

# Automotive Environmental Guide

## Table of Contents

1.	Environmental Awareness & Legal Requirements	3
2.	Prescribed Industrial Wastes	5
2a.	Specific Prescribed Industrial Waste – Oil Filters	7
3.	Recycling and Waste Management	10
4.	Water Usage	14
5.	Trade Wastewater Discharge	15
6.	Underground Petroleum Storage Systems	17
7.	Bunding and Storage	19
8.	Spills and Spill Response	21
9.	Contaminated Sites	23
10.	Material Safety Data Sheets	24
11.	Air Quality	26
12.	Conserving Energy	30
13.	Parts Washing	31
14.	Noise Management	33
15.	Housekeeping	34
16.	Environmental Record Management	35
	Waste Transport Certificates	35
17.	Emergency Response Procedures	36
18.	Environmental Management	37
19.	Further Information	37

## Summary

This document provides a clear and easy guidance on the automotive business environmental requirements. It provides important information on what a business should know when it comes to being environmentally responsible and compliant with the law. Although this is not a complete guide to legal responsibilities, it is a good reference to turn to if a business wants to know how it can impact the environment, and how a business can manage these impacts and risks. For more information on environmental responsibilities and how a business can become more environmentally sustainable, please contact VACC's Occupational Health, Safety & Environmental (OHSE) Unit.

## 1. Environmental Awareness & Legal Requirements

As a business, you must understand Victoria's legislation, regulations and policies relating to the management and protection of various environmental areas. You must also be able to implement processes that comply with the protection of these important environmental assets. Failure to do so could result in negatively impacting and irreversibly harming the environment. Failure to comply with these laws and policies could also result in your business receiving substantial fines, prosecution and other penalties.

It is also important to comply with the law, as members of the general public are able to report pollution from your business by calling the Environment Protection Authority Victoria (EPA) Pollution Watch Line (1300 EPA VIC). EPA encourages the public to report smoke or odours from an industry or business, spills or slicks in waterways, illegal dumping of wastes and noise from a factory or industrial complex.

### Acts

There are various Victorian Acts that create a legislative framework for the protection of the environment in Victoria. Below is a selection of Victorian Acts that set out legislation which governs environmental protection.

- Environment Protection Act 1970 (as amended)
- Pollution of Waters by Oils and Noxious Substances Act 1986
- National Environmental Protection Council (Victoria) Act 1995
- Water Industry Act 1994

### State Environmental Protection Policies

State Environmental Protection Policies (SEPPs) are subordinate legislation made under the provision of the Environment Protection Act 1970. SEPPs provide more detailed requirements and guidance for the application of the Acts to Victoria, i.e. in the areas of air, land, groundwater, noise and water. These will be referred to throughout the summary.

### Regulations

There are environmental related regulations in Victoria which are also very important. Regulations referred to in this summary include:

- Environment Protection (Industrial Waste Resource) Regulations 2009
- Water Industry Regulations 2006
- Environment Protection (Vehicle Emissions) Regulations 2003
- Occupational Health & Safety Regulations

### Industrial Waste Resource Guidelines

The EPA has developed the Industrial Waste Resource Guidelines to consolidate the Environmental Protection (Industrial Waste Resource) Regulations 2009, and provide further information on how to comply with the regulations.

The guidelines refer to specific environmental areas (e.g. used tyres, asbestos transport and disposal, oil filters and oily rags). The technical details in these guidelines describe measures to assist in meeting the requirements outlined in EPA's regulations and policies. If you do not abide by these requirements you may face significant fines.

*To access these guidelines refer to the EPA website at: [www.epa.vic.gov.au/waste/industrial-waste-guidelines.asp](http://www.epa.vic.gov.au/waste/industrial-waste-guidelines.asp).*

The EPA has developed guidelines specifically for the motor repair industry, titled Motor Vehicle Repair and Service Premises. These can be found via the link above, under section 6.4 Additional Guidance.

### Waste Management Policies (WMP)

In 2002 the Environment Protection Act was amended to allow the EPA to develop Waste Management Policies (WMPs). These WMPs provide guidance to improve the management of industrial wastes and how to comply with the Environment Protection (Industrial Waste Resource) Regulations 2009. WMPs cover the full waste cycle from when the waste is generated right through to disposal, treatment and reuse. EPA administers the following WMPs:

- Waste Management Policy (Storage of Waste Tyres)
- Waste Management Policy (Movement of Controlled Waste between State and Territories)
- Waste Management Policy (National Pollutant Inventory)
- Waste Management Policy (Protection of the Ozone Layer)
- Industrial Waste Management Policy (Waste Acid Sulfate Soils)
- Waste Management Policy (Ships' Ballast Water)
- Waste Management Policy (Siting, Design and Management of Landfills)
- Waste Management Policy (Solid Fuel Heating)
- Waste Management Policy (Used Packaging Materials)

*To access these WMPs refer to the EPA website at: [www.epa.vic.gov.au/about-us/legislation/waste-legislation/waste-management-policies#Controlled](http://www.epa.vic.gov.au/about-us/legislation/waste-legislation/waste-management-policies#Controlled)*

### Environmentally sensitive areas

As a result of these legal requirements and the consequences which could arise from not abiding by these, you should always be aware of the environment in which your business is located. Knowing where stormwater drains are located on your site and pointing out the difference between stormwater drains and triple interceptor or oil water separator pits to employees is important in minimising the risk of accidentally contaminating stormwater.

You should be aware of any particularly sensitive environments nearby that could be impacted by operations or an incident on your site.

These could include:

- Creeks
- Rivers
- Dams
- Wetlands
- Significant riparian vegetation (close to creek or stream)
- Significant roadside vegetation
- Nature reserves or national parks
- Heritage listed sites
- Residential areas





If your business is located within close proximity to one of these areas it is important to be cautious of how your business operations may impact on these assets. It would be a good idea to complete an environmental risk assessment if moving to a new premises, or to undertake an environmental audit if these impacts are not known.

## 2. Prescribed Industrial Wastes

Prescribed Industrial Wastes (PIW) are specific chemical, hazardous or dangerous wastes that according to the law must be handled and disposed of in specific ways.

The regulation and management of these wastes is now governed in Victoria by the Environment Protection (Industrial Waste Resource) Regulations 2009\*. The regulations are focused on resource efficiency, significantly enhanced reuse and recycling, better hazard and risk management, and simplified compliance for industry.

*\*Please be aware that these regulations replaced both the Environment Protection (Prescribed Waste) Regulations 1998 and the Industrial Waste Management Policy (Prescribed Industrial Waste) 2000.*

Prescribed Industrial Wastes commonly generated in automotive businesses include:

- Liquid wastes, including solvent and chemicals
- Oil and related fluids
- Oil filters and oily rags
- Sludge, including solvent recovery sludge, oil interceptor sludge and manufacturing residues
- Some chemical gases
- Dry chemicals and similar materials including asbestos, caustic and chlorinated material
- Contaminated spill material



*Spray paint waste*



*Paint and thinner tins*

### By Law

Only a contractor with an EPA permit may collect Prescribed Industrial Wastes. The contractor must be able to show you their permit to transport and dispose of Prescribed Industrial Wastes. In addition, waste transport certificates must be filled out. You must keep records of these permits and the Waste Transport Certificate (see page 36). You must keep copies of these documents for at least 24 months, if you have them in hard copy.

Under the Environment Protection (Industrial Waste Resource) Regulations 2009 it is unlawful to transport, receive or otherwise participate in the movement controlled wastes including but not limited to asbestos, grease trap waste, waste oil, and hydrocarbons, without the appropriate approvals. Prescribed Industrial Wastes should only be treated and disposed of in the state of origin.

*To access further guidance on the movement of controlled waste into and out of Victoria refer to the EPA website: <http://www.epa.vic.gov.au/~media/Publications/IWRG831%202.pdf>*

### Please note

It is the responsibility of the waste producer, transporter and receiver to ensure that an accurately completed Waste Transport Certificate accompanies each load of Prescribed Industrial Waste.

### How to manage Prescribed Industrial Wastes (PIW)

1. Identify all PIW that your business generates.
2. Minimise the amount of PIW you generate – this waste costs money to dispose of.
3. Never mix PIW with other waste (i.e. general waste), otherwise the entire load will become PIW.
4. Store PIW under cover and on designated hard surfaced bunded storage areas to prevent spillage.
5. Clearly identify the contents of all drums and containers used to hold PIW, especially when they have been decanted out of their original container.
6. Appoint a contractor with an EPA permit to remove and dispose of your PIW. Only a contractor with an EPA permit may collect this waste. The contractor must be able to show you their permit before they can transport and dispose of PIW.
7. Keep records which document the PIW you have transported off site, i.e. an EPA Waste Transport Certificate. If you receive these in hard copy you should keep copies for at least 24 months.

The Act states that if you produce PIW you must take reasonable steps to ensure the receiving premises is licensed by the EPA to receive the waste or is exempted from licence requirements. For example, you could require written information from waste transporters and recipients about the management of the waste at destination, and document the response. If you are uncertain you should contact the EPA.

### Specific Prescribed Industrial Waste – waste oil

All used oils including engine oil, machine oil, hydraulic oil, coolant oils and quenching oils, are classified as Prescribed Industrial Waste. As a result, it is illegal to dispose of waste oil into landfill or waterways.

All containers must be drained of all residue oil before they can be recycled (a container that is not triple rinsed is considered PIW). Wherever possible you should endeavour to recycle waste oil.

Liquids are banned from landfills and must be treated in a licensed facility beforehand. Disposing of used oil the wrong way has the potential to pollute land, water and wildlife. For example, one litre of oil disposed of incorrectly has the potential to contaminate one million litres of water. As a result we need to recover and recycle as much waste oil as possible. Most oils can be recycled or used to generate energy.

### How to dispose of waste oil

1. Collect all waste oils in secure, clearly labelled drums or tanks that are stored in an undercover and bunded area.
2. Appoint an EPA approved contractor to remove your waste oil for recycling, treatment or disposal.
3. Keep the Waste Transport Certificate from the contractor for at least 24 months.
4. Keep records detailing the amount of waste oil you dispose of together with the costs this incurs (invoices that include these details are acceptable).

### Please note

If you only collect a small amount of used oil from vehicles or farm machinery, you can take it to your local used oil facility run by your local council or shire. Usually the facility will be located at the landfill, waste transfer station or works depot.

Some used oil facilities will also take oil filters, oily rags, and plastic oil containers.

### Government support

In 2001 the Australian Government introduced the Product Stewardship for Oil program (PSO). This program was introduced to provide incentives to increase used oil recycling within Australia. Administered by the Department of the Environment, Water, Heritage and the Arts, the PSO encourages the environmentally sustainable management of used oil and its re-use.

## 2a. Specific Prescribed Industrial Waste – Oil Filters

Since 1 July 2007 used oil filters have been prohibited from being sent to landfill in Victoria. The Environment Protection Act 1970 and the Environment Protection (Industrial Waste Resource) Regulations 2009 is the legislation which governs this. For specific legal requirements for oil filters, refer to the Industrial Waste Resource Guidelines 4.3 Oil Filters. Used oil filters have been classified by the Victorian Government as a product that can be recycled and reused. There are recycling opportunities for the waste oil in oil filters, as well as the metal filter casing and cardboard filter materials.

### How to dispose of used oil filters

Recycling of oil filters can be done in three easy steps:

1. Drain – oil filters can be recycled by separating the oil from the metal casing. This can be achieved by hot draining and/or puncturing the oil filter.
2. Segregate – separate the oil filters using 200 litre drums, according to type and size.
3. Arrange pick-up for recycling – have an EPA approved transporter collect the drained and sorted oil filters. Ask for written evidence to ensure that the filters are being transported to a recycler.

### Alternatively

Oil filters can be recycled with scrap metal by cleaning the filter to remove all free oil. This can be achieved through processes such as puncturing, draining, high pressure crushing, dismantling, shredding and washing, to remove the oil from the metal casing. This requires the appropriate technology, and filters can only be added to scrap metal if all the oil is separated from the filter. Please note that filters that are only drained and/or crushed using a low pressure crusher generally have free oil remaining in the filter. This produces metal of inconsistent quality and is therefore not suitable for scrap metal recycling.

*For more information on how to recycle used oil filters contact the VACC OHSE Unit or the EPA.*

### Please note

Many licensed recyclers that collect waste oil from businesses can also collect used oil filters.

### Specific Prescribed Industrial Waste – solvents

Solvents are often flammable and volatile materials that are hazardous to people and the environment. Waste solvent is primarily generated from cleaning equipment and parts.

No solvent, other than clean rain water, regardless of whether it is clean or contaminated, must enter the stormwater or sewerage system.

### Managing solvents

- Always purchase the least harmful solvents available on site
- Keep the smallest practical quantity of solvents on site
- Do not store solvents in open containers – ensure that they are tightly sealed
- Store all solvents in an enclosure or cabinet that complies with Australian Standards 1940-2004
- Use parts washing machines that are totally enclosed, in preference to using open parts washers
- Never use or store solvents near ignition sources
- Always follow instructions listed on the solvents Material Safety Data Sheet (MSDS)
- Always use the Personal Protective Equipment (PPE) shown on the solvent's MSDS. These may include gloves, eye protection, overalls and respirators

### Disposing of solvents

- Appoint a contractor with an EPA permit to remove and dispose of used solvents
- Ensure that you keep the Waste Transport Certificate for at least 24 months
- Alternatively, recycle solvents on site using a purpose built machine



*Solvent Recycling System*

### Specific Prescribed Industrial Waste – coolants

The general environmental effects of coolants are largely governed by the type of glycol and the presence of heavy metals such as lead and copper. Improper disposal of spent coolant, such as radiator fluid, can result in heavy metal contamination of soils, groundwater and other water bodies, and presents a significant danger to both aquatic and terrestrial food chains.

Although glycols will readily biodegrade in soil or water, when they are inappropriately disposed of in stormwater drains and sumps, they place an excessive oxygen demand on the receiving environments these systems drain to. It is therefore imperative that used coolants are managed responsibly.



### Disposing of spent coolants

Ensure that all 'free-draining' spent coolant from radiators and other industrial machinery is captured and stored in appropriate containers. Store spent coolant drums and containers on a sealed, bunded and undercover area.

Dispose of coolants (e.g. radiator fluid) by discharging these materials to the sewer. You can only do this if your business has a Trade Waste Agreement with the local water authority.

Alternatively, coolants must be collected and disposed of as a Prescribed Industrial Waste.

### Managing spent coolants

Consider the possibility of recycling used coolant in-house with an approved coolant recycling system. These systems can offer modest savings to your business by reducing the costs associated with waste disposal.

Disposal problems can be minimised by extending coolant life. Extended life products and maintenance methods (such as filtration) are now being developed by many coolant manufacturers. When servicing and repairing engine cooling systems, reuse the drained coolant when it is acceptable and appropriate to do so.

Consider using coolant containing propylene glycol in preference to those with ethylene glycol. Propylene glycol is a safer alternative to ethylene glycol, and is much less toxic to humans and animals.

### Please note

- Under no circumstances should any volume of spent coolant (or wastewater containing coolant) be dumped onto the ground or allowed to enter stormwater drains, soak wells or any water bodies.
- Do not mix spent coolant with any other liquid wastes. Used coolant must be collected and treated as a separate waste item.
- Avoid directing wastewaters generated when flushing cooling systems towards oil separation systems. Oil separators will not remove the contaminants (e.g. heavy metals) and chemical additives found within coolants. The addition of coolant into these systems can also significantly decrease their efficiency.
- Do not dispose of spent coolant to septic systems. It will kill the micro-organisms these systems depend on in order to work effectively.
- Do not store drums containing spent coolant on open ground or in areas where they are exposed.

### Specific Prescribed Industrial Waste – asbestos

Asbestos is considered a Prescribed Industrial Waste by Victorian Law.

Asbestos has been a banned substance in Australia since 31 December 2003. This is due to the likelihood of asbestos causing severe lung disease which can result in serious illness or death.

Asbestos is no longer used in the manufacture of brake pads, clutches and gaskets and is rare to come by, although it may be present in older vehicles that have not been serviced for many years. As a result, it is important that asbestos be handled appropriately when removing, transporting and disposing of it.



*Brake pads in some older vehicles may contain asbestos*

The disposal of waste asbestos is controlled by the EPA. In addition, the EPA controls the transportation of waste asbestos when undertaken by a commercial contractor. The legislation which governs the transportation of asbestos is the Environment Protection (Industrial Waste Resource) Regulations 2009. The legislation which governs the processing, handling and physical removal of asbestos is the Occupational Health and Safety Regulations.

#### Good practice

- Consider the age of vehicles you work on.
- Determine if there is any possibility of asbestos being used in vehicles being serviced.
- Where asbestos is in use and must be replaced, you must comply with the requirements of the Industrial Waste Resource Guidelines 6.1 – Asbestos Transport and Disposal.
- Use a wet down method when replacing brake pads. Do not allow any friction material dust to be blown off with compressed air.
- If there is any possibility of asbestos dust being present in your building, have air quality monitoring tests conducted.
- Keep a register of any existing asbestos in the building to provide to contractors when necessary.

#### Disposing of asbestos

1. Dispose of hard materials containing asbestos in accordance with Prescribed Industrial Waste requirements.
2. Have an EPA approved transporter collect asbestos waste.
3. The waste producer must provide a Waste Transport Certificate. This needs to be filled out and completed by both the transporter and the waste receiver, in accordance with the Regulations.
4. Disposal of asbestos must only be at a site licensed by the EPA to accept waste asbestos.

#### Specific prescribed Industrial Waste – refrigerants

Any person who handles refrigerant gases (i.e. decant gas, reclaim gas, decommission or install systems) where there is a risk of emission (either ozone depleting substances or synthetic greenhouse gases) will require a national Refrigerant Handling Licence. Businesses that buy or sell refrigerant gases must hold a Refrigerant Trading Authorisation.

### 3. Recycling and Waste Management

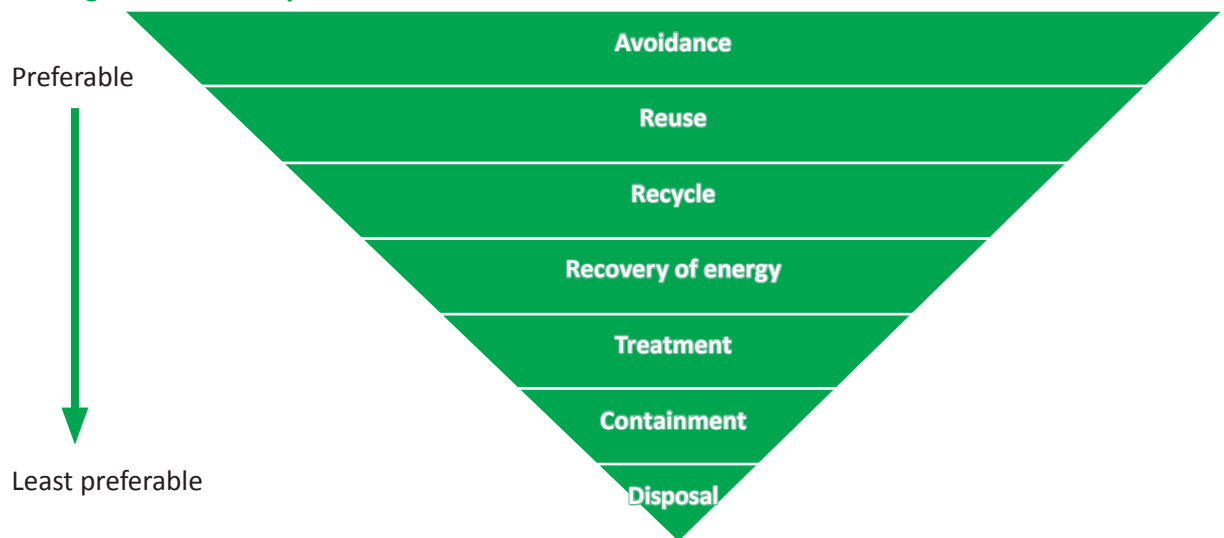
Recycling is extremely important when looking at environmental sustainability and resource management. In order to protect our environmental resources we must ensure that as much of our waste is recycled and made into new products. Many companies today use recycled material to make new products.

#### Recycling principles

There are three key principles which you must be aware of when it comes to recycling:

1. Reduce – try to reduce the volume of all materials coming into your business. This will reduce the waste you need to dispose of and will reduce the depletion of resources.
2. Reuse – try to reuse materials which you already have onsite for other purposes.
3. Recycle – if reducing and reusing is not a viable option, then recycle as much of your waste as possible. You must ensure that waste is recycled correctly, and segregated according to waste type.

### Waste management hierarchy



The waste management hierarchy is used by the Environment Protection Authority (EPA) as a guiding principle for waste management and recycling. The hierarchy is found in the Environment Protection Act 1970. The Act states that all waste should be managed in accordance with the hierarchy. As the hierarchy shows above, avoiding waste is the most preferable option and disposing of waste is the least preferable. The hierarchy is a good point of reference when looking at how your business can manage and minimise its waste.

### Recycling general waste

General waste includes solid non-hazardous wastes commonly found in any business such as cardboard, metals, plastics and glass. Most general waste can be recycled.

To recycle waste, you need to separate the different types of waste from each other. Many waste companies and some local councils can provide alternatives to general waste bins, such as co-mingled recycling bins and waste divider bins. This assists in reducing waste going to landfill, and reduces space needed on site for a number of bins for waste separation.

### What can be recycled?

Some of the general wastes that can be recycled include:

- Paper/cardboard
- Metals
- Plastics
- Glass
- Rubber

These materials must be stored separately. Mixing these materials will contaminate them and make them unsuitable for recycling.

*Cardboard and paper recycling**Metal recycling*

### Waste segregation

Segregate the different types of waste your business produces into separate areas for:

- General waste (use wheelie bins or dump master bins)
- Paper and cardboard (use covered bins)
- Metal (use a dedicated skip supplied by a scrap metal dealer)
- Plastics (check if the suppliers of products will pick up and re-use, or recycle in a co-mingled recycling bin or through a contractor)
- Prescribed Industrial Wastes (use properly designed and labelled containers)
- Oil (recyclers will often collect waste oil free of charge)
- Oil filters (only those that have been drained of oil)

Empty containers like chemical containers, paint tins, solvent containers and oil containers can only be put into the general waste or scrap metal waste if they are drained through various processes.

### Initiate cleaner production techniques

You could:

- Negotiate with materials and component suppliers and ask them to take back packaging materials.
- Reuse or recycle packaging.
- Wherever possible, order supplies in minimum bulk quantities to reduce packaging.



- Separate your recyclable materials and store them in areas where you can accumulate quantities that are economical to recycle. This should include areas for:
  - o Paper/cardboard
  - o Glass
  - o Metals
  - o Plastics
  - o Prescribed Industrial Wastes
- Identify the wastes you can recycle and estimate how much of each you generate in a month or year.
- Only use the dump master and tip disposal for solid general waste that cannot be recycled.

### Specific product recycling – batteries

Batteries contain lead, lead sulphate, lead dioxide and sulphuric acid, all of which can be very harmful to the environment. The Environment Protection (Industrial Waste Resource) Regulations 2009 classifies used lead batteries as Prescribed Industrial Waste.

It is therefore a legal requirement that waste batteries do not end up in landfill. They must be directed to a contractor that can have them recycled. There should be companies in your area that specialise in battery recycling. Otherwise a scrap metal recycler is often able to take them for recycling. Used batteries should only be broken up, or have their contents tipped out, at facilities that specialise in this work.



*Battery recycling bund*

### Please note

Batteries are still considered hazardous waste even when they have been drained of acid. This is because they still contain lead, and can therefore pose a threat to the environment.

### Specific produce recycling – tyres

The burning and dumping of waste tyres is an offence under the Environment Protection Act (1970) and council local laws. This is also illegal under the EPA Industrial Waste Resource Guidelines 6.4 – Used Tyres.

The reason behind this is because tyres can cause significant fire hazards, breeding sites for vermin and assist in the spread of disease. Tyres also break down and leachate from them ends up in the soil and groundwater, causing contamination. As a result, waste tyres must either be recycled, or if no longer suitable for recycling, shredded by specialist contractors for appropriate disposal. Licensed landfills can however accept tyres if shredded into pieces no greater than 250mm.

Pollution abatement notices can be issued requiring the removal and appropriate disposal of tyres. Legal action can also be taken against your business if you dump or dispose of waste tyres incorrectly. Your business may face significant fines.

### Storage of tyres

The storage of tyres within your business should also be managed properly to minimise the risk of fire. A management plan for the reuse or disposal of your business's tyres should be developed and implemented so that tyres do not accumulate and cause safety and environmental hazards.

To regulate tyre stockpiles in Victoria, the EPA has developed an interim waste management policy (interim WMP).



To access the Waste Management Policy (Storage of Tyres) refer to the EPA website at: <http://www.gazette.vic.gov.au/gazette/Gazettes2014/GG2014S139.pdf>

## 4. Water Usage

The use of water and the management of wastewater have become highly regulated areas in Victoria due to our local water levels. As a result, Victoria has had strict water restrictions enforced over recent years.

Water is a resource that requires two levels of thinking in the approach to its use:

1. Use as little water as possible in our business.
2. Ensure that we do not pollute our waterways.

### Car Washing

Vehicles must only be washed in accordance with EPA requirements and water restrictions. If your business washes cars as a part of its operations you must be aware of the following:

- You are not permitted to allow soapy water to enter stormwater drains. Even biodegradable soaps must not enter stormwater.
- Visible entrances to the stormwater systems directly lead into waterways and eventually into the sea.
- You may only discharge wastewater into the sewer if you have a Trade Waste Agreement or prior approval from the relevant water authority.
- If your premises are not connected to the sewerage system, then wastewater should be directed to a septic tank. You need a permit for any septic tank with a volume that is less than 5,000 litres and a licence for tanks over 5,000 litres.
- Vehicle washing with mains water is subject to drought water restrictions, which change according to local conditions and water levels.



### Ways to reduce your water consumption

- If possible, subcontract car washing to an existing car wash facility.
- Create a roofed, bunded concrete wash area that drains to the sewer via a silt trap and triple interceptor/oil water separator, as required under your Trade Waste Agreement.
- Attach trigger action nozzles to hoses.
- Use a high pressure low volume wash machine in compliance with car washing restrictions.
- Do not wash vehicles in the street or driveway where water runs to stormwater.
- Only discharge to the sewer if you have a Trade Waste Agreement or prior approval from the relevant water authority.
- Recycle wastewater by using equipment that allows you to remove contaminants from water.
- Wash vehicles only in compliance with applicable water restrictions.
- Collect and use rainwater for vehicle washing to avoid water restrictions. Your business could do this by installing rainwater tanks.

### Please note

For further details and information regarding car washing restrictions contact your local water authority.

## 5. Trade Wastewater Discharge

Under the Environment Protection Act 1970, discharges to the environment must be managed so they do not adversely affect the receiving environment (e.g. land, groundwater). In other words, the disposal of wastewater to water without approval from the Environment Protection Authority is prohibited under the Act.

### What is trade wastewater?

Trade wastewater is any water which is contaminated as a result of your business processes, including stormwater that might become contaminated when running off your property. Essentially, trade wastewater includes sewage and industrial waste. Therefore, water contaminated as a result of work processes or cleaning activities must be processed and controlled.



*Car wash triple interceptor drain*

### Never discharge trade wastewater into stormwater drains

Stormwater drains are normally square or rectangular in shape and are covered by a grille. The stormwater system leads directly to natural waterways and eventually into the sea.

There are two ways to dispose of your businesses trade wastewater:

1. Appoint an EPA contractor to pick up and transport wastewater off site.
2. Obtain a Trade Waste Agreement with your local water authority.

### Wastewater disposal method 1 – Appoint an EPA contractor

One way to dispose of trade wastewater is to keep it on site until it can be disposed of by an EPA contractor. EPA contractors will pump your trade wastewater into a truck and transport it off site, so it can be properly disposed of.

### Things to remember

- Colour code or otherwise clearly identify stormwater drains so that all staff know where they are.
- Do not hose down workshop floors (this is not allowed in times of water restrictions). Instead, use dry cleaning methods and spot clean all spills.
- Process all contaminated wastewater using a silt trap and a triple interceptor trap, plate separator, or a similar approved device, according to local requirements.
- Develop and implement a maintenance schedule to clean and maintain traps, interceptors or separators regularly.
- Have properly documented procedures and records demonstrating that delegated people are trained to operate and maintain your water treatment equipment.
- If you use EPA waste contractors, keep records that detail the permits and approvals they have.
- Keep all invoices waste contractors give you, for at least three to five years.

### Wastewater Disposal Method 2# – Trade Waste Agreement

Local water authorities are empowered to manage local trade waste by the Water Industry Act 1994 and Water Industry Regulations 2006.

Therefore, the second way to dispose of trade wastewater is by obtaining a Trade Waste Agreement from your local water authority. A Trade Waste Agreement allows you to dispose of trade wastewater through a triple interceptor/oil water separator which is then directed to the sewer. This is required by law and is necessary in order to effectively manage the risks associated with trade waste.



*Oil/water separator systems*



Sewer openings are usually round and the lids are generally more difficult to remove than stormwater grates. Please note that all trade waste customers require a Trade Waste Agreement or consent before any discharge commences.

There are strict guidelines on the quantity and quality of trade wastewater discharge going to sewer. These guidelines are designed to protect the sewerage system and the environment. Trade waste charges vary depending on the water authority but are generally related to the quantity and quality of trade waste.

### Things to remember

- If you don't use EPA contractors to dispose of trade wastewater, only discharge wastewater to the sewer if you have a Trade Waste Agreement or prior approval from your local water authority.
- If you consume a lot of water, consider installing on-site water processing or recycling equipment. Although this is a big investment, it may save you money in the long run.
- Only discharge trade wastewater into the sewer according to the terms of your Trade Waste Agreement.

### Works approvals with EPA

Industrial and commercial operations that can discharge significant amounts of wastewater to the environment are controlled by the Environment Protection Authority (EPA) works approval and licensing system. The works approval and licensing system ensures that EPA reviews proposed works before they are constructed and, when they are brought into service, discharges are controlled by licensed conditions.

EPA uses works approvals and licences to ensure that industry minimises waste generation and only discharges treated wastes after all waste avoidance and minimisation options have been implemented.

A works approval permit is required for the installation of plant and equipment that will result in one or more of the following during operation:

- The discharge of waste to the environment
- An increase in, or alteration to, an existing discharge
- A change in the way waste is treated or stored

## 6. Underground Petroleum Storage Systems

Owners and operators of an underground petroleum storage system (UPSS) have a number of duties under the law to protect the environment. These laws include the Environment Protection Act 1970 and the Act's subordinate legislation. For example, under the State Environment Protection Policy (Groundwaters of Victoria), you as a business are required to take all practicable measures to prevent pollution of groundwater.

However, the Guidelines on the Design, Installation and Management Requirements for Underground Petroleum Storage Systems (Publication 888.1 January 2009) issued by the EPA Victoria, is the main piece of legislation for owners and/or operators of UPSSs. These guidelines have been developed to guide operators on the correct practices and management of UPSSs in Victoria, as in the past they have been inappropriately managed. Owners and operators should also be aware of the Australian Standards 4897 2008, which outlines the specific requirements for UPSS design and management.

If UPSSs or AGSTs (above ground storage tanks) exist on site, it is important that these tanks have adequate bunding and cannot leak or be overfilled. They should be protected from corrosion and frequently tested. The EPA or your local water authority can provide advice on bund design.



*Above ground storage tank at a parts recycling site*

To anticipate or prevent UPSSs and AGSTs from deteriorating they need to be monitored regularly. Inspections should include the transfer and delivery pipe-work.

Fuel use audits and monitoring should be conducted regularly. Unaccounted use must be investigated. An unexplained increase in fuel consumption or the presence of unexplained water in the fuel might indicate a leak or rupture in your tank.



*Older petrol station*

### Risk management

- Identify and properly document the location, size, age, condition, maintenance history and other details of all storage tanks on your premises.
- Bund AGSTs to contain any spill that may occur.
- Roof AGST to prevent rainfall contamination.
- Complete a regular documented inspection of your UPSS according to the UPSS Guidelines.
- Keep up to date with all applicable legislation and regulations.
- Make sure that you monitor and maintain UPSSs in accordance with applicable environmental and dangerous goods legislation and standards.
- Install and maintain a tank monitoring / leak detection system for UPSSs.
- Develop, and train employees in the use of procedures that describe what to do when a spill or leak occurs.
- Clean up and report significant spillage or leakage to the EPA and other relevant authorities such as the fire brigade, police and WorkCover.
- If you discover any contaminated soil on your premises have it investigated by a qualified consultant.
- De-commission UPSSs that are no longer in use.

### Please note

Businesses should refer to the Guidelines on the Design, Installation and Management Requirements for Underground Petroleum Storage Systems (Publication 888.1) issued by the EPA (as noted above), and the Australian Standards 4897 2008.

## 7. Bunding and Storage

Laws prohibit businesses and individuals from polluting stormwater, or allowing pollution to occur (Environmental Protection Act 1970). Oils, chemicals or trade wastewater escaping from a workshop or work area into the stormwater system can result in large clean up costs and significant fines.

As a result, many businesses today are using bunding to prevent hazardous waste from escaping their businesses and entering into the stormwater systems. Bunding is therefore essentially a measure used to mitigate the risk of illegal water pollution. For information on the legal requirements of bunding refer to EPA Victoria's Bunding Guidelines Publication 347, December 1992. These guidelines detail bunding specifications such as bund height, maintenance and operation.

### What is a bund?

A bund is a device intended to prevent the uncontrolled escape of hazardous liquid into stormwater, sewerage or soil.

A bund can be designed in a number of ways, including:

- A designated storage area located within a building to prevent any spillage from reaching stormwater
- A sealed building to prevent the escape of spills
- A small area within a building designed to contain spills within a raised hump
- A large raised container that liquid containers/drums are placed into

An entire workshop or storage area may be bunded to prevent illegal discharge from escaping into stormwater or into local waterways.



*A contained room of bulk oil.  
The tanks are also double skinned.*



*Two types of bunds can be seen in this picture: a bund for the bulk oils and a floor bund.*

A bund container should be able to hold the contents of your largest container, plus 10 per cent, to ensure the bund holds all liquid in the event of a spill.

Liquid wastes collected by a bund may only be discharged to the sewer if you have a Trade Waste Agreement with your local water authority. If you do not have a Trade Waste Agreement, these wastes must be collected by a contractor with an EPA permit. You must fill out a Trade Waste Certificate if you do this, which must be kept for at least 24 months.



*Bunding for oils*

### **Bunding and storage management**

- Review all operations and storage facilities to identify ways to prevent all types of spills from running into stormwater.
- Reduce the amounts of hazardous or toxic liquid you keep on site.
- Bund your entire workshop to prevent any spill from entering stormwater, sewerage or a drain.
- Ask your local water authority for an approved bund design.
- Have a contractor construct bunds and drains according to this approved design.
- Bund all chemical and liquid storage areas. If you are only storing small amounts (<20 litres) of chemicals or oil on the premises, a bund may not be required.
- Drain banded areas to the sewer via a coalescing plate separator, silt trap, triple interceptor trap, petrol and oil interceptor or a similar approved device if a spill does occur.
- Obtain a permit or Trade Waste Agreement that allows you to drain banded areas to the sewer.
- Prevent rainwater from entering the sewer by roofing banded areas.





*Pallet bund with covering*

#### **A good tip!**

Prove the effectiveness of your bund by releasing clean water of the same volume as your largest container and recording where the water goes.

## **8. Spills and Spill Response**

Spills of oil, chemicals and other substances that could cause injury or damage to the environment should be prevented. If a spill does occur, it should be attended to as quickly as possible to minimise, potential impacts.

All businesses should have emergency response procedures in place, and spill kits for these situations.

All spills create waste materials and take valuable time to clean. Spills can also pose significant hazards to people and the environment. Spills can be avoided by keeping containers tightly sealed/covered, regularly inspecting containers for leaks, following proper handling methods, using drip trays and properly bunding storage areas.

If a spill does occur it must be quickly contained to prevent it reaching stormwater, the sewer or causing other contamination. It is important to note that members of the public are able to report substances running off your site by calling the EPA Pollution Watch Line. This could result in the EPA reviewing your site and its operations, which could then result in an EPA notice or fines.

#### **Containment methods for spills include:**

- Containment booms
- Mops (for spot spill cleaning, water must be disposed of using a triple interceptor)
- Portable bunding
- Rags (for wiping hands, parts or spot spills)
- Special absorbent pads
- Approved absorbent materials
- Special absorbent pellets, granules

Depending on the method of clean up you use, you will need to dispose of the clean up material according to approved methods.

In all cases you should refer to each substance's Material Safety Data Sheet/Safety Data Sheet (MSDS/SDS) for information about proper clean up measures. If you do not have the relevant MSDS/SDS contact the supplier immediately.

### When a spill occurs

- Use drip trays to collect fluids leaking from machines or processes.
- Keep protective clothing and spill equipment within easy reach.
- Do not use a hose to wash spills into stormwater drains or the sewer.
- Follow the MSDS clean up and disposal instructions carefully.
- Try to minimise the amount of material used to absorb the spill. This will reduce the total amount of waste that needs to be disposed of.
- Always use dry cleaning methods in preference to wet methods.
- Clean up material saturated with oil must be disposed of as Prescribed Industrial Waste, i.e. oil rags.
- Be prepared for a potential spill by training staff on how to safely respond if one does occur.

### Spill kits

Spill kits are effective and environmentally friendly tools used to clean up hazardous or toxic spills that occur in the workplace.

There are two main spill kits used in the automotive industry; Hazchem (Hazardous Chemical) spill kits and Hydrocarbon (Fuel and Oil) spill kits. These both have different contents due to their differing uses.

**1. Hazchem spill kits** are used for the safe and efficient clean up of dangerous chemical spills such as acid and Prescribed Industrial Waste. They are ideal for panel beaters, spray painters and workshops that use hazardous chemicals. They generally contain:

- Land booms for perimeter containment
- Absorbent mats
- Chemical absorbent powder or granules
- Personal protective equipment such as disposable overalls, acid resistance gloves, safety glasses and respirator with valve
- Waste disposal bags
- Spill cleanup instructions

**2. Hydrocarbon spill kits** are used to clean up fuel, oil, petroleum and other similar liquids.

Service stations, mechanical workshops and panel beaters would all benefit from owning one of these kits which generally contain:

- Land booms for perimeter containment
- Absorbent polypropylene mats
- Absorbent material
- Personal protective equipment
- Waste disposal bags
- Spill cleanup instructions

### Please note

Kitty litter and sawdust are not appropriate absorbent materials for soaking up spills. Using these will form a toxic sludge when thrown into general waste bins. This can lead to contamination of soil and groundwater. There are a number of different companies that sell spill kits. Some offer biodegradable or eco-friendly absorbent materials that can be used many times and are safer to dispose of.

### Spill response planning

An effective spill response plan is critical in a workplace that uses large amounts of chemicals in its operations. The following should be observed:

1. Obtain and review Material Safety Data Sheets/Safety Data Sheets for all the chemicals you have on site. Keep the MSDS/SDS in an accessible place for all staff to access. The MSDS/SDS will give you the appropriate information to clean up chemicals in the event of a spill.
2. Purchase appropriate spill kits and sufficient amounts of control materials to contain any spills which could eventuate.
3. Acquire recommended personal protection equipment (the MSDS/SDS will tell you which PPE is required).
4. Place the spill kit and PPE in an accessible location and ensure that it is appropriately signed.
5. Develop a spill response plan for your business.
6. Discuss the spill response plan with all employees and new employees.

### Spill response actions

In the event of a chemical spill these general guidelines can be followed:

1. Immediately alert the occupants and the manager in the affected area.
2. If necessary evacuate the area.
3. If there is a fire or medical attention is needed dial emergency services on 000.
4. Determine the extent and type of spill.
5. Tend to people that may be contaminated. Contaminated clothing must be removed immediately and the skin flushed with water for no less than 15 minutes. Check the spilled substance's MSDS/SDS and undertake appropriate first aid as described.
6. If a flammable substance is spilt, immediately warn all occupants, control the sources of ignition and ventilate the area.
7. Apply PPE as appropriate to the hazards (refer to the MSDS/SDS).
8. Consider the need for a respirator mask.
9. Protect all drains which lead to stormwater.
10. Contain and clean up the spill using a spill kit or appropriate materials, and dispose of these correctly as Prescribed Industrial Waste.

## 9. Contaminated Sites

A contaminated site is any piece of land where contaminants, usually chemicals (but could include micro organisms, radioactive materials or minerals) are present above normal or background levels. They therefore pose a serious risk to public health and the environment. The state policy (under the Environment Protection Act 1970) which governs this area is the State Environment Protection Policy (Prevention & Management of Contamination of Land), June 2002.

Any commercial, industrial, mining or agricultural site has the potential to be contaminated. The likelihood is linked to historical activities that have occurred at the site and current practices and operations. Contamination is often discovered as a consequence to changes in land use, or redevelopment of a premise to a more sensitive land use, such as from industrial to residential.

If contamination is causing or poses a threat to public health on site, or has the potential to migrate off site, steps must be taken immediately to protect public health and mitigate potential off site effects.

Should earthworks on site expose strange coloured or textured soil, underground tanks or odorous soil, you must seek expert advice on how to deal with the material on site and dispose of excess materials. The first step is to obtain the services of a competent EPA approved professional with expertise in land and soil contamination and assessment.



### Managing contaminated sites

Ensure that any potentially contaminated areas are audited and identified. Before you undertake earthworks, involving potentially contaminated land, you should organise for a preliminary audit to be carried out to determine the nature of any contamination, and ensure that potentially contaminated soil is disposed of properly.

Only personnel approved by EPA Victoria with appropriate qualifications and experience must be used to undertake the audit. Identify all activities and handling operations which could cause land to become contaminated.

### Please note

Pay special attention to the design, quality and conditions of Underground Petroleum Storage Systems, as they can leak and contaminate land and water in the area.

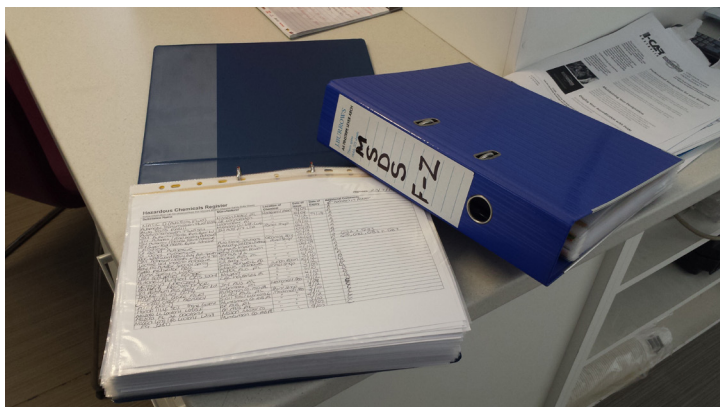
## 10. Material Safety Data Sheets (MSDS)/Safety Data Sheets (SDS)

By law, the supplier of hazardous substances and/or dangerous goods has a legal obligation to prepare a Material Safety Data Sheet under Commonwealth, State and Territory legislation. Safe Work Australia has developed the National Code of Practice for the Preparation of Material Safety Data Sheets. The Code sets out minimum standards for the content of an MSDS.



If your business uses or keeps hazardous substances on site, MSDS/SDS must be supplied and easily accessible to all staff that may be affected by the goods and substances. Manufacturers and suppliers of potentially dangerous and hazardous materials are therefore obliged to provide you with MSDS/SDS upon request. MSDS/SDS lists information about the nature of the material and detail on proper handling techniques and disposal. MSDS/SDS also contains emergency management information.





If your workplace stores any dangerous or hazardous material a MSDS/SDS on that material must be made available. In all cases, staff must be familiar with the warnings and handling instructions printed on the container's label. Employees must also be informed of how to handle hazardous materials in normal use and in emergency situations.

### Using MSDS/SDS

- Ask suppliers of dangerous goods and hazardous substances to provide you with a MSDS/SDS for that product upon purchase.
- Never write on or alter any MSDS/SDS.
- Regularly review MSDS/SDS and ensure that they are current.
- Collate all relevant MSDS/SDS together in a binder with a MSDS/SDS Register at all applicable work sites.
- Make sure that all employees who might be affected by a particular material know where the MSDS/SDS Register is and have access to it.
- Conduct an assessment of each employee's competence to use dangerous goods and hazardous materials and to respond to emergency conditions.
- Make sure all employees who handle or use dangerous goods or hazardous materials are properly informed of, and trained in, the precautions for normal and emergency situations.

### Information included in a MSDS/SDS

Under Victorian legislation, the MSDS/SDS must be written in English, be legible and include the following information:

- The product name of the dangerous goods or hazardous substance
- The name, address and telephone number of the Australian manufacturer or importing supplier
- Australian telephone number for information in the event of an emergency
- The date the MSDS was prepared or last reviewed
- A statement that the substance is a hazardous substance (if applicable)
- The proper shipping name, UN number, class, subsidiary risk and packing group for dangerous goods,
- The hazard classification for hazardous substances
- The risk and safety phrases for hazardous substances
- The chemical or generic names of the individual ingredients in the hazardous substance or dangerous goods as required by the Victorian legislation
- The proportion or proportion ranges of the ingredients required to be identified with a chemical or generic name
- First aid measures
- Emergency procedures

- Any relevant health hazard information
- The chemical and physical properties of the substance or its ingredients including any hazardous decomposition products likely to be generated during normal use
- Precautions for the safe use of the substance, including engineering controls and personal protective equipment
- Precautions for the safe storage and disposal of the substance
- The exposure standard (if any) for a hazardous substances or its ingredients
- Information on the health effects of the substance or its ingredients

#### Please note

For more information on MSDS/SDS visit the Victorian WorkCover Authority website, or contact the Victorian WorkCover Authority by phone or email.

## 11. Air Quality

Air quality is an area that has been highly regulated due to climate change and the depletion of the ozone layer. The Environment Protection Act 1970 is the main piece of legislation which governs discharges to air and the pollution of the atmosphere. There are also state policies which protect Victoria's air quality. These are:

- State Environment Protection Policy (Ambient Air Quality)
- State Environment Protection Policy (Air Quality Management)
- Industrial Waste Management Policy (Protection of the Ozone Layer)
- Waste Management Policy (Solid Fuel Heating)

The Environment Protection (Vehicle Emissions) Regulations 2003 are also important, as they specify standards and test methods for motor vehicle air and noise emissions.

#### Common causes of air pollution in the automobile industry

All businesses are required to limit and control air pollution. Common causes of air pollution include emissions from:

- Over spray from painting
- The evaporation of solvent or volatile chemicals
- Dusty operations such as dry sanding
- Burning off
- Poorly maintained vehicles, furnaces and self powered machines
- The release of ozone depleting chemical vapours (like R12 refrigerant)

#### Managing air pollution

- Do not burn off waste.
- Redesign or avoid activities that create a lot of dust.
- Make sure that all spray painting is only carried out inside a spray painting booth.
- Regularly inspect and maintain your spray booth in accordance with the manufacturer's specifications.
- Use technology and staff training techniques to reduce the amount of chemical vapour discharged into the environment.
- Make sure that your spray booth complies with Australian Standards 4114 and local council regulations.

- Properly maintain the air filters on plant, and equipment.
- Never release R12 Refrigerant into the atmosphere.
- Read the MSDS of all materials used and ensure that illegal release does not occur.

### Spray painting

Many of the solvents and chemicals used in spray painting are health hazards, fire risks and have the potential to contribute to atmospheric pollution. Paint particles suspended in the air and odours associated with the use of solvents and paints can create environmental problems and raise health and safety concerns.

Therefore, spray painting must not be performed outdoors. It should be conducted in a proper booth, which has an exhaust fan, sealed windows and doorways, and a filtering or washing system.

Employers with continual spray painting work processes must ensure that the following equipment is provided:

- A spray painting booth that complies with Australian Standards 4114
- Appropriate dangerous goods storage facilities for paint and flammable solvents
- Personal Protective Equipment for all operators and affected people



### Spray painting management

- Minimise the amount of paint and solvent stored on site. This will reduce hazards and waste.
- Implement high standards of housekeeping that reduce the risk of fires and spills.
- Make sure that all spray painting is carried out inside an approved spray painting booth.
- Review all materials used and always purchase the least harmful paints and solvents available.
- Use technology and staff training techniques to reduce the amount of paint and solvent used in a job (this includes high solids paints and HVLP spray equipment).
- Vacuum or sweep up dry sanding material and dispose of it appropriately.
- Regularly inspect and maintain your spray booth in accordance with the manufacturer's specifications.
- Save money and avoid spills by converting diesel fired ovens to gas fired ovens.
- Have your booth burners serviced at least annually.
- Install a gun wash machine.
- Recycle gun wash with a solvent recovery machine, or dispose only with an EPA licensed contractor.
- Ensure painters and others are protected from the harmful effects of paint material use by the of controls as specified by Material Safety Data Sheets/Safety Data Sheets.



*Paint storage system*

### Disposal of spray painting material

- Discharges should pass out of the premises via a vertical, open topped stack.
- This should be at least three metres higher than the highest roof level within 15 metres.
- The exhaust velocity must be at least 10 metres per second.
- Filtering devices should be properly and regularly maintained.
- Two pack type paints must only be used in water wash booths, with the accumulated sludge, waste paints and thinners/solvents collected and disposed of as Prescribed Industrial Waste.

### Volatile organic compounds (VOCs)

Within the automotive industry, volatile organic compounds (VOCs) are generally hydrocarbons used as solvents for parts washing, thinners or as a by-product of combustion. VOCs are recognised by their tendency to evaporate into the atmosphere easily, usually with a distinctive odour. Emissions to air must be managed in accordance with the provisions of the State Environment Protection Policy (Air Quality Management).

Some VOCs containing class 2 or class 3 indicators are very harmful to people and the environment and may cause respiratory problems, photochemical smog or depletion to the ozone layer. Businesses that generate VOC emissions are responsible for identifying individual VOCs, assessing their potential hazards and implementing appropriate controls.

### Managing VOCs

Emissions of VOCs must be managed in order to reduce harmful effects. The State Environment Protection Policy (Air Quality Management) requires that emissions of wastes to air must be managed in accordance with the principles of the waste management hierarchy as mentioned in prior chapters.

Best practice (eco-efficient processes) must also be sought-after and applied to all stages of a process that may lead to the emissions of waste. Class 3 indicators (the most harmful) must be reduced to the maximum extent achievable.





### Developing a management plan

- Apply for or review any EPA emissions licences to ensure you comply with current requirements.
- Create a record of your review and assessment.
- Review the management of your VOCs at least annually.

The State Environment Protection Policy (Air Quality Management) also sets out the ways that your business can manage its VOCs. This is a four step process.

1. Identify the individual compounds of interest.
2. Quantify these compounds of interest.
3. Do an environmental assessment of the compounds of interest to assess their risk of impact on health and the environment.
4. Continue to manage those VOCs you identify.

### Please note

Refer to the State Environment Protection Policy (Air Quality Management) for more detailed information on this management process. This can be accessed via the EPA website.

### Air conditioning and refrigerant management

Under the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995 (amended in 2005) it is mandatory for industry to recover, return and safely dispose of ozone-depleting and synthetic greenhouse gas refrigerants.

The Ozone Protection & Synthetic Greenhouse Gas Management Act 1989 (amended in 2003), is a Commonwealth Act, and overrides existing State and Territory requirements on ozone depleting refrigerants. Under this new law industry must handle HFCs, such as R134a and R404A, the same way it handles CFCs (R12) and HCFCs (R22).

There are new obligations for industry under the Act.

These include:

- Technicians need an Australia-wide competency-based licence to operate on refrigerants.
- Companies buying or selling refrigerants must be authorised.
- Recovery of ozone depleting and synthetic greenhouse gas refrigerants is compulsory.
- Avoidable venting of fluorocarbon refrigerants into the atmosphere is an offence.

- Sellers of ozone depleting and synthetic greenhouse gas refrigerants have to take them back.
- Importers of ozone depleting and synthetic greenhouse gas refrigerants, either as bulk or contained in equipment, must have an importers licence.

To enable the recovery process, the industry created Refrigerant Reclaim Australia (RRA) to establish and develop an Australia-wide program to take back used and unwanted refrigerant in order to prevent its release into the atmosphere.

When you return recovered refrigerant to a wholesaler they weigh and decant it into large cylinders and collect a rebate for you, paid for by the RRA. RRA then arranges for the refrigerant to be collected from the wholesaler, tested and then destroyed using the plasma-arc process that transforms it into salts and water.

### How the system works

In order to legally manage and dispose of refrigerant, follow the steps below:

- Rent, buy or take on deposit a recovery cylinder from a refrigeration gas wholesaler
- Use the cylinder to recover used and contaminated refrigerants from systems serviced
- Take full cylinders to the refrigeration wholesaler
- Take back emptied or new cylinders from wholesaler
- Collect credit for each kilogram of recovered refrigerants

### Refrigerant handling licences

Your business's employees must obtain a Refrigerant Handling Licence from the Australian Refrigerant Council Ltd (ARC) if they are to work on air conditioning equipment.

A Refrigerant Handling Licence (RHL) is required to work on air conditioning equipment in any of the following category of vehicles:

- Passenger car
- Forward control passenger vehicle
- Off-road passenger vehicles
- Registrable commercial vehicles
- Any off-road vehicle, including tractors and farm machinery fitted with an air conditioning system of a type normally used in the previous category of vehicles
- Automotive plant and equipment
- Any other self-propelled vehicle, which has a cabin fitted with a type of air conditioner normally fitted to one of the vehicle types previously listed

### Codes of Practice

For more information on how to properly handle refrigerants it is important to refer to the industry Codes of Practice. The Refrigerant Handling Code of Practice 2007 Part 1, the Refrigerant Handling Code of Practice 2007 Part 2, and the Australian Automotive Code of Practice 2008 – Control of refrigerant gases during manufacture, installation, servicing or de-commissioning of motor vehicle air conditioners, are all important documents to refer to. They can be found at the Australian Refrigerant Council website, under 'Codes of Practice'.

## 12. Conserving Energy

Energy use within a business is often difficult to notice. You can help lower the cost of your bills by reducing the amount of energy you use for electricity, fuel and gas. You can also help the environment by reducing your consumption of greenhouse gases and other air emissions.

To conserve energy you should:

1. Only use energy when required.
2. Discover if energy is being wasted and carry out an energy audit to investigate the causes behind the problem and possible solutions.
3. Seek advice from green energy suppliers.

### Managing your energy usage

- Delegate one person to review all energy expenditure to monitor the types of energy your business uses.
- Keep records of energy use and investigate any increase in consumption.
- Turn off electrical equipment (e.g. lights, compressors, computers, photocopiers and printers) when they are not being used.
- Use 7-day timer switches to manage the power supply to processes that always operate at particular intervals.
- Install energy efficient lighting wherever possible.
- Use lighting that is appropriate to the job. Only use lights when they are needed – having wiring for separate light switches will help with this.
- Consider installing skylights in workshop areas to reduce the need for electrical lighting.
- Maintain air compressors in accordance with the manufacturer's specifications.
- Consider installing solar panels to heat hot water or provide some of the business's power.
- Improve efficiency by regularly checking compressed air systems to identify and repair leaks. (One quick check you can easily carry out is to turn off all the equipment that requires compressed air (e.g. at lunchtime) to see how long the compressor runs for to keep up with leaks).
- Improve insulation within the building.
- Set thermostats to 18-20°C in winter and 24-26°C in summer.
- Check zoning of air conditioning. Ensure thermostats are not competing.
- Ensure there are no draughts in the workshop. Draughts could result in the escape of heat in winter.

### Energy & Resource Efficiency Plans (EREP)

EREP is a regulatory program that helps Victorian businesses meet climate change and resource scarcity challenges. Through EREP business can be more resource efficient by implementing actions that achieve environmental benefits and direct cost savings in a short timeframe.

However, not all businesses need to produce and implement Energy and Resource Efficiency Plans. The program only applies to businesses that are significantly energy and water intensive; those using more than 100 TJ of energy and/or 120 ML of water per annum.

*To find out if your business meets the EREP threshold check your energy and water bills, or contact the Environment Protection Authority.*

## 13. Parts Washing

Parts washing includes everything from washing down small parts with water to degreasing and washing vehicles prior to painting. Whether washing parts, engines or large components, washing must be done in an area where runoff is contained.

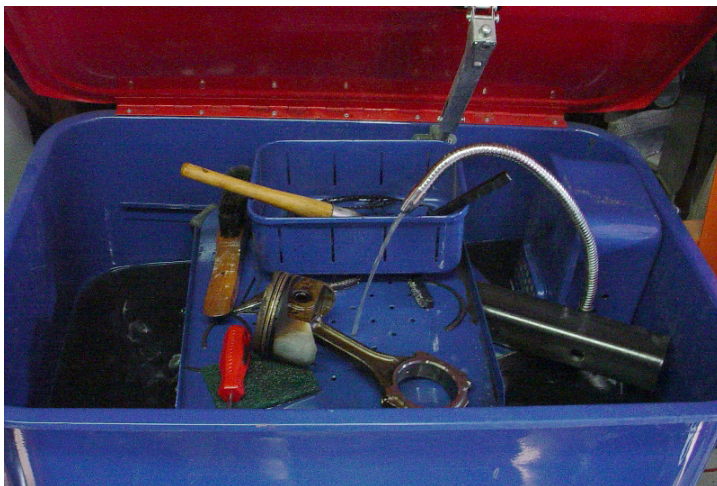
### Wash water

Parts may be cleaned in steam by hot or cold water, in a high pressure wash or in a chemical bath. In all cases, whenever oil or grease is removed, any wash water must be treated as Prescribed Industrial Waste.



### Solvent wash

All petroleum, solvent and chemical wash wastes and sludge must not enter stormwater or the sewer, and therefore need to be disposed of as Prescribed Industrial Waste.



*Solvent based parts washer*

As noted, both wash water and solvent wash are classified as Prescribed Industrial Waste, and should therefore be disposed of in one of the following ways:

1. Directed to the sewer according to your Trade Waste Agreement with your local water authority.
2. Directed to a sump, where it can be collected by an EPA contractor.
3. Stored in a drum or tank before transporting it to a licensed liquid recycling or treatment facility.

### Dry cleaning

As parts cleaning can produce large amounts of contaminated water and solvent, dry cleaning methods and ultra sonic processes should always be used before a solvent wash is applied.

### Please Note

Petroleum, solvent and chemical suppliers can provide you with information regarding how to properly handle and dispose of these waste materials.

### Managing cleaning processes

- Review all processes to identify cleaning methods.
- Use dry cleaning methods, like shot blasting, rumbling, air blasting or scraping wherever possible.
- Minimise the use of water, solvents, chemicals and petroleum in all cleaning processes.
- Only use small amounts of solvents, chemicals and petroleum in a properly constructed container.
- Store used products for parts washing in an undercover, sealed floor and designated bunded waste storage area.



- Clearly identify the contents of all drums and containers used to hold parts washing prescribed waste.
- Appoint an EPA approved contractor to remove and dispose of your Prescribed Industrial Wastes.
- Keep all the invoices waste contractors give you for three to five years.
- Keep records documenting the details of the permits and approvals your waste contractors have – i.e. Waste Transport Certificate. These should be kept for 24 months if in hard copy.



*Environmentally safe parts washer*

## 14. Noise Management

Management is responsible for monitoring and controlling noise levels created by your business activities. Excessive noise levels can cause permanent hearing impairment to staff, disrupt neighbours and have an adverse affect on the community and environment.

Noise levels are cumulative and increase with each extra sound. Conversely, noise can be reduced by eliminating sounds. Excessive noise levels always have an adverse affect on your staff and neighbours. A workshop radio can often be as damaging to hearing as your workshop equipment.

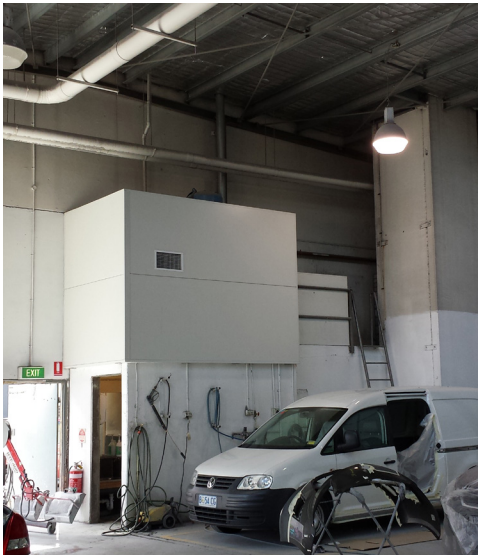
Noises from small businesses come under local government control. However, there is legislation and regulations which your business should also abide by. The Environmental Protection Act 1970 is the Victorian legislation which explains your responsibilities when regarding noise emissions and management. You must also be aware of the Environment Protection (Vehicle Emissions) Regulations 2003, and the State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade). It is also worth being aware of the Occupational Health and Safety (Noise) Regulations 2007.



*Pneumatic cutting tools*

### Managing noise

- Get rid of excessively noisy operations by changing the equipment or process.
- Isolate noisy operations or equipment (e.g. ensuring your compressor is stored away from staff and neighbours, possibly in a sound proof room).
- Where practical, avoid using noisy equipment, like air chisels and air operated de-scalers.
- Replace old, noisy equipment with new equipment (e.g. battery powered wrenches).
- Silence air operated equipment such as impact wrenches.
- Do not operate noisy equipment outside business hours if it has the potential to disturb residential areas.
- Use warning signs to remind people to wear hearing protection.
- If noise prevents normal conversation, noise level tests must be conducted by a competent person and work must be undertaken to systematically reduce noise.
- Have staff that work in noisy environments undergo a hearing check every two years.
- Have operators and others who are affected wear earplugs, or similar devices, when carrying out noisy activities.



*Sound proofed air compressor in a workshop*

## 15. Housekeeping

The easiest way to prevent pollution, avoid fines and reduce clean-up costs is to keep your business clean and well organised in the first place. Implementing daily routines for clean-up and waste disposal will keep your business well presented and in compliance with the law.

Daily housekeeping activities not only help you to present your business in its best possible light and most professional manner, but they can also help you to:

- Reduce the types and quantities of all materials and wastes held on site
- Reduce the down time spent cleaning up or looking for equipment
- Reduce the attraction of pests such as rats, birds and insects to your site
- Improve working conditions and morale
- Improve the presentation and public appearance of your business
- Prevent workplace injuries from slips, trips and falls.

### Good housekeeping practices

- Establish a clean-up routine.
- Allocate housekeeping responsibilities to all staff.

- Require all staff to clean up their own waste as they go.
- Think about the presentation of your business from your neighbour's or customer's point of view. What sort of impression does your business create?
- In each process area (including offices) set aside designated areas for the proper covered storage of wastes.
- Ensure all hazardous substances and dangerous goods are kept in properly identified containers, especially when those substances have been decanted.
- Make sure your work area has enough drip trays, storage bins and clean up materials.
- Use dry cleaning methods wherever possible.
- Keep a mop and bucket on hand at all times. Use it to clean up small spills.
- Keep suitable absorbent clean up material on hand for larger spills i.e. spill kits.
- Keep all aisles, passageways, doorways and work areas free from junk and work in progress.
- Do not allow waste or unused items to accumulate. Apply weekly, monthly, yearly review of all storage to discard unused or out of date materials.

## 16. Environmental Record Management

Good record keeping is essential in proving you comply with the law. It enables you to monitor and improve compliance requirements and helps to introduce cost saving measures.

Records are required to enable you to prove that you have fulfilled your environmental responsibilities, including the appropriate disposal of waste and regular maintenance of equipment.

### What records should I keep?

- If you have a Trade Waste Agreement make sure that it is documented and kept on file.
- Keep records of your Key Performance Indicators (like paint and solvent usage) and use this information to monitor and track your consumption of resources and materials.
- Use Improvement Reports to record problems, solutions to these problems and other possible improvements and keep them on file.
- Note unusual environmental events in a diary.
- Keep records of the employee meetings and training sessions you hold.
- Keep all environmental records for at least three years.
- Ensure that training induction records prove that all employees are assessed for their competence regarding proper use of OHS and environmental controls.

### Waste Transport Certificates

As mentioned throughout this summary, Waste Transport Certificates are important environmental records which must be filled out when having Prescribed Industrial Waste transported off your site. They are required in order to track the movement of Prescribed Industrial Waste from 'cradle to grave'.

The law which governs this is the Environmental Protection (Industrial Waste Resource) Regulations 2009. For the legal requirements governing Waste Transport Certificates refer to the Industrial Waste Resource Guidelines 8.2 – Waste Transport Certificates.

- A Prescribed Industrial Waste producer must complete the designated section of the transport certificate for each load of Prescribed Industrial Waste taken off site.
- The waste transporter and waste receiver must also complete the designated sections of the transport certificate.
- The information filled out in the waste certificate must be accurately completed and correct.
- The prescribed waste producer, transporter and receiver must keep the transport certificate or send to the Environment Protection Authority for 24 months from the date the waste was transported.

**Please note**

There are two ways that you can complete Waste Transport Certificates:

1. An online lodgement system called WasteCert\*
2. A paper based system (purchase paper certificates from EPA)

\*Waste producers who want to complete Waste Transport Certificates with WasteCert must register. A WasteCert registration form needs to be completed and returned to EPA for processing. It is then the responsibility of the waste producer or accredited agent to purchase electronic waste transport certificates from EPA.

## 17. Emergency Response Procedures

To ensure the safety of your employees it is important to enforce codes of conduct that minimise the risk of an accident or incident occurring.

Senior management must develop an Emergency Response Plan that protects the health and safety of staff, and considers any possible environmental impacts that may arise in the event of an accident.

Senior management also needs to develop emergency procedures covering incidents that may occur as a result of accidents involving either chemicals or equipment.

Effective planning and preparation will help you to reduce the potential for injuries, protect staff and facilities, reduce asset losses and production down time and will help protect the environment.

**Things to do**

- Develop an Emergency Contact List including emergency contact numbers and display copies of it next to all emergency phones and the main phones in administration offices and factory offices.
- Report all emergencies and incidents to the relevant authority as soon as possible.
- Make sure that fire extinguishers (appropriate to each particular application) are available on site.
- Make sure that each extinguisher is serviced every six months and tagged.
- Train your staff on how to use each type of fire extinguisher and keep records of current training.
- Take prompt action to control emergencies and incidents.
- Make sure that you know how to deal with predictable spills and have emergency clean up materials on hand i.e. spill kits.
- Appoint a person who is responsible for coordinating your site emergency response plan.
- Appoint wardens in each workplace location or area.
- Develop an Emergency Plan, display it in an area where staff can see it and encourage them to become familiar with it.
- If a major hazardous spill is possible, lodge your Emergency Plan with the local fire authority.
- Arrange for local emergency response personnel to train your staff on the nature of hazards at your site, including the use of fire extinguishers.
- Consult with insurers and the local fire authority to determine if you need to install and maintain any specific emergency equipment.
- Hold annual fire emergency response drills and keep a diary note of the event.



## 18. Environmental Management

Managing your business's environmental responsibilities properly is a good way to reduce environmental impacts and risks. It can also minimise your environmental liabilities, reduce waste, maximise the efficient use of resources, demonstrate a good corporate image, increase profits, and prove an effective marketing tool. There are many processes and procedures that your business can implement in order to practice good environmental management.

- Identify and assess the environmental impacts of your business activities
- Identify and assess the environmental risks of your business activities
- Conduct a waste assessment and develop an effective waste management plan
- Review the effectiveness of existing controls and work instructions in regards to waste disposal
- Identify what issues need to be addressed and what practices need to be changed, and record this information
- Devise procedures and plans to reduce environmental impacts
- Establish an environmental policy that is achievable and followed and communicate this to staff and external stakeholders such as suppliers and customers
- Plan for chemical spills or other spills which could harm the environment, and how staff/management would respond to this
- Measure and monitor your environmental performance on a regular basis
- Involve staff, suppliers, customers, and other stakeholders in developing a long term environmental improvement plan for your business.

These initiatives and procedures could be documented in an Environmental Management Plan, which would set out the business's objectives, responsibilities and targets for the future, and what it plans to achieve in regards to environmental management.

### Environmental Management System

Implementing an Environmental Management System (EMS) to ISO 14001 can also benefit your business. An EMS will provide a systematic and methodical approach to planning, implementing and reviewing your business's response to these environmental impacts. An EMS will also help to ensure that your business remains compliant with your legal obligations under Victorian and Commonwealth Law. It will also provide your business with a tool in helping you to continually improve in environmental management. Some of the areas that your business can manage in an EMS include water consumption, waste management, energy consumption and green purchasing.

## 19. Further Information

The VACC OHSE Unit hopes you have found this guide useful in helping you understand how your business can impact on the environment, and how these impacts can be mitigated through compliance with the law. For more information on your environmental legal obligations please contact the VACC OHSE Unit.

### Useful links

Australian Refrigeration Council Ltd (ARC) - <http://www.arctick.org/index.php>

Department of Sustainability and Environment - <http://www.dse.vic.gov.au/>

Department of the Environment - <http://www.environment.gov.au/index.html>

Environment Protection Authority (EPA) - <http://www.epa.vic.gov.au/>

Refrigerant Reclaim Australia - <http://www.refrigerantreclaim.com.au/>

Safe Work Australia - <http://safeworkaustralia.gov.au/>

Department of Environment and Primary Industries - <http://www.depi.vic.gov.au/water>

Victorian Government - <http://www.vic.gov.au/>

Victorian Water Industry Association - <http://www.vicwater.org.au/>

Victorian WorkCover Authority - <http://www.worksafe.vic.gov.au>



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