

ENVIRONMENTAL ACTION FOR SERVICE STATIONS



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- Camden Council
- Motor Traders' Association
- Rapid Spill Control
- Envirotank

Please note:

This guide provides information relevant at the time of publication. It is not a regulatory document and does not provide legal advice. If you need more information regarding legal obligations, consult a lawyer, the legislation, DECC or your local Council.

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Published by:

Department of Environment and
Climate Change NSW

59–61 Goulburn Street
PO Box A290
Sydney South 1232

Ph: (02) 9995 5000 (switchboard)

Ph: 131 555 (environment information and
publications requests)

Ph: 1300 361 967 (national parks information
and publications requests)

Fax: (02) 9995 5999

TTY: (02) 9211 4723

Email: info@environment.nsw.gov.au

Website: www.environment.nsw.gov.au

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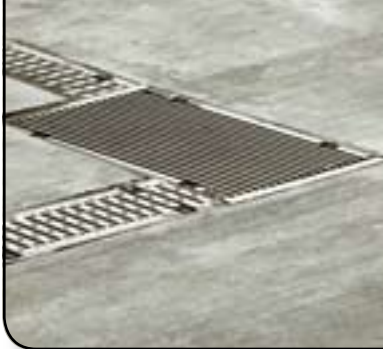
ABBREVIATIONS

EPA	Environment Protection Authority – part of the Department of Environment and Climate Change NSW	MSDS	Material Safety Data Sheet/s
DECC	Department of Environment and Climate Change NSW	OH&S	Occupational Health and Safety
		POEO Act	<i>Protection of the Environment Operations Act 1997</i>
		VOCs	Volatile organic compounds

PRIORITY ACTIONS

FOR SERVICE STATIONS

1. FORECOURT DESIGN, MAINTENANCE AND OPERATION



- Design your forecourt so it complies with environmental legislation and prevents pollution
- Make sure stormwater drains near your forecourt receive rainwater ONLY
- Treat oily water through an oil/water separator before it is drained to the sewer or collected by a licensed contractor
- Ensure all fuel nozzles function properly
- Keep your premises and equipment clean and well-maintained

2. FUEL DELIVERIES



- Use vapour recovery equipment and techniques to avoid air pollution and minimise fuel loss
- Make sure fuel is delivered in the forecourt containment area, and can't contaminate stormwater or land
- Train fuel area staff in vapour recovery procedures

3. EMERGENCY FUEL SPILLS



- Prevent fuel spills: look at work practices, staff training, equipment and storage
- Develop emergency response procedures for dealing with spills
- Train staff to prevent and handle fuel spills
- Keep spill clean-up materials in a handy place – clearly labelled and ready for use

4. UNDERGROUND FUEL TANKS



- Regularly monitor underground tanks and supply lines to detect leaks
- Find out if you are legally required to decommission unused tanks
- Consider the installation of an automatic leak detection system
- Ensure new tanks and lines are double-walled and include a leak detection system

5. WORKSHOP



- Do all mechanical work, such as degreasing engines, inside the workshop and make sure all spills are cleaned-up immediately
- Store bulk hazardous liquids such as oil, solvents and coolants in a bunded and covered area. Make sure spills cannot escape
- Check that oil, brake fluid, radiator fluid etc. used in the workshop is stored in spill trays
- If you install, service or decommission vehicle air conditioners, make sure you hold a Refrigerant Trading Authorisation
- Minimise noise generated from the forecourt and workshop

6. WASTE MANAGEMENT



- Dispose of hazardous liquids lawfully and in a manner that won't damage the environment
- Avoid stockpiling old tyres and explore tyre recycling opportunities
- Talk to your local Council or waste contractor about recycling options
- Provide recycling bins for customers

OVERVIEW AND OPPORTUNITIES

This guide is part of an Environment Action Series prepared by the Department of Environment and Climate Change NSW (DECC) to provide information for businesses on improving their environmental performance.

Similar guides for other business sectors are available through the DECC Environment Line on 131 555 or visit the DECC website – www.environment.nsw.gov.au.

THE SERVICE STATION INDUSTRY

NSW has approximately 2600 service stations that sell 6000 megalitres of fuel a year, which equates to 6000 Olympic size swimming pools. Because they deliver, store and dispense fuel, service stations have unique environmental impacts and requirements. Many service stations also have convenience stores and automotive workshops that have additional environmental impacts, all of which are addressed in this guide.

WHAT ARE THE KEY ENVIRONMENTAL ISSUES?

Key environmental issues for service stations are:

- Diesel and petrol spills
- Stormwater pollution
- Soil and groundwater contamination
- Vapour recovery
- Greenhouse gas emissions from energy use





WHAT IS THE PURPOSE OF THIS GUIDE?

This guide is designed to help operators of service stations in NSW:

- Understand the environmental risks and responsibilities associated with the operation of service stations.
- Take action to improve the environmental management of their operations.
- Take advantage of the business benefits that result from improved environmental practices.

This guide provides information for owners, managers and staff. It will also be useful to environmental officers employed by local government. The guide does not provide legal advice but will provide the reader with a good understanding of regulatory requirements.

The 'Useful tools' section of the guide contains templates to help you develop your own environmental management tools, such as checklists and an action plan. It also contains a 'Self-assessment checklist' with the types of questions that an officer from your local Council or the EPA could ask when visiting your premises. You can use this self-assessment tool to evaluate the environmental performance of your business and identify areas for improvement.

OCCUPATIONAL HEALTH AND SAFETY

Many of the issues addressed in this guide are also relevant to occupational health and safety (OH&S). In fact, many businesses with good OH&S procedures are also excellent performers with respect to the environment. This guide does not address OH&S issues in detail so it's important that you contact WorkCover NSW for more information.

ENVIRONMENTAL MANAGEMENT – RISKS AND OPPORTUNITIES

For service stations, improving environmental performance is about managing risk and taking advantage of opportunities that will boost efficiency and profits.

A good starting point is to identify and prevent risks to your business from poor environmental management. A major fuel spill or other environmental incident could pose the risk of:

- Environmental prosecutions and fines
- Harmful effects on the health, safety and productivity of staff
- Damage to company reputation.

A leaking underground fuel tank could also harm the local environment, which belongs to all members of the community and impacts on their quality of life.

Improving environmental management also provides opportunities to make a business more profitable and viable in the long-term. Even small changes can save money. For example,

many service stations have cut electricity costs by installing energy efficient lighting and regularly maintaining machinery such as air compressors.

These simple improvements are often called 'resource efficiency', which is described in more detail in Information Sheet 2.

The benefits of a high standard of environmental management go beyond 'housekeeping' and efficiency. They also include benefits from:

- An enhanced reputation as a company that is well-managed and a valuable long-term business partner.
- Becoming a 'supplier of choice', particularly to corporate and government clients who are starting to consider environmental performance of suppliers and products as part of their green procurement policies.
- Improved employee satisfaction, retention and productivity. Companies with a good environmental record are more likely to win the 'battle for talent' in attracting and retaining staff. As well, employees are generally happier and more productive in a workplace that is clean, healthy and environmentally responsible.





Successful service stations operators are coming to understand that good environmental practice is a business opportunity. These opportunities are maximised when management of environmental issues is integrated with other business planning and becomes part of continuous improvement. Better results are also likely when staff at all levels are involved in identifying and delivering environmental projects.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au
- WorkCover NSW – phone: 13 10 50 or www.workcover.nsw.gov.au
- Your local Council
- Your industry associations:
- Service Station Association – phone (02) 9420 5599 or www.ssa.org.au
- Motor Vehicle Repair Industry Authority – phone (02) 9712 2200 or www.mvria.nsw.gov.au
- Motor Traders' Association of NSW – phone (02) 9213 4222 or www.mtansw.com.au
- Institute of Automotive Mechanical Engineers – phone (02) 9648 1412 or www.iame.com.au

For further information visit
www.environment.nsw.gov.au

ENVIRONMENTAL COMPLIANCE – MEETING YOUR LEGAL RESPONSIBILITIES

NSW has a number of laws to help protect the environment and provide guidance to business.

The Protection of the Environment Operations Act 1997 (POEO Act) is the main piece of NSW environmental legislation covering water, land, air and noise pollution and waste management.

In some cases breaking environmental law carries serious penalties. If you break the law and end up in court, the prosecutor may not have to prove that you intended to cause the damage or pollution. Even accidents can result in prosecution and penalties.

Everyone involved in your business (including owners, managers, supervisors, operators, contractors and subcontractors) needs to be aware of environmental laws that apply to your operations. Individuals are required to minimise the risk of an environmental incident by implementing precautionary and control measures.

By gaining awareness of environmental laws, and how your business has the potential to affect the environment, you will be in a better position to manage risk in your business.

Managers and directors can be prosecuted for offences committed by their company, unless they can demonstrate that they exercised all due diligence to prevent the contravention of the POEO Act or that they could not influence the conduct of their company in relation to the contravention. They cannot use lack of knowledge about the contravention as a defence.

A comprehensive approach to addressing regulatory requirements includes:

- Developing a plan that incorporates environmental management
- Undertaking staff training and supervision
- Completing a self-assessment or independent audit.

These ideas are discussed in this guide.

WATER POLLUTION

Under section 120 of the POEO Act it is illegal to pollute or cause or permit pollution of waters.

Under the Act, 'water pollution' includes introducing litter, sediment, oil, grease, wash water, debris, and flammable liquids such as paint, etc. into waters or placing such material where it is likely to be washed or blown into waters or the stormwater system or percolate into groundwater.

An individual guilty of water pollution under section 120 of the POEO Act may be fined up to \$250,000, plus up to \$60,000 per day for a continuing offence. A company committing the same offence may be fined up to \$1,000,000, plus up to \$120,000 per day for a continuing offence.

Alternatively, on-the-spot fines of \$750 for individuals and \$1500 for corporations may be issued for the same offence.



You should take all practicable steps to make sure that unforeseen events, such as spills or leaks, do not result in polluted water entering the stormwater system or groundwater. This means keeping chemicals in a properly maintain and operated bunded and covered storage area, having adequately stocked spill kits on hand and making sure staff know how to use them. Under no circumstances should you hose a chemical spill down the drain.

AIR POLLUTION

Air pollution means emitting any impurities into the air, including odours, volatile organic compounds (VOCs), smoke, dust, gases, fumes and solid particles of any kind.

Under the POEO Act (Sections 124-126), businesses must maintain and operate equipment and deal with materials in a proper and efficient manner to prevent air pollution at all times.

Under Section 129 of the POEO Act, businesses licensed by the EPA must not cause or permit the emission of any offensive odour from the premises.

LAND POLLUTION

Under section 142 of the POEO Act it is an offence to pollute land. Additionally, section 116 of the POEO Act makes it an offence to wilfully or negligently cause any substance to leak, spill or otherwise escape in a manner that harms or is likely to harm the environment.

HAZARDOUS MATERIALS AND WASTE

When handling hazardous materials and waste keep in mind that it is an offence to cause any substance to leak, spill or otherwise escape in a manner that harms or is likely to harm the environment (POEO Act section 116).

Make sure you're aware of the legal requirements before using, storing, transporting and disposing of hazardous materials (e.g. dangerous goods and chemicals). The laws relating to chemical storage vary depending on the amount that you are storing. For more information contact WorkCover NSW.

The movement of most hazardous waste must be tracked during its transport to a facility for treatment, recycling or disposal. Waste may be tracked online-for more information contact the DECC Environment Line on 131 555.

INFORMATION SHEET 1

The most effective way of dealing with hazardous materials is to:

- Avoid them by replacing them with less toxic materials
- Use work practices that minimise their use.

OFFENSIVE NOISE

By law (POEO Act sections 139 and 140), you must not allow noise from your premises to be generated as a result of the failure to maintain or operate machinery or deal with materials in a proper and efficient manner.

Regulatory authorities may also issue notices and directions requiring you reduce or cease noise from your premises that could be found offensive. 'Offensive noise' means that by reason of its level, nature, character, quality or the time at which it is made, or any other circumstance, the noise is harmful or interferes unreasonably with the comfort of people who are outside your premises.

WASTE

Under the POEO Act there are heavy penalties for unlawful disposal of waste. The owners of waste (as well as the transporters and receivers) have a responsibility to ensure their waste is managed, transported and disposed of appropriately.

The *Waste Avoidance and Resource Recovery Act 2001* encourages the most efficient use of resources, to reduce environmental harm and to provide for an ongoing reduction in waste generation.

The following hierarchy for managing waste, from most desirable to least desirable, meets the objectives of the Act:

- 1 Avoid unnecessary resource consumption
- 2 Recover resources (including reusing, reprocessing and recycling) and recover energy
- 3 As a last resort, dispose of the material safely and lawfully





WHO 'POLICES' ENVIRONMENTAL LAW?

Environmental laws are policed by the 'appropriate regulatory authority' – generally the EPA (part of the Department of Environment and Climate Change NSW) or the local Council.

The EPA regulates the activities listed in Schedule 1 of the POEO Act, usually large companies and industries that have the potential to seriously affect the environment. See 'Do you need an Environment Protection Licence?' on page 12.

Local Councils regulate other, usually smaller, businesses and industries through notices and prosecutions. They can also regulate using development consents.

The POEO Act gives the appropriate regulatory authority the power to enter and inspect premises and issue clean-up or prevention notices and on-the-spot fines. The regulatory authority can also prosecute a business where environmental laws have not been complied with.

You must report incidents that harm the environment

If a pollution incident occurs during an activity and it causes or threatens 'material harm' to the environment, by law you must tell the appropriate regulatory authority – either the local Council or the EPA.

You must contact them as soon as you can after you become aware of the incident. This 'duty to notify pollution incidents' extends to employers, the person carrying out the activity, employees, occupiers, contractors and agents.

For more information call the DECC Environment Line on 131 555.

You must report land contamination

You must notify the EPA of any land contamination that poses a significant risk of harm to human health or the environment (Contaminated Land Management Act 1997). This 'duty to notify contamination' falls on the owner of the property and on the person whose activities have caused the contamination.

INFORMATION SHEET 1

For more information call the DECC Environment Line on 131 555, or refer to *Guidelines on the Significant Risk of Harm from Contaminated Land and the Duty to Report* (1999). You can find these guidelines on the DECC website – www.environment.nsw.gov.au.

What are the penalties for environmental offences?

The most serious offences (Tier 1 offences) are wilful breaches of the law that harm or are likely to harm the environment. These carry penalties of up to \$5 million for a company or \$1 million for an individual and/or seven years imprisonment.

Where breaches are negligent, the penalties for the most serious offences are up to \$2 million for a company or \$500,000 for an individual and/or four years imprisonment.

Most other offences (Tier 2 offences) carry penalties of up to \$1 million (plus a daily penalty of up to \$120,000 for continuing offences) for companies or \$250,000 (plus a daily penalty of up to \$60,000 for continuing offences) for individuals.

Less serious breaches can result in an 'on-the-spot' fine (penalty notice) with a penalty of \$750 for individuals and \$1500 for companies.

ENVIRONMENT PROTECTION NOTICES

Clean-up Notices

A Clean-up Notice may be issued by the EPA and Local Councils when a pollution incident has occurred or is occurring. Clean-up notices may direct an occupier of a premises or the polluter to take clean-up action as specified in the notice. An administration fee (currently \$320) is payable to the EPA or local Councils for the issuing of a clean-up notice. There is no right of appeal against a clean-up notice.



Prevention Notices

Prevention notices can be issued if an activity has been or is being carried out in an environmentally unsatisfactory manner. Prevention notices require that actions specified in the notice are carried out. Prevention notices can include directions – such as installing bunding around a chemical storage area to prevent spills. An administration fee (currently \$320) is payable to the EPA or local Council for the issuing of a prevention notice. There is a right of appeal against a prevention notice to the Land and Environment Court.

Noise Control Notices

Noise control notices can be issued to prohibit an activity, or the use of equipment, from emitting noise above a specified noise level. There is a right of appeal against a noise control notice to the Land and Environment Court.

LICENCES AND PERMITS

Do you need an Environment Protection Licence?

The EPA is the appropriate regulatory authority for activities listed in Schedule 1 of the POEO Act and is responsible for issuing Environment Protection Licences to conduct those activities.

A licence may also be required if certain waste activities are carried on your facility, such as the storage or generation of certain hazardous wastes.

Small and medium size businesses generally do not require an Environmental Protection Licence. A licence is mainly required by larger businesses or in industries that have been identified as having potentially significant environmental impacts.

Licences are usually issued with conditions. These conditions may include requirements for pollution limits, monitoring, mandatory environmental audit programs, pollution studies, pollution reduction programs or financial assurances.

To find out if you require a licence:

- Call the DECC Environment Line on 131 555, or
- Refer to *Guide to Licensing under the POEO Act 1997* and check Schedule 1 of the POEO Act which can be downloaded from the DECC – website www.environment.nsw.gov.au

Businesses that do not require a licence are still required to comply with environmental laws.

Trade waste permit or agreement

Generally, businesses must have a written agreement or permit to discharge trade wastewater to the sewer. You must negotiate a trade waste permit with your water authority – either Sydney Water, Hunter Water Corporation or your local council – before discharging any trade waste to the sewer. The permit establishes the discharge conditions for the wastewater.

Dangerous goods

Dangerous goods include flammable, toxic or corrosive substances, such as solvents, which should be stored in containers displaying the relevant diamond-shaped label. Since 1 September 2005 businesses that store dangerous goods in their premises may have to notify WorkCover NSW – the need to notify depends on the amount stored.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for:
 - Guide to Licensing Under the POEO Act 1997*
 - Recent significant changes to legislation administered by DECC
 - Noise Guide for Local Government*
 - Local Government Air Quality Toolkit*
- Your local Council
- Environmental Defender's Office – phone (02) 9262 6989 or www.edo.org.au for:
 - the *Environmental Law Fact Sheets*
- WorkCover NSW – phone 13 10 50 or www.workcover.nsw.gov.au for:
 - NSW Code of Practice for the storage and handling of Dangerous Goods*
 - Notification of Dangerous Goods on Premises
- Sydney Water – phone 13 20 92 or www.sydneywater.com.au
- Hunter Water Corporation – phone (02) 4979 9589 or www.hunterwater.com.au
- New South Wales Consolidated Acts – text of all NSW Acts on line – www.legislation.nsw.gov.au

RESOURCE EFFICIENCY

Good managers understand that an efficient business is a profitable business.

Efficiency in running a business includes reducing the use of resources (raw materials, water and energy) and lowering the volume and toxicity of waste and other emissions. This is often referred to as 'resource efficiency' or 'cleaner production'. It involves finding ways to reduce costs and environmental impacts along the entire production or service delivery process, from the supply of raw materials to operations and distribution.

Identifying and implementing resource efficiency measures is 'easy' for managers who know their business and are prepared to have a close, systematic look at inefficiencies in their operations. It is an opportunity to profit from:

- Reducing the use of energy, water and raw materials.
- Avoiding waste and reusing and recycling materials.
- Minimising waste volumes and reducing waste toxicity to lower the cost of treatment and disposal.
- Implementing process changes to increase production and reduce spoilage.
- Reducing the use of hazardous and dangerous materials to minimise dangerous goods storage and environmental and OH&S liability risks.
- Providing a safe, clean and pleasant work environment that leads to increased staff productivity.

WHERE DO I START?

Plan and organise

Dozens of resource efficiency success stories prove that a team approach to resource efficiency is best. With management support, establish an environment team that includes staff from different areas of the business. Appoint a 'champion' or team leader and consider inviting suppliers or customers to join the team on occasions.

Ideally, the environmental champion will have the full support of management and other staff.

From the outset, identify how you will integrate resource efficiency into business planning and staff responsibilities to make it a continuous process.

Assess and measure

The environment team needs to assess the processes, material flows and costs within the business, and identify any internal barriers that may be preventing the implementation of more efficient practices.

The team should start by collecting baseline data on resource use and waste—what gets measured gets considered! The team should also complete an initial business and processes assessment, which could include brainstorming sessions, a facility 'walk-through' or a more formal audit. It's also wise to involve an outside person with technical expertise who can provide a 'fresh pair of eyes' and ideas from other companies.

The initial assessment and data will provide you with a benchmark against which to measure ongoing improvement.

Identify opportunities and implement priority actions

Your assessment of resource use will almost certainly identify immediate opportunities for cost savings, and these should be implemented as quickly as possible. These 'small wins' will help to maintain the team's enthusiasm. Other ideas may need further research and assessment and may take longer to implement.

The team should record ideas and options and prepare a simple action plan outlining opportunities, issues requiring further investigation, priorities, timeframes and staff responsibility for actions. As a starting point, the team could use the environmental action plan template in the 'Useful tools' section of this guide, and adapt it to suit their situation.

Document results and evaluate success

Record financial investment in cleaner production projects and the time taken to recover these costs – known as the 'payback' period. Set up simple spreadsheets or other tools to document project results in terms of their financial, environmental and other outcomes. Take the time to note 'qualitative' results such as staff enthusiasm, improved working relationships with suppliers and comments from customers. These records will help to justify further cleaner production projects.

Reward and revisit

The work of the environment team should be acknowledged and the team should be encouraged to continue to look for new ideas. Consider 'refreshing' the group by alternating leaders and inviting new team members. Remember, efficiency is a continuous process and the resource efficiency plan should be regularly revisited.

What if my business is too small for a cleaner production team?

Simply follow this suggested process on your own or with one or two workmates.



OPPORTUNITIES FOR SERVICE STATIONS

Cost-effective resource efficiency opportunities for service stations can be found in several areas.

Energy saving

- Check the efficiency of electrical equipment and machinery regularly—this may reduce your energy consumption.
- Check your compressed air system for leaks. Leaks make compressors run unnecessarily and result in higher electricity use.
- Switch off lights and equipment when they are not required. Install energy-efficient lighting, fridges and other equipment.
- Install skylights and keep skylights and lamps clean. Canopies and workshops with skylights or clear sheeting reduce lighting need during the day.
- Increase your air conditioner thermostat set point by 1 to 2°C in warm weather, and decrease it slightly in cool weather.
- Improve building insulation and enclose and ventilate heat-generating equipment.
- Canopy lighting is a large consumer of electricity. By locating lights where they are needed, such as over fuel pumps and at tyre pumps, you can minimise the amount of canopy lighting required.

INFORMATION SHEET 2



Switch off lights and equipment when they are not required.



Petrol pump vapour recovery can reduce petrol loss.

- Install electricity usage meters to measure the amount of electricity used in different parts of the business.

Hazardous waste

- Separate all waste liquids, such as oil and coolants, and store them in containers that are clearly labelled. This will help your waste contractor to recycle waste liquids. Mixed waste is more difficult to handle and is usually more costly to treat.
- Organise your chemical storage area so that older chemicals are readily accessible and are used before they become 'out of date'.

Fuel loss

- Regularly check fuel tanks for leaks – this will avoid fuel loss.
- Regularly check and maintain your vapour recovery equipment. Poor vapour recovery means loss of fuel. See 'Technology upgrades' on page 17.

Water saving

- Check taps and toilets for leaks and drips, and repair them promptly. Replace washers when required.
- Install AAA-rated low-flow taps or tap aerators, dual-flush toilets and water-efficient showerheads (which also save energy by reducing hot water use).
- Set up car washing facilities that clean and reuse water.

Chemicals and toxic materials

Alternatives to solvent-based degreasing machines can save you money in the long term. For example, aqueous washer units are less labour-intensive and cost less to operate than solvent-based systems. Ultrasonic units clean the components inside and outside and the cleaning solution can be reused. Ask your supplier about the advantages and disadvantages of alternatives to solvent-based systems.

Working with suppliers and customers

- Check with your chemical supplier to see if empty containers can be returned for reuse.
- Use your environmental credentials to differentiate your service station and boost your reputation.

Technology upgrades

- Automated tank gauging systems and interstitial monitoring sensors can help you monitor underground fuel tanks and detect leaks quickly.
- Vapour emissions and resulting petrol loss can be reduced by 50% by recovering vapours during fuel deliveries.
- Vapour recovery equipment can also be fitted to a petrol pump to capture the petrol vapour released from a car's tank when it refuels. The equipment consists of a vapour pump, co-axial nozzles and hoses and a vapour line to the underground tank. This technology can reduce the emission of petrol vapours by up to 95% during refuelling. It has been required in parts of the US, Europe and Asia for some time and it is currently being evaluated in NSW.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for: Cleaner production case studies
Profits from Cleaner production: A Self-help Tool for Small to Medium-sized Businesses
- Department of Energy, Utilities and Sustainability – www.deus.nsw.gov.au for water and energy saving ideas
- Sydney Water – phone 13 20 92 or www.sydneywater.com.au for the 'Every Drop Counts' program – a water saving program for business
- Queensland EPA has a free 'ecoBiz' tool that can help in identifying cost savings – www.epa.qld.gov.au
- Department of the Environment, Water, Heritage and the Arts – www.environment.gov.au for: Information on Caltex Airport StarMart (Canberra), *Geothermal air conditioning and other energy efficiency measures*

DON'T FORGET THE FEEDBACK

Don't forget to regularly communicate resource efficiency successes to your staff, customers and suppliers.

Reduce fuel loss by regularly checking and maintaining vapour recovery equipment.

FORECOURT DESIGN, OPERATION AND MAINTENANCE

The 'forecourt' area of a service station is generally considered to be the fuel dispensing area. It is the high-risk area of the service station in terms of environmental management. A well designed and maintained forecourt will minimise the risk of stormwater and other pollution.

STORMWATER AND TRADE WASTEWATER

Preventing stormwater pollution and managing trade wastewater are the two most important environmental issues on the forecourt. The forecourt should be designed and operated to:

Prevent rainwater entering the forecourt by:

- Covering the fuel dispensing area with a roof that has an overhang of at least 10°.
- Directing uncontaminated rainwater away from the canopy and other roofed areas into stormwater drains.

Ensure contaminated water does not leave the forecourt and find its way into the stormwater system. This means:

- Ensuring stormwater drains are not located within the fuel dispensing area.
- Bunding the forecourt and installing a floor with a minimum slope of 2%.
- Surrounding the bunded area with sealed flexible strips or a grated drainage system – taking liquid wastes, contaminated water and spills to a covered collection pit.
- Installing a collection pit alarm that sounds when wastewater levels are high. When the alarm rings a pump is started, moving the contents of the pit to an oil/water separator.

- Regularly maintaining the oil/water separator and ensuring it is working efficiently.
- Locating inlets to underground storage tanks in a bunded area to contain any spills resulting from discharge of fuel from tankers.

Ensure contaminated water and other liquids are treated in an oil/water separator and:

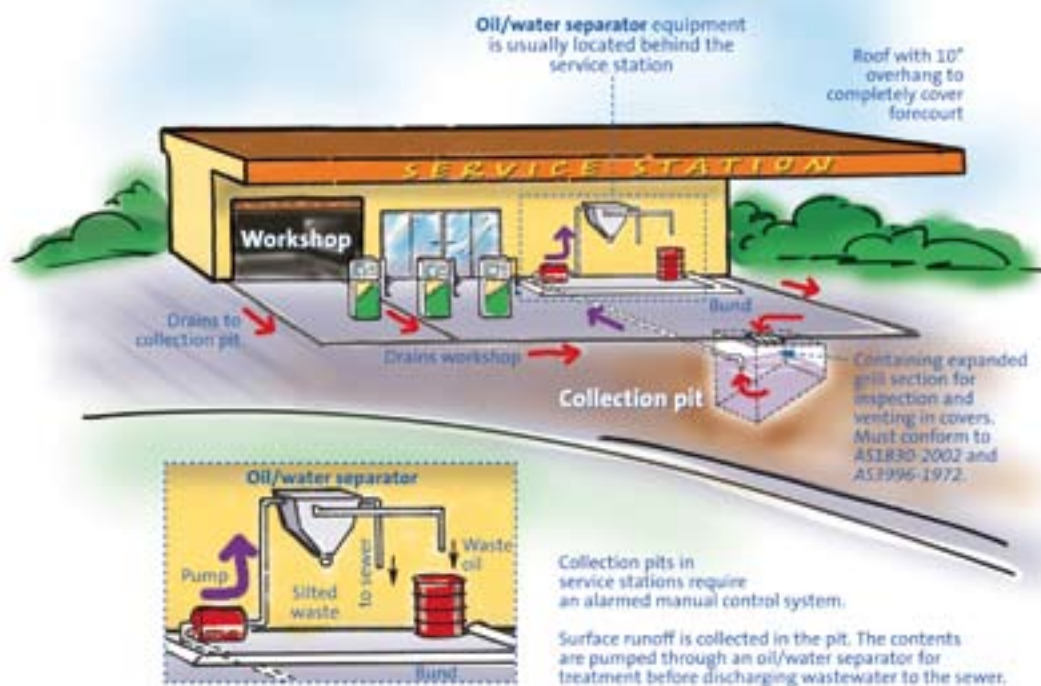
- Discharged to sewer under a trade waste agreement with Sydney Water, Hunter Water or your local water authority.

Or

- Discharged to storage tanks for collection by a licensed contractor.



A collection pit alarm can prevent contaminated water finding its way into the stormwater system.



Essential forecourt features – with permission from Sydney Water

Other operational and maintenance procedures to prevent stormwater pollution, include:

- Confining all cleaning and washing to a banded area. In some cases it may be acceptable to use portable bunding around a wash area.
- Avoiding hosing the forecourt, particularly when water restrictions are in place. If hosing is unavoidable (and permitted) direct all wastewater to the collection pit. Alternative cleaning options include:
 - Sweeping or vacuuming the area.
 - Using absorbent material to remove most of the grime and then solvent on rags to remove the rest.
- Keeping your premises clean. As well as helping to prevent run-off entering the stormwater system, your customers and staff will appreciate a clean and tidy forecourt and work area.
- Inspecting the fuel dispensing area to check that stormwater from run-off or roof leaks is not entering the banded area.
- Checking the bund around the fuel dispensing area to make sure it's in good condition and would contain a fuel spill in an emergency.

Note: This information sheet replaces *Surface Water Management on the Covered Forecourt Areas of Service Stations* issued by the EPA in 1992.

INFORMATION SHEET 3

Trade wastewater – Discharging to the sewer

Trade wastewater is any water contaminated as a result of your business activity. Wastewater from the forecourt mostly contains fuel but could also contain oil, dust, detergents and other contaminants. They must not enter the stormwater system. If trade wastewater is discharged to the sewer you must have a trade waste agreement with your local water authority.

Some hazardous liquids, such as neat fuel or neat oil must not be drained to a pit that is pumped to sewer through an oil water separator.

STAFF TRAINING

Dedicate time to training staff and allocate responsibility for preventing water pollution. This could include:

- Training and regularly updating staff on all aspects of a Spill Management Plan, including emergency spill response.
- Making sure all staff know where the stormwater drains on or near your site are located.
- Stressing to staff that 'the drain is just for rain' – make sure they know that chemicals, including fuel, oil, solvents or other substances must not be poured on the ground or into stormwater drains.
- Allocating responsibility for keeping stormwater drains free of debris to avoid contaminating waterways.

AIR POLLUTION – HARMFUL EMISSIONS

To reduce the likelihood of pollution from fuel vapour, operators should:

- Minimise vapour leaks. This reduces the likelihood of air pollution and reduces the possibility of fire and odours. Limiting vapour losses also reduces fuel loss.
- Make sure fuel pump nozzles cut off automatically when the back-pressure reaches a certain level, indicating the tank is full.
- Make sure underground tank seals are kept in good condition and caps are appropriately sealed. 'Information sheet 4: Fuel deliveries' contains more detail.

NOISE POLLUTION – OFFENSIVE NOISE

Forecourts can be noisy areas and every effort should be made to reduce all nuisance noise, especially during early mornings and late at night. This is particularly important if the station is close to a residential area. For example:

- Avoid loud telephone extension bells and background music that are clearly audible away from the forecourt.
- Bolt down drain grates to avoid noise caused by vehicles driving over them.
- If possible, avoid receiving fuel and other deliveries at night.

KEEPING COSTS DOWN

Energy efficient lighting can help you cut running costs. For example, you could use metal halide tubes in the forecourt area and workshop, and triphosphor tubes in the retail area. They should be fitted with reflectors and have no diffusers.



Make sure fuel pump nozzles cut off automatically when the tank is full.



Ensure contaminated water from the forecourt is disposed of legally.

WHAT THE LAW SAYS

Water pollution – contamination

Hosing wash water into the stormwater drain causes pollution and is illegal. The EPA or your local Council can issue on-the-spot penalty infringement notices (PINs) of up to \$1500.

Uncovered or unbunded bowzers could result in your business being issued with a Prevention Notice under section 96 of the POEO Act, specifying actions to be taken to ensure that

activities are carried out in an environmentally satisfactory manner. These actions could include preventing the use of the bowser, or ordering work to rectify the problem. It is an offence to fail to comply with a prevention notice.

For more information, refer to 'Information sheet 1: Environmental compliance'.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for:
 - Contaminated Sites: Guidelines for Assessing Service Station Sites*
 - Information on Bunding and Spill Management
- Service Station Association – phone (02) 9420 5599 or www.ssa.org.au
- Sydney Water – phone 13 20 92 or www.sydneywater.com.au for:
 - Trade Waste Motor Vehicle Industry – Service Station Forecourts fact sheet*
- Hunter Water Corporation – phone 1300 657 657 or www.hunterwater.com.au
- Your local Council

FUEL DELIVERIES

Vapour emissions from service stations contribute to air pollution and are a major environmental issue. They can be reduced considerably by recovering the petrol vapours emitted during fuel deliveries.

VAPOUR EMISSIONS

Vapour emissions are wasteful in terms of product loss and also add volatile organic compounds (VOCs) to the atmosphere, which contribute to the formation of photochemical smog. This is the haze that can be seen over cities on a warm summer's day. Petrol vapours are also a significant source of benzene, a known carcinogen for humans.

VAPOUR RECOVERY

The Protection of the Environment (Clean Air) Regulation 2002 requires the recovery of petrol vapours associated with the filling of petrol tankers at the terminal and when they unload at service stations in the Sydney metropolitan area.

Under the Regulation, road tankers with a capacity of 12 kL or more that are loaded with petrol at a terminal must have two hoses connected: one to take petrol into the tanker and another for collecting vapours displaced out of the tanker. These vapours are transferred to a recovery unit where they are converted back to petrol.

At the service station, vapours from underground tanks must be transferred to delivery tankers during filling using two hoses: one for petrol being pumped into the storage tanks and the other for vapours being returned from the storage tank to the tanker.

All service stations in the Sydney metropolitan area, except those with tanks with a volume of less than 8 kilolitres (kL) and those with an annual throughput of fuel less than 600 kL, are required to have connections to collect vapour. This includes all service stations in the local government areas of Ashfield, Auburn, Bankstown, Baulkham Hills, Blacktown, Botany Bay, Burwood, Camden, Campbelltown, Canterbury, Canada Bay, Fairfield, Holroyd, Hornsby, Hunters Hill, Hurstville, Kogarah, Ku-ring-gai, Lane Cove, Leichhardt, Liverpool, Manly, Marrickville, Mosman, North Sydney, Parramatta, Penrith, Pittwater, Randwick, Rockdale, Ryde, Strathfield, Sutherland, Sydney, Warringah, Waverley, Willoughby and Woollahra. Service Stations outside those areas are also encouraged to collect vapour, especially if they receive fuel from petrol tankers fitted with a vapour recovery unit.

What you should do:

- Ensure your bowser service contractor regularly checks the flanges, caps and seals. Also check that these components are not leaking or damaged, because apart from losing petrol vapour, water contamination can occur.
- Make sure station operators know the vapour recovery procedures for fuel deliveries and require them to check that tanker drivers always do this correctly.



Road tanker connected to two hoses, one for pouring petrol into storage tank, the other for capturing vapours that are returned to the tanker.

Make sure station operators know the vapour recovery procedures for fuel deliveries.

INFORMATION SHEET 4

VENT PIPES

Petrol vapours may be detected off-site during tank refuelling. If this occurs, make sure that vent pipes are not blocked. Consider extending the vent pipe or moving it if odour complaints are occurring.

According to *AS 1940–2004: Storage and Handling of Flammable and Combustible Liquids*, pressure vacuum valves are not recommended as they may cause underground tank leakage if not fitted and calibrated correctly.



Maintain vapour recovery apparel. Caps, flanges and sealed connections should be regularly maintained to avoid fuel leaks.

WATER POLLUTION

Fuel deliveries should be supervised and must be conducted within the forecourt containment area, or in an area with separate bunding. This measure will prevent spills entering stormwater drains.

Fuel delivery points should also be equipped with a collection trap that can collect any spilt fuel and divert it to a waste storage tank.

Refer to 'Information sheet 3: Forecourt design operation and maintenance' and 'Information sheet 5: Emergency fuel spills' for more detailed information.



Consider extending the vent pipe or moving it if odour complaints are occurring.



WHAT THE LAW SAYS

Fines may be imposed if vapour recovery procedures are not followed. The following information applies to service stations in the Sydney metropolitan area.

WHAT IS REQUIRED?	WHO IS RESPONSIBLE	MAXIMUM PENALTIES
Service stations required to have a vapour recovery system	Service station operators	\$44,000 (corporation) \$22,000 (individual)
Tankers must not be used unless a vapour recovery system has been fitted	Owners of tankers with a capacity of 12 kL or more	\$22,000 (corporation) \$4,400 (individual)
Drivers of tankers are required to make sure the vapour recovery system is properly connected	Persons in charge of tankers (e.g. drivers)	\$22,000 (corporation) \$4,400 (individual)

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au
- Service Station Association – phone (02) 9420 5599 or www.ssa.org.au
- Standards Australia – phone 131 242 or www.standards.org.au for:
AS 1940 – 2004: The storage and handling of flammable and combustible liquids
- Your fuel distributor

EMERGENCY FUEL SPILLS

Diesel and petrol spills pose one of the greatest hazards and environmental risks for service station operators.

Service stations operators should develop a spill management plan, which at a minimum includes:

SPILL PREVENTION

Adequate bunding is one of the most effective ways to reduce the impact of spills at service stations, including spills during deliveries. (Refer to 'Information sheet 3: Forecourt design, operation and maintenance').

Should a spill occur, service station operators are required to contain the spill and prevent substances from entering the stormwater system.

Most diesel and petrol spills in NSW occur at the bowser as a result of customer misuse. Minor spills around bowsers should be cleaned up quickly, particularly if they are not within a properly roofed and bunded fuel dispensing area.

In all situations, you need to make sure:

- A properly equipped and clearly marked spill kit is kept in a handy location.
- All staff are trained in emergency spill procedures and know where the spill kit is kept.

FUEL SPILL EMERGENCY RESPONSE

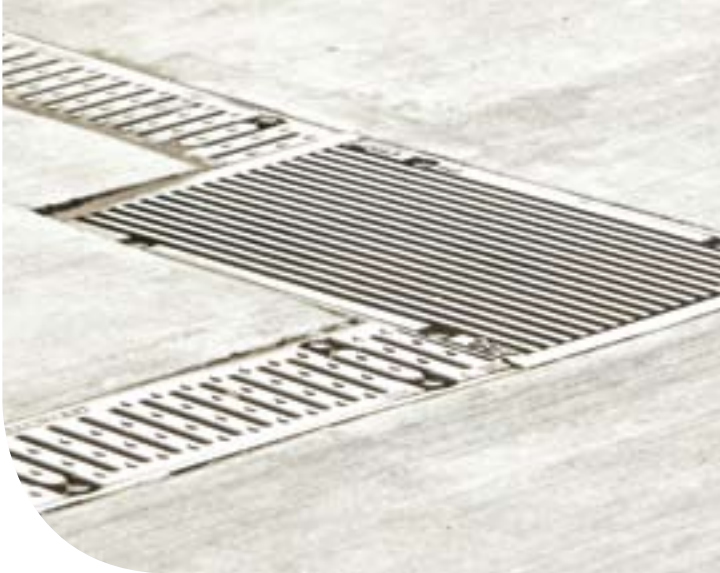
A spill management plan should be written to ensure effective response to spills. Ensure staff are familiar with the plan and it is regularly updated.

A clear sign outlining spill clean-up procedures and emergency contact numbers should be prominently displayed.

The general response to a fuel spill in service station is:

- 1 Switch off all pumps using the automatic pump cut-off. Switches should be located within easy reach of the console attendant and be clearly marked. Cut-offs at the fuse board are not acceptable.
- 2 Keep the public away from the spill area.
- 3 Contain the spill. Use booms or a sand/soil dam to prevent the spill from entering stormwater drains. Use the absorbents in the spill kit to soak up as much fuel as possible.
- 4 Call the Fire Brigade on 000 if a major spill occurs.
- 5 Notify the site manager, NSW DECC on 131 555 and/or your local Council.
- 6 Contact a waste contractor who is licensed to dispose of the absorbents used in the spill clean-up.

Adequate bunding is one of the most effective ways to reduce the impact of spills.



Left: Forecourts with grated drains ensure that surface runoff and spills are collected in a pit.

Right: Ensure all staff are trained in emergency spill procedures.

MANAGING COLLECTED SPILL WASTE

If absorbents used in the spill clean-up are soaked with fuel, they are likely to be flammable and are therefore classified as hazardous waste. This absorbent waste must be handled with due care, stored securely and not disposed of with general waste. It must be removed by a waste contractor licensed to transport hazardous waste and taken to a licensed waste facility.

For advice on storage, collection and disposal options, contact a waste contractor licensed to handle this type of hazardous waste.

In the case of a major spill, the Fire Brigade will be involved and they may suggest ways to dispose of the spilt material.

WHAT THE LAW SAYS

Under the POEO Act, it is an offence to cause any substance to leak, spill or otherwise escape in a manner that harms or is likely to harm the environment. You are required to take all practical steps to make sure that spills and leaks do not contaminate land or enter the stormwater system. As well, fuel and other spills should not be discharged untreated into the sewer.

For more information refer to 'Information sheet 1: Environmental compliance'.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au
- Service Station Association – phone (02) 9420 5599 or www.ssa.org.au
- Yellow Pages – www.yellowpages.com.au
Look under 'Oil and chemical spill recovery and dispersal'

INFORMATION SHEET 6

UNDERGROUND FUEL TANKS

Petrol and diesel leakage from underground tanks and pipes can contaminate soil and ground water, with a high risk that it will flow off-site.

Even very small leaks from underground tanks and supply lines can, over time, cause extensive contamination of soil and ground water. In many cases this contamination can cost hundreds of thousands of dollars to clean up.

These risks can be reduced by effective environmental management and maintenance of underground fuel storage systems.

TANK AND FUEL LINE INSTALLATION

It is important that tanks are installed in accordance with *Australian Standard AS 1940-2004: Storage and Handling of Flammable and Combustible Liquids* and *AS 4897-2008: The design, installation and operation of underground petroleum storage systems*.



Double walled tank installation with excavation lined with geo-fabric to prevent migration of native soil into the backfill material.



Typical remote fillbox incorporating spill containment to prevent accidental releases entering the environment.

The basic installation principles are:

- Tanks should not be placed directly in clay soils, as many clays accelerate corrosion. Instead, tanks should be placed in an inert material first, such as sand.
- Sacrificial cathodes should be attached as they can prolong the life of in-ground tanks.
- Tanks and fuel lines should have double skins and be installed with a leak-detection system.
- Sites with high ground water levels should be avoided. The depth of the ground water and soil types should be determined before the tank is installed. The deeper the ground water and the less porous the overlying strata, the lower the risk of contaminating the ground water.
- Tanks should not be buried within the water table (the saturated areas of soils).
- New tanks and lines should be placed in areas that allow free drainage of water so they will not be permanently inundated.



Ensure underground fuel tanks are checked regularly for fuel leaks and water infiltration.

OPERATING AND MONITORING TANKS

Regular monitoring to detect leaks in tanks and supply lines is a crucial risk management practice. There are various ways of monitoring for leaks:

- Stock inventory monitoring, and using tools such as statistical inventory reconciliations analysis (SIRA), identifies minor losses from fuel stocks which could indicate the presence of a leak. This is relatively inexpensive and is particularly useful for existing underground facilities that don't have other leak detection systems in place.
 - Automated tank gauging (ATG) systems which are electronic probes installed in a tank. The gauges need to be maintained in good working order.
 - Interstitial monitoring, which is recommended. Sensors are installed between the two layers of double-walled tanks or lines.
- AS 4897-2008 provides guidance on monitoring leaks, that includes:
- Check if water has entered underground tanks at least once a fortnight when the tank is dipped. Simply smear the dipstick with a paste that changes colour when it comes into contact with water. Where water is detected in a tank its source needs to be investigated.
 - Where a leak is suspected, the problem needs to be thoroughly investigated to identify and repair any leaks and determine if soil or ground water has been contaminated. An experienced consultant should install permanent piezometers (ground monitoring wells) in the forecourt area downslope of the underground tanks so the situation can be assessed.



DECOMMISSIONING AND ABANDONMENT UNUSED TANKS

The definition of decommissioning according to the POEO Underground Petroleum Storage Systems Regulation is to permanently abandon the system. However Australian Standards AS 4976-2008 refers to decommissioning as either temporarily taken out of service or decommissioning prior to abandonment and implies the terms (decommissioning and abandonment) can be used in different contexts.

Underground tanks no longer in use should be appropriately decommissioned to make sure that risks to health or contamination of soil or ground water are avoided.

If an underground tank has not been used to store flammable or combustible liquids for a continuous period of two years, the tank must be abandoned

as outlined in WorkCover NSW Code of Practice for the Storage and Handling of Dangerous Goods and AS 1940-2004.

Procedures for decommissioning and abandonment of underground tanks are described in the Australian Standard AS 4976-2008: The removal and disposal of underground petroleum storage tanks.

Managing wastes arising from the decommissioning of fuel tanks is regulated under the *Protection of the Environment Operations Act 1997* (POEO Act). This includes managing any liquids removed from the tanks, the tank materials, and the soil surrounding the tanks, which may be contaminated. All these wastes must be classified in accordance with the POEO Act and DEC's Environmental Guidelines: *Assessment, Classification and Management of Liquid and Non-liquid Wastes*. The classification will help inform your decisions for the appropriate transport and disposal of the waste.

Regular monitoring to detect leaks in tanks and supply lines is a crucial risk management practice.

WHAT THE LAW SAYS

The POEO Act requires that you report to the appropriate regulatory authority (either the local Council or the EPA) pollution incidents which cause or threaten 'material harm to the environment' that occur as a result of your activity, as soon as practicable after you become aware of the incident. For more information refer to 'Information sheet 1: Environmental compliance'.

Owners and service stations operators who become aware that their activities have contaminated land so that it presents a significant risk of harm to the environment must inform the EPA as soon as practicable after they become aware of the contamination.

Owners of the land must also inform the EPA whether or not their activities caused the contamination, or whether the contamination occurred before or during their ownership of the land. The DECC's *Guidelines on the Significant Risk of Harm from Contaminated Land and the Duty to Report* has more information about the duty to notify contamination.

If you're uncertain about whether you need to notify the EPA about a leak that has caused contamination, it's wise to provide all available information about the leak and contamination.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for:
 - Contaminated Sites: Guidelines for Assessing Service Station Sites*
 - Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes*
 - Guidelines on the Significant Risk of Harm from Contaminated Land and the Duty to Report*
 New developments in NSW contaminated land management regulations
- WorkCover NSW – phone 131 050 or www.workcover.nsw.gov.au for:
 - Information on legal requirements and practical guidelines for disused tanks
 - Code of Practice for the Storage and Handling of Dangerous Goods*
 - Dangerous Goods Fact Sheet 3.1*
 - Abandoning Disused Underground Tanks*

- Fuel distributors, for information on statistical inventory reconciliation analysis and automated tank gauging systems
- Standards Australia – phone 131 242 or www.standards.org.au for:
 - AS 1940–2004: The storage and handling of flammable and combustible liquids*
- New South Wales Consolidated Regulations – text of all NSW Regulations on line – www.legislation.nsw.gov.au
- Service Station Association – phone (02) 9420 5599 or www.ssa.org.au

INFORMATION SHEET 7

WORKSHOP – CONTAINING, HANDLING AND DISPOSING OF OIL AND CHEMICALS

Oil, brake fluids, radiator coolants, glycol detergents, cleaning agents and degreasers, paints, thinners and chemical solvents are widely used in automotive workshops.

These chemicals can damage the environment if stored, used or disposed of in an improper manner.

When dealing with hazardous materials, all repairs and servicing work should be done inside your workshop.



Store your chemicals in a bunded and covered area or in a dangerous goods cabinet to prevent leaks contaminating the ground or stormwater.

MANAGING OILS AND CHEMICALS

To help ensure the effective management of oils and chemicals it is recommended that you adopt the following principles:

- Store all chemicals in a bunded area, including waste chemicals. Some hazardous chemicals have to be stored in WorkCover approved chemical cabinets. Check the requirements with WorkCover.
- Wipe up any spills immediately and place trays under leaking parts. If you wash the floor, pump the washwater to the sewer via an oil water separator. If you use absorbents, they must be disposed of to a licensed waste facility.
- Create and implement a spill management plan to prevent and respond to accidental spills.
- Train staff in how to handle chemicals and deal with a spill.
- Refer to the Material Safety Data Sheets (MSDS) for advice on storing, using and disposing of hazardous materials.

Store all chemicals, including waste chemicals, in a properly maintained bund.



Workshop with drive-over bund.

BUNDING AND PREVENTING SPILLS

Bunds prevent stormwater pollution and can be made of any non-porous material such as concrete or flexible rubber. Bunded chemical storage units can be purchased for smaller chemical storage needs.

The following practices are recommended:

- Store all oils and potentially hazardous liquids, including batteries, on plastic pallets or trays and in a bunded and covered area isolated from stormwater run-off. The bunded area should be large enough to hold the contents of the largest container stored inside the bund, plus 10% of its volume.
- The main type of bunding for bulk liquids is a solid concrete or brick wall, with non-porous surfaces. Any liquids collected in the bunded area should be pumped or drained out as quickly as possible. The liquid should be treated in an oil/water separator or collected by a licensed waste contractor. If you drain the bund, don't forget to reset the drain trap.
- If the workshop walls and floor are well sealed, it can be bunded with a small concrete speed hump (or flexible rubber hump) across all doorways. Check the bund regularly to ensure it is attached to the floor and is not damaged. Ensure the bund is well marked so that it doesn't become a trip hazard. Oils and chemicals can be stored inside a workshop that is fully bunded, provided they are stored in accordance with the dangerous goods legislation.
- Grated floor drains cut into the slab floor are another type of bund. The drains are fitted with a grate to prevent solid materials blocking them. The wastewater is drained to the lowest point of the workshop to a sump where it is pre-treated prior to disposal.

Outdoor bunded areas must be roofed to prevent rain entering them and washing pollutants out or rusting metal drums. Check with WorkCover NSW regarding safety considerations before installing a roof over bunded chemicals.

Additional information on bunding and spill management is also available from the DECC web site – www.environment.nsw.gov.au

INFORMATION SHEET 7



GENERAL HANDLING AND STORAGE

The following practices for handling and storing fuel and chemicals are recommended:

- When draining fluids from vehicles, work only in a bunded and covered area.
- Drain all waste liquids, such as motor oil, coolants, brake fluids and fuels into separate trays and transfer them into clearly marked drums.
- Store the waste liquids securely in suitable containers while it awaits collection for disposal.
- Do not mix different waste types, such as coolant and oil. Mixed wastes are more difficult to handle and are usually more costly to treat. Mixing liquid wastes can also result in OH&S risks.
- Store non-compatible chemicals and materials well away from each other.
- Make sure all drums and containers are properly sealed and don't show any sign of corrosion.

MATERIAL SAFETY DATA SHEETS

A Material Safety Data Sheet (MSDS) is an information sheet about the safe use, storage and disposal of a hazardous material. It contains information that can save lives in an emergency. An MSDS should be kept on site for every hazardous substance stored, handled or used. Ask the suppliers of substances for copies of the MSDS.

DANGEROUS GOODS

Certain substances are classified as 'dangerous goods', and their use, storage and transport is controlled by legislation. These substances include petrol, solvents, liquefied petroleum gas and ammonia. Check with WorkCover NSW to find out if you need to notify them of the dangerous goods you store in your premises.

For storing and handling flammable liquids, see *AS 1940-2004: Storage and Handling of Flammable and Combustible Liquids*.

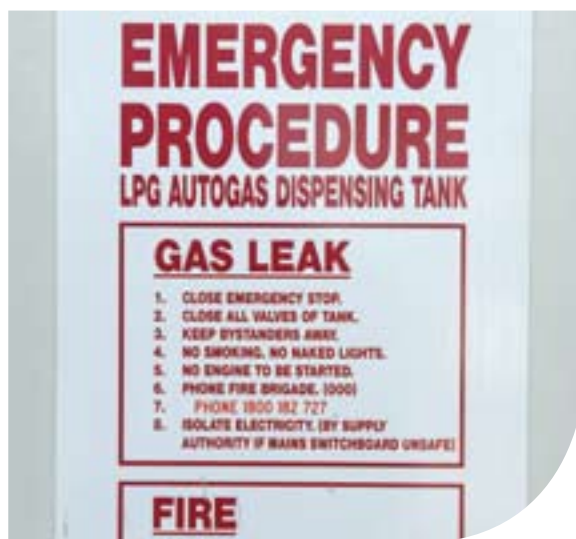
EMERGENCY SPILL PROCEDURES

A clear sign outlining spill clean-up procedures and emergency contact numbers should be prominently displayed in the workshop.

The general response to an emergency spill is:

- 1 Eliminate the source of the spill immediately – if it is safe to do so.
- 2 Contain the spill. Use the materials in the spill kit to contain the spill and control its flow. If necessary, stop the spill from entering any stormwater drains by blocking the drain inlets.
- 3 After referring to the relevant MSDS, clean up the spill promptly. It is important to clean up all spills quickly, even small ones, as they can easily flow into stormwater drains or be washed there by rain.
- 4 For a major spill, call the Fire Brigade on 000.
- 5 Contact a waste contractor who is licensed to dispose of the absorbents used in the spill clean-up. Refer to 'Information sheet 5: Emergency Fuel Spills' and 'Information sheet 9: Workshop – waste, noise and dust'.

Certain substances are classified as 'dangerous goods', and their use, storage and transport is controlled by legislation.



INFORMATION SHEET 7



Bulk liquids used in the workshop should be kept in a bund.



A solvent recovery unit may cut your disposal costs.

RECYCLING AND DISPOSAL

The common types of liquid wastes generated around service station workshops are:

- Waste oils, coolant and solvents (e.g. thinners)
- Paints
- Acids and alkalis
- Oil/water separator waste liquid.

Liquid wastes that are flammable are classified as 'hazardous wastes'.

The options for managing and disposing of liquid wastes depend on the type of liquid, but the following points should be considered:

- Only some types of liquid wastes may be discharged to the sewer. A trade waste permit must be obtained from your water authority, such as Sydney Water, Hunter Water or the local Council, before disposing any trade waste to the sewer.
- When organising for the disposal of hazardous liquid waste, service station operators are responsible for classifying it and ensuring that:
 - The transporter is appropriately licensed.
 - The waste is being sent to a facility that can lawfully take it.
 - All collection receipts are kept.

- Do not mix different liquid wastes. Different liquids are treated differently in recycling and disposal, so mixing these together can complicate waste disposal and make the management more expensive.

See 'Information sheet 9: Workshop – waste, noise and dust' for more information about waste management.

UNDERGROUND WASTE OIL TANKS

Underground waste oil tanks often have a greater risk of leaking into the soil than petrol tanks. Many of these tanks are old and have been used to store a variety of products, such as coolants and water, which can cause corrosion. To avoid leaks:

- Regular checks should be completed and all underground oil storage tanks should be tested at least once a year for leakage or rusting.
- Underground tanks which have not been used for six months or more should be decommissioned. Refer to 'Information sheet 6: Underground fuel tanks'.

KEEPING COSTS DOWN

The following ideas may help reduce your workshop running costs:

- Recycle your waste oil and solvents. You may not get paid for it, but you will save on the cost of disposal. Don't mix waste oil, solvents, etc. together or it will be impossible to recycle them. If you use large amounts of solvents, a solvent recovery unit will enable you to recycle them on-site.
- To cut your waste bill check with your suppliers to see if empty containers can be returned.
- Organise the chemical storage area so older chemicals are used first and do not become out of date.

WHAT THE LAW SAYS

Environmental laws require that you do not pollute waters or the land. In practice this means that service stations operators should:

- Store oils and hazardous chemicals in an environmentally safe manner.
- Ensure leaks or spills of chemicals are contained and cannot enter stormwater drains or soak into the soil.
- Report spills to the EPA or local Council.
- Ensure liquid waste is sent to a facility that can lawfully take it.
- Ensure dust and other debris do not enter stormwater drains.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for:

Bunding and Spill Management

Liquid Waste Facts Sheets – information on the handling, storage and disposal of liquid waste

Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes

NSW Waste Tracking Requirements – An Update

Hazardous materials (Hazmat) on-line register of suppliers who can provide resources, equipment, products and advice to minimise the environmental effects of hazardous materials incidents

- Standards Australia – phone 131 242 or www.standards.org.au for:

AS 1940–2004: The storage and handling of flammable and combustible liquids

- Sydney Water – phone 13 20 92 or www.sydneywater.com.au for: *Managing Trade Wastewater in the Motor Vehicle Industry guideline*

Trade Waste Motor in the Vehicle Industry – Mechanical Workshops fact sheet

- Hunter Water Corporation – phone 1300 657 657 or www.hunterwater.com.au
- Your local Council
- WorkCover NSW – phone 13 10 50 – www.workcover.nsw.gov.au for advice on labelling and storing dangerous goods
- Yellow Pages – www.yellowpages.com.au Look under 'Oil and chemical spill recovery and dispersal' to order a spill kit; 'Oil merchants and/or refiners' for oil, solvents and contaminated water recyclers and collectors
- NSW Waste Contractors and Recyclers Association – phone (02) 9604 7206 or www.wcra.com.au

WORKSHOP – WASHING AND DEGREASING

Washing and degreasing vehicle parts, engines and floors produces liquid waste that cannot be washed into the stormwater system.

Waste liquids from wash areas need to be contained, treated and discharged to the sewer. Service stations must have a trade waste permit from their water authority to discharge wastewater to the sewer.

Wash areas must be connected either to the sewer through an oil water separator (or other approved trade waste system) or to an underground storage tank that is emptied by a licensed contractor. The wastewater must not drain to the stormwater system. The wash area should be cleaned regularly to prevent the build-up of oil.

WASH AREAS

To prevent water escaping from wash areas:

- Seal the floor of the wash area with concrete and enclose it on three sides to prevent splashing.
- Place a speed hump or flexi bund at the entrance.
- Build a roof over the wash area to prevent rain entering it.

Under no circumstance should washing take place outside the designated wet area of the workshop or and appropriately bunded and enclosed wash area.



Wash area must be bunded and roofed.



Ultrasonic cleaners don't use solvents.

DEGREASING ENGINES AND PARTS

Engines may be degreased in the workshop provided it contains a wash area that is banded and enclosed and approved by your local water authority. Engines and parts must not be degreased outside the workshop area or where any run-off can enter the soil or stormwater system. Biodegradable products are permitted in the sewer but not in the stormwater system.

Consider alternatives to solvent-based degreasers:

- Aqueous washer units use biodegradable soap to clean metal components. They are less labour-intensive and cost less to operate than solvent-based systems.
- Ultrasonic cleaners apply electrical current to clean metal components in a tank that contains a water-based solution. These machines clean the components inside as well as outside and the cleaning solution can be reused.

Ask your supplier about the advantages and disadvantages of aqueous and solvent-based systems.

Waste liquids from wash areas need to be contained, treated and discharged to the sewer, or pumped out by a licensed contractor.

INFORMATION SHEET 8

DEGREASING HANDS

Degrease hands over a sink that is connected to the sewer. Do not degrease hands where the water can run into the gutter or a stormwater drain. Where there is no sewer, pour the wastewater into a drum and store it in a covered, bunded area until collection by a licensed waste contractor.

STORING CONTAMINATED PARTS

Contaminated parts such as engines, should be stored inside the workshop or in a covered, and bunded area. Use spill or drip trays to prevent residual oil from leaking onto the ground or into the stormwater system.

DRY PROCESS

A 'dry process' means that the work area is not connected to the sewer or stormwater system and the workshop operates without a floor drain or wash area. This method can save the cost of obtaining a trade waste permit.

With a dry process, all repair work on vehicles is carried out in a bunded and covered area. Trays are used to collect drips from cars, parts are washed in a parts wash recycler and sealed floors are mopped or swept but not washed with a hose. For further information see Sydney Water's *Managing Trade Wastewater in the Motor Vehicle Industry – Mechanical Workshops fact sheet*.

Use spill or drip trays to prevent residual oil from leaking onto the ground or into the stormwater system.



Another form of bunding is a spill tray, which is an effective solution for small containers and parts. Spill trays are available from industrial and safety products suppliers.

CAR WASH FACILITIES

Car wash facilities can be fitted with a water recycling system that recycles water from the car wash operations to a very high standard, and also collects stormwater. The water treatment system must be approved by your water authority. Your equipment supplier can advise you on the most efficient solution.

WHAT THE LAW SAYS

Polluting waters is an offence. Service station owners and managers must make sure that wash areas are designed and operated in a way that prevents water pollution. Refer to 'Information sheet 1: Environmental compliance'.



Aqueous washer units cost less to operate than solvent-based systems.

FURTHER INFORMATION

- Sydney Water – phone 13 20 92 or www.sydneywater.com.au for:
 - Managing Trade Wastewater in the Motor Vehicle Industry*
 - Mechanical Workshops fact sheet*
- Hunter Water Corporation – phone 1300 657 657 or www.hunterwater.com.au
- Local Council
- Yellow Pages – www.yellowpages.com.au
 - Look under 'Water treatment and equipment', 'Sewage and wastewater treatment', 'Effluent treatment equipment and/or services' and 'Environmental and/or pollution consultants'
- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for information on car wash bays and detergents

WORKSHOP – WASTE, NOISE AND DUST

Good housekeeping can help minimise the impact of your operations on the environment.

Managing waste efficiently and ensuring that neighbours are not disturbed by dust and noise will all help you take advantage of the business benefits that result from improved environmental practice.

MANAGING WASTES

The best way to manage waste is to minimise the quantities of waste generated in the first place. To manage and minimise your waste:

- Store waste under cover to prevent rain running through the waste and contaminating stormwater. Also make sure that wind can't blow unsecured waste around, causing litter or potential stormwater contamination.
- Purchase only the quantities of supplies and products that you know you will use.
- Avoid excess packaging by purchasing products that are supplied in bulk.
- Conduct a waste assessment and document your waste types. This will help with waste separation and may identify opportunities for reuse or recycling.

OLD DRUMS AND CAR PARTS

Use drip trays and store empty drums, engines, gearboxes and differentials in a bunded and covered area – there is always a risk they will leak residual oil. Have them removed from the premises as soon as possible. Almost all car parts can be recycled for their aluminium, copper, iron, steel and other metal content.

If your suppliers take back drums for reuse, seal the waste drums and store them upright in a bunded and covered area while awaiting collection.

Only clean and dry drums (that no longer contain product residues) are regarded as suitable for disposal to landfill.

CARDBOARD, PAPER AND RAGS

Cardboard and paper should be separated from the general waste and recycled where possible.

In the Sydney metropolitan region, Newcastle and Wollongong and in most regional Council areas, it is against the law to burn waste. This applies to oily or greasy rags, oil-soaked paper and sawdust, plastics and rubber. The burning of tyres, treated timber, coated wire, paint and solvent containers and residues is prohibited throughout NSW. Check local burning restrictions with your local Council.

Rags can be washed for reuse or placed in the bin for disposal if they contain no free liquids.

STORING AND RECYCLING BATTERIES

Lead acid batteries are classified as hazardous waste because they contain corrosive acid and lead compounds that are toxic to human health.

Store old batteries on a spill tray under cover or in a bunded area to ensure acid or lead corrosion cannot be washed into the stormwater system or contaminate the soil.

Lead acid batteries must not be placed in a bin or skip for disposal to landfill. Batteries can be recycled in some areas. Your waste contractor or local Council can provide advice on the lead acid battery collection network in your area.

TYRES

Although used tyres are classified as inert, they are a problem waste.

Many landfills in the Sydney, Newcastle and Wollongong areas are no longer allowed to take whole tyres. Where landfilling of tyres is permitted, businesses must ensure that waste tyres are shredded or have their walls removed before they are sent to landfill. Ask your waste contractor about this requirement. Check with your tyre suppliers or waste contractors about tyre recycling options in your area.

Stockpiles of old tyres are a fire hazard. Because of their chemical make-up, burning tyres are extremely difficult to extinguish and cause severe air pollution. Tyre stockpiles can also attract snakes and vermin.

An Environment Protection Licence is required when more than 50 tonnes of used tyres are stored or more than 2 tonnes are transported at any one time.

Councils may require tyres to be stored in a manner that is designed to reduce risk of fire. The NSW Fire Brigades has guidelines on the best ways to stockpile old tyres.

CLUTCHES, BRAKES AND GASKETS

Clutch, brake and gasket parts may contain asbestos, although since 1 January 2004 its use in these auto parts has been banned. Automotive parts that you know contain asbestos should be disposed of with due care: dampen them with water and wrap or place them in a bag to prevent dispersion of dust, then place them in a separate



bin or skip for disposal to an appropriately licensed landfill.

Clutch, brakes and gaskets that do not contain asbestos can be disposed of to landfill, although some parts may be a suitable for recycling.

OIL FILTERS

Used oil filters, even after draining, may contain oil trapped inside the filter. Used filters are considered to be liquid waste and cannot be placed in a bin or skip for disposal. Filters need to be managed by a specialist contractor who can arrange crushing, recovery of oil and recycling or disposal.

Best practice management of oil filter wastes involves the use of a mechanical crusher to remove and recover most of the oil they contain. The free oil removed from the filter must be contained, managed and stored separately from the filters. Drained and mechanically crushed oil filters (not containing free liquids) are then classified as solid waste. Some metal recyclers may accept the crushed filters for scrap metal, or they can be placed in a bin or skip for disposal to landfill.

INFORMATION SHEET 9

REFRIGERANT GASES – DO YOU NEED A LICENCE?

Service stations and workshops that install, service or decommission vehicle air-conditioners that use ozone depleting or synthetic greenhouse gas refrigerants must hold a national Refrigerant Trading Authorisation. They must conform to requirements and standards detailed in the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995. Technicians must hold a national Refrigerant Handling Licence. The national licensing system came in to effect on 1 July 2005. You can apply through the Australian Refrigeration Council (ARC) at www.arctick.org or by phoning 1300 884 483. Further information on the national system is available from the Australian government at www.environment.gov.au or from your industry association.

DUST

Dust from your premises may contain heavy metals or other toxic substances that could cause health problems for staff, customers and neighbours. Reduce windblown dust from your premises by:

- Conducting all work inside the workshop.
- Avoiding the use of compressed air for cleaning brakes as this creates a fine dust. Asbestos is still present in some old brake pads, creating a potential health risk for staff and neighbours. A less harmful method of cleaning brakes should be used, such as vacuuming them or wiping them down with a damp cloth.
- Placing floor sweeping dust in a bag before putting it into the general waste bin. This stops the dust becoming airborne when the bin is emptied.
- Using a wet and dry vacuum cleaner to reduce dust movement, improve cleaning efficiency and reduce water use.



Gas used in vehicle air conditioners can be recycled.

NOISE

To reduce noise from the workshops and other areas:

- Conduct all work inside the workshop.
- Arrange deliveries outside noise-sensitive times where possible.
- Relocate noisy equipment away from neighbours and shield it behind buildings. Place equipment on rubber mats where possible and enclose it within a dense material such as bricks.
- Reduce machinery noise by keeping it regularly maintained.
- Bolt down drain grates to reduce noise from the movement of vehicles.
- When purchasing new equipment, check the manufacturer's noise level specifications and choose quieter equipment.
- Fit silencers on compressors.
- Make contact with your neighbours – build a working relationship so that any concerns about your operations that may arise in the future can be readily addressed.

WHAT THE LAW SAYS

Under the POEO Act heavy penalties apply for unlawful disposal of waste. Both the person who dumps the waste and the person who owned the waste are liable – so it's important that you make sure your waste is managed, transported and disposed of appropriately.

It is usual for service stations to engage a contractor to collect and transport waste. Nevertheless, service station operators must also be aware that they have legal responsibilities in managing their waste:

- Contractors used to transport waste, such as tyres or hazardous waste, must hold the correct EPA licence(s) and this should be verified.
- Service stations operators should make sure that waste is taken to a licensed processing or disposal facility.

- The movement of most hazardous waste must be tracked during its transport to a facility for treatment, recycling or disposal. Documents and records associated with the transport and disposal of these wastes must be kept by service station operators for at least three years. Wastes may be tracked online – for more information contact the DECC Environment Line, phone 131 555.

Noise

The EPA or your local Council can issue a noise control notice to prohibit an activity, or the use of equipment, from emitting noise above a specified noise level. Refer to 'Information sheet 1 – Environmental compliance'.

FURTHER INFORMATION

- Your local Council
- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for: *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes*
NSW Waste Tracking Requirements
Noise Guide for Local Government
Information for industry
- Department of the Environment, Water, Heritage and the Arts

- Institute of Automotive Mechanical Engineers – phone (02) 9648 1412 or www.iame.com.au for: Motor Vehicle Repair Industry Authority's *Code of Practice for the Control of Fluorocarbon Emissions in Motor Vehicle Air Conditioners in NSW*
- NSW Fire Brigades – phone (02) 9265 2999 or www.nswfb.nsw.gov.au
- Yellow Pages – www.yellowpages.com.au
Look under 'Waste reduction and disposal services', 'Oil merchants and/or refiners' (for oil, solvents and contaminated water recyclers and collectors), 'Noise control equipment' and 'Acoustical consultants'
- NSW Waste Contractors and Recyclers Association – phone (02) 9604 7206 or www.wcra.com.au

AROUND THE SHOPFRONT

Service stations with food outlets, grocery sections and bakeries can generate large amounts of waste. They are also high electricity users with lights, cash registers, fridges, freezers, air-conditioning and hot water systems.

RECYCLE CARDBOARD, PAPER, GLASS AND PLASTICS

When service stations have large convenience stores, waste cardboard, paper, glass and plastics can make up as much as half of the total waste. You can save money on waste disposal by recycling cardboard and other packaging and by providing recycling bins for customers. The bins should prevent waste from being windblown.

To enquire about a recycling service, check with your local Council or look in the Yellow Pages under paper and cardboard recycling companies.

Reduce your waste disposal costs further by buying products from suppliers that provide a collection, reuse or refill service for containers.

ENERGY EFFICIENCY

Service stations and convenience stores are large consumers of electricity. In the shop, lights, cash registers, fridges, freezers, air-conditioning, hot water systems all contribute to energy use.

To minimise lighting costs, maintain and clean lamps, fittings and windows. If a fault is detected it should be rectified straight away. To reduce the energy costs further, consider installing triphosphor tubes with reflectors and no diffusers.

Motion detectors can be cost savers in infrequently used areas such as store-rooms and toilets . Skylights will reduce lighting need during the day and also provide some ventilation which will reduce air-conditioning costs.





Regular maintenance and cleaning of air-conditioning units will reduce cooling costs. As well, the installation of external solar shades on windows reduces the amount of heat entering the shop during the day, reducing cooling needs. They can be retracted at night to allow a clear view of the forecourt.

If a supplier wants to install a new fridge in the convenience store, ask for an energy efficient model and make sure that the supplier will service the unit regularly.

KEEPING COSTS DOWN

There are many ways to reduce your store operating costs:

- Switch off lighting and equipment when it's not required.
- Use high-efficiency lighting.
- Increase the thermostat setting on your air conditioner by 1 to 2°C in warm weather, and decrease it slightly in cool weather.
- Make sure chill cabinets are well sealed and are serviced regularly to avoid energy loss.
- Use solar shades.
- Install a water tank to recover rainwater for toilets and cleaning the outdoor area.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au
Cleaner production case studies
- Yellow Pages – www.yellowpages.com.au
Look under 'Recycling services'
- Local Councils, for a list of local recyclers
- Department of Energy, Utilities and Sustainability – www.deus.nsw.gov.au
for water and energy saving ideas
- Sydney Water – phone 13 20 92 or www.sydneywater.com.au
for the 'Every Drop Counts' program – a water saving program for business

BRINGING IT ALL TOGETHER – PLANNING

This information sheet is about the use of good planning to minimise risk and help achieve best practice.

There are many steps along the path to best practice. Here are some suggestions:

- Make a commitment to yourself and your staff to consider the environmental impact of your business in your day-to-day decision-making. This can apply to simple things such as the selection of lights, cleaning chemicals and office paper.
- Commit yourself to increasing your environmental awareness. Reading this guide and providing staff with time to read it can help in this process.
- Create an environment team or committee to identify environmental issues and propose solutions, or identify someone as a 'champion' who can foster the adoption of environmental practices.
- Make contact with your local Council and industry association to tell them what you are doing. They may have some advice or may know of programs that could help you.
- Make contact with your neighbours. Build a working relationship so that any concerns about your operations that might arise in the future can be readily addressed.
- Taking active steps to prevent pollution occurring means it is less likely that you will commit an environmental offence and may reduce your culpability if an offence does occur. If an environmental incident occurs on your site, providing documentation that shows that you have been acting responsibly and actively trying to avoid such incidents could reduce your culpability.
- Customers may have a preference for businesses that are able to demonstrate their environmental credentials.
- Planning and reviewing allows you to be systematic in improving your environmental performance and documenting your cost savings.

DOCUMENTING YOUR PROGRESS

There are several advantages to planning and documenting measures to improve the environmental performance of your business.

- Directors and managers may have a defence in the event of an environmental pollution offence committed by their company, if they can demonstrate 'due diligence' to prevent the offence.

Types of documents you can keep

If you are already considering potential and actual environmental issues on your site, regularly checking and maintaining your equipment and premises to minimise pollution, and planning improvements, then why not document it?

Helpful documents include:

- An environmental policy.
- An environmental action plan.
- Records of staff training, staff inductions, waste disposal receipts and maintenance and inspection schedules.

An environmental policy could be as simple as a one paragraph or a one page statement that articulates your commitment to complying with environmental laws and implementing best practice wherever possible.

An environmental action plan sets out environmental risks and opportunities, and what is being done to address them. It doesn't have to be a large document and could be part of your OH&S documentation. The important thing is that somewhere you have a document that:

- Contains **actions** for environmental improvement (both ongoing and planned).
- Indicates **who** is responsible for carrying out each action.
- Indicates **when** (by what date or how often) these actions will be carried out.
- Contains quantified **reduction targets** (in volume, weight or costs) for resource efficiency savings and other environmental impacts.

It is a good idea to review and change your environmental action plan regularly. A sample action plan is included in the 'Useful tools' section of this guide.

Examples of daily and weekly checklists are also included in the 'Useful tools' section. You can adapt these to suit your business and incorporate OH&S issues as well.

DEVELOPING OR REDEVELOPING A NEW SITE

If you are relocating or starting up a service station at a new site, you have a good opportunity to factor better environmental management into the design of your new workplace.

Ask your architect for ideas on reducing the environmental impact of your facilities and reducing costs. This might include:

- Energy efficiency ideas such wall and ceiling insulation, efficient heating, cooling, hot water, lighting and appliances to reduce energy consumption.
- Installing automated tank gauging systems and interstitial monitoring sensors to monitor underground fuel tanks and detect leaks quickly.
- Using recycled timber and recycled content products.
- Selecting less toxic paints – they 'off gas' lower amounts of harmful VOCs.

The local Council will also have requirements and conditions that will need to be satisfied as part of the development application process.

FURTHER INFORMATION

- DECC Environment Line – phone 131 555 or www.environment.nsw.gov.au for:
Cleaner production case studies
*Profits from Cleaner Production:
A Self-help Tool for Small
to Medium-sized Businesses*

- Your local Council
- Yellow Pages – www.yellowpages.com.au Look for 'Environmental and/or Pollution Control Consultants'
- Queensland EPA has a free 'ecoBiz' tool that can help in identifying cost savings – www.epa.qld.gov.au

SELF-ASSESSMENT CHECKLIST

This checklist can help you evaluate your environmental performance and identify areas for improvement.

You can use this as a starting point and refine it, where needed, to best suit your business. It's strongly recommended that you complete some form of environmental self-assessment for your business on a regular basis.

This checklist is comprehensive and may take over an hour to complete.

Date of assessment:

Company name:

Property address:

Person conducting assessment:

Area/building being assessed:

What types of activities are carried out in this area/building?

Is a site plan available?

Yes

No

N/A

Don't know

Actions needed:

If yes, please attach a copy of the site plan.

The following questions are designed to help you determine whether your business could be harming the environment, breaking the law or be vulnerable to prosecution and fines under environmental legislation.

Once you have completed this checklist, take a look at the questions that you consider require further investigation or action. Use these questions to develop an environmental action plan. A sample 'Environmental action plan' is included in the 'Useful tools' section of this guide.

REGULATORY ISSUES

Are you aware of the environmental laws and regulations relating to your operations?

Yes No N/A Don't know

Actions needed:

Do you comply with the conditions of consent provided in your development approval?

Yes No N/A Don't know

Actions needed:

Do you hold an Environment Protection Licence?

Yes No N/A Don't know

Actions needed:

If so, do you comply with the environmental obligations specified in your Environment Protection Licence?

Yes No N/A Don't know

Actions needed:

ENVIRONMENTAL MANAGEMENT

Are daily or weekly checks carried out to make sure correct procedures are being followed to protect the environment? (Refer to the sample daily and weekly checklists in the 'Useful tools' section of this guide.)

Yes No N/A Don't know

Actions needed:

Do you have an environmental policy?

Yes No N/A Don't know

Actions needed:

Do you have an environmental action plan?

Yes No N/A Don't know

Actions needed:

If so, does the environmental action plan have objectives, targets, responsibilities and budgets (where applicable)?

Yes No N/A Don't know

Actions needed:

Do you have an emergency response plan (including a spill management plan and emergency response plan)?

Yes No N/A Don't know

Actions needed:

Have all staff been trained in environmental responsibility – such as operating and maintenance procedures for the collection pit and alarm, avoiding and responding to spills, minimising VOCs emissions, keeping stormwater drains free of debris, etc.?

Yes No N/A Don't know

Actions needed:

Do you have a procedure in place to deal with complaints from the public, regulatory authorities or staff regarding environmental issues?

Yes No N/A Don't know

Actions needed:

Do you have formal reporting requirements in place for recording accidents and spills that harm or may harm the environment (i.e. an incident reporting form)?

Yes No N/A Don't know

Actions needed:

Are your staff aware of your commitment to improving the environment?

Yes No N/A Don't know

Actions needed:

Are your customers aware of your commitment to improving the environment?

Yes No N/A Don't know

Actions needed:

STORMWATER MANAGEMENT

Do you know where the stormwater drains are located on and surrounding your premises?

Yes No N/A Don't know

Actions needed:

Are the stormwater drains around your business always kept free of pollutants, such as litter, dust and oil?

Yes No N/A Don't know

Actions needed:

Is your forecourt fuel dispensing area sealed (no exposed soil), covered by a roof with an overhang, and bunded with a collection pit for surface run-off?

Yes No N/A Don't know

Actions needed:

Are stormwater drains protected from accidental spills?

Yes No N/A Don't know

Actions needed:

Do you sweep, vacuum or use absorbent materials to clean small fuel spills and surface areas around your premises, instead of a hose?

Yes No N/A Don't know

Actions needed:

Do you have a spill kit?

Yes No N/A Don't know

Actions needed:

Are spill kits regularly checked and refilled?

Yes No N/A Don't know

Actions needed:

Do all staff know how to prevent, contain and clean up spills?

Yes No N/A Don't know

Actions needed:

Do you have a procedure for dealing with fuel spills?

Yes No N/A Don't know

Actions needed:

Are all repairs and servicing work undertaken inside your workshop? Yes No N/A Don't know

Actions needed: _____

Is your workshop bunded with a small concrete or flexible rubber hump? Yes No N/A Don't know

Actions needed: _____

Are all vehicle parts stored in a contained area to prevent contamination of stormwater drains? Yes No N/A Don't know

Actions needed: _____

Do you wash all vehicles and parts in an area that does not let wash water drain to the stormwater? Yes No N/A Don't know

Actions needed: _____

SOIL AND GROUND WATER MANAGEMENT

Is there any evidence of ground contamination anywhere on your site? (e.g. visual stains, odours, affected vegetation) Yes* No N/A Don't know

Actions needed: _____

Are monitoring procedures in place to detect leakages from underground fuel storage systems? Yes No N/A Don't know

Actions needed: _____

Have all disused underground storage tanks been properly decommissioned? Yes No N/A Don't know

Actions needed: _____

Do you know whether your site has ground water under it? Yes No N/A Don't know

Actions needed: _____

If so, do you have ground water monitoring wells? Yes No N/A Don't know

Actions needed: _____

WASTEWATER MANAGEMENT

Do you have a trade waste agreement or permit? Yes No N/A Don't know

Actions needed:

Does any liquid waste go to the sewer? Yes* No N/A Don't know

Actions needed:

Do you have an oil/water separator for pre-treatment of your forecourt wastewater? Yes No N/A Don't know

Actions needed:

Is your oil/water separator regularly maintained? Yes No N/A Don't know

Actions needed:

AIR QUALITY MANAGEMENT

Do you have vapour return piping for fuel deliveries? (Compulsory for Sydney metropolitan area only) Yes No N/A Don't know

Actions needed:

Do you regularly maintain your vapour recovery equipment? Yes No N/A Don't know

Actions needed:

Does the person in charge of fuel deliveries check that the vapour recovery system is appropriately connected when fuel is unloaded? Yes No N/A Don't know

Actions needed:

Do you have systems in place to stop dust and fumes leaving your premises? Yes No N/A Don't know

Actions needed:

Are lids kept on chemical containers when not in use? Yes No N/A Don't know

Actions needed:

If you install, service or decommission vehicle air conditioners, does your business hold a Refrigerant Trading Authorisation and do your mechanics hold a Refrigerant Handling Licence? Yes No N/A Don't know

Actions needed:

If you undertake spray painting, is it always carried out in a spray booth?

Yes No N/A Don't know

Actions needed:

Are spray booth filters regularly checked?

Yes No N/A Don't know

Actions needed:

Do staff know how to check that spray booth filters are working effectively?

Yes No N/A Don't know

Actions needed:

HAZARDOUS MATERIALS AND DANGEROUS GOODS MANAGEMENT

Does the hazardous materials storage area meet dangerous goods regulations and appropriate Australian Standards? For example, is the area bunded, covered and fireproofed, and are non-compatible materials separated?

Yes No N/A Don't know

Actions needed:

Have you notified WorkCover of the dangerous goods stored and handled on the premises?

Yes No N/A Don't know

Actions needed:

Do you keep an up-to-date register of all of the chemicals stored at the site?

Yes No N/A Don't know

Actions needed:

Is the content of containers identified and labelled?

Yes No N/A Don't know

Actions needed:

Do you keep copies of all relevant Material Safety Data Sheets? (MSDS)

Yes No N/A Don't know

Actions needed:

Do all staff know where to find Material Safety Data Sheets (MSDS) on site?

Yes No N/A Don't know

Actions needed:

Do the spill kits contain the correct materials to deal with spills from all of the hazardous materials and dangerous goods kept on site?

Yes No N/A Don't know

HAZARDOUS AND SOLID WASTE MANAGEMENT

Has a waste review been carried out? Yes No N/A Don't know

Actions needed: _____

Complete the following to obtain baseline information on your wastes:

Landfill waste _____ kg/month disposal cost \$ _____ per month

Hazardous waste _____ kg/month disposal cost \$ _____ per month

Liquid waste _____ L/month disposal cost \$ _____ per month

Do you dispose of any liquids into general waste bins? Yes* No N/A Don't know

Actions needed: _____

Is your hazardous waste – waste oil, solvents, waste oil filters and acidic and caustic cleaning chemicals – collected by a licensed waste contractor and taken to a waste facility legally permitted to receive it? Yes No N/A Don't know

Contractor name: _____

Waste facility name: _____

Actions needed: _____

Do you use a licensed waste contractor to transport and dispose of waste tyres? Yes No N/A Don't know

Actions needed: _____

Do you store all your hazardous waste in appropriate containers and in a bunded and covered area to avoid pollution of the environment? Yes No N/A Don't know

Actions needed: _____

Do you keep your solid waste bins with the lid on and stored in a covered area to prevent the wind blowing waste away? Yes No N/A Don't know

Actions needed: _____

Do you separate different types of waste so they can easily be reused, recycled or returned to the supplier?

Yes No N/A Don't know

Actions needed:

Do you encourage your suppliers to take back packaging wastes, such as crates, pallets and plastic drums?

Yes No N/A Don't know

Actions needed:

Have you talked to your waste company about recycling options?

Yes No N/A Don't know

Actions needed:

Do you recycle or reuse oil/ solvents?

Yes No N/A Don't know

Contractor name:

Actions needed:

Do you recycle or reuse scrap metal and parts/ batteries?

Yes No N/A Don't know

Contractor name:

Actions needed:

Do you recycle or reuse aluminium cans/glass containers/ plastic bins and containers/Paper and cardboard?

Yes No N/A Don't know

Contractor name:

Actions needed:

NOISE MANAGEMENT

Are you aware of the effects of your noise on your neighbours? Yes No N/A Don't know

Actions needed: _____

Are noise complaints followed up? Yes No N/A Don't know

Actions needed: _____

Do you regularly check and maintain noisy equipment, such as compressors? Yes No N/A Don't know

Actions needed: _____

Do you schedule fuel deliveries during business hours? Yes No N/A Don't know

Actions needed: _____

RESOURCE EFFICIENCIES

Complete the following to obtain baseline information on your utility use:

Cost of electricity \$ _____ per month

Cost of water \$ _____ per month

Cost of waste \$ _____ per month

Other \$ _____ per month

Total \$ _____ per month

Do you have a team or 'champion' looking at on going efficiency improvements? Yes No N/A Don't know

Actions needed: _____

Do you monitor electricity and water use and waste disposal? Yes No N/A Don't know

Actions needed: _____

Do you have energy and water saving procedures and targets in place? Yes No N/A Don't know

Actions needed: _____

Do you use water saving devices?

Yes No N/A Don't know

Actions needed:

Do you have a preventive maintenance program to make sure all machines are operating efficiently? For example, are air compressors regularly checked for leaks?

Yes No N/A Don't know

Actions needed:

Have you installed insulation to avoid heating or cooling energy loss (e.g. insulation of roof, wall, piping, etc.)?

Yes No N/A Don't know

Actions needed:

Do you use water-based strippers, cleaners and degreasers wherever possible?

Yes No N/A Don't know

Actions needed:

Have you investigated alternatives to hazardous materials or dangerous goods?

Yes No N/A Don't know

Actions needed:

FOLLOW-UP

Do you have a system in place to follow-up any concerns or actions that need to be addressed following this self-assessment?

Yes No N/A Don't know

Actions needed:

When you have completed this self-assessment checklist, go back over it and highlight the questions that you have answered with a:

'No'

'Don't know' or

'Yes*' (with an asterisk)

You have identified areas where you need to undertake further research, make improvements, or take immediate follow-up action. It's recommended that you:

- refer back to the relevant information sheets in this guide to find more information
- develop an environmental action plan
- get started on an environmental improvement program that will be good for your business, your staff and your customers.

It's a good idea to keep completed self-assessment checklists for your own records.

ENVIRONMENTAL ACTION PLAN

SERVICE STATIONS

Sample only – expand and adapt this to your situation.

ENVIRONMENTAL ISSUE	ACTION OR MEASURE	WHO IS RESPONSIBLE?	WHEN?
1. STORMWATER MANAGEMENT			
Stop fuels entering the stormwater system	Provide clean-up equipment specifically designed to deal with regular, small spills that occur at the bowsers. Place a spill kit at a conspicuous location for each row of bowsers – clearly labelled.	Fuel Area Supervisor	February
	Develop a step-by-step clean-up guide to using the spill kit for small bowerer spills.	Fuel Area Supervisor	February
	Develop a spill management plan and/or an emergency response procedure for large fuel spills.	Manager	February
	Train all staff in the emergency response procedure. Make sure all staff know where the written procedure is kept.	Manager	March
	Label all stormwater drains on the premises and nearby outside the premises 'Clean water only'.	Designated staff	March
	Inspect the fuel dispensing area to check stormwater from run-off or roof leaks is not entering the bunded area.	Fuel Area Supervisor	Monthly
	Check the bund around the fuel dispensing area to make sure it's in good condition and would contain a fuel spill in an emergency.	Fuel Area Supervisor	Monthly
2. HAZARDOUS MATERIALS AND WASTE			
Minimise risks of fuels contaminating the environment and OH&S issues for employees	Provide staff training on how to dispose of fuel-contaminated material, such as fuel-soaked absorbents from the spill kit.	Fuel Area Supervisor (with all staff)	February
	Ensure MSDS for all fuels and oils are up-to-date and accessible at any time.	Designated staff	Monthly

ENVIRONMENTAL ISSUE	ACTION OR MEASURE	WHO IS RESPONSIBLE?	WHEN?
3. UNDERGROUND PETROL TANKS			
Minimise risks of fuels leaks, resulting in underground pollution	Check the fuel in all underground fuel tanks and report suspected leaks immediately.	Fuel Area Supervisor	Daily
	Check if water has entered underground tank.	Fuel Area Supervisor	Fortnightly
4. VAPOUR RECOVERY EQUIPMENT			
Minimise risks of harmful emissions to the air and loss of fuel	Check caps, flanges and sealed connections.	Fuel Area Supervisor	Weekly
	Check the vent pipes are not blocked.	Fuel Area Supervisor	Weekly
	Supervise fuel deliveries.	Fuel Area Supervisor	Each fuel delivery
5. WASTE MANAGEMENT			
Prevent excess waste	Carry out a waste audit of the service station, workshop and shop to find out how much waste is being generated.	Manager	April
	Review results of the waste audit and work out how waste can be eliminated, minimised, separated, reused or recycled.	Manager (with designated staff)	May
	Set quantified waste reduction targets (in volume, weight or costs).	Manager (with designated staff)	June
6. RESOURCE EFFICIENCY			
Reduce resource use	Investigate options for reducing energy costs in the shop and canopy area.	Manager	March
	Keep up-to-date with new technologies. Investigate options for browser vapour recovery.	Manager (with designated staff)	Quarterly
	Set quantified reduction targets for resource efficiency savings (e.g. energy and water).	Manager (with all staff involved)	June

DAILY AND WEEKLY CHECKLISTS

Sample only – expand and adapt these checklists to your situation.

DAILY CHECKLIST	TICK
All stormwater drains have been checked and they are clear of paper dust, debris and litter. Only rainwater can enter the stormwater system.	
Forecourt collection pit checked.	
All hazardous liquid containers are stored in a bunded and covered area and have been checked.	
Floor areas (especially around the bowsers) have been checked for spills and drips. Spills and drips are cleaned up immediately.	
All chemical containers have been checked for leaks. All lids are properly sealed.	
Waste storage areas are not overfull. Wastes cannot be blown or washed away by rain. All bin lids are down.	
Checks carried out by:	
Signed: _____ Date: _____	

WEEKLY CHECKLIST	TICK
Daily checklists have all been completed.	
All bunds have been checked and any damage or anomalies reported to the manager.	
The spill kit has been checked and contains all necessary materials.	
Underground fuel tanks and supply lines have been checked for leaks. All leak monitoring systems are working properly.	
Underground fuel tanks have been checked to see if water has entered them.	
The oil/water separator and collection pit alarm are functioning correctly.	
The vapour recovery system is functioning correctly.	
A walk-around of the outside of the premises has been done, during normal operating hours, to check for noise and odours. Any noise or odours have been reported to the manager.	
Checks carried out by:	
Signed: _____ Date: _____	

USEFUL CONTACTS

Sample only – expand and adapt this list for your business.

ORGANISATION	TELEPHONE NUMBER
Emergency services: ambulance, fire, police	000
Local council	
Department of Environment and Climate Change NSW	131 555
NSW WorkCover Authority	131 050
Poisons Information Centre	131 126
Local water authority/ trade waste contact	
Waste solvent recycler	
Waste disposal contractor	
General recyclers	

