness
- potential hazards
- source of used oils
- whether the site is a controlled collection site
- collection of List A substances only
- where there is any doubt, a flash point test or vapour test must be undertaken
- If the site meets the criteria for collecting used oil, you and the site operator can agree on an appropriate collection service schedule for the site.

If you are a used oil transporter you must ensure that the vehicle transporting the used oil meets the criteria for the type of sites that the used oil is being transported from (see Section 6.3). The types of vehicles that are required for a general collection site and a controlled collection site differ.

You should keep records for each site detailing the date and volume of used oil collected. This can be an invoice/receipt for each site. If invoices are not provided, the site operator must subsequently have access to your collection records if required, for use as evidence of appropriate disposal.

If oil is accidentally discharged during collection and/or transportation, you must take immediate action to protect human health and the environment; for example, contain the spill by bunding the discharge area, notify local authorities and clean up the spill. Spills must be reported to the site operator and to the appropriate agency, such as a local council, as soon as possible.

Sites should keep records of each spill in excess of 0.5L. These records should be retained for at least 3 years.

6.3 Requirements for drivers and vehicles

1. All tank wagons used in the collection of used oil must comply with:
   - the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004
   - Land Transport Rule Dangerous Goods 2005 (as amended), where applicable.

   If you collect and transport used oil in bulk from general sites where there is a possibility of contamination with class 3.1A, 3.1B or 3.1C substances, compliance with the first bullet point is achieved by complying with the EPA approved code of practice HSNOCOP 6 Flammable Liquids Tank Wagons. This code of practice is available on the EPA website www.epa.govt.nz. Search for Flammable Liquids Tank Wagons.
   If you collect and transport used oil in bulk from controlled sites where the oil can be guaranteed to have a flash point (closed cup) above 60^{o}C (that is, it has a flammable hazard classification of 3.1D or does not have a flammable hazard classification), you need only comply with Appendix C *Tank Wagons for Carrying 3.1D Flammable Liquids*, of this code of practice HSNOCOP 6.

   If you collect and transport used oil in bulk from controlled sites where the oil is not contaminated with any flammable material, that is, the used oil has a flash point greater than 93^{o}C, then you need only comply with the EPA approved code of practice HSNOCOP 39 Toxic, Corrosive and Ecotoxic Liquids Tank Wagons. In practice, it is likely to be more practical to comply with Appendix C of HSNOCOP 6.

2. All tank wagons must carry a road tanker spill kit for cleaning up any minor spillage. For further information on spill kits, spill preventions, response and clean-up procedures for transporters see Appendix 5 of this code.

3. Any spillage of used oil at a customer site must be cleaned up. This may be by using the vehicle's spill kit. If the spill is greater than can be handled by the spill kit, the driver must wait at the site until a clean-up crew has arrived and responsibility for the clean-up is handed over to them.

4. All hoses must be plugged or capped when not in use. All suction pipes are to be stored in an enclosed leak-proof container or locker complete with a drain point so that it can be drained of product if necessary.

5. All tank wagons should work on a no-product-to-ground policy.

6. All drivers must undergo training for tank wagon work, and this must be documented.

7. All drivers must have the current drivers licence for the vehicle they are driving. If the substances being transported are encompassed by the DG Rule and NZS5433, the driver must have a Dangerous Goods endorsement.
8. Additional precautions are required if the used oil being transported has a flash point less than 60^{o}C. This includes applying hazardous atmosphere zones and for substances with flammable classifications 3.1A or 3.1B the driver must hold an approved handler test certificate.
9. Vehicles with product that could be contaminated with Class 3.1A, 3.1B or 3.1C flammable material are to be labelled with UN Number “1993”, Shipping name “Waste Flammable Liquid NOS”, and Common Name “Used Oil, Hazchem 3[Y]”. This information must also be stated on the Dangerous Goods Declaration.
10. *Part 8 Operating requirements* of the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations must be complied with. These are reproduced in Appendix 6 of this code.
11. Requirements for spill procedures are specified in Appendix 5 of this code.

6.4 Vacuum tankers

Prior to using a vacuum tanker, even in controlled sites, the driver should check to ensure that class 3.1A, 3.1B or 3.1C substances have not inadvertently been disposed of in the tank which is being collected from. Vacuum tankers can only collect class 3.1A, 3.1B or 3.1C substances if the vehicle is designed and constructed for them - refer to HSNOCOP 6 Flammable Liquid Tank Wagons for further information.

6.5 Static electricity

Static electricity is a problem when pumping petroleum substances. The following precautions must be taken whenever used oils are pumped.

Always earth road vehicles before loading or unloading. Before pumping commences and the tank is being unloaded or loaded, attach a loading or unloading hose that is electrically continuous to the tank. You can also use a separate static strap that can be attached to the tank. The tank must be earthed.

- Avoid splash loading when top loading into empty vehicles. Ensure that the fill pipe reaches as close as possible to the bottom of the tank or use bottom filling.
- Avoid pumping water or air with petroleum substances.
- Maintain a slow loading rate until the fill pipe on the receiving vessel is covered by at least 100 mm.

6.6 Records

When you collect and deliver used oil you should maintain records of this transaction for a minimum of three years. Each tank wagon load of used oil must undergo flashpoint testing or vapour testing before it is delivered to a used oil transfer facility (see Appendix 2). This will ensure contaminants are not present in the load. Records of this testing should be retained for three years.

Acceptance

As a used oil transporter you must keep a record of each used oil batch accepted for transport. Records for each batch must include:

- the name, address and ID number (if applicable) of the transporter and whoever provided the used oil for transport, and
- the date of acceptance of the used oil, and
- a description of the used oil being transported, and
- the quantity of used oil accepted, and
- the signature of a representative of whoever provided the used oil for transport. The signature must be dated on receipt of the used oil.

Delivery

As a used oil transporter you must keep a record of each shipment of used oil that is delivered to another used oil transporter, user or transfer facility. Records of each delivery must include:

- the name and address of the receiving facility or transporter, and
- the ID number (if applicable) of the receiving facility, and
- the date of delivery, and
- the quantity of used oil delivered, and
- the signature of a representative of the receiving facility or transporter. This must be dated on receipt of the used oil, and
- the results of the flashpoint test or vapour test of each tank wagon loads of used oil.

6.7 Delivering used oil

Used oil transported from a collection point must only be unloaded at a site that meets the criteria for a used oil transfer facility/tank farm facility (see Section 7).

If the collected used oil is not suitable for unloading at a used oil transfer station/tank farm facility it must be disposed of to a facility that is appropriately certificated.

6.8 Transportable containers

Where IBCs (Intermediate bulk containers) are used for the collection and transportation of used oil, these must comply with chapter 6.5 of the UN Model Regulations on the Transport of Dangerous Goods.

IBCs are required to be inspected at 2.5 yearly and 5 yearly intervals. These inspections are required to be in accordance with the UN Model Regulations. Details of this testing can be found in the code of practice HSNOCOP 58 Construction and Testing of Intermediate Bulk Containers, which is available on the EPA web site at: http://www.epa.govt.nz. Search for Completed codes of practice.

A compliant IBC will be marked and will display the date of the latest inspection.

Where portable tanks are used for the collection and transportation of used oil, these must comply with chapter 6.7 of the UN Model Regulations. The following must also be complied with:

- for a portable tank manufactured in New Zealand, it must have the design test certificate required by Part 7 of the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations, and
- the attachment of the portable tank to the deck of the vehicle must be able to resist the forces specified in Schedule 1 of the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations; that is:

Table 1: Attachment forces

Forces	Road	Rails
Vertically up	1 g × M	0.8 g × M
Vertically down	2 g × M	1.8 g × M
Lateral	1 g × M	0.3 g × M (but 0.65 g × M for sea transport)
Longitudinal	2 g × M	2.8 MN × T/G
		2 g × M (for transportable containers)
g = acceleration constant due to gravity (9.81 m/s^2)		
G = gross weight of tank, contents, chassis, and all associated equipment		
M = weight of tank, contents, and fittings (but excluding chassis)		
MN = meganewtons		
T = weight of tank and contents		

- either:
  (i) the container is transported when empty or when filled to the maximum recommended filling capacity, or

  (ii) the vehicle transporting the container must comply with regulation 21 of the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations.

7. Storage and processing

This section concerns owners and operators of used oil bulk storage facilities together with those who have operations for processing, refining or disposing of used oil. It does not apply to people who carry out incidental processing operations on used oil during the normal course of transportation (see Section 6). It includes the use of used oil as a fuel in any operation.

People who hold or process used oil in these facilities must comply with the requirements of this section and have the appropriate consents from Local and/or Regional Authorities if required.

It is not possible in a code of this nature to list all of the requirements specified under the Hazardous Substances and New Organisms Act 1996.

7.1. Used oil facilities

Bulk storage facilities

A used oil tank bulk storage facility is defined *as any facility at a site that receives and aggregates used oil from used oil transporters [as defined in Section 6.1] for subsequent additional transportation, processing, re-refining or use and which is not a used oil generator*. bulk storage facility typically consists of a tank farm and may include the incidental processing of used oil through, for example, stripping water.

Typically, bulk storage facilities are likely to receive used oil from used oil transporters in large volumes, that is, received in bulk by tank wagon.

Processing and use plants

Used oil processing or use plants are *any facilities which either receive and aggregate used oil from used oil transporters [as defined in Section 6] and which also process, re-refine or use the used oil.*

These are facilities that engage in physical operations designed to make used oil more amenable for the production of fuel oils, lubricants or other used oil-derived products. Processing includes, but is not limited to, any mechanical or chemical treatment, as well as blending used oil with virgin petroleum products (excluding those with flammable classifications 3.1A, 3.1B or 3.1C).

Bulk storage facilities are subject to more rigorously controlled practices than for either virgin oil stored at commercial operations or used oil stored at public and industrial/commercial collection points. The reasons for this are:

- storage of greater volumes
- the likelihood that such sites will sometimes receive used oil contaminated with flammable liquids.

7.2. What are your responsibilities?

Owners and operators of used oil bulk storage facilities and used oil processing, refining or burning sites must hold current resource consents to operate such facilities, and maintain and operate them in accordance with these consents. Used oil bulk storage facilities must also minimise contaminated

waste which will require disposal to landfills, for example, by shredding. washing and recycling plastic oil containers.

Each site must comply with all relevant requirements of the relevant legislation, including the Resource Management Act 1991, the Hazardous Substances and New Organisms Act 1996 and any relevant local by-laws and regulations.

As the operator of a facility that holds, processes, refines or disposes of used oil, you are also required to comply with all the sections of this code that relate to the different parts of your operation such as storage and transportation.

If substances with flammable hazard classifications of 3.1A, 3.1B or 3.1C are stored on the site, a HSNO location test certificate is required when stored in excess of the threshold quantity.

It is the responsibility of the person in charge to ensure the requirements of the Hazardous Substances and New Organisms Act 1996 are met. This may include disposal options.

7.3. Storage facilities

Tanks

1. Stationary tanks must be compliant with Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended) or a code of practice made under that transfer notice. These requirements are specified in Appendix 4 of this code.
2. A means to prevent unauthorised access is to be provided; this can include padlocking inlet and outlet valves when not in use.
3. Above ground stationary tanks of 1000L or more must have a secondary containment system that meets the requirements of the relevant Group Standard Site and Storage Conditions or the Hazardous Substances (Emergency Management) Regulations (refer Appendix 1). A secondary containment system is a system in which the used oil is contained if it escapes from the container or containers in which it is held. The used oil must be able to be recovered from the secondary containment system. A common form of secondary containment is a compound with bund walls. The secondary containment system must have a capacity of at least 110% of the largest tank at the site. HSNOCOP47 Secondary Containment Systems contains further information. This is available on the EPA web site at www.epa.govt.nz. Search for Secondary Containment Systems.
4. The bund floor must be impervious.
5. Below ground stationary tanks must have a secondary containment system of at least the capacity of the tank.
6. Each tank is to have some method to determine the volume of used oil in it.
7. All tank maintenance is to be recorded and the records kept for five years.

8. At each site the operator is to have a sufficient storage capacity on site certified for flammable liquid storage to allow for discharge from the largest capacity of a vehicle that may be received, in the event of a load being contaminated with a low flash point substance. In the event that there are flammable liquid storage facilities available, the contaminated used oil must not be off-loaded – it will have to be transported to an appropriately consented facility. The requirements for compliance of flammable liquid storage have not been included in this code.
9. The vehicle discharge area must be bunded. The bund must equal or exceed the volume of the largest compartment of any vehicle to be discharged[2].
10. Some regional councils require activities of this nature to have an interceptor, which may be an oil grit interceptor. The requirements of the local and regional authorities should be ascertained.
11. Operating requirements are specified in Appendix 3 to this code.

7.4. Transfer Operations

During loading and unloading of used oil at a used oil facility, a staff member must be in attendance at all times.

Records

All sites that hold, process, refine or dispose of used oil are to keep records of incoming oil by date, volume, source and flash point. Records of oil going off site should indicate date, volume, and destination. Owners and operators of sites that hold, process, refine or dispose of used oil must keep documentation that acts as an audit trail, Sites must also keep disposal records for any hazardous by-products generated in the process. This includes sludges and ash, and spent fuller's earth containing oil.

All records should be retained for at least three years.

Spill/ Emergency Management Procedures

Employers and staff must be properly prepared to manage an emergency involving hazardous substances. This means a site must comply with the relevant Group Standard Site and Storage Conditions or the Hazardous Substances (Emergency Management) Regulations (refer Appendix 1). These require sites to have emergency response procedures and equipment. To do this a site must have:

[2] Reference can be made to the EPA approved code of practice HSNOCOP 47 Secondary Containment Systems for information on secondary containment systems.

- At least two fire extinguishers if at least 500L of used oil is held when the used oil is of 3.1D classification, although it is good practice to have fire extinguishers available regardless of the hazard classification of the used oil.
- A spill kit that is appropriate for cleaning up used oil. This should contain personal protective equipment (PPE) that may include overalls, boots, gloves, eye protection. It should also contain spill handling equipment, containment equipment, absorbent materials and information on what to do when a spill occurs.
- Signage that notifies employees, emergency services and other people of the presence of hazardous substances. Refer to Appendix 3 for details of signage.
- A secondary containment system that meets the requirements set out in section 7.3.
- An evacuation plan
- An emergency response plan if your site holds greater than1000L of used oil. If your site holds less than 1000 litres of used oil it is still good practice to have an emergency response plan.
- Where applicable, emergency response procedures for low flash point substances and/or substances at elevated temperatures.

Emergency response plans must be site specific and cover all reasonably likely occurrences and the responses for your site. They must comply with the relevant Group Standard Site and Storage Conditions or the Hazardous Substances (Emergency Management) Regulations (refer Appendix 1) and shall include a description of what you will do to:

- call emergency services
- warn people at the workplace and in nearby areas that an emergency has occurred
- advise people how they can protect themselves and how they can help other people involved in the emergency
- manage the emergency so that damage is minimised.

The plan must also:

- Name the people with specific responsibilities (such as fire wardens, first aiders) and include the contact information for them and emergency services.
- Include how to get information about the hazardous properties of the substances involved in the emergency.
- State the location and purpose of emergency equipment and materials that may be needed.
- Set out the actions to take for each potential emergency and the order in which to take them.
- Be available to all people that are listed in the plan as having responsibilities and to emergency services.

Emergency response plans must be tested at least annually; records of tests must be kept for at least two years. You must update your plan if there are changes to the hazardous substances present at your workplace, or if there are changes to staff that have specific emergency responsibilities. You must test altered plans as soon as possible, and in any event no later than 3 months after the change. After any emergency, you should review your plan and identify steps to prevent future incidents.

8. Use or disposal of used oil

8.1. Air quality

Open burning of used oil is prohibited by the National Environmental Standards for Air Quality (NESAQ). Combustion of used oil for purposes of generating useful heat, steam, power or electricity is typically a discretionary activity under most Regional Council plans and therefore is likely to require authorisation by resource consent which may or may not require notification. If you collect and transport used oil to people that intend to utilise the used oil as a fuel, you should ensure the user holds the appropriate consents under the RMA and from local authorities.

People who burn used oil must not breach the standards outlined in National Environmental Standards for Air Quality (NESAQ). NESAQ sets ambient air concentrations for fine particulate (PM_{10}), sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide. Complying with the fuel specifications in 8.2 below does not ensure that the combustion process will ensure compliance with NESAQ. If you have resource consent to incinerate used oil you must ensure that you do not breach the NESAQ.

8.2. Reprocessed oil specifications

Used oil reprocessed for use as a fuel oil must be converted into a distinct marketable substance.

It must meet the following fuel specifications unless resource consent for combustion of the used oil enables higher limits to be used:

Table 2: Fuel specification limits

Element	Maximum levels
Lead	100 ppm maximum
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Total halogen content	1,000 ppm maximum (no PCBs allowed)
Flash point	60°C minimum

Each batch of reprocessed oil must be tested to ensure this specification is complied with. Such testing would normally be undertaken by the provider of the used oil and the records should be retained for at least 5 years. This includes situations whereby used oil is collected and used directly as fuel oil. For practical purposes smaller batches e.g. batches less than 10,000 litres, may be consolidated for testing so long as the sample is representative.

8.3. Burners

Stationary container systems, including tanks, for oil burning installations must be compliant with Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended) or an approved code of practice made under this transfer notice. Schedule 8 also specifies the equipment and installation requirements. These requirements are elaborated on in Appendix 4 of this code.

Only burners approved by the EPA are permitted to be used for burning used oil. A list of approved burners can be found on the EPA website at epa.govt.nz. Search for Register of Approved Burners Stationary container systems that include burners and which have a tank size of 60 litres or greater, are required to have a stationary container system certificate issued by a test certifier approved by the Environmental Protection Authority. A list of approved test certifiers can be found on the EPA website at http://www.epa.govt.nz/search-databases/Pages/testcertifiers-search.aspx

8.4. Emissions Trading Scheme

Your attention is drawn to your obligations under the Emissions Trading Scheme. These obligations and the methodology of the Emissions Trading Scheme can be found at the websites of the Environmental Protection Authority and the Climate Change Policy website of the New Zealand Government.

These websites are:
http://www.epa.govt.nz. Click on Emissions Trading on the menu bar.
http://www.climatechange.govt.nz Click on Emissions Trading on the menu bar.

8.5. Disposal of used oil

Used oil that is to be disposed of (as opposed to being used for burning or being re-used) will usually involve a commercial transaction, with the ownership of the used oil generally passing to the collector. In this case, the responsibility for environmentally acceptable disposal practices passes to the collector.

The used oil must be disposed of by:

- Exporting it as a waste (note that this would require a permit under the Imports and Exports (Restrictions) Prohibition Order (No. 2) from the EPA), or
- Treating it so that it is no longer hazardous.

The latter point does not include depositing it in a sewage facility or spreading on land surfaces (including roads) but does include:

- Combustion in a managed incineration facility, and
- Depositing it in a landfill provided the landfill is licenced to accept the used oil.

Disposal of packaging

Unless the package is to be reused or recycled, the package must be rendered incapable of containing any substance and disposed of:

- in a manner consistent with disposal of the used oil itself, or
- through a public or commercial waste collection service.

9. Definitions

AS/NZS 2906:1999	means the standard Fuel containers- Portable – Plastics and metal
Code	means this code of practice for the Management and Handling of Used Oil
EPA	means the Environmental Protection Authority
Existing tank	means a tank which this code applies to, which, immediately prior to the date of approval of this code, was: 1. Being used to contain used oil, or 2. Was designed to be used to contain used oil.
Fullers earth	Means a fine-grained, naturally occurring earthy substance that has a substantial ability to adsorb impurities or colouring bodies from fats, grease, or oils.
Group Standard	means an approval by the EPA for a group of hazardous substances of similar nature, type or use.
HSNO Act	means the Hazardous Substances and New Organisms Act 1996 and legislation made under that Act.
Industrial or commercial generator	has the meaning given in Section 5.1 of this guide.
Oil burning installation	means a stationary container system which includes a means of burning the oil, such as a stationary engine or oil burner.
Public collection site	has the meaning given in Section 4.1 of this guide.
Reprocessed oil	means used oil reprocessed as fuel oil in accordance with the specification of Section 8.2 of this code.
RMA	means the Resource Management Act 1991
SDS	means safety data sheet
Secondary containment system	means a system or systems in which the used oils will be contained if they escape from the container or containers in which they are being held; and from which they can, subject to unavoidable wastage, be recovered.
Small packs	means packages no greater than 20 litre capacity
Small volume generator	has the meaning given in Section 3 of this code.
Stationary container system	Means a stationary tank and its associated equipment, pipe work and fittings up to and including any dispensers.
Tank	means for this code a stationary container for holding used oil
Tank wagon	has the meaning in the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004; that is, in the context of this code, means a vehicle, including (but not limited to) – a. A tank truck that – (i) Has its own means of propulsion; and

	(ii) Contains a tank; and (iii) Is constructed for the primary purpose of the bulk transport of hazardous substances as a liquid by road b. A tank semi-trailer or tank trailer that (iv) Contains a tank; and (v) Is constructed for the primary purpose of the bulk transport of hazardous substances as a liquid by road.
Test certificate	means a certificate issued by a test certifier who is approved for that purpose by the EPA
Test certifier	means a person approved by the EPA to issue test certificates
Ullage	Means the empty space at the top of a tank
Used oil	has the meaning in Section 1 of this Code.
UN Model Regulations	means the 17th revised edition of the UN Recommendations on the Transport of Dangerous Goods—Model Regulations (2011)

Appendix 1 Controls from HSNO approvals for used oil

The following table specifies the controls and the applicable threshold levels for these for the respective HSNO approvals for used oil.

Table 3: Threshold levels

Substance	Control	Threshold	Requirement
Lubricants (Combustible, Toxic) Group Standard (Hazard classification 3.1D, 6.3B, 6.7B, 9.1C)	Fire Extinguishers	500 L	Two extinguishers (Group Standard) Site and Storage Conditions for Class 3.1 Flammable Liquids, Part 7
	Response Plans and Secondary Containment	1,000 L	(Group Standard) Site and Storage Conditions for Class 3.1 Flammable Liquids, Part 7
	Signage	1,000 L	(Group Standard) Site and Storage Conditions for Class 3.1 Flammable Liquids, Part 8
	Safety data sheets	Required	Schedule 1, Part 1, section 3 of Group Standard
	Stationary container systems	250 L above ground. 250 L below ground	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Parts 1 to 20, to the extent applicable
	Stationary container system test certificate	5000 L above ground. 250 L below ground	Stationary container system test certificate. Refer Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Part 19.
	Controls relating to adverse effects of unintended ignition of class 3.1D hazardous substances	600 L	(Group Standard) Site and Storage Conditions for Class 3.1 Flammable Liquids, Part 2, Part 4
	Tank wagons and transportable containers	450 L	Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004
	Burner approval	N/A	Use as fuel not allowed under Group Standard
Lubricants (Toxic) Group Standard (Hazard classification	Response Plans and Secondary Containment	1,000 L	(Group Standard) Site and Storage Conditions for Toxic, Corrosive and Ecotoxic Substances, Part 2
	Signage	1,000 L	(Group Standard) Site and Storage Conditions for Toxic, Corrosive and

6.3B, 6.7B, 9.1C)			Ecotoxic Substances, Part 3
	Safety data sheets	Required	Schedule 1, Part 1, section 3 of Group Standard
	Stationary container systems	250 L above ground. 250 L below ground	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Parts 1 to 20, to the extent applicable
	Stationary container system test certificate	5000 L above ground. 250 L below ground	Stationary container system test certificate. Refer Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Part 19.
	Tank wagons and transportable containers	450 L	Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004
	Burner approval	N/A	Use as fuel not allowed under Group Standard
Fuel oil manufactured from waste lubricating oil (Hazard classification 3.1D, 6.3B, 6.7B, 9.1C)	Response Plans and Secondary Containment	1,000 L	Hazardous Substances (Emergency Management) Regulations 2001, Part 4
	Signage	1,000 L	Hazardous Substances (Identification) Regulations 2001, Part 3
	Safety data sheets	Required	Hazardous Substances (Identification) Regulations 2001, Part 2
	Fire Extinguishers	500 L	Two extinguishers Hazardous Substances (Emergency Management) Regulations 2001, Part 3
	Stationary container systems	250 L above ground. 250 L below ground	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Parts 1 to 20, to the extent applicable
	Stationary container system test certificate	5000 L above ground. 250 L below ground 60 L tank supplying a burner	Stationary container system test certificate. Refer Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Part 19.
	Controls relating to adverse effects of unintended ignition of class 3.1 hazardous substances	600 L	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 10, Parts 1, 2 and 4

	Tank wagons and transportable containers	450 L	Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004
	Burner approval	Required	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Part 14
Non-flammable fuel oil manufactured from waste lubricating oil (Hazard classification 6.3B, 6.7B, 9.1C)	Response Plans and Secondary Containment	1,000 L	Hazardous Substances (Emergency Management) Regulations 2001, Part 4
	Signage	1,000 L	Hazardous Substances (Identification) Regulations 2001, Part 3
	Safety data sheets	Required	Hazardous Substances (Identification) Regulations 2001, Part 2
	Stationary container systems	250 L above ground. 250 L below ground	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Parts 1 to 20, (including Parts 13 and 14) to the extent applicable (note variation to clause 31, Part 5)
	Stationary container system test certificate	5000 L above ground. 250 L below ground 60 L Tank supplying a burner	Stationary container system test certificate. Refer Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Part 19.
	Burner approval	Required	Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, Schedule 8, Part 14
	Tank wagons and transportable containers	450 L	Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004

Appendix 2 Testing and certification of used oil bulk loads

Each load delivered to a used oil transfer/tank farm facility is to be sampled. When sampled from the tank wagon, a sample of at least one litre is to be taken from the top of the load in the tank wagon. If it is a multi-compartment wagon, a sample of at least one litre is to be taken from each compartment.

A batch number is given to that sample to correspond with the run number from which that oil was collected.

Testing for loads

Each load of used oil must undergo testing before delivery to a used oil transfer facility to ensure that contaminants are not present in the load. The oil is to be tested either for:

- flash point by the closed cup method, or
- vapour by a calibrated gas detector.

When testing for flashpoint, the minimum acceptable flashpoint is 60 degrees C. The test method that should be followed is ASTM D93 - 12 Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, or equivalent.

When testing for vapour, the presence of any flammable vapour is unacceptable. The instructions of the supplier of the test equipment are to be followed.

If loads are found to fail one of these tests, the sites from which the load was collected must be advised. If a second run of the same sites also returns a failed test, individual collection sites are to be sampled on the third run to isolate the particular site involved. The cause of the failed test is to be determined and remedied or this source of used oil is to be discontinued. The site and the local office of the agency responsible for enforcement (the Ministry of Business Innovation and Employment as at the date of approval of this Code) are to be informed.

Results are to be kept in a register for three years.

Testing loads that are transferred onto tank wagons

It is good practice when accepting used oil from a new supplier to test the first collection to ensure that the testing criteria are complied with.

Appendix 3 Site Requirements

Management procedures

- The operator must provide written material to staff about the appropriate procedures for handling used oil and oil filters. Safety datasheets must be available[3].
- The used oil collection and transportation agent must comply with the guidelines in Section 6.
- Collection facilities are sited to prevent used oils from entering sewerage and storm water systems, drainage channels and the natural environment.
- Storage facilities should be inspected visually on at least a weekly basis to ensure that a standard of cleanliness and that environmental management is maintained, and that regular collections are carried out.
- Stationary container facilities should be audited annually, with records retained on site until the next audit. These audits will generally be by internal staff (i.e., conducted by storage facility staff).
- The site must have a management plan in the event that the storage tanks and other receptacles become contaminated with other hazardous materials, such as flammable solvents. This may entail calling a transporter able to handle Class 3.1A, 3.1B or 3.1C material and arrange for collection of it.
- The site must have health and safety procedures that are appropriate to the handling that is taking place.
- In the event that a spillage occurs, records should be kept for all spills in excess of 0.5L. These records should be retained for at least 3 years.

Additional management procedures for controlled collection sites

- Controlled collection sites must be able to show they are protected from receiving unwanted or contaminated oils by having the following management procedures in place on site and by ensuring that staff are aware of them. Only used oils from List A are acceptable.
- A legible and visible sign must be prominently mounted which advises persons wanting to dispose of used oil to avoid contaminating it and either:
    - lists the products that are not accepted (antifreeze, paints, solvents, petrol, diesel etc.), and says where unacceptable products should be disposed of, or
    - specifies the used oils that the storage tank is limited to.
    - Signs that meet this requirement include:

[3] The default safety data sheet is that of the virgin oil

Figure 2:

USED LUBRICATING OIL

(76 pt black print yellow highlight)

LUBRICATING OIL

TRANSMISSION AND HYDRAULIC FLUIDS ONLY

(46 pt green highlight)

Figure 2A:

PROHIBITED SUBSTANCES

(Black 76 pt yellow highlight)

PETROL, DIESEL, COOLANTS, PAINT SOLVENTS, PARTS WASHING FLUIDS and KEROSENE are forbidden

(Black 46 pt, red highlight)

- For public collection sites where used oil is poured into a tank, the operator must visually inspect the used oil and reject any that he or she suspects may contain something unacceptable. This is unnecessary for public collection systems where the used oil is retained in sealed leak proof containers such that each batch of used oil is separated from other material.
- For sites generating used oil, the operator must have a documented process for accepting the used oil and this process must be made aware to the staff involved.

Segregation of incompatible substances

Used oil must not be in contact with any substance or material with which it is incompatible. Incompatible substances, including those held in packages, must be held separately. Used oil must be separated from:

- Explosive substances (class 1)
- Flammable gases (class 2)
- Flammable solids (class 4)
- Oxidising substances (class 5)

Public collection facilities

The collection agent at a public collection site must provide a safe, leak proof facility for the collection of customer's contaminated containers/receptacles. The agent must ensure that contaminated receptacles are recycled. If recycling is not available, containers must be disposed of in a safe and appropriate manner, e.g. at a suitable landfill.

All public collection sites must:

- be monitored at all times they are available to the public, and
- be inaccessible to the public when not monitored e.g. at night, and
- be weather tight, and

- be located away from sources of ignition, gutters, storm water drains, waterways and environmentally sensitive areas, and
- be advised to local fire and pollution response authorities in order to minimise the risk of spills, fires, contamination and over-filling.

If the used oil has a 3.1D flammable classification, the used oil containers/receptacles must be stored:

- outside, or in a detached building, or
- in a room with walls and ceiling constructed with 60/60/60 fire resistance rating provided not more than 450 litres are situated in the store, or
- in a room with walls and ceiling constructed with 120/120/120 fire resistance rating provided not more than 2000 litres are situated in the store.

Rooms in the third and fourth bullet points may have a door opening into the building provided that:

- The door of the room has a fire resistance rating of -/60/60 in the case of bullet point three and -120/120/120 in the case of bullet point four, and
- The door is fitted to be self-closing in the event of a fire near the doorway, and
- There are no combustible materials within 3 metres of the doorway, and
- No portion of the structure within 3 metres of the doorway is constructed of combustible materials, and
- The door is kept closed except when goods are placed in, or removed from, the room.

This code of practice is not applicable to used oils which have a flashpoint 60^{o}C degrees Celsius or lower that is, oils with 3.1A, 3.1B or 3.1C flammable classifications). These oils may require additional precautions.

Removal of used oil

Removal of used oil from public collection sites as well as industrial and commercial generator sites should only be done through a commercial collection agent who complies with procedures as set out in Section 6.

Fire extinguishers

Fire extinguishers must have a capability of 30B[4] and must be positioned within 30 metres of the used oil.

Emergency response plan

Employers and staff must be properly prepared to manage an emergency involving the used oil.
The site must have a single emergency response plan for all of the hazardous substances held in it. This plan must describe all of the reasonably likely emergencies that may arise and for each of these must:

- Describe the actions to be taken to

[4] The rating should be marked on the extinguisher.

  - Warn people at the place, and in surrounding areas that may be adversely affected by the emergency, that an emergency has occurred, and
  - Advise those people about the actions they should take to protect themselves, and
  - Help or treat any person injured in the emergency, and
  - Manage the emergency so that its adverse effects are first restricted to the area initially affected, then as soon as practicable reduced in severity, then if reasonable possible eliminated' and
  - If any of the substances remain, re-establish the conditions imposed on it when it was approved, and

- Identify every person with responsibility for undertaking any of the actions described above and give information on:
  - How to contact the person, and
  - Any skills the person is required to have, and
  - Any actions that person is expected to take, and

- Specify
  - How to obtain information about the hazardous properties of and means of controlling the substance or substances that may be involved, and
  - Actions to be taken to contact any emergency service provider, and
  - The purpose and location of each item of equipment or material; to be used to manage the emergency, and
  - How to decide which actions to take, and
  - The sequence in which actions should be taken.

An emergency response plan which complies with these requirements can be found on the EPA website at www.epa.govt.nz. Search for emergency procedures.

All equipment, materials and responsible people specified in the plan, must be

- present at the location, or
- available to reach the location within the times specified , or
- in the case of trained persons, be available within a specified time frame.

The emergency response plan must be available to every person responsible for executing the plan or part of it and to every emergency service provider.

The emergency response plan must be tested:

- at least every twelve months and
- Within 3 months of a change to the plan, persons or procedures.

The test must demonstrate that every procedure and action is workable and effective. The results of the test must be documented and held for at least 12 months.

Furthermore the site must demonstrate that it has a spill-response and clean-up plan, which includes

- up-to-date procedures for contacting clean-up contractors and
- procedures for notifying the relevant municipal authorities, and

- staff awareness and
- having a spill kit available (see Appendix 5).

Secondary containment systems

Secondary containment systems are required when the quantity of used oil is equal to or greater than 1000 litres. It is also recommended that secondary containment systems are installed when the quantities are below 1000 litres. The capacity of the secondary system is dependent on the capacity of the containers in which the substances are held whether they are held above or below ground, and whether the used oil has a flammable classification or not.

Table 4. Secondary containment capacity required for containers holding used oil.

Minimum secondary containment capacity for used oil that is flammable i.e. 3.1D

Container Size Categories	**Quantity – Total Aggregate Capacity**	
	Less than 5,000 litres	**Greater than or equal to 5,000 litres**
≤ 60 litres	At least 50% aggregate capacity	2,500 L or 25% aggregate capacity whichever is the greater
> 60 and up to 450 litres	At least 100% aggregate capacity	5,000 L or 50% aggregate capacity whichever is the greater
> 450 litres	At least 110% of the capacity of the largest container	

Minimum secondary containment capacity for used oil that is not flammable.

Container Size Categories	**Quantity – Total Aggregate Capacity**	
	Less than 20,000 litres	**Greater than or equal to 20,000 litres**
≤ 60 litres	At least 25% aggregate capacity	5000 L or 5% aggregate capacity whichever is the greater
> 60 and up to 450 litres	At least 25% aggregate capacity or 110% of the largest container whichever is greater	5,000 L or 5% aggregate capacity whichever is the greater
> 450 litres	At least 110% of the capacity of the largest container	

Common forms of secondary containment systems include:

- a compound with bund walls or a depression in the ground, and
- a tank with a double skin and where the interstitial space is monitored, and
- for small volume collection, leak proof containers held within a larger receptacle.

In order to avoid the secondary containment system collecting rainwater during periods of rain, a shelter or roof can be placed over the tank and secondary containment system.

Further information on secondary containment systems can be found in the code of practice HSNOCOP 47 Secondary Containment Systems available from the EPA website at http://www.epa.govt.nz/ . Search for Secondary containment systems.

Signage requirements

Signage is required when the quantity of used oil is equal to or greater than 1000 litres. Signs must advise people of the hazardous properties of the substances that are present at a site and must have precautionary statements that tell people what to do to avoid unintended consequences. Signage must comply with the relevant Group Standard Site and Storage Conditions or the Hazardous Substances (Identification) Regulations. Signage needs to be in English, clear, easily understood, and able to be read from a distance of 10 metres.

If the used oil is located in a building, signs must be positioned at every vehicular and pedestrian access to the building and at each entrance to any room or compartment inside the building which the used oil is located in.

These requirements are complied with by signs which show the following:

1. the hazardous substances present, with the use of signal words such as HAZCHEM, or WARNING.
2. the hazardous properties of the substances and the type of hazard of each substance present. If substances have multiple classifications these all need to be considered when displaying signs.
3. Precautionary statements that prevent unintended ignition or combustion.
4. Emergency actions to be taken in the event of an emergency.

This can be provided in pictorial form, for example by pictograms (as in the example below). Further information can be obtained from the code of practice HSNOCOP 2 Signage for Premises storing Hazardous Substances

For the purposes of this code the signage has been simplified. The sign below is suitable for used oils with a flash point above 60°C. Separate consideration is required if the flash point is 60°C or below

Figure 3: Signage

<table>
<tr><td colspan="2">HAZCHEM 3Z</td></tr>
<tr><td colspan="2">USED OIL</td></tr>
<tr><td> 
Combustible Liquid</td><td rowspan="2">In case of emergency dial 111
Fire, Police or Ambulance
Keep away from ignition sources – no smoking, no naked flames
Ecotoxic to aquatic life – contain spills, protect waterways.
24Hr company contact Dial xx xxxxx
Regional council pollution hotline Dial xx xxxxxx</td></tr>
<tr><td> 
Ecotoxic to Aquatic Life</td></tr>
</table>

Personal Protective Equipment

(1) A person who handles the used oil in a place of work must use protective clothing or protective equipment that is designed, constructed, and operated to ensure that the person does not come into contact with the used oil and is not exposed to a concentration of the used oil that is greater than the workplace exposure standard for the used oil, or any component of it.

(2) Subclause (1) does not apply if the used oil is contained in a compliant package.

(3) The supervisor of a place of work must ensure that protective clothing or protective equipment used to handle the used oil is accompanied by documentation containing information specifying the circumstances in which the clothing or equipment may be used together with the requirements for maintaining the clothing or equipment.

(4) In subclause (3)(a), “circumstances” include, if relevant, the presence of other substances, and the temperatures and pressures in or at which the clothing or equipment may be used.

Practical application of these requirements for the handling of used oil includes the use of gloves and safety goggles and a mask. Additional personal protective equipment may be necessary for other reasons for example, the use of safety boots/shoes to minimise physical injuries.

Equipment to handle the used oil

(1) A person in charge of the used oil must ensure that equipment used to handle it—

(a) retains the used oil, without leakage at all temperatures and pressure for which the equipment is intended to be used; and

(b) dispenses or applies the used oil, without leakage, at a rate and in a manner that the equipment is designed for.

(2) The equipment must be accompanied by documentation containing information about the use and maintenance of the equipment to enable the equipment to be used and maintained in a manner that complies with subclause (1).

Additional requirements for bulk storage facilities and storage/processing sites

Used oil bulk storage facilities and those sites where there are operations for processing or, refining used oil generally have requirements additional to those above. These arise from

- Larger volumes of storage, and
- The requirement to provide for class 3.1A substances, and
- The more extensive nature of the facilities.

These additional requirements include compliance with the:

- Lubricants (Combustible, Toxic 6.7) Group Standard 2006, and
- Site and Storage Conditions for Class 3.1 Flammable Liquids, and also the
- Corrections to Site and Storage Conditions for Class 3.1 Flammable Liquids.

These may be accessed from the EPA website at: http://www.epa.govt.nz. Search for the respective document.

Appendix 4: Tanks for used oil

This appendix specifies the minimum standard for used oil stationary container systems at small volume industrial/ commercial and public collection sites that is, for tanks less than 5000 litres capacity.

Design and Construction

All new above ground tanks with a capacity of 250 litres or greater and all new below ground tanks must comply with either:

- Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended). A copy of this transfer notice can be found on the EPA website at: http://www.epa.govt.nz. Search for Dangerous Goods and Scheduled Toxic Substances) Transfer Notice.

or

- A code of practice approved by the EPA. Approved codes of practice can be found on the website of the EPA at www.epa.govt.nz..
- Specific codes of practice that are relevant in this context are:
  HSNOCOP 13 - Existing Stationary Container Systems up to 60,000 litres) HSNOCOP 24 - Above Ground Stationary Tanks with Integral Secondary Containment
  HSNOCOP 45 - Below Ground Stationary Container Systems for Petroleum - Operation
  HSNOCOP 44 - Below ground stationary container systems for petroleum – design and installation
  HSNOCOP 17 - Fibreglass stationary tanks to ULC-ORD-C80.1-2000

For used oil at controlled sites and which does not have a flammable hazard classification, that is, the flash point is greater than 93^{o}C, the following codes of practice are also applicable:

HSNOCOP 4 - Thermoplastic tanks to BS EN 12573-2:2000 for storing Class 5, 6, 8 and 9
HSNOCOP 12 - Rotationally Moulded Polyethylene Tanks
HSNOCOP 56 - Design and Construction of Thermoplastic Tanks for Class 6, 8 and 9 Hazardous Liquids

Information to be supplied with tanks

Tanks installed on site should be supplied with sufficient information to readily support their compliance.

Existing tanks

Tanks installed prior to the date of approval of this code and up to 1 year following approval of this code may be designed and constructed in accordance with the provisions of Appendix 7 of this code.

Design considerations for tanks

In addition to the requirements of Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended), the following must also be adhered to:

Openings

All openings should be located in the top of the tank above the safe fill level. Where it is necessary to install an opening below the safe fill level, e.g. for use as a water drain or sediment removal, this opening must have a secure closure which is only open under the supervision of a trained person. A secure closure is one which is locked and which requires a key to open or one which requires tools to open.

Fill point

Where the used oil is tipped into the tanks from containers, the fill point is to be of sufficient size to allow easy draining of the oil containers. A mesh is to be provided in the fill point to stop the ingress of solid particles or matter.

Discharge

The discharge point must be suitable for the collection truck to pump out the used oil. If permanently fitted, the pipe on the suction discharge should terminate as close to the bottom of the tank as practicable to enable the collection of as much sludge as possible. If sludge stays in the bottom of the tank it will become hard and reduce the workable volume of the tank. Sludge is not easily removed.

Colour

The external surface of the finished tank may be any colour.

Safe fill level

The tank is to be marked, or have an indicator, showing the safe fill level.

Security

Unless unauthorised access to the tank is prohibited e.g. the tank is located in a lockable building:

- All openings for the tank must be able to be locked, and.
- Tanks are to be kept locked at all times, unless they are being loaded or unloaded.

Siting of used oil tanks

- Tanks are to be sited to minimise the possibility of leakage through malicious or accidental damage.
- The tank's location must be where there is some degree of supervision by the site operator, who has responsibility for what is emptied into the tank.
- The tanks should be sited so that oil can be safely loaded and unloaded from the tank.
- Tanks must be mounted on an impermeable surface such as concrete or asphalt. They must not be placed on soil.

- If the tanks are located near vehicular traffic, consideration should be given to the movement of vehicles. Where impact that is resulting in damage to the tank is likely to occur, protection should be installed e.g. barriers or bollards.
- Tank wagons must be able to manoeuvre safely around the site.
- Potential hazards, such as recycling and rubbish bins, should not be placed within 2 metres of a used oil tank sited outdoors.
- On sites equipped with drainage interceptors, tanks must be located within the interceptor's catchment area. On sites not equipped with interceptors, the tank should be located at least eight metres from any storm water, sump or other drain. Interceptors that are required to contain oil from used oil tanks are to be built to the standards specified in *Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand* (MfE, 1998).
- Tanks containing used oil may be located inside buildings:
  - at controlled sites and
  - when the used oil does not have a flammable hazard classification, that is, the flash point is in excess of 93 deg C[5], and
  - when fabricated from steel, or
  - when fabricated from plastic with a capacity no greater than 1000 litres.

When located inside, they should be located so that a used oil collection truck can park within five metres.

Tanks for the collection of used oil situated outside must be separated from buildings and site boundaries by the following separation distances. These separation distances are only applicable where there is no possibility of contamination with 3.1A, 3.1B or 3.1C substances:

Table 4: Separation distances

Tank capacity	Separation distance
Up to 600 litres	0 metres
600 L to 1000 L	1.5 metres
1000 L to 2500 L	2 metres
2500 L to 5000 L	3 metres
500 L to 25,000 L	4 metres
25,000 L to 50,000 L	5 metres
50,000 L to 100,000 L	6 metres
100,000 L to 250,000 L	7 metres

[5] Controlled sites can ascertain whether the flashpoint is in excess of 93 deg C by reference to the SDS of the oil in its virgin state.

The separation distance that applies to an intermediate capacity is the distance that is proportional to the difference in capacity.

Separation distance between tanks

Tanks up to 5,000 litres capacity used for the collection of used oil must be separated from each other by 0.5 m. Tanks greater than 5,000 litres capacity or where there is possibility of contamination with 3.1A, 3.1B or 3.1C substances require greater separation distances..

Secondary containment systems

If tanks are above-ground and have a capacity of at least 1000L, a secondary containment system is required. Details are provided in Appendix 3.

Markings

All tanks used for the collection of used oil should have signs which specify the oils which are accepted and the oils which are not accepted. This sign may be mounted on the tank or in a prominent place nearby. A suitable sign is specified in Appendix 3 under the heading *Additional management procedures for controlled collection sites*.

Stationary container system test certificates

A stationary container system test certificates are required when the stationary tank is:

- Below ground, or
- Has a water capacity greater than 5000 litres, or
- Has a capacity 500 litres or greater and supplies an internal combustion engine, or
- Has a capacity 60 litres or greater and supplies a burner.
- This is only applicable where there is no possibility of contamination with 3.1A, 3.1B or 3.1C substances.

Appendix 5: Spill prevention, response and clean-up procedures

Spill kit: suggested contents list

Suitable for vehicles and also sites storing up to 5,000 litres.

(This may be varied to suit local conditions if required).

Table 5: Spill kit contents

Contents	Quantity
Hydrocarbon absorbent pads	10
Bag of particulate (Oil Dry or similar)	1
Absorbent socks	1 x 1.5 m 1 x 3 m
Hydrocarbon pillows	2
PVC drain cover	1
Folding trenching tool	1
Pair PVC gauntlets	1
A pot of Vetta Paste, Plug 'N' Dike, Pig Repair putty, or similar	1
Polythene disposal bags	2
Contents list	1

Spill prevention

Key precautions are as follows:

Table 6: Precautions

Do	To prevent
Park away from traffic flows, and/or use safety cones if necessary	Tank wagon being hit by other traffic
Protect tank with barriers or bollards if there is nearby vehicle movement	Tank being hit by traffic
Dip tank wagon and site tank before collection	Tank wagon overflow
Regular inspection of hoses, pumps and other equipment	Equipment failure

If spills do occur

Any spillage or similar escape, or contamination of other products by the used oil shall, where possible, be rectified before the collector leaves the site.

- For each action, put on appropriate personal protection equipment.
- Isolate the source of spillage and close vehicle valves.
- If it is safe, contain and control the spill.
- Stop all operations in the immediate areas of concern and remove or shut down any ignition sources.
- Close the interceptor valve if there is one on site, and close and/or block any drains leading off the site.
- Report spillage to site operator.

- Start the clean up. Request assistance if necessary.
- Ensure that any materials used in the clean up are disposed of appropriately.
- If the spillage occurs on unsealed ground, the soil must be removed and disposed of to an appropriately approved facility – either landfill, transfer station, or hazardous waste treatment facility.
- If there is a risk of oil entering a sewer, storm water drain or natural waterway, the relevant local authority should be notified immediately.

Notice of any such incident shall be given to the appropriate agency as soon as possible by way of a report detailing the cause and severity of the incident and the remedial measures taken. Your emergency management procedures must include the possibility of a spill of used oil occurring.

Appendix 6 Tank wagon operating requirements.

Part 8 Operating requirements of the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations must be complied with. These are reproduced below.

38 Compatibility of hazardous substances carried

(1) This regulation applies to a tank wagon that carries a hazardous substance of any hazard classification.

(2) Before a tank wagon is used to carry a hazardous substance of any hazard classification that differs from a hazardous substance previously carried,—

(a) the tank wagon must be completely emptied of the previously carried substance; or

(b) the mixture of the hazardous substance with any residue of the previously carried substance remaining in the tank must not create a substance of a different hazardous property, nature, or degree.

39 Filling tank wagons

(1) This regulation applies to a tank wagon that—

(a) carries a liquid hazardous substance of any hazard classification; and

(b) has a tank capacity that is not less than 2 000 ℓ.

(2) A person in charge of a tank wagon must ensure that a tank compartment is not filled to a level beyond the maximum filling level.

40 Transfer of liquid or gaseous substances of any hazard classification

The person in charge of transferring a liquid hazardous substance or gaseous hazardous substance of any hazard classification to or from any tank wagon must—

(a) attend the tank wagon from the time the transfer of the hazardous substance commences and until it is completed; and

(b ensure that the requirements of regulation 41 are met; and

(c) ensure that, from the time the transfer of the hazardous substance commences and until it is completed, the tank wagon does not move; and

(d) before the tank wagon is moved, ensure that all tank openings are securely closed when the transfer of hazardous substance is complete.

41 Supervision of tank wagons

(1) Despite regulations 56, 89, and 107 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 and regulation 9 of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001, the person in charge of a tank wagon that contains a liquid hazardous substance or gaseous hazardous substance of any hazard classification to which those regulations apply may leave that tank wagon unattended—

(a) in a transit depot; or

(b) in a hazardous substance location in compliance with the current test certificate required by the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 for that hazard classification; or

(c) on a road or elsewhere for up to 5 minutes if the tank wagon is—

(i) at least 30 m away from all areas of high intensity land use other than roads; and

(ii) at least 8 m away from all areas of low intensity land use other than roads.

(1A) To avoid doubt, a tank wagon contains a hazardous substance for the purposes of subclause (1) if, after being emptied, it retains any of the hazardous substance as a flammable vapour.

(2) For the purposes of subclause (1), the terms ***area of high intensity land use****,* ***area of low intensity land use****, and* ***transit depot*** *have the same meaning as in regulation 3 of the Hazardous Substance (Classes 1 to 5 Controls) Regulations 2001.*

42 Firefighting capability

(1) This regulation applies to a road tank wagon that—

(a) carries a hazardous substance of any hazard classification; and

(b) has a tank capacity of not less than 2 000 ℓ.

(2) A tank wagon must comply with any applicable requirements set out in regulations 21 to 24 of the Hazardous Substances (Emergency Management) Regulations 2001.

(3) A tank wagon that carries a hazardous substance with a hazard classification listed in Schedule 3 of the Hazardous Substances (Emergency Management) Regulations 2001 must have—

(a) at least 1 fire extinguisher in the tank wagon cab; and

(b) on each tank, either—

(i) at least 2 fire extinguishers; or

(ii) at least 1 fire extinguisher that has at least the equivalent capacity of 2 fire extinguishers that comply with the specifications set out in regulation 23 of the Hazardous Substances (Emergency Management) Regulations 2001.

(4) Fire extinguishers must be installed and located on a tank wagon in a way that the person in charge of the tank wagon is able to extract any extinguisher from its location and hold it ready for use within 10 s.

(5) Regulation 22(1) of the Hazardous Substance (Emergency Management) Regulations 2001 does not apply to road tank wagons with a tank capacity of not less than 2 000 ℓ.

43 Authorised persons

A person in charge of a road tank wagon with a tank capacity of not less than 2 000 ℓ must, at any time a hazardous substance (or residue of a hazardous substance) of any hazard classification is contained in the tank, ensure that no person is in or on the tank wagon except the persons—

(a) necessary for the operation of the tank wagon; and

(b) who carry out maintenance, inspection, training, or management duties

Appendix 7 Existing Tanks

Existing tanks to contain used oil (that is, tanks installed prior to the approval of this code) and tanks which are installed within a time period of 12 months subsequent to the date of approval of this code, may be constructed in accordance with the following parameters:

Materials

The materials for used oil tanks shall be fit for purpose. All materials used in the construction of used oil tanks must be able to retain product for the life of the tank without leakage or deterioration from either the product contained or external conditions. To minimise the hazard from static electricity, the mixing of conductive and nonconductive materials shall be avoided in the construction of containers.

Plastic Tanks

Tanks constructed from plastic materials shall be capable of withstanding exposure to ultraviolet radiation in the environment within the temperature range -18°C to +55°C. When tested for petroleum resistance in accordance with Appendix F of AS2906, the material shall:

- if exposed for up to 30 days, retain not less than 85 percent of its tensile strength and elongation; or
- if exposed for up to 60 days, retain not less than 60 percent of its tensile strength and elongation

Containers made from plastics shall contain anti-static inhibitors.

When a container is moulded of polyethylene it should be tested for stress cracking in accordance with Appendix G of AS/NZS 2906:1999, and it shall not crack. **Note:** This requirement may be waived if the manufacturer can provide evidence that the polyethylene is crack-resistant.

Tanks with a capacity of less than or equal to 1000 litres,

The maximum size for fibreglass or plastic igloos shall be 1000 litres. Only one such tank shall be permitted per site. Tanks with a capacity greater than 1000 litres,

The design of tanks with sizes greater than 1000 litres and up to and including 2000 litres shall have had approval from the then Department of Labour (now the Ministry of Business, Innovation and Employment.

Capacity

The container will have an overflow capacity, to the lowest opening, not less than 105 percent of the safe fill level.

Colour

The external surface of the finished tank may be any colour.

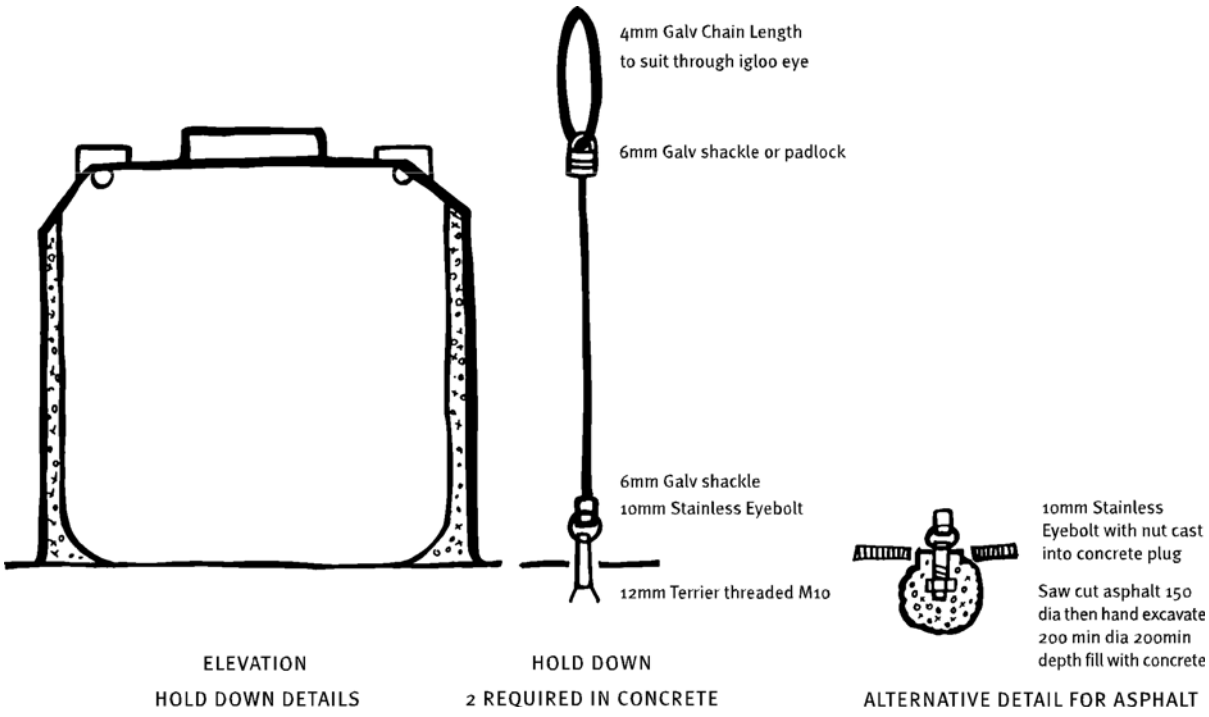
Safe fill level

The tank is to be marked, or have an indicator, showing the safe fill level.

Tank fixing

The tank is to have suitable points for fixing to the ground. These are to be clearly identified by the manufacturer. The mountings and the tank need to be able to withstand a side force equivalent to the weight of the container and the used oil contained in the tank. The average specific gravity of lubricating oil is to be taken as 0.9. The purpose of this side force is to allow for wind and earthquake forces, not for impact resistance.

Figure 4: Tank fixing



Tank Duration

Tanks compliant with this specification and which are constructed from a form of plastic material have a have a finite life of 10 years from the date of manufacture. Where the date of manufacture is not known, the tank must be removed from service within 5 years from the date of approval of this code.

IBCs

IBCs (intermediate bulk containers) are designed as transportable containers. They are not designed for, or approved as, stationary tanks. Information on IBCs is included in section 6.8 of this code.

Compliance plans

If an existing tank (that is, a tank installed prior to the date of approval of this code) does not meet these requirements, an application for a compliance plan can be made to the EPA. This compliance plan must specify the steps the person in charge will take to either:

- make whatever alterations to the system that are necessary to enable compliance and the time frame to achieve compliance, or

- manage the risks of non-compliance.

Environmental Protection Authority
Te Mana Rauhī Taiao

Level 10, 215 Lambton Quay, Wellington 6011, New Zealand

New Zealand Government