

# Pollution Solutions

## METAL RECOVERY & AUTOMOTIVE DISMANTLING

JULY 2000



Operator's Environmental Guide for Environmentally Relevant Activity 27:  
• Scrap Metal Yards  
• Automotive Dismantlers

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# EXPLANATORY NOTES FOR OPERATOR'S ENVIRONMENTAL GUIDE (OEG)

## Purpose of the OEG

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The *Environmental Protection Act 1994* states 'A person must not carry out an activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the "general environmental duty")'. This clause applies to all persons in Queensland.

Under the *Environmental Protection Act 1994* and *Integrated Planning Act 1997* Local government licenses and approves businesses that have the potential to cause environmental harm – Environmentally Relevant Activities (ERAs). Scrap Metal Yards and Automotive Dismantlers are level 1 ERAs listed in the *Environmental Protection Regulation 1998*.

All ERAs must have a development permit and/or an environmental authority (licence) which lists the conditions of operation to prevent pollution. However setting these conditions is only part of the story. Businesses should know how to meet these conditions (compliance) and to go beyond (best practice).

This Operator's Environmental Guide (OEG) – *Pollution Solutions for Metal Recoverers and Automotive Dismantlers* - has been developed to assist metal recoverers and automotive dismantlers to achieve their general environmental duty as above. That is, to achieve compliance with the *Environmental Protection Act 1994* and progress towards best practice environmental management.

The OEG was developed jointly by the Brisbane City Council and representatives of the metal recovery and automotive dismantling industries.

## Limitations of the OEG

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Council has written this OEG as a guide only. It does not form part of the licence conditions. Complying with this document does not necessarily exempt the licensee from prosecution or ensure compliance with the *Environmental Protection Act 1994*, Regulation and Policies (Air, Water, Noise and Interim Waste).

Licences may contain conditions that vary from the requirements of the OEG. These are often included because of site specific requirements or because of the nature of the activity. Whether your operational performance meets the conditions of your development permit and/or environmental authority (licence) will be the main determinant of compliance.

The control measures in the OEG are recommendations only. **It remains the responsibility of each operator and employee of the business to satisfy the general environmental duty** applicable to that business. The operator should carefully consider the information in this OEG and put in place measures that help to achieve this objective.

This OEG represents accepted industry practice at the time of issue and is therefore subject to change. Please note the date recorded on the front.



## How to use the OEG

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This OEG is based on three central concepts. These are explained below and each operational process is defined according to these concepts.

### Environmental Outcomes

are the outcomes, or goals, that Council considers are important to achieve if the environment is to be protected. **The Environmental Outcomes are highlighted in bold text.** You should try to satisfy the general environmental duty. The environmental outcomes in the OEG, however, do not ensure that this duty is achieved and should be considered in conjunction with your development permit and/or licence conditions.

### Compliance

means the control measures that Council recommends as the minimum required to meet the environmental outcome for the metal recovery and auto dismantling industries.

In some cases, a number of compliance control measures may be listed for one process. In these cases, you are advised to aim for the control measure or combination of control measures that is most likely to achieve the environmental outcome for that process.

Alternatively, you may be able to meet an environmental outcome in a way that is not listed in this OEG. It is recommended that in these instances the alternatives be discussed with a Council Officer prior to implementation.

Although this guide lists some solutions, Council encourages operators to develop alternative ideas or innovations that are consistent with the environmental outcomes and other relevant requirements.

### Best practice

means the control measures that are considered to be above the minimum requirements. They are not compulsory. Best practice incorporates concepts such as cleaner production, waste minimisation, recycling and reuse. Use of best practice control measures may help to improve industry standards and progress towards best practice in the industry. Best practice measures are marked with a  in the text.

In some cases, a business may be required to use a best practice control measure, rather than compliance, if an authorised officer believes that it is necessary to achieve an environmental outcome.

The best practice options listed are not fully inclusive; they only indicate what options may be available. Other best practice options not listed in this OEG may be used.

Importantly, this OEG takes into account changing industry standards, technology improvements, and scientific knowledge and community expectations.



# ENVIRONMENTAL DUTY

## Develop environmental commitment and sound environmental performance

- Develop a commitment to being good neighbours and to preventing or minimising pollution.
- Ensure all staff are aware of the development permit and/or the licence conditions and the relevant methods and procedures contained in this OEG.



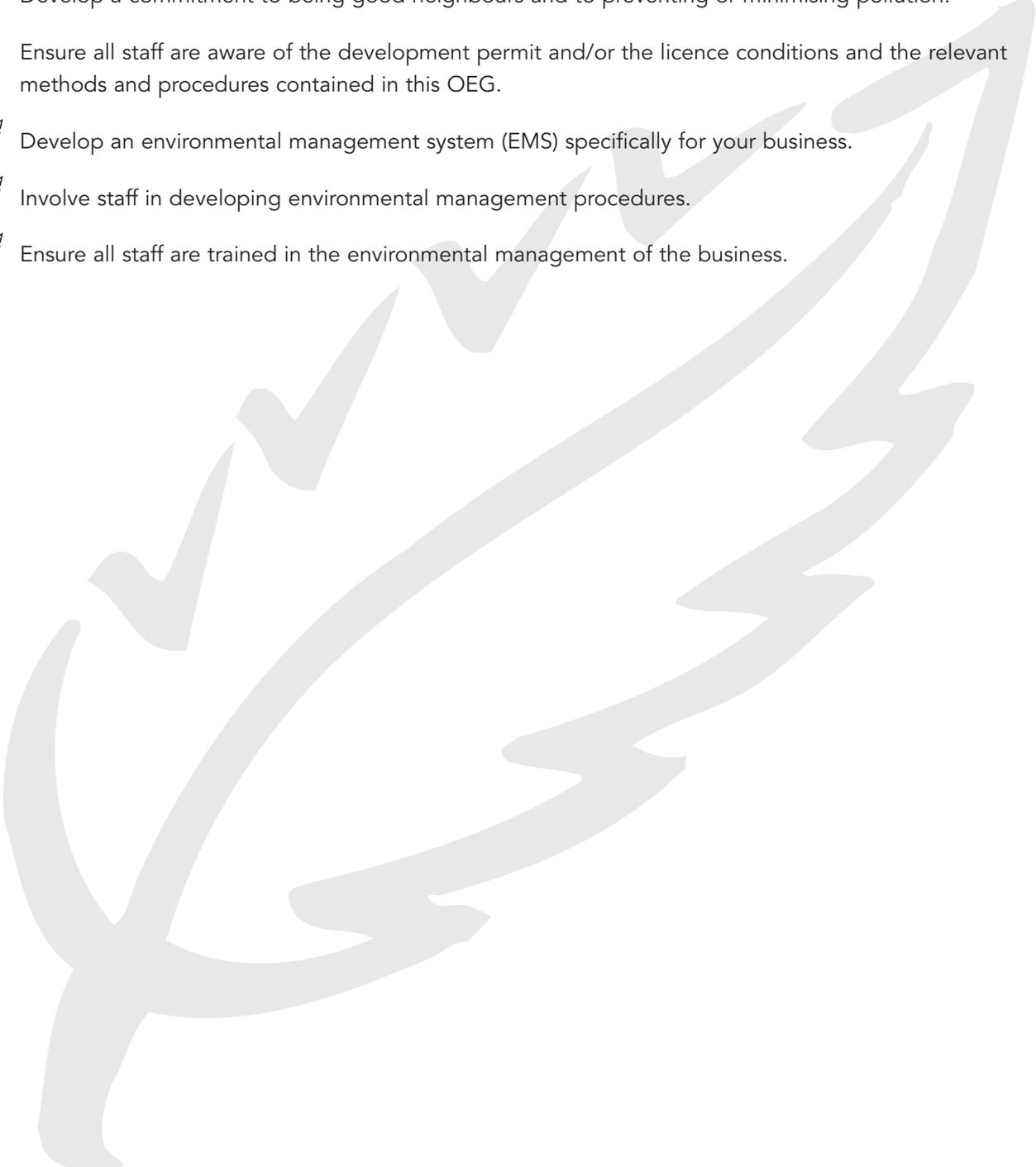
Develop an environmental management system (EMS) specifically for your business.



Involve staff in developing environmental management procedures.



Ensure all staff are trained in the environmental management of the business.



# ENVIRONMENTAL MANAGEMENT

## Implement environmental policies and practices

- The object of the *Environmental Protection Act 1994* is to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development).

## Environmental Management Program (EMP)

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### Achieve compliance for non-conforming activities

- Operators who are currently unable to comply with the requirements of licence conditions and the OEG may be required to submit an EMP for approval.
- An EMP is a binding agreement between your business and Council that sets out the areas where your business needs to improve to achieve compliance, and the time frame to achieve them. This allows you to operate your business although you may not fully comply, as long as Council has a firm arrangement with you to rectify problem areas in a mutually agreed time.

## Environmental Management System (EMS)

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### Maintain compliance with licence conditions and implement best practices



Develop an EMS to ensure environmental performance and compliance with licence conditions and the OEG. An EMS provides a systematic method for meeting environmental outcomes, licence conditions and the ways or procedures for meeting and exceeding compliance. It allows for:

- better practices
- monitoring of, and reporting on, performance
- training of staff
- keeping of relevant records
- complaint response
- emergency and incident response.



## Plan to protect your environment and reduce your business risks



An EMS addresses noise, air quality, waste and any other relevant environmental issue associated with processes that could reasonably pose a significant risk to the environment, if not appropriately controlled, monitored and/or managed.

- For low risk activities, the EMS should be kept concise with control measures, checklists and records (e.g. development permit, waste disposal) maintained.
- In higher risk activities, licence conditions and procedures generally require more detail in an EMS. In some cases, preparation by an environmental consultant is recommended.
- The basic objectives are to increase business performance and reduce environmental risks through good management practices. Key components in the EMS include:
  - monitoring and reporting
  - records
  - training of employees
  - complaint response
  - emergency and incident responses.



# AUTOMOTIVE DISMANTLERS AND SCRAP METAL YARDS PROCESSES AND MANAGEMENT

## Vehicle Oil and Parts Removal

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### Minimise spills and leaks and prevent the contamination of water, soil and groundwater

- Inspect vehicles on arrival for signs of oil leaks and oily/greasy parts. Where there is a risk of an oil leak, seal the leak to stop further leaking or drain the oil from the part.
- Where vehicles contain oils and other potential liquid contaminants either:
  - remove oils and other potential liquid contaminants and seal any potential leaks, or
  - prevent escape of all oils and other contaminants by taking precautions such as bunding the vehicle storage area.
- Strip down all vehicles and collect and remove waste oil and other contaminants in a dedicated, sealed or contained and covered area that is unaffected by storm water runoff. Always use drip trays to catch any spills.
- Where oil is not drained from an engine, automatic transmission, differential or drive shaft, use control measures to prevent or contain spills/leaks (e.g. use drip trays and/or storage bins with high enough sides to prevent stormwater flow through). Regularly maintain the drip trays and storage areas to prevent spills and leaks.
- Single parts may be removed from vehicles in the yard. However, the operator must:
  - use a large drip tray or container (which covers the area being worked on) to catch all oil or liquids
  - have clean up materials for oil and liquid spills on hand at the vehicle
  - immediately clean up any spills.
- Promptly clean up any oil or liquid spills. Ensure clean up material and equipment to contain and clean up spills are easily accessible.

### Minimise the risk of fire hazards

- Avoid the use of sawdust or other readily combustible absorbents when cleaning up flammable liquid spills.

*Note: Oily and greasy rags and oil-soaked sawdust can spontaneously combust if stored in a confined space.*



## Ensure proper disposal of potentially hazardous liquids and materials

- **Never** burn oily/greasy rags and paper, oil soaked absorbents, plastic and rubber.
- **Never** tip waste oils and liquids down sinks, stormwater drains, onto the ground or into trenches.
- **Never** allow waste oils (including brake fluid, transmission oil and engine oil) to drain into the ground or to areas affected by surface water runoff, such as sewer or stormwater.
- Waste oils can either be:
  - collected and stored separately in appropriate enclosed containers and controlled area and disposed via a licensed waste removalist
  -  collected and stored for recycling.
- Store waste oils in accordance with Storage of Potential Contaminants section.

*Avoid soil and stormwater contamination by oils.*

## Panel and Metal Cutting

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### Prevent fire hazards and the emissions of fumes and smoke

- Conduct cutting operations that use oxy-acetylene torches away from possible ignition sources such as oils, grease and rubber. This will avoid accidental combustion and dangerous fumes and smoke.
-  Use shears or cut-off saws (circular saws with a friction blade) wherever possible during cutting operations.

### Minimise airborne dusts and water/soil contamination by heavy metals and other toxic substances

-  Only use oxy-acetylene for cutting parts that shears or a cut-off saw will not reach. Ensure there are 'no visible emissions' during cutting operations.
- Conduct all cutting operations on a paved and covered surface, or contained area, to facilitate the vacuuming or sweeping up of metal scraps or filings. Items that cannot be cut on a paved or covered surface (e.g. due to their size and/or weight) must be cut in a manner that prevents metal scraps or filings from contaminating surrounding ground or water.

*Avoid heavy metal contamination from fumes and dusts.*



## Parts Storage

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### Prevent contamination of soil, stormwater and waterways

- Engines, automatic transmissions, differentials, drive shafts, and other oily and greasy parts must be drained of all waste liquids and stored in a sealed or contained and covered area that is unaffected by surface stormwater runoff.
- Store rusting ferrous metals in a sealed or contained and covered area that is unaffected by surface stormwater runoff.

## Batteries

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### Minimise accidental contamination of soil and water with hazardous substances

*Batteries contain corrosive and toxic chemicals.*

- Store waste/scrap batteries undercover and in a bunded area unaffected by surface stormwater runoff.
- Store drained battery acid in a covered, bunded, acid-proof tank before disposing to a hazardous waste treatment facility via a licensed waste removalist.
- Locate the acid drainage area under cover and bund it to contain spills.

### Prevent contamination of soil and water with hazardous chemicals

- Always keep absorbent spill clean-up material nearby for accidental spills.



Before transporting batteries completely wrap or cover them to prevent exposure to rainfall.

### Conserve material resources and prevent hazardous emissions to the atmosphere

- Batteries must only be disposed of to an authorised battery recycler. **Under no circumstances can batteries be burnt or buried.**

*Prevent lead and acid contamination of surfaces and soils.*

## Automotive Air Conditioners

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*CAUTION! Under the Environmental Protection Act 1994 it is an offence to release Chlorofluorocarbons (CFCs) into the atmosphere.*

### Prevent release of CFCs and R12 gases to the environment (Schedule 2, 4, 5 and 9 – Environmental Protection Interim Regulation)

- If there is a possibility that refrigeration equipment or a motor vehicle's air conditioning system contains CFCs, it must be reclaimed by an accredited person using approved CFC recovery and storage equipment.



- Motor vehicle air conditioning systems must be de-commissioned in accordance with the 'Code of Practice for the Control of Chlorofluorocarbons from Motor Vehicle Air Conditioners'.
- CFCs from commercial, industrial and domestic refrigeration equipment must be reclaimed in accordance with the following codes of practice:
  - 'The Australian Refrigeration and Air Conditioning Code of Good Practice for the Reduction of Emissions of Controlled Ozone Depleting Refrigerants in Commercial and Industrial Refrigeration and Air Conditioning Applications'
  - 'Domestic Refrigeration Code of Good Practice for the Reduction of Emissions of Chlorofluorocarbons (CFCs) R12 in Domestic Refrigeration Applications'.
- If you do not have accredited staff and approved CFC recovery and storage equipment available, call an accredited mobile vehicle air-conditioning or refrigeration mechanic to recover all R12 or R11 gases from vehicle air-conditioning systems and refrigeration equipment.

## **Loading and Transportation**

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### **Minimise dust emissions and potential contaminants from exposed surfaces**

- Specify speed limits on exposed road surfaces (<40km/hr).
- Regularly water unsealed roads (clean water @ 1-2l/m<sup>2</sup>). This will prevent dust nuisance from traffic.
-  Erect barriers to discourage vehicles on unsealed areas.
-  Seal, turf or cover sites with a dust suppressant to minimise airborne dust. Suppressants include:
  - compacted road base
  - aggregate
  - organic dust-binding agents.
- Never use waste oil or other contaminants as dust suppressant on dirt roads or weed killer. This may lead to the site being notifiable under the *Environmental Protection Act 1994*.

### **Minimise potential site contamination from hazardous materials**

- Immediately clean up material spilt on traffic areas before vehicle movement can move it.
- Regularly collect and place in a sealed bag any floor sweepings, dust, powder waste or absorbent clean up materials, before disposing in a covered waste bin.



# AUTOMOTIVE DISMANTLER PROCESSES AND MANAGEMENT

## Parts Cleaning and Vehicle Washdown

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### Minimise Volatile Organic Compounds (VOCs) emissions into the atmosphere

- Volatile liquids (e.g. solvents):
  - must be kept cool and stored in a covered container to prevent evaporation into the environment
-  should be pumped instead of poured.
-  Return solvents unsuitable for reuse to a reputable solvent recycler.
- Dispose of waste solvents and sludges unsuitable for recycling via a licensed waste removalist.

### Prevent contamination of stormwater and damage to the sewerage system

- Never discharge wastewater, or let it escape to the stormwater drainage system or the surrounding land.
- Carry out washing in a covered and impervious area that is adequately bunded and drains to a holding tank or the sewer through a trade waste approved treatment system (usually an oil/silt interceptor trap).

*Note: Oil/silt interceptor traps can be installed above or below ground as permanent or mobile installations (e.g. when premises are leased, a mobile system may be preferred).*

- Ensure ongoing maintenance of oil/silt interceptor, including the removal of sludge by a waste removalist.
-  Use 'quick-break' degreasing compounds and detergents in wastewater holding tanks to reduce emulsification of oils and other hydrocarbons.
- Only do steam or high-pressure cleaning of parts in a dedicated area such as an approved vehicle washdown bay. This will prevent the release or discharge of contaminants into the environment.

### Prevent contamination of stormwater and minimise water usage

- In locations not serviced by Council's sewerage system, collect wastewater in a sump for either:
  - disposal via a licensed liquid waste removalist
-  treatment and reuse (refer to Appendix 3).
-  Wastewater from on-site treatment systems should be recycled and reused in some areas of operation. This will minimise water usage and the associated costs.



## Minimise environmental harm from potentially harmful cleaning compounds

 Use environmentally friendly cleaners and avoid chlorinated solvents such as 1, 1, 1-trichloroethane (TCA) and methylene chloride. Water based cleaners (e.g. alkaline degreasers/detergents) are best.

*Note: The solvent 1,1,1 trichloroethane is a controlled substance and must be reclaimed (refer to Schedule 2, Environment Protection Regulation 1998).*

 Where possible clean parts with a brush, rather than cleaning with solvents and aqueous degreasers, such as alkaline or caustic soda.

 Use water pressure cleaning where suitable, and control and collect the wastewater.

## Radiator Handling

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### Ensure proper disposal of potentially hazardous liquids

- Radiator coolant can be:
  - Directed to the sewerage system under the conditions of a Trade Waste Permit
  -  Stored separately in durable, enclosed containers and collected for recycling by a reputable recycler
  -  Treated in the workshop and reused
  - Disposed of via a licensed waste removalist.
-  Recycle solid wastes such as cores and tanks.



# SCRAP METAL YARD PROCESSES AND MANAGEMENT

## Shredding/Fragmentising Operations

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### Control air emissions of dusts and vapours

- Only carry out shredding/fragmentising operations where metals and non-metals are being separated (e.g. plastics, rubber, foam and car linings) where suitable air pollution control equipment is installed.
- Never discharge impurities such as dusts from paint, paper, plastics and VOCs to the atmosphere. Use particle filters or water scrubbers to control impurities released from shredding/fragmentising equipment. Control solvent vapours with an activated carbon filter or an afterburner. Bund and cover work areas.

### Prevent contamination of soil, stormwater and waterways

- Liquid sludge consists of oils, grease, paint residues, organic solvents and lead released in the shredders or fragmentises. It must be contained and prevented from entering areas affected by surface stormwater runoff.

## Insulated Wire Recovery

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### Protect the air from particles and gaseous emissions

- Never burn plastic or rubber from wire in the open air. Plastic coated wire should only be recovered by mechanical stripping. If mechanical stripping is not feasible and burning is required to remove the insulation material, then it must only be conducted in an approved incinerator with appropriate air pollution control equipment installed.

### Minimise waste

- Recycle plastics and rubber recovered from wire stripping/shredding.

### Ensure proper disposal of waste material

- Collect accumulated sludge from any wet scrubber systems for recycling, or dispose by a licensed waste removalist.



# STORAGE OF POTENTIAL CONTAMINANTS



## Minimise accidental spills and prevent contamination of soil, stormwater, ground-water and/or air

- Store chemicals and other materials that may contaminate soil, stormwater, groundwater and/or air in a manner that prevents or minimises the impact of any accidental spills or releases. This means:
  - potential liquid contaminants stored in a secure, covered area away from through traffic. Such contaminants may include disinfectants, fuels, oils, detergents, poisons, cleaning solvents, alkaline or acidic solutions;
  - storage areas provided in an impervious bunded area or compound to contain any leakage or spillage. The capacity of the compound shall be at least the capacity of the largest tank or package in the compound (Bunding may not be required where the storage is inside a workshop or similar area and the operator can demonstrate that any spills will not escape the area and contaminate stormwater or surrounding ground.); and
  - where dangerous goods (as defined by the ADG Code) are stored in quantities in excess of minor storage (refer to the Note below), the capacity of the compound shall comply with the requirements of the relevant legislation, Australian Standard and/or Code of Practice.

Relevant Australian Standards may include:

- AS 1940 The storage and handling of flammable and combustible liquids
- AS 2022 Anhydrous ammonia – Storage and handling anhydrous ammonia
- AS 2714 The storage and handling of hazardous chemicals - Class 5.2 substances (organic peroxides)
- AS 3780 The storage and handling of corrosive substances
- AS 3833 The storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers
- AS 4081 The storage, handling and transport of liquid and liquefied polyfunctional isocyanates
- AS 4326 The storage and handling of oxidising agents
- AS 4452 The storage and handling of toxic substances

*Note: Storage of materials in excess of minor storage quantities may require approval, licensing and full compliance with the above standards. Contact Council or the relevant dangerous goods administering authority for further information.*

- Storage must be:
  - away from any heating or ignition sources
  - provided with adequate natural or mechanical ventilation relevant to the nature of the substance and its use.



### Reduce volatile emissions

- Store volatile liquids (e.g. solvents, thinners) in closed containers and keep them closed when not in use. This will avoid unnecessary exposure of volatile liquids.
- Keep Material Safety Data Sheets (MSDS) for all hazardous substances used or stored on site. In case of an emergency an MSDS is the most effective means of assessing risk.

*CAUTION! Some classes of materials may react dangerously if mixed or stored together. Incompatible materials must be segregated to minimise the possibility of any reaction. Read and follow all directions on labels. Refer to the material's Material Safety Data Sheet (MSDS) or contact the manufacturer for further information.*

### Respond promptly to spills and leaks

- Keep clean-up equipment, absorbent materials, and any materials for neutralising or decontaminating spills on the premises. Staff are to be adequately trained in the use of these materials.
- Immediately take action to clean-up spills or leaks. Reuse the spilt chemical if it is not contaminated. Otherwise collect the spill in an appropriate container and package for transport for either recycling or disposal by a licensed waste removalist.
- Keep a supply of absorbents in a readily accessible place to spread over and absorb any flammable liquid spills. Bag residues before putting in the industrial bin.

*CAUTION! Avoid the use of sawdust or other readily combustible absorbents to clean up flammable liquid spills. Oily and greasy rags or oil soaked sawdust can spontaneously combust if stored in a confined space.*

### Minimise chemical risks



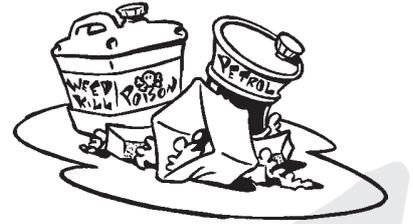
- Fit containers of chemicals (e.g. solvents) with taps to enable pumping instead of pouring.
- Position trays under chemical container taps to catch any spillage or drips. Ensure the tray's material is compatible with the chemical.



# WASTE MANAGEMENT

## Reduce wastage of material resources and landfill space

- Minimise all wastes produced by site activities.



## Recycle and reduce waste disposal costs



Disposal of wastes should be viewed as the last option in environmental management strategies

The life of material resources may be extended by recovery, reuse and recycling.



Implement a waste recycling (reuse) system for non-hazardous solid wastes using separate containers for individual waste streams (refer to Solid Wastes section).

- Clearly label waste containers and locate them in convenient areas to encourage use. Mixing wastes may make them unsuitable for reuse or recycling.

## Protect soil, stormwater and groundwater quality

- Store solid wastes undercover so contaminants cannot be washed to stormwater by rain.
- Never dispose of waste on site.



Use wet/dry vacuum cleaners with dust filters for general cleaning of floors instead of sweeping and hosing with water.

## Prevent landfill hazards

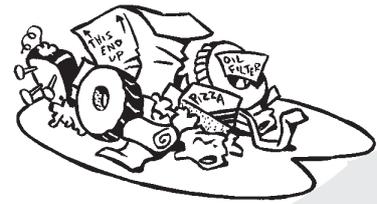
- Material put into industrial bins will generally go to landfill. Do not dispose of gas cylinders, asbestos-containing materials or synthetic-mineral fibres into an industrial bin; instead wastes should be disposed through a licensed waste removalist.
- Only put solid inert waste in industrial bins.

## Protect air quality

- Incinerating waste on site is prohibited.



# SOLID WASTES



## Hazardous Wastes (regulated)

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### Prevent contamination of landfill, soil and water

- Regulated wastes are those that have been identified as unsafe for municipal or refuse landfill disposal. These wastes are listed in Schedule 7 of the *Environmental Protection Regulation 1998* (refer to Appendix 2) and must be disposed of by a licensed waste removalist.
- Keep proof of proper disposal of hazardous wastes for presentation to Council officers, including:
  - hazardous waste disposal facility docket
  - waste manifest documents
  - licensed waste transport receipts.

## Non-hazardous Wastes

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### Conserve material resources, landfill space and reduce waste disposal costs



The following solid wastes are recyclable. They should be collected in separate containers for disposal at a waste recycling and reprocessing facility:

- clean cardboard and paper
- aluminium cans, drink bottles
- plastics
- steel drums, drained steel cans
- metal parts
- rags (can be laundered and reused)
- batteries
- tyres
- radiator cores and parts
- brake and clutch parts.

### Ensure appropriate disposal of non-recyclable solid wastes

- Always dispose of non-recyclable solid waste at a licensed general waste disposal facility (e.g. local government service or approved waste removalist).

### Prevent contamination of landfill and groundwater with hazardous wastes

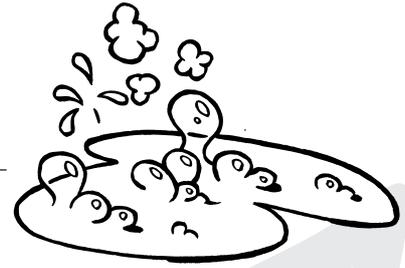
- Empty all containers or vessels containing oils, solvents, and other chemicals or potential contaminants before disposing via the industrial bins.

### Prevent air contamination by harmful dusts

- Bag floor sweepings and other dusty wastes before disposing via the industrial bins.
- Only transport general solid wastes in your own vehicle or by a licensed waste transporter.



# LIQUID WASTES



## Non-sewerable Wastes (regulated)

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### Prevent contamination of landfill, soil and water

- Non-sewerable (regulated) wastes are those that have been identified as unsafe for sewer disposal. These wastes are outlined in Schedule 7 of the *Environmental Protection Regulation 1998* (refer to Appendix 2) and must be disposed of by a licensed waste removalist.
- Keep proof of proper disposal of non-sewerable wastes for presentation to Council officers upon request. Proof includes:
  - hazardous waste disposal facility docket
  - waste manifest docket
  - licensed waste transport receipts.



Separate out recyclable liquid wastes for collection by a licensed waste removalist. Recyclable liquid wastes include solvents, thinners, waste oil, brake fluid and coolant.

## Sewerable Wastes

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### Ensure compliance with licence conditions (Trade Waste Permit)

- Obtain a Trade Waste Permit from Council prior to discharge of any trade waste to the sewer. The permit establishes the discharge conditions for the waste.
- Washdown waters must either be directed to the sewerage system under the conditions of the Trade Waste Permit, or collected for recycling or disposal by a licensed waste removalist.
- Water-miscible solutions are generally accepted under a Trade Waste Permit. This may include dilute organic wastes.

### Prevent contamination of landfill, soil and water



On-site treatment and reuse of wastewater (e.g. washdown waters) can be used to replace or reduce disposal of wastewater to sewer. The systems of treatment and nature of reuse must not cause pollution or be hazardous to persons (refer to Appendix 3).



# STORMWATER MANAGEMENT

## Prevent contamination of soil, stormwater and local watercourses

Stormwater flows untreated to your local creek or waterbody.

- Prevent stormwater from entering or leaving work areas where it may become contaminated with grease, oils, chemicals, particulates or solvents.
  - Cover and bund areas where necessary to avoid the incursion of stormwater and to prevent hazardous and trade wastes from contaminating the surrounding soil and stormwater system.
- Prevent wastewater containing contaminants (such as detergents used for cleaning areas) from contaminating stormwater or the ground. Do not hose workshop floor, vehicles or machinery parts on to the surrounding soil or into stormwater drains.
- Store wastes undercover so that contaminants cannot be washed to stormwater by rain.
- Prepare a *Stormwater Management Plan* for the site and ensure it is approved by Council.  
**This is important for open dismantling yards.**



## Avoid sewerage system overload

- Do not direct stormwater to the sewerage system. It is an offence under the *Sewerage and Water Supply Act 1949*.
- Contain any contaminated stormwater (e.g. holding tank) and:
  - dispose of by a licensed waste removalist
  -  treat on-site to an appropriate standard for discharge (e.g. oil/water separator)
  -  treat on-site for recycling or reuse (refer to Appendix 3).

**CAUTION!:** *Contaminating stormwater and other Queensland waters may result in an ‘on the spot’ fine or prosecution under the Environmental Protection Act 1994.*

*The Environmental Protection (Water) Policy 1997 prohibits the discharge of ‘certain things’ into a roadside gutter, stormwater or a water, or to a place where it could be reasonably expected to move or to be washed into a roadside gutter, stormwater or a water. Discharges to stormwater must comply with the Environmental Protection (Water) Policy 1997.*



# AIRBORNE WASTES



## Stack Emissions

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### Maintain and protect local and regional air quality, soil and waters

- Emissions from this activity (e.g. dusts, solvents or odours) must comply with those outlined in the *Environmental Protection (Air) Policy 1997* or those prescribed by the Council.

*Ensure dust and solvent emissions are controlled on-site.*

### Maintain air pollution control equipment



Examine and review the need for enhanced emission controls annually and if you receive complaints about performance.

- Regularly maintain any emission control equipment such as cyclones, baghouse filters or afterburners as per manufacturers' instructions.
- Immediately replace or repair any emission control equipment that is blocked, frayed, leaking or not functioning within specifications. Spare bags and filters must be kept on-site.

## Dust Control

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### Maintain and protect local and regional air quality, soil and waters

- Control dust generation so that particles do not move off-site. Dusts may also contain hazardous materials and contaminate air, soil and waters.



Use wet/dry vacuum cleaners with dust filters for general cleaning of the floor surfaces instead of sweeping and hosing with water.

## Odour/Volatile Emissions

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### Reduce odour and volatile emissions to prevent environmental nuisance

- Maintain adequate ventilation and hygiene to reduce the generation of odour.
- Control any exhaust emissions from vehicles to prevent nuisance or objectionable odours / fumes off-site.



Maintain good housekeeping and cleaning practices.



Use mechanical ventilation systems and activated carbon filters or scrubbers to prevent the release of any uncontrolled and objectionable odours from buildings or rooms.



# NOISE MANAGEMENT



## Prevent nuisance and unreasonable noise

- The activity must not cause an 'unreasonable noise' as defined in the *Environmental Protection (Noise) Policy 1997*.
- Use the layout of the buildings and the natural topography as noise barriers where possible. Cost-effective landscaping improvements (e.g. fencing, mounds, and plants) can be implemented to reduce noise emissions and therefore noise complaints.
- It is best to avoid using extension telephone bells and public address systems but if they are considered necessary keep them at the lowest possible audible level. Ensure that music does not cause an annoyance to the neighbours.
- Ensure that silencers fitted to air compressors, pumps, fans and blowers and other noisy machinery are effective.
- Enclose or acoustically screen noisy equipment not complying with *Environmental Protection (Noise) Policy 1997* to muffle noise. Locate equipment or operations away from noise sensitive land uses.
- Reduce structural-borne noise and vibration by mounting equipment on vibration isolating platforms, rubber mats, or by increasing the mass weight of equipment.
- Fit mechanical ventilation systems (e.g. air conditioners, fans) with noise-proof ducting and acoustically designed intake and exhaust openings.
- Ask for noise-reduction devices when purchasing new plant and equipment.
- Close windows and roller doors facing noise-sensitive premises and seal all unnecessary openings.
- Only operate heavy vehicles in daylight hours.
- Regularly maintain all equipment and vehicles and attend promptly to any loose parts, rattling covers, worn bearings and broken components. This should be addressed through a regular maintenance schedule and correct staff training.

*Note: Premises causing ongoing noise problems may be required to introduce other noise control measures, including noise monitoring and reporting.*

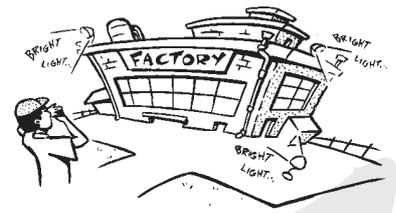
*Operators should be aware of the cumulative effects of noise levels on the receiving environment, and where practical, take appropriate steps to reduce noise levels from their operation, particularly before 7am and after 6pm.*



# VISUAL AMENITY

## Prevent environmental nuisance

- Ensure that lighting of the premises for security or any other reason does not cause annoyance to the occupants of neighbouring residential areas.
- Control measures for lighting include:
  - design and layout of lights and reflective surfaces
  - brightness of lights/shading of lights
  - height of lights
  - hours of operation of lights.
- Signage is to be compatible with Council town planning requirements for amenity.
- Fencing or screening around work and storage areas may be necessary.



# APPENDIX 1 – DEFINITIONS

## **Bund**

An impervious embankment or wall of brick, stone, concrete, or other approved material that may form part or all of the perimeter of a compound. For example, a bund may be used to contain spills from a fuel tank.

## **Environmental Harm**

An adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value and includes environmental nuisance, *Environmental Protection Act 1994*.

## **Environmental Management Program (EMP)**

A specific program that, when approved, achieves compliance with the *Environmental Protection Act 1994* for the matters dealt with by the program by:

- (a) reducing environmental harm
- (b) detailing the transition to an environmental standard

## **Environmental Management System (EMS)**

Is a systematic approach to managing the environmental aspects of an activity. As a minimum for the lower risk activities administered by Council, an EMS would entail documenting standard operating procedures for the aspects of the activity that may result in environmental harm or nuisance.

## **Environmental Nuisance**

Any unreasonable interference or likely interference with an environmental value that is caused by noise, dust, odour, light, an unhealthy, offensive or unsightly condition because of contamination, or another way prescribed by regulation, *Environmental Protection Act 1994*.

## **Environmental Value**

- (a) A quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety; or
- (b) another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation, *Environmental Protection Act 1994*.

## **General Environmental Duty**

A person must not carry out an activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm.

## **Material Safety Data Sheets (MSDS)**

Information sheets on products that manufacturers are required to provide. They outline the composition, applications and precautions that need to be taken in using such products.

## **Regulated Liquid Wastes**

Those wastes that have been identified as unsafe for sewer disposal due to their chemical nature (e.g. flammable). These wastes are outlined in Schedule 7 of the *Environmental Protection Regulation 1998*.

## **Regulated Solid Wastes**

Those wastes that have been identified as unsafe for landfill disposal. These wastes are outlined in Schedule 7 of the *Environmental Protection Regulation 1998*.



**Stormwater**

Rainfall that runs off hard surfaces, such as roofs, roads and car parks, or off ground that has become saturated. Stormwater flows untreated to local creeks.

**Trade Waste**

Liquid wastes from any business, industry, trade or manufacturing process approved for sewer disposal other than domestic sewage

**Unreasonable Noise**

An unreasonable noise is one which:

- (a) causes unlawful environmental harm because of:
  - its characteristics
  - its intrusiveness
  - the time at which it is made
  - where it can be heard
  - other noises ordinarily present at the place where it can be heard
- (b) is not declared to be reasonable in an Environmental Protection Policy.

**VOCs (Volatile Organic Compounds)**

Evaporated organic solvents (e.g. hydrocarbons or alcohols, or unburnt liquid fuels) that are known or suspected to have environmental or health effects. Examples of VOCs include solvents, thinners, acrylic lacquers and fuels.



## APPENDIX 2 – SCHEDULE 7 - REGULATED WASTES

Abattoir effluent	Heterocyclic organic compounds containing oxygen, nitrogen or sulphur	Petroleum tank sludges
Acids and acid solutions	Hydrocarbons (oxygen, nitrogen or sulphur)	Pharmaceutical substances
Adhesives (other than solid inert polymeric materials)	Industrial plant wash down waters	Phenolic compounds (other than solid inert polymeric materials)
Alkalis and alkaline solutions	Infectious substances	Phosphorus
Antimony	Inks	Pickling liquors
Arsenic	Inorganic cyanides and cyanide complexes	Polychlorinated biphenyls and related substances
Asbestos (all chemical forms)	Inorganic sulphur compounds	Polymeric lattices
Azides	Isocyanate compounds (other than solid inert polymeric materials)	Poultry processing wastes
Barium	Laboratory chemicals	Quarantine waste
Batteries	Lead	Reactive chemicals
Beryllium	Lime neutralised sludges	Reducing agents
Biocides	Lime sludges	Resins (other than solid inert polymeric materials)
Boiler blowdown sludge	Materials or equipment contaminated with infectious substances	Saline effluent and residues
Boron	Mercaptans	Selenium
Cadmium	Mercury and anything containing mercury	Silver compounds
Caustic solutions	Metal finishing effluent and residues	Solvent recovery residues
Chlorates	Methacrylate compounds (other than solid inert polymeric materials)	Surfactants
Chromium	Nickel	Tallow
Contaminated soils	Oil interceptor sludges	Tannery effluent and residues
Copper compounds	Oil water emulsions and mixtures	Tars and tarry residues
Cytotoxic wastes	Oils	Tellurium
Detergents	Organic solvents	Textile effluent and residues
Distillation residues	Oxidising agents	Thallium
Dyes	Ozone depleting substances	Timber preservative effluent and residues
Electroplating effluent and residues	Paint sludges and residues	Treatment tank sludges and residues (including sewage tank sludges and residues)
Filter backwash waters	Perchlorates	Tyres
Filter cake sludges and residues	Pesticides	Vanadium
Fish processing waste		Vegetable oils
Fly ash		Vehicle wash down waters
Food processing waste		Wool scouring effluent & residues
Grease interceptor trap effluent and residues		Zinc compounds

## APPENDIX 3 – ON-SITE TREATMENT AND REUSE OF WASTEWATER OR STORMWATERS

- a) The operator should consult with the Council regarding any system for the collection, treatment and reuse of wastewater (e.g. washdown waters) or stormwater that may be contaminated. This needs to be approved by Council to ensure the method and level of treatment is adequate and safe.
- b) It is generally necessary to test and monitor treated waters to demonstrate effectiveness of the system for Council approval.
- c) Consideration must be made of:
  - volumes to be treated
  - handling and storage
  - key contaminants
  - types of treatment
  - disposal of wastes (e.g. sludge)
  - safety and hygiene
  - testing and frequency.

