



Australian Government



Bus Industry Confederation EMS Guidelines



Ministerial Statement



**Minister for the Environment and Water Resources
The Hon. Malcolm Turnbull MP**

The Bus Industry Confederation has been an active member of the Greenhouse Challenge Plus programme since 1999. This important Australian Government and industry partnership initiative is highly effective in achieving greenhouse gas abatement and in building the capacity of both government and industry to identify, monitor, manage and report greenhouse gas emissions.

The Australian Government has committed \$2.8 billion to help tackle climate change through a range of measures including support for low-emissions technology, energy efficiency and renewable energy development.

In particular, the Australian Government is very proud of the Greenhouse Challenge Plus programme. With now over 750 members, the programme covers almost 50% of total industrial emissions in Australia and is projected to save 15 million tonnes of emissions annually by 2010.

In an effort to promote practical ways for their members to reduce their greenhouse gas emissions and operate with greater environmental awareness and sensitivity, the Bus Industry Confederation has produced the Bus and Coach Industry Environmental Management System (EMS) Guidelines.

By following the easy-to-follow steps contained in the guidelines, member organisations will be able to implement suitable environmental management systems into the daily operations of their transport businesses.

Producing an environmental management system has many benefits, including: improving waste management practices, improving air quality and reducing noise levels, as well as reducing greenhouse gas emissions.

These guidelines aim to provide practical advice and assistance to benefit the environment as well as your business' bottom line.

I encourage your transport business to work with the Bus Industry Confederation to implement your own environmental management system using these guidelines.

A stylized, handwritten signature in black ink, appearing to read 'Malcolm Turnbull'.



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Glossary of terms

Authority: The Authority having statutory power or obligation to approve the storage, handling and disposal of waste from road transport businesses.

Bund: A bund is a container or low wall built to contain spilt liquids. It should be made of impervious materials.

CPI: Coalescing (corrugated) Plate Interceptor.

Fault Recording Medium: Any book, register, sheet or report that has been created or is already in existence for the purpose of keeping track of vehicle faults and problems, environmental or otherwise.

Hazardous waste: Any waste that is classified or assessed as hazardous by the respective state authority.

Industrial waste landfill: A landfill licensed by state authorities to accept waste that is classified or assessed as industrial waste.

Leachate: Liquid released by, or water that has percolated through, waste, and that contains dissolved and/or suspended liquids and/or solids and/or gases.

Legislation: Acts and Regulations of the Commonwealth and the States.

OzeBus: www.zebus.com.au – The Bus Industry Confederation’s web portal which contains useful reference material pertaining to the Australian bus and coach industry.

Recycler: An individual, company or organisation engaged in the recycling of waste.

Recycling: Reprocessing of waste materials into new products.

Sludge: Semi-liquid waste produced as a by-product of an industrial process.

Stormwater: Rainwater that flows across outside surfaces into stormwater drains or directly into waterways.

Trade Waste Contractor: A company or organisation engaged in collecting and transporting waste.

Used oil: Any liquid or semi-solid used product consisting totally or partially of:

- mineral oil, or
- synthesised hydrocarbons and oil residues from tanks, or
- oil water mixtures and emulsions with a maximum water content of 15 per cent.

For the purpose of these guidelines used oil incorporates engine (sump) oil, gear oil, transmission and brake fluids and differential oil.

Waste: Anything that is excess or remaining from industrial, commercial, domestic or other activity. It may be a gas, liquid, solid, form of energy or a combination thereof.

Wastewater: Any water used or contaminated as a result of business activities.



Australian Government



Section 1

Bus & Coach Industry EMS:

Implementing an EMS in your organisation
- an overview

1. Introduction to this manual

1.1 Purpose

The purpose of this manual is to provide bus and coach businesses with a step by step guide to environmentally responsible management of their daily operations. The manual has been designed for bus and coach operations of all sizes, including owner-drivers or single vehicle operations.

The manual:

- outlines general environmental responsibilities
- provides advice on getting started
- details how to develop an Environmental Management System (EMS)
- helps to incorporate environmentally sensitive practices into your existing maintenance regimes and business practices.

In using this manual to develop and implement an EMS, please note that environmental legislation varies between individual states territories and local authorities. Operators should therefore approach the relevant regulatory body to ensure that they comply with current legislative requirements. This document is intended as a guide only and may be modified to suit individual requirements.

1.2 Your current Environmental Management System

Bus and coach businesses may have differing environmental management policies and practices. Accordingly, we are not prescribing a standard EMS, but rather, examples that may be adapted to suit the particular circumstances of your business.

There is no need to ignore your current environmental systems. The EMS outlined here is designed to complement and enhance your existing system while ensuring that you comply with best practice environmental management.

1.3 Structure

This manual details the components that should be included within your EMS. The resources that need to be allocated to each component will vary for each organisation and will depend on:

- the size, type and range of services provided by your organisation
- staffing, including skills and capability
- the outcome of the initial review (see the previous paragraph) and the extent of change required
- management commitment.

The manual consists of four sections:

- Implementing an EMS in your Organisation - An Overview
- Noise Guidelines
- Waste Management and Disposal Guidelines
- Policies and Procedures.

There are also a number of attachments and appendices to the document. The four attachments are optional record-keeping templates. The five appendices include samples and examples which may assist your organisation. Please note that the size and complexity of the EMS implemented in your organisation will be governed by the size of its operation or scale of services provided.

2. An Environmental Management System (EMS) – an overview

2.1 What is an EMS?

An EMS is a process that enables an organisation to consistently manage its activities so as to minimise its environmental impacts. The system's success largely depends on the behaviour of the people within a particular organisation. Some of the key elements of a management system are, therefore, related to the definition of roles, responsibilities and authorities, training and communication.¹

Once the EMS has been established, it will generate an auditable trail of information that will demonstrate the manner in which you have addressed environmental practices. The system involves:

- policies, standards and procedures
- records
- documentation
- training needs.

In adopting the BIC EMS, the operator is not required to undertake an external compliance audit. However should an operator wish to progress to full environmental accreditation under ISO 14001 (Internationally recognised and auditable environmental systems standards) the BIC EMS will assist in meeting this objective.

2.2 Aims of an EMS

The aim of the EMS is to enable your business to:

- identify and meet base environmental responsibilities and standards
- achieve competitive advantage
- deliver cost benefits and improve cost control
- assure customers of your commitment to responsible environmental management
- enhance opportunities for cheaper insurance
- reduce incidents that may result in liability
- conserve input materials and energy
- facilitate permits and authorisations
- improve industry/government relations.

The EMS will assist in addressing waste management and air and noise emissions by providing consistent and ongoing evaluation processes that aim to continually improve environmental practices within your business.

The system is designed to fit with your existing management procedures and enable your business to:

- identify improvements where they are needed
- implement corrective and preventive actions
- achieve environmental targets.
- evaluate your business' environmental performance against its environmental policies, objectives and targets
- maintain a management process to audit and, if you choose, to revise the EMS on an ongoing basis.

2.3 Objectives

A structured EMS will ensure that:

- the potential, immediate and long term impact of the organisation's services and products on the environment are identified and addressed
- the organisation is environmentally proactive, preventive, compliant and driven by a culture of continual improvement
- savings in fuel consumption and waste are achieved
- training needs are identified and implemented
- exhaust emissions from your vehicle/s comply with the requirements of Australian Design Rules (ADR's) and Standards
- vehicle/s are safe and environmentally responsible, maintained in accordance with manufacturers specifications and applicable ADR's
- noise emissions from vehicle/s comply with the ADR's, State and Territory vehicle noise policies, standards, regulations and land-use road traffic noise emission limits
- your organisation minimises the environmental impact associated with the storage, handling and disposal of waste and hazardous materials
- equipment becomes more durable due to the use of appropriate maintenance practices
- problem areas are readily identified, managed and resolved
- environmental penalties are avoided
- written schedules, fault reports and procedures are recorded
- records are available for cost analyses, budgets, scheduled maintenance and fuel requirements
- your organisation's image is enhanced
- improvements are continuous with regular reviews and outcomes implemented as appropriate
- you can demonstrate due diligence.

The EMS draws will ensure your:

- vehicle/s are specified prior to purchase to ensure they are roadworthy and compliant and are configured and maintained to reduce gaseous and noise emissions
- procedures mandate the handling, storage, preservation packaging and disposal of waste and hazardous materials.

2.4 Implementation – at a glance

The EMS should be easy to use and implemented by all personnel involved in your business including:

- workshop staff (in house or contracted provider)
- driver/s
- administration staff
- management
- contract maintenance (plant and equipment)
- waste disposal providers
- any other person contracted to perform any service or function of the business.

The guidelines for environmental management encompass the following:

- 2.4.1 Defining your environmental policy
- 2.4.2 Identifying environmental aspects and impacts
- 2.4.3 Your environmental objectives and targets
- 2.4.4 Pre-trip checks and facility/depot inspections
- 2.4.5 Corrective and preventive action
- 2.4.6 Waste disposal
- 2.4.7 Maintenance and waste disposal schedules
- 2.4.8 Monitoring and measurement
- 2.4.9 Records and documentation
- 2.4.10 Reviews
- 2.4.11 Training, awareness and competence.

2.4.1 Defining your environmental policy

The purpose of the organisation's environmental policy is to enable management to establish the direction and principles of action for environmental responsibility and performance. In effect, the policy provides the organisation with a common set of environmental values. As well as complying with environmental regulations and legislation, the policy should commit to:

- minimising any environmental impacts
- developing environmental performance evaluation procedures and planning
- establishing a disciplined environmental management process for achieving targeted performance levels
- designing transport products and services that minimise emissions (gaseous and noise), the consumption of resources and the production of waste
- education and training
- complying with environmental legislation, rules and regulations
- reviewing the EMS and to identify opportunities for improvement
- an environmentally safe workplace
- considering and evaluating environmental impacts of new projects.

All legislation can be viewed and downloaded from the Australian Legal Information Institute web site <<http://www.austlii.edu.au/databases.html>> . Applicable environmental legislation can be found on web sites like the Department of Environment and Conservation (NSW) <http://www.epa.nsw.gov.au/legal/envacts.htm> and on OzeBus <<http://www.ozebus.com.au/webapp/ozebus/OzeBusGovernmentServicesReference>>

2.4.2 Identifying environmental aspects and impacts

The next stage of the EMS is to detail the environmental aspects and impacts on your business. An environmental aspect is an element of your business services and/or products that can have a beneficial or adverse effect on the environment. An environmental impact is the change to the environment that results from each aspect (or your activities and products).

Examples of an assessment of bus and coach activities, aspects and impacts are detailed in Table 1.

Table 1 - Activity or service aspect impact

Service:

- Results in increases in greenhouse gas, toxic air and noise emissions.

Activity: Handling of hazardous waste

- Aspect - Potential for accidental spillage
- Impact - Contamination of soil and water.

Activity: Vehicle Maintenance

- Aspect - Gaseous and noise emissions, reduced greenhouse gas, toxic air and noise emissions
- Impact - Handling, storage, preservation, packaging and disposal of wastes.

Table 1. Examples of an assessment of bus and coach activities, aspects and impacts

Statutory requirements

You should establish and maintain procedures for accessing and understanding the statutory requirements relating to the environmental impact of the business.

Several sources can be contacted to identify existing legislative, regulatory, rules and statutory requirements including:

- all levels of Government (State and Federal, including the Environmental Protection Agencies (EPA))
- BIC's Ozebus website www.ozebus.com.au and your State Bus & Coach Associations
- professional services such as lawyers and industry consultants.

2.4.3 Your environmental objectives and targets

The organisation must establish objectives and targets to meet its environmental policy in areas that include:

- reducing waste, emissions of harmful gases into the atmosphere and noise emissions from all activities
- complying with environmental rules, regulations, statutes and legislation
- enhancing storage, handling, preservation, packaging and disposal of hazardous materials and waste matter
- preventing pollution and ensuring emergency preparedness
- Improving work practices.

Quantifiable and measurable targets should then be established to achieve the objectives, within a specified period of time. These may include:

- quantity and type of waste disposed of
- amount of fuel consumed per tonne-kilometre by fuel type
- quantity of emissions by gas or pollutant type
- exhaust noise levels per vehicle
- number of environmental incidents including corrective actions taken, outcomes and reviews
- percentage of waste recycled
- number of prosecutions and notices
- investment in environmental management
- investment in vehicle technology and infrastructure
- use of environmentally friendly fuels (where practicable).

2.4.4. Regular pre-trip checks and depot/terminal inspections

The guidelines recommend:

- Regular, documented pre-trip checks of the vehicle(s)
- A regular weekly inspection of all depots/terminals which assesses storage, handling and waste disposal and hazardous materials.

This can be done in any format but the preferred methods are:

- tick-the-box type lists
- written check-lists of tasks that need to be done and verified by the driver (in the case of vehicle checks)
- mandatory sign off by the person conducting the check
- regular review by the responsible administration officer for the environmental impact of depot activities (including waste disposal).

The purpose of the checks is to confirm that the required tasks have been done. Appendix 1 has an example of a vehicle pre-trip checklist and Appendix 5 has an example of a depot/terminal inspection checklist.

2.4.5 Corrective and preventive action

Procedures should be established to:

- provide mechanisms to identify, record, action and review
- correct faults and problems
- ensure that your organisation complies with environmental legislation, rules, regulations and standards
- prevent future faults and problems
- review findings.

Procedures should identify the people responsible for responding to environmental related faults, problems and non-conformance. For example, one or more of the following persons may be responsible:

- drivers in accordance with scheduled checks
- workshop managers
- maintenance and waste disposal contractors
- environmental manager
- legal representative (for legislative, regulatory and compliance issues)
- senior managers and line managers.

Procedures for correcting faults and problems should be standardised throughout the organisation. These should specify:

- who identified the fault
- the fault/issue to be corrected
- when the fault/issue is to be corrected
- who is responsible for correcting it (see above)
- what alternatives can be introduced to maintain compliance
- a review period.

The guidelines acknowledge that not all faults or problems reported need to be addressed immediately. They may be dealt with by:

- nominating responsible party to investigate the matter
- communicating with persons who may be affected
- repairing immediately

- deferring repair
- monitoring the problem
- determining that fault or problem does not exist
- signing off.

Any evidence that legislation or regulations are not complied with should be addressed immediately.

In an owner-operator or single vehicle operation, the responsibility for most or all of the above will typically lie with the business owner/operator. As stated previously these processes should be included within existing maintenance arrangements.

2.4.6 Waste disposal

The guidelines require that:

- EPA and other statutory requirements and resources for storing, handling and disposing of waste and hazardous goods are readily accessible
- hazardous and waste materials are segregated and labelled
- hazardous and waste materials are stored in impervious areas
- lists be maintained on all hazardous materials stored, by type, by whom and when
- weekly inspections be conducted and reported
- waste is disposed of by licensed contractors to licensed premises
- containers and drums are replaced if damaged or rusted
- waste water is disposed of in accordance with the BIC waste disposal guidelines
- waste is recycled where practicable
- accredited personnel remove and dispose of refrigerant gases.

Record-keeping requirements for waste management

- Documented waste management schedules identify tasks or inspections undertaken
- Maintenance schedules for waste disposal facilities, storage, and handling and disposal procedures are regularly reviewed and responsible personnel identified
- Waste procedures are verified and recorded at prescribed intervals by qualified personnel
- Aspects and impacts register records whether EPA and other statutory/regulatory standards are compliant.

2.4.7 Maintenance and waste disposal schedules

Depot/terminal and waste disposal checks

Depot/terminal and waste disposal checks should be:

- undertaken regularly (recommend weekly)
- assigned to specified personnel with appropriate level of authority (e.g. Depot Manager, Operations Manager or business owner)
- specified as a list of items
- recorded and verified, highlighting any faults or potential problems
- signed off by delegate specified above.

You should refer to Appendix 5 for an example of a checklist.

2.4.8 Monitoring and measurement

Documentation should be established to:

- verify regular monitoring
- measure key environmental attributes with particular reference to the organisation's environmental objectives and strategies including aspects and impacts.

Processes should be able to demonstrate that:

- data is reliable
- measuring equipment is calibrated to a recognised Australian or International Standard
- relevant environmental legislation, rules and regulations are complied with.

Areas that need to be monitored include:

- maintenance practices
- fuel consumption
- gaseous and noise emissions levels
- waste water facilities
- handling, storage, preservation, packaging, and disposal of waste and hazardous materials.

2.4.9 Records and documentation

Records and document control should form part of your existing policy, procedures and management systems as they will be vitally important in the event of an environmental incident or possible prosecution.

Recognising competing demands on management's time, additional paperwork has been kept to a minimum. To this end, operational procedures and processes that implement environmental obligations should be defined, documented and reviewed as necessary. The documentation should be presented as:

- a separate manual, or
- integrated into an existing manual (such as a Quality Assurance manual).

BIC suggests you incorporate these guidelines into your existing maintenance practices or relevant procedures.

Records must be maintained when:

- identifying, maintaining and implementing environmental actions
- reviewing corrective and preventive actions
- conducting induction and training programs.

Records for each environmental guideline should verify and document:

- environmental issues arising from pre-trip records and regular (weekly) depot/terminal reviews
- faults and repairs
- changes to fuel type, composition or provider
- periodic noise, gaseous emissions and waste disposal/handling/storage inspections
- third party air-conditioning, maintenance and waste disposal contractors and suppliers
- outcomes of internal reviews including emissions, noise levels and waste disposal procedures
- environmental legislation, regulations and standards
- complaints
- outcomes of inspections, maintenance and equipment calibration
- incident reports
- information on emergency preparedness and response
- management reviews (including new technology and alternative fuels).

As well as providing environmental records, you should ensure that procedures, generate useful and accurate data, and cover retention periods, responsible parties and disposal procedures.

Fault recording and reporting

The guidelines recommend that you systematically record, report and action any vehicle faults and depot/terminal environmental problems. Nominated officers and/or drivers should be responsible for recording these faults and problems, documenting their findings:

- in Vehicle Maintenance Logs or comparable journals, or
- using any other suitable recording mechanism providing evidence of action taken.

It can also be helpful to establish a range of recording and reporting systems. For example, you may wish to:

- keep a fault-log in the vehicle and retain until addressed
- store documentation identifying problems on-site waste disposal and depot noise in the administration office and retain until addressed
- develop procedures to identify and respond to faults and problems when they occur and ensure that corrective action is carried out to minimise the chance of a recurrence
- provide guidance to help determine whether the fault or problem may impact on vehicle and facility/depot safety

Where possible, integrate fault records and reporting within existing maintenance fault reporting arrangements.

2.4.10 Management reviews

The EMS should be regularly reviewed. Ideally this would occur quarterly, but as each organisation is different, an alternative regular review schedule might be considered. The review should be based on audit findings, both internal and external.

Ensure that your organisation formally documents the outcome of the review and includes an assessment of performance against key indicators. It should also look at the suitability of current objectives, targets and overall environmental policies in the light of:

- changing legislation, regulation and standards
- changing business activities and products
- advances in emission and waste technology
- lessons from environmental incidents
- market preferences
- changes in reporting and communication.

In adopting the BIC EMS, operators are not required to undertake an external compliance audit. However, should an operator wish to become fully accredited under ISO 14001 (Internationally recognised and auditable environmental systems standards), the BIC EMS will assist in achieving this goal.

2.4.11 Training, awareness and competence

The guidelines recommend training to ensure that, where applicable, employees and third party suppliers are aware of:

- induction requirements
- the importance of compliance with the EMS
- impacts of their activities on the environment

- benefits of improved environmental performance
- their role and responsibilities in protecting the environment including emergency preparedness and response requirements

The EMS implementation manager should:

- identify and analyse the need for employee training
- develop an annual training plan
- document all training provided
- periodically evaluate training activities to ensure that they are still meeting the identified employee training need.

Environmental training can be provided in-house by appropriate personnel or by inviting an external provider into the organisation to carry out the training. Alternatively, there could be suitable training activities conducted by other organisations.

Training can be undertaken by attending workshops, participating in seminars, attending conventions, inviting specialist speakers to address staff, completing online educational packages, watching instructional videos or listening to audio training material.

Training should cover:

- EPA and statutory/regulatory requirements
- vehicle inspection and maintenance management
- fault reporting, assessment and repair protocols
- fuel quality monitoring and maintenance
- waste disposal practices
- on-board driver and vehicle performance systems
- driver training, including defensive driving skills
- documentation.

Training documentation should record:

- any training planned and undertaken
- staff participation, including nature and content of training
- any conferences and meetings attended by staff
- any training notes and bulletins issued.

3. Introducing and implementing an EMS

Implementing an EMS is essentially implementing a change management program within your organisation. Consultation and ongoing communications with staff and contractors is essential to ensure they are actively involved in successfully implementing an EMS.

Unless the Board and/or management is committed to the EMS, it is unlikely that any real results will be achieved. The board and/or Chief Executive Officer (CEO) must show leadership if the EMS is to succeed. To demonstrate this they must mandate the EMS to ensure that:

- the organisation complies with legislative and regulatory requirements
- sources of liability are limited
- risks are identified and risk management strategies are developed
- materials are used efficiently
- profitability is enhanced by reducing waste and fuel consumption
- a corporate culture of environmental awareness and responsibility is established.

Having obtained commitment and a mandate from management, it is vital that staff understand why the EMS is being developed and implemented. This is essential if staff are to feel a sense of commitment and ownership towards the EMS. Specifically, staff need to understand:

- about the EMS process
- why it is being implemented in the organisation
- how it affects them
- what is expected of them
- what impact they can have on developing the system
- why the industry is moving in this direction.

The board and/or CEO will need to delegate key responsibility for managing and implementing the EMS. Staff should be notified of the organisation's intention to develop an EMS process and invited to participate. A planned communications and consultation program should also be developed to keep stakeholders informed of progress and provide information on how to become involved in the EMS (e.g. steering committee, calls for submissions etc).

The guideline for Environmental Management Practices is detailed in Table 2.

Environmental Management Practices Guideline:

The operator should implement management practices to ensure that bus and coach operations and depot/terminal activities comply with best practice environmental performance. The environmental management system should retain maintenance and waste disposal records and should aim to provide ongoing environmental performance training and education to staff.

Description:

The operator should demonstrate and document procedures that ensure:

- all vehicle/s and depot/terminal activities conform with relevant environmental standards, regulations, legislation and rules
- environmental impacts of bus and coach transport activities are continuously reduced.

Criteria:

An operator would need to demonstrate the following:

1. Vehicle checks are undertaken as per schedules and depot/terminal inspections are undertaken regularly (weekly) - the person undertaking the checks signs off on them.
2. Environmental issues have been identified and are being addressed.
3. Environmental legislation, rules and regulations are understood and adhered to.
4. A documented mechanism exists to identify and correct environmental faults.
5. All staff participate in the environmental management system.
6. Licensed contractors are used to remove waste.
7. Drivers do not behave in a manner that increases the negative environmental impact of road transport.
8. A mechanism exists to update environmental documentation such as rules, legislation and regulations.
9. Emissions (gaseous and noise) and waste disposal/storage and handling inspections are undertaken regularly.
10. A list of hazardous materials is stored at the depot/terminal.
11. Only qualified personnel have management responsibility for the EMS
12. All records, procedures and methods are maintained and are readily accessible.

Table 2: The Guideline for Environmental Management Practices.

3.1 Responsibility for the EMS

The Board and/or CEO has overall responsibility for a company's EMS. Your organisation will need to nominate a suitably qualified person to oversight the EMS.

This person should have the clear mandate of the Board and/or CEO. He or she may not be required to undertake all the work associated with developing and implementing the system but should monitor progress and appropriate staffing.

The EMS manager may need additional training, professional development and support in order to competently carry out this new role.

Depending on the size of your organisation, a small steering committee could be formed to assist information flow, decision-making and monitoring. This committee would be chaired by the EMS manager and could comprise both managers and the general staff.

3.2 Introducing the EMS to your staff

Staff are much more likely to support the EMS if they understand why it is needed and feel part of the process. The board and/or CEO should also be aware that staff may be resistant to change until they gain a better understanding of what is involved. Early communication and extensive consultation will therefore be crucial if the EMS is to be successful.

To this end, the CEO should call an initial meeting of all staff early in the development phase to explain the EMS process and consider a range of options. The CEO should introduce all key personnel and clarify their roles before handing the meeting over to a general discussion of options.

The presentation should begin with an overview of an EMS and its purpose. Staff should be informed of the company's commitment to effective environmental management and the need for change. The presentation should also address the need for the organisation to:

- involve all levels of staff in the organisation
- identify cost-benefits of implementing a successful EMS
- gain recognition and prestige by demonstrating a commitment to responsible environmental practices
- take advantage of any available government incentives if the EMS is implemented.

Staff should be provided with enough information to understand their role and how the EMS may impact on their work. For example, if the process is to begin with an audit of current work practices in relation to their environmental impact, the audit process should be outlined and specific examples given as to the standards required, namely:

- vehicles are maintained according to established standards
- sufficient preventative and emergency measures are in place
- waste and hazardous materials are stored, handled and disposed of appropriately
- contractors are handling emissions and waste disposal correctly
- areas of responsibility are clearly articulated and delineated

Staff should be provided with ample opportunity to ask questions and comment on proposals throughout discussions and at the end of the meeting. They should also be invited to participate in appropriate forums such as steering committees, consultation meetings, making written submissions etc.

The meeting should be formally minuted, ensuring that discussions and decisions from the meeting are accurately recorded. Depending on the size and nature of individual organisations, another staff meeting could be scheduled at this time.

3.3 Staff consultation and engagement

Staff surveys and questionnaires are used for gauging staff awareness and attitudes towards environmental issues. They are also useful for obtaining personal assessments and ideas.

Depending on the size of the workforce, it may also be appropriate to conduct information and training workshops on implementing the EMS.

The steering committee should seek suggestions, feedback and opinions from both employers and employees. This information is useful in informing discussions, analysis and decision making.

Staff notice boards should be used to advise of forthcoming meetings, consultation processes and key initiatives. Key achievements should be shared with staff to demonstrate how the EMS implementation is progressing.

Regular staff meetings should be held to update staff of developments and outcomes of reviews.

3.4 The initial review process

The EMS manager will be responsible for ensuring that an initial review of the organisation's current environmental practices is conducted. These current practices should be reviewed against legislative and industry standards outlined in this publication with particular attention to:

- systems
- documentation
- records.

To begin a review of your organisation's current environmental status, you should develop a process which will:

- identify the environmental impact of all your activities, products and services
- identify and obtain copies of all legislative and regulatory requirements
- evaluate existing environmental practices, policies and procedures
- investigate any previous incidents of non-compliance
- assess existing environmental related procurement and contracting activities.

3.5 Legal and regulatory considerations

Your organisation will need procedures in place to identify current legal, legislative, regulatory and other requirements, relevant to its environmental obligations.

Internal communications channels should also be utilised to ensure that your management team has access to procedures and is updated on all requirements.

3.6 Assistance

We trust that this section provides the tools and information needed to meet the Bus and Coach Industry Environmental Guidelines. If you require further assistance call BIC or your State Bus & Coach Association.

4. Relevant legislation

Below are lists of relevant Acts that may be of use to assist in compliance.

Links to this legislation are available on <http://www.ozebus.com.au/webapp/ozebus/OzeBusGovernmentServicesReference> or click on Reference Centre then Government Services from the OzeBus home page.

ACT

Ozone Protection Act 1991

Environment Protection Act 1997

Land (Planning and Environment) Act 1991

For more information see:

<http://www.legislation.act.gov.au/a/1997-92/default.asp>

New South Wales

Protection of the Environment Operations Act 1997

Protection of the Environment Operations (Noise Control) Regulation 2000

Road and Rail Transport (Dangerous Goods) Act 1997

Environmental Planning and Assessment Act 1979

Protection of the Environment Administration Act 1991

Environmental Hazardous Chemicals Act 1985

Ozone Protection Act 1989

Waste Avoidance & Resource Recovery Act 2001

Waste Recycling and Processing Corporation Act 2001

For more information see: <http://www.environment.nsw.gov.au/legal/envacts.htm>

Northern Territory

Environmental Assessment Act 1982

Planning Act 1993

Waste Management & Pollution Control Act 1998

Water Supply & Sewerage Service Act

Soil Conservation and Land Utilisation Act 1977

Water Act 1992

Dangerous Goods (Road & Rail Transport) Act

Public Health Act

For more information see: http://www.austlii.edu.au/au/legis/nt/consol_act

Queensland

Environmental Protection Act 1994 - Environmental Protection Policies

Sewerage and Water Supply Act 1949

Contaminated Land Act 1991

Land Act 1994

State Development and Public Works Organisation Act 1971

Pollution of Waters by Oil Act 1973

Water Act 2000

For more information see: <http://www.legislation.qld.gov.au/OQPCHome.htm>

South Australia

Dangerous Substance Act 1979

Development Act 1993

Environment Protection Act 1994

Local Government Act 1934

Public and Environmental Health Act 1987

Water Conservation Act 1936

Soil Conservation and Landcare Act 1989

Water Resources Act 1997

For more information see: <http://www.austlii.edu.au/databases.html#sa>

Tasmania

Environment Management and Pollution Control Act 1994

Dangerous Goods Act 1998

Local Government Act 1993

Pollution of Waters by Oil and Noxious Substances Act 1987

Water Management Act 1999

For more information see: http://www.austlii.edu.au/au/legis/tas/consol_act

Victoria

Environment Effects Act 1978

Environment Protection Act 1970 - State Environment Protection Policies

Pollution of Waters by Oil and Noxious Substances Act 1986

Land Act 1958

Water Act 1989

Water Industry Act 1994

Dangerous Goods Act 1985

For more information see: <http://www.austlii.edu.au/databases.html#vic>

Western Australia

Conservation and Land Management Act 1984

Environment Protection Act 1986

Pollution of Water by Oil and Noxious Substances Act 1987

Soil and Land Conservation Act 1988

Wildlife Conservation Act 1950

For further information see: <http://www.austlii.edu.au/databases.html#wa>

5. Greenhouse Challenge Plus Programme

The Greenhouse Challenge Plus programme is an important Australian Government and industry partnerships initiative. It is highly effective in achieving greenhouse gas abatement and building the capacity of both government and industry to identify, monitor, manage and report greenhouse gas emissions. It forms part of the Government's national climate change strategy.

The objectives of Greenhouse Challenge Plus are to:

- reduce greenhouse gas emissions (including promotion of awareness of greenhouse gas abatement opportunities in business)
- accelerate the uptake of energy efficiency
- integrate greenhouse issues into business decision-making
- provide more consistent reporting of greenhouse gas emissions levels.

To get started, you will need to complete a standard one-page Letter of Intent (LOI) on behalf of your company, expressing your commitment to join Greenhouse Challenge Plus.

The LOI template can be downloaded at <www.greenhouse.gov.au/challenge/index.html>.

The central part of the Greenhouse Challenge Plus membership process is developing your Cooperative Agreement with the Australian Government. The agreement outlines a tailored individual action plan to reduce greenhouse gas emissions. Members report annually on progress and permit these reports to be independently verified, if required.

Businesses can also choose to be a Leader in the Greenhouse Challenge Plus programme by undertaking an agreed extended programme of activities. Greenhouse Challenge Plus leaders distinguish themselves by the way in which they fulfil their greenhouse emissions objectives each year, in particular through public disclosure of their emissions and setting and achieving greenhouse goals.

Greenhouse Challenge Plus leaders are announced annually by the Minister for the Environment and Water Resources and are recognised through a range of events.

Greenhouse Friendly product and service certification has now been incorporated into the Greenhouse Challenge Plus programme. That means as a member, you can have your product or service accredited as Greenhouse Friendly, which then gives you the opportunity to use the Greenhouse Friendly logo to market a product or service that is greenhouse neutral (resulting in zero net emissions).

To achieve certification, the greenhouse gas emissions associated with the production, use and disposal of your product or service need to be fully offset by accredited greenhouse gas abatement. Companies that gain Greenhouse Friendly Certification for a product or service are well placed to become leaders, as these achievements provide a vehicle for realising short and long-term greenhouse goals.

The Greenhouse Challenge Plus programme is expected to contribute more than 15 million tonnes of CO₂-e emissions reductions every year, during the period 2008 to 2012. By joining Greenhouse Challenge Plus, you will directly contribute to Australia's efforts to reduce greenhouse gas emissions, both in the short and long term.

Greenhouse Challenge Plus also gives Australian companies the opportunity to become environmental leaders, locally and globally. That's a big plus for Australia as well as for your business.

Over 1,000 businesses, from all states and territories and representing almost all industry sectors already participate voluntarily in Greenhouse Challenge Plus.

While Greenhouse Challenge Plus is currently a voluntary programme, the Australian Government has introduced conditionality membership for certain large fuel users through the new Fuel Tax Act. From 1 July 2006, these entities need to be a member of Greenhouse Challenge Plus in order to receive fuel tax credits over 3 million dollars each financial year.

Through Greenhouse Challenge Plus, you will measure and monitor your greenhouse gas emissions, report regularly to the government and make public statements of your achievements.

Your membership will give you access to advice and support through Greenhouse Challenge Plus Industry Advisers, technical tools, workshops and other member resources aimed at maximising your greenhouse performance.

Other benefits of membership include:

Saving money - Practical, effective measures to reduce emissions can save you money. By developing abatement actions, you can improve your processes, save energy and reduce waste. This will help you to focus on ways to cut costs and boost productivity.

Sharing actions - membership allows you to become part of a national network of Greenhouse Challenge Plus businesses. You will be able to take part in events to share experiences of the programme and adopt actions to help you to reduce greenhouse gas emissions.

Being recognised for your efforts - As a member, you will be able to market your greenhouse actions to your community, customers, suppliers and your staff. You will have access to the Greenhouse Challenge Plus Members' Logo to use on your products and corporate information, and be eligible to participate for national recognition in the annual Greenhouse Challenge Plus Awards.

Streamlining your emissions analysis systems - Joining Greenhouse Challenge Plus will help you gain the technical capability and the internal systems and structures to collect emissions data, and monitor and manage your emissions for the future.

The Greenhouse Challenge Plus programme - the Australian Government and industry, leading the challenge against climate change.

For more information on how to join the Greenhouse Challenge Plus programme, or the new conditionality membership requirements under Fuel Tax Credits, please call 02 6274 1229, email greenhouse.challenge@greenhouse.gov.au or visit the website at: www.greenhouse.gov.au/challenge.



Australian Government



Section 2

Bus & Coach Industry EMS: Noise Guidelines

1. Initiatives, strategies and future directions

The most effective strategy to reduce commercial vehicle noise is to reduce noise levels at the source (the vehicle). The purpose of this section is to summarise the major heavy vehicle noise issues and outline implementation strategies and initiatives to reduce heavy vehicle noise.

2. Major issues to address

A review of the significance of heavy vehicle noise found that the major factors influencing noise and existing noise reduction policies in Australia and overseas are as follows:

- significant and increasing public concern about noise from heavy vehicles
- higher incidence of noisy vehicles in urban regions
- limited options for operators of older vehicles to ensure that noise emissions comply with contemporary noise limits (at best, they can only maintain the vehicles to the standards required when the vehicle was manufactured)
- with substantial gains in vehicle technology pertaining to noise emissions from engines, fans, transmissions, intakes, tyres and exhausts, tyre/road interface (at higher speeds), driver variability, inconsiderate use of engine brakes and inappropriate maintenance practices are now the major contributors to heavy vehicle noise.
- poor maintenance practices that largely contribute to heavy vehicle noise excesses.

3. Vehicle maintenance

Vehicle-specific issues that should be monitored and maintained to assist in managing environmental responsibilities are set out below.

3.1 Tyre noise

By properly selecting and maintaining tyres, heavy vehicle noise can be reduced. Suggested tyre management initiatives include:

- maintaining proper inflation pressures
- using rib tyres wherever possible
- using block tread types rather than the older crossbars for traction tyres
- not using suction cup treads.

3.2 Engine brakes

Most complaints about the use of engine brakes derive from:

- worn, modified or inappropriate (non OEM) muffler systems. In some instances, mufflers are not attached
- indiscriminate use of engine brakes particularly in urban areas.

Strategies that may be employed to effectively reduce heavy vehicle noise arising from the use of engine brakes include:

- using OEM type mufflers on all vehicles
- avoiding engine brakes in noise sensitive areas
- maintaining the exhaust system according to OEM specifications and applicable ADR's
- avoiding fitting devices that temporarily or permanently reduce muffler performance below that required by the OEM or applicable ADR's
- keeping mufflers to OEM specifications with no alternations
- replacing existing corroded or damaged muffler systems with OEM specified components
- maintaining seals in the intake and exhaust systems.

3.3 Cooling fans

Many older buses may not be equipped with temperature controlled cooling fan drives. Temperature controlled cooling fan drives should be installed in all vehicles and maintained to OEM specifications.

3.4 Valve covers and oil sumps

Well-fitted valve covers and oil sumps contribute to reduced bus noise. Damaged sumps or covers should be replaced with contemporary OEM specified components and maintained to OEM standards.



Australian Government



Section 3

Bus & Coach Industry EMS:

Waste Management & Disposal Guidelines

1. Introduction

The Australian bus and coach industry is committed to achieving environmental excellence. The industry's environmental obligation extends beyond gaseous emissions, so this publication also encompasses noise emissions and the disposal of industry-related waste.

Objectives and scope of this section

The primary objective of this section is to assist bus and coach businesses to minimise the environmental impact of emissions, noise and waste.

2. Waste

2.1 Why do we need to manage our waste?

By properly managing waste bus and coach operators can:

- demonstrate their environmental responsibility
- minimise the risk of environmental damage and occupational health and safety (OH&S) concerns
- achieve cost savings and realise business efficiencies
- improve the environment for employees and the community
- enhance the image of their business
- increase customer patronage and retention by demonstrating a responsible attitude to waste management.

Table 3 below provides a checklist to determine whether your business is managing waste appropriately. If you answer **NO** to any of the questions your business may not only be harming the environment, but it may also be contravening state, territory and local legislation, regulations and policies.

Table 3: Waste checklist for bus and coach businesses

Water quality management stormwater

COMPLIANCE STEP	COMPLIANCE MEASURE			COMMENT
	YES	NO	N/A	
Do you have any processes or procedures in place to prevent stormwater pollution?				
Are the stormwater drains around your business free of pollution? (litter, grease, oil, etc)				
Do you dismantle work inside your workshop?				
<i>(Where applicable)</i> Is your workshop fully enclosed and contained?				
Do you store all parts so they cannot spill or leak into the stormwater system?				
Do you store all waste oil and chemicals in a covered, bunded area or inside the workshop in an area that drains to a Corrugated Plate Interceptor (CPI)?				
Do you use a broom instead of a hose to sweep and clean up the surface areas around your premises?				
WASTE WATER				
Do you have a trade waste agreement or permit?				
Do you have an CPI for pre-treatment of your wastewater?				
Is your CPI regularly maintained?				
Have you looked at all the waste generated from your business?				
Are all your wastes stored in a contained area to prevent pollution of stormwater drains?				
Do you separate any of your waste (items for reuse, return to supplier, recycling)?				
If a supplier was willing to take back packaging wastes (e.g. crates, plastic drums), would you use this service?				
Do you recycle or reuse oil, batteries, solvents, paint, aluminium, cans, glass, paper and cardboard plastic, tyres, fuel and oil filters, rags or scrap metal parts?				
Do you have a waste contractor to transport and dispose of waste oil, solvents, waste acidic and caustic cleaning solvents waste fuel, air and oil filters?				
Paint, tyres, paper and cardboard and trap sludge?				

Table 3 (cont'd...): Waste checklist for bus and coach businesses

Air quality management

COMPLIANCE STEP	COMPLIANCE MEASURE			COMMENT
	YES	NO	N/A	
If you install, service or decommission vehicle air conditioners are you authorised to do so? If yes, do you adhere to the Code of Practice for the Control of Fluorocarbon Emissions in Motor Vehicle Air Conditioners?				
Do you use water-based or biodegradable strippers, cleaners and degreasers wherever possible?				
Do you use a dedicated parts cleaner with a lid?				
Hazardous Materials?				
Do you store your hazardous materials (such as coolants, fuels and solvents) in a bunded, covered area that will not allow any materials to be spilled or washed into stormwater?				
Do you know whether you store Dangerous Goods?				
If you store Dangerous Goods (eg petrol LPG) do you know whether you need a licence from the relevant Authorities?				
Do you have all relevant Material Safety Data Sheets (MSDS)?				
Do you have a spill procedure or kit? If so are you trained in its correct usage?				
Do you store hazardous materials in suitable bulk tanks or drums?				
Have you made any changes in your business for environmental reasons?				
Do you have an environmental policy or plan? Is it known and understood by any and all staff?				
Is your staff aware of your commitment to improving the environment?				

2.2 How should we approach waste management?

Bus and coach businesses should endeavour to reduce the amount and toxicity of waste. Waste should be treated and disposed of in a manner that does not adversely affect the environment. Bus and coach businesses should aim to:

- prevent waste - reduce the amount of material being wasted (thereby reducing purchase and disposal costs)
- recycle waste - reusing materials where practicable
- treat waste - direct waste materials to recycling
- dispose of waste - as a last resort.

2.3 Bus and coach waste

Bus and coach waste may present as a gas, liquid or solid. It can either be leftover matter or an unwanted by-product from the activities of bus and coach businesses or materials surplus to requirements.

Hazardous waste is material that may demonstrate one or more of the following attributes:

- toxic - containing contaminants
- ignitable - liquids with low flash points, non-liquids capable of spontaneous combustion and gases
- reactive - react violently with water or when mixed with water generated toxic gases
- lethal - substances that are dangerous to inhale such as paints.

Table 4 (right) details the type of waste generated by bus and coach operations.

Table 4: Waste generated by bus and coach businesses

TYPE OF WASTE	HAZARD POTENTIAL
Wastewater management	
Wastewater from bus wash, parts wash, degreasing engines and hands, vehicle cooling systems and human waste	<ul style="list-style-type: none"> • May contain oil, detergents and grease • Hazardous if waste flows to a storm sewer, which ties into, surface water (drain) or river
Potentially and non hazardous waste	
Paint and oil drums/containers	<ul style="list-style-type: none"> • Hazardous if it contains 3cm of material and even if the entire pourable product has been removed • Also hazardous if paint is lead or chromium based • Oil is hazardous if it is not recycled or burned for energy recovery
Building/maintenance materials	Not hazardous but recyclable
Grease cartridges	Hazardous if not disposed of appropriately and not easily recyclable
General Packaging	Not hazardous but recyclable
Electronic boards	Not hazardous but recyclable
Cardboard and paper	Not hazardous but recyclable
General waste	May be hazardous during decomposition
Hazardous waste ²	
Aerosol paint cans	Hazardous as partially filled cans, may be ignitable Contents are hazardous if container is punctured
Waste paint, dried paint, paint flakes and grits	Hazardous if ignitable or contains lead, chromium or other metals
Solvents, cleaning fluids and thinners	Hazardous due to ignitability and/or toxicity
Vehicles, vehicle parts and engine parts	Hazardous if they contain oil and other toxic materials
Transmission and brake fluids	Hazardous due to ignitability and/or toxicity
Anti freeze, radiator cleaner, inhibitor and coolants	May contain ethylene glycol, lead, other metals and corrosion inhibitors
Batteries	Hazardous due to acid and lead content
Damaged and used tyres	Major fire hazard and can generate toxic fumes and can attract disease-carrying pests
Degreasers	May be toxic and in some cases ignitable
Engine Oil	Hazardous unless recycled or burned for energy recovery
Fuel and oil filters	<ul style="list-style-type: none"> • Hazardous due to toxic materials and organics • If drained and recycled do not have to be managed as hazardous waste
Toner and ink cartridges	Can be toxic
Spent paint abrasive	May be hazardous due to presence of heavy metals and spontaneous ignition
Air conditioner and CFC refrigerant gases	Hazardous as they contain chlorofluorocarbons

2.4 What needs to be known about waste disposal legislation in Australia?

There are many laws, regulations, policies and guidelines that relate to storage, handling and disposal of waste from industry. These laws and regulations are associated with severe penalties, even if waste disposal offences are proven to be accidental. Therefore, it is important that company directors, managers, employers and occupiers of bus and coach facilities:

- take all reasonable steps to prevent waste pollution
- promote action to minimise (if not prevent) environmental damage
- demonstrate that every reasonable step is being undertaken to prevent a pollution incident
- ensure that all precautionary and control measures are instigated and maintained
- act responsibly on environmental issues.

Individual state authorities (such as the Environmental Protection Agencies) may differ in their waste treatment regulatory requirements.. Accordingly, operators **and owners** should consult relevant authorities to ensure that they are aware of their legal responsibilities when disposing of waste, and take appropriate actions accordingly.

3. A general summary of the requirements

3.1 Outline of requirements

There are three categories of requirements relevant to waste disposal. These are:

- water and air pollution
- waste management
- hazardous materials.

3.1.1 Water and air pollution

It is an offence to:

- Introduce any material (litter, oil, debris, water other than stormwater, detergent, paint, solvent etc) into the stormwater system or waterways
- Place any material where it can be blown into, or in any other way, introduced into, the waterways or stormwater system.

3.1.2 Waste management

The law supports environmental policies that:

- reduce, reuse and recycle waste
- separate waste streams so that each can be deposited in a licensed waste facility
- prevent transportation, delivery or acceptance of waste by unlicensed transporters to a place that is not licensed for that waste.

3.1.3 Hazardous materials

There are specific regulations, legislation and guidelines for the use, storage and disposal of dangerous goods, ozone-depleting substances and hazardous chemicals or wastes.

3.2 Do I need a licence or permit?

Generally, businesses must have written approval from the water authority or local council to discharge trade wastewater into the sewer.

Environmental Protection Authority (EPA) licences are required by larger industries that have been identified by the state or territory authorities as potentially capable of seriously affecting the environment. While, it is unlikely that road passenger transport entities would require EPA licences, the relevant authority in your state/territory should confirm this requirement.

3.3 Who enforces the laws, legislation and regulations?

In most states/territories, local councils and state/territory environmental protection authorities (EPAs) have the statutory power to enter premises and issue clean-up notices and/or penalties for waste disposal offences.

Operators should obtain details of the legislation from the Ozebus website: www.ozebus.com.au/webapp/ozebus/OzeBusGovernmentServicesReference, relevant authorities or their State Bus & Coach Associations. Operators should then make the information available to those persons or bodies charged with environmental management responsibilities.

4. Waste guidelines and practices

The following guidelines and practices for storage, handling and disposal of waste products have been prepared for owners, operators, managers and employees of bus and coach businesses. The key waste disposal issues have been addressed according to:

- water quality management
- hazardous materials
- non-hazardous materials.

Many of the wastes generated by bus and coach businesses are hazardous and, in the majority of cases, may only be transported by state-approved and licensed operators.

Advice about obtaining exemptions from third-party waste transport should be sought from the respective state authorities.

Hazardous waste should be clearly labelled and stored in areas that are readily accessible and easily identifiable to waste contractors and emergency services.

4.1 Water quality management

Water quality management involves managing stormwater and wastewater.

4.1.1 Stormwater

Stormwater is rainwater that flows across the surface into stormwater drains or waterways. It is an offence to allow stormwater to become polluted. You are required to:

- prevent anything other than clean rainwater from entering stormwater drains at or near your premises
- prevent any water from vehicle washes entering stormwater drains
- maintain clean premises to prevent unintentional pollution of the stormwater system
- either sweep, vacuum or use absorbent material to remove grime
- ensure that parking area drainage complies with state or territory requirements
- prevent stormwater from flowing through rubbish storage areas.

4.1.2 Wastewater

Wastewater is any water used or contaminated as a result of business activities. Wastewater may include pollutants such as oils, degreasers, solvents and detergents that should not be allowed to enter the stormwater system. Bus and coach businesses should have a permit to discharge wastewater to the sewer. The main bus and coach activities that generate wastewater are bus washing, washing and painting parts, and degreasing engines, parts and hands.

4.1.2.1 Wastewater from bus and coach washing, parts washing and degreasing

Water effluent from wash bays may contain oil, suspended solid waste, dirt, soil and solvents. Accordingly, the water should not be disposed of via water drains. The method of water disposal varies according to the type of washing or cleaning (and the specific requirements of individual state or territory jurisdictions).

When washing involves cleaning panels with clean water only, then the effluent can be allowed to be absorbed into the soil or through water drains. However if the panels, vehicle parts and the undercarriage are washed with cold detergent then:

- vehicles must be washed in a bunded area or in a sealed bay graded to a sump
- effluent should be passed through a high efficiency separator
- water from the separator may only be disposed via the sewer to treatment works after receiving a permit from the local authority.

If the engine, vehicle parts and panels are washed with solvents, hot detergents and or degreasers then:

- vehicles or parts should be washed in a bunded area or in a sealed bay graded to a sump
- all waste fluids (such as oils and coolants) should be drained from any parts and poured into labelled storage containers for disposal
- effluent should be transferred to an on-site interceptor for treatment prior to disposal. An example of one of the more common interceptors used by industry are general-purpose pits (i.e. concrete in-ground pit consisting of three compartments where the pollutants are retained while the water passes to either a sewer or a separator. These are rarely equipped with oil skimming capabilities but if maintained properly, perform satisfactorily).
- oil, solvent, detergent and water should be transferred to a separator to ensure that the water is properly treated prior to disposal via the sewer
- solids, oil, sludge should be cleaned from the interceptor and/or separator (by licensed contractors or staff) and deposited in labelled trade waste bins for disposal by licensed trade waste disposal contractors (assuming transport exemptions are not granted to your business)
- water from the separator may only be disposed of via the sewer to treatment works after receiving a permit from your local authority.

The relevant authorities should approve the method for disposing of the effluent. In any event, effluent should be collected and pumped by suction tube boom and transferred to an interceptor or separator.

4.1.2.2 Wastewater from the degreasing of hands

Hands should be degreased over a sink connected to the sewer. If a sewer outlet does not exist then the wastewater should be poured into a clearly labelled container for disposal by a licensed contractor.

4.2 Hazardous materials

Hazardous waste includes:

- used oil and related products
- batteries
- damaged and used tyres
- used rags, cloth and material
- anti freeze, radiator cleaner, inhibitor and coolants
- air conditioner and refrigerant gases
- paint and thinners
- paint drums, oil drums and aerosol cans
- vehicles, vehicle parts and engine parts.

4.2.1 Used oil and related products

Used oil is defined as engine (sump) oil, gear oil, transmission fluids, brake fluids and differential oil. As outlined earlier, used oils are regarded as hazardous and shall not be:

- dumped on land, into sewage systems, waterways or general refuse
- used as a dust suppressant or timber preservative
- burnt or incinerated
- tipped down stormwater drains.

Bus and coach operators generating used oil and related products should confirm whether they need to comply with the provisions of Australian Standard AS 1940 - The Storage and Handling Of Flammable and Combustible Liquids (exemption may apply if the amount of oil and related products is minor).

4.2.1.1 Storage and handling

In addition to AS 1940 and specific state government requirements, the following measures should be undertaken:

- segregate used products and ensure that these are not mixed with other contaminants and are protected from accidental use
- securely store individual products in labelled quality bulk tanks or drums and on spill trays
- store tanks or drums on an impervious (concrete) covered bunded area
- keep an up-to-date manifest of all hazardous goods stored
- replace containers and drums if they become damaged or rusted
- locate storage areas such that they are easily accessible by collectors and remote from drains
- protect drums and containers from possible collisions
- store hazardous materials away from heat, naked flames, direct sunlight and other flammable materials
- minimise the time that used oil and related products are stored
- inspect weekly for leaks.

4.2.1.2 Disposal

Licensed contractors should dispose of used oil. Ensure that the contractor has been issued (by the relevant state authority/s) with a current waste transport permit and that the used oil is taken to licensed premises.

4.2.2 Batteries

Used batteries should be:

- stored upright, under cover and on an acid resistant spill tray
- inspected weekly for leaks
- disposed of according to one of the following:
 - left with the sales outlet for the replacement battery
 - handled by a licensed battery contractor
 - delivered to a metal recycling collection depot.

Under no circumstances should you attempt to break up used batteries.

4.2.3 Damaged and used tyres

4.2.3.1 Storage

Stocks of damaged tyres should not be allowed to build up.

4.2.3.2 Disposal

Tyres should normally be disposed of through your tyre supplier.

4.2.4 Oil and fuel filters

When oil and fuel filters are mixed with solid waste and landfill, the surrounding environment will become enriched with petroleum hydrocarbons. Accordingly, oil and fuel filters should:

- remove the filters into waste oil or fuel tanks/drums and drain for 24 hours (or at least overnight)
- crush the filters (if possible) and contract metal recyclers to remove them (see section 4.2.1)
- use licensed contractors to remove the filter and the drained contents (ensure that the contractor has been issued with a current waste transport permit from the relevant state authority/s and that the waste is taken to licensed premises)
- where possible, medium to large-scale operators could consider purchasing a filter press (a filter press squeezes the oil or fuel out and collects it in a storage area. The steel “brick” derived from the press is then recycled)
- utilise re-usable filter cartridges.

4.2.5 Used rags, cloth and material

Oil, fuel or solvent soaked rags, cloths or materials are hazardous as they may be toxic and/or ignitable. These materials should be stored in closed containers far removed from potential fire hazards and recycled where feasible.

4.2.5.1 Disposal

Rather than burn used rags, cloths and materials, they should be removed by a licensed contractor in a manner similar to waste oil and filters.

4.2.6 Anti freeze, radiator cleaner, inhibitor and coolants

It is illegal to release radiator coolants, cleaners and inhibitors into gutters, drains and sewers. Anti freeze, radiator cleaners, inhibitors and coolants must be treated as a prescribed waste and disposed of by a licensed waste company. These companies may either remove or recycle the liquids.

Details of recommended disposal and recycle companies can be obtained by the relevant state authorities (i.e. EPA). Always remember to:

- store away from heat, naked flames, direct sunlight and other flammable liquids
- store small containers (25 litres or less) of new and used coolant/solvents off the floor and away from drains
- store larger drums in a bunded area, impervious to leakage.

If you use large volumes of coolants then a coolant recycling system could be installed or long-life and non-petroleum based coolants used.

4.2.7 Air conditioner and refrigerant gases

Refrigerant gases can only removed or disposed of by personnel accredited by The Australian Refrigeration Council³ (refer to the EPA in your state for a list of licensed companies that have specialised equipment to remove the gases and filter all moisture, wax and oil from the gas). It is illegal to release refrigerant gases into the atmosphere. For medium and large bus and coach businesses, recovery and reclaiming equipment is available for purchase.

All refrigerant gas purchases should be recorded and include details of the type of gases purchased and the seller's name and address.

4.2.8 Wet paint, dried paint, paint flakes, solvents, paint abrasive and thinners

Paints, solvents and thinners (whether used or unused) are hazardous and shall not be:

- placed in a sewer
- disposed of in a landfill
- evaporated in the case of solvents or, for paint sludge, separated from the solvent
- mixed with waste oil.

4.2.8.1 Storage and handling

The following measures should be undertaken when storing or handling paints:

- segregate paints and thinners and ensure that these are not mixed with other contaminants
- securely store in quality bulk tanks or drums
- store tanks or drums in impervious bunded areas preferably under cover
- locate storage areas in an area that is easily accessible to collectors
- minimise the time that used paints and thinners are stored
- ensure that all solvents and paints are removed from spray guns (or brushes) and transferred to the storage tanks and drums.

4.2.8.2 Disposal

As with used oil, paints and solvents should be disposed of by licensed contractors unless an exemption has been issued. Ensure that the contractor has been issued with a current waste transport permit by the relevant state authority/s and that the paints and solvents are taken to licensed premises.

Alternatively, solvent recovery units can be applied to waste paints. Recovered paint solvent can then be reused as cleaning fluid. Any pigment should be transferred to a labelled storage bin for disposal.

4.2.9 Paint drums, oil drums and aerosol cans

If the drum or can contained non-solvent products then these should be allowed to dry out before disposal. However, if the drum or can contains lead, solvents, chromium based paint or oil, then the drums/cans should be labelled as hazardous waste and disposed of in a manner similar to wet paints, used oil and other hazardous wastes.

4.2.10 Vehicles, vehicle parts or engine parts

If the vehicle, vehicle parts or engine parts contain any liquid, the liquid should be drained from the parts and stored in separate, labelled containers. The vehicle parts should then be placed in bins provided by waste metal or auto parts recyclers. Entire vehicles should be transported to a licensed auto parts recycler.

4.2.11 Toner and ink cartridges

Toner (for laser printers and photocopy machines) and ink cartridges can be toxic. Used cartridges should be reused, recycled or disposed of as per manufacturer's recommendations.

4.3 Non hazardous materials

4.3.1 Cardboard, paper and plastics

Cardboard and paper should be separated from general refuse for recycling purposes. Authorised disposal is not necessary. However, consideration should be given to contracting paper recyclers who provide mobile bins (free of charge) and collect refuse at agreed intervals. By introducing a cardboard and paper recycling system cardboard and paper disposal costs could be halved (NSW EPA, 1998).

4.3.2 Glass, plastic containers and aluminium

Old plastic containers are not generally accepted in all recycling programs. Glass and plastic containers should be collected, separated and stored for council kerbside collection where this service is available.

4.3.3 Building and maintenance materials and general waste

These are regarded as inert and can be disposed of to landfill.

4.3.4 Electronic circuit boards

Electronic boards should be placed in labelled containers and forwarded to metal recyclers.

5. Response to spills

In the event of a spill, the following steps should be undertaken:

- temporarily cease operations in the affected area(s)
- block all adjacent drains unless they can be used to contain the spill in a defined area
- recover the product from the containment area or absorb the spill using rags, absorbents, brooms, mops or booms
- spot clean the area with quick break detergents and direct the waste to effluent separator treatment
- if hosing, direct the waste to an approved treatment system - do not direct the effluent to drains
- advise the EPA or the local council if there is a pollution risk
- for large scale spills advise the fire brigade
- for smaller spills, follow the Material Safety Data Sheets (MSDS).

The handling of spills arising from fuel deliveries, workshops, wash bays and storage/warehousing facilities is detailed below.

5.1 Fuel deliveries (where applicable)

In the event of spillage from fuel vehicles the following steps should be undertaken:

- close all vehicle valves
- shut down all ignition sources
- evacuate personnel and isolate all electrics
- isolate the spill area
- block all drains to areas extending beyond the refuelling region
- if petrol is spilled, institute controls for vapour generation
- if diesel is spilled, absorb or dispose of the fuel as outlined above (vapour evaporation may not be as critical as that for petrol)
- seek advice from the relevant authorities and recovery experts.

5.2 Workshops and wash bays (where applicable)

Spillage should be recovered using absorbents or rags and cleaned using quick break detergents and washing. The waste should not be directed to drains but rather to a separator.

5.3 Storage/warehousing and general areas

If the spills are relatively minor then rags, absorbents and quick break detergents should be sufficient. Larger spills should be handled in a manner similar to that outlined in fuel deliveries (ref. 5 and 5.1 above).

6. What can management do?

Apart from introducing uniform purchasing, disposal, recycling and reuse procedures, management should:

- develop an environmental management plan
- ensure that employees are trained in waste storage, handling and disposal.

6.1 Environmental Management System

An environment management system should be developed and implemented to formalise (in part) your waste storage, handling and disposal procedures and to maintain best practice environmental standards. A waste management system should include, but not be confined to:

- maintaining the separators, pumps and equipment (where applicable)
- cleaning any pits and drains
- checking stormwater drains
- ensuring that bunding areas are maintained
- providing spill kits incorporating rags, brooms, mops, quick break detergents and booms
- monitoring potential leaks from underground tanks
- properly maintaining all records and procedures
- tidying all work areas at the end of each day
- assessing the relative financial benefits associated with waste storage, handling and disposal measures
- conducting inspections of yards, workshops and storage areas.



Australian Government



Section 4

Bus & Coach Industry EMS:

Policies & Procedures

1. Introduction

The following policies and procedures should be used as a template for examining the current arrangements in your workplace. The aim of this section is to provide you with a set of policies to be integrated into your existing workshop, maintenance and depot procedures.

You can use this section as a template for developing your own EMS. Replace “*Sample Bus and Coaches*” with the name of your business and insert specific information as indicated.

- 1.1 *Sample Bus and Coaches* operate (insert number) buses from (insert number) depots. All equipment is maintained according to the documented policy and procedures as outlined in the Policy/Procedures Manual and this Environmental Management System.
- 1.2 *Sample Bus and Coaches* are responsible for the routine, scheduled and minor maintenance of vehicle/s to standards required by the vehicle/engine manufacturers, the Australian Design Rules (ADR's) and statutory requirements. All maintenance is undertaken in-house (or outsourced to *insert name of organisation*) by qualified and trained workshop staff under the direction of (*insert position title*).
- 1.3 Major maintenance is undertaken either (a) in-house or (b) outsourced to qualified, trained and approved maintenance providers detailed in the attached list of repairers.
- 1.4 *Sample Bus and Coaches* is also responsible for the storage, handling and disposal of waste in accordance with statutory regulations. Waste management is the responsibility of (*insert position title*) under the direction of (*insert position title*). Personnel charged with this responsibility are selected to perform these duties based on qualification and experience. (*Modify to reflect size of company*).
- 1.5 Waste and hazardous materials collection and disposal is undertaken by accredited contractors as detailed in the attached list of suppliers.

2. Environmental policy

- 2.1 In order to minimise *Sample Bus and Coaches* impact on the environment, *Sample Bus and Coaches* is committed to:
 - meeting (or exceeding) manufacturer specifications and government regulations pertaining to gaseous emissions, noise emissions and waste storage, handling and disposal
 - an environmentally safe workplace
 - selecting and using non-polluting energy and materials where practicable
 - controlling and minimising exposure to toxic substances and reducing toxic waste at the source
 - evaluating the environmental impact of new projects at the planning stage
 - monitoring compliance and accountability
 - continually improving environmental performance
 - providing training and education.
- 2.2 The above will be achieved through a properly planned and executed environmental management system that includes:
 - scheduled vehicle inspections
 - regular (weekly) depot inspections
 - environmental compliance inspections
 - fault recording, reporting and repair systems
 - records management

- training and education
- internal business reviews
- implementation and application of corrective and preventive action systems.

2.3 The procedures outlined in this manual are a true account of *Sample Bus and Coaches* environmental commitments and practices.

Reviewed & approved by: _____ on the _____ (date)
(insert position title)

3. Responsibilities

3.1 (Insert position titles) are responsible for the environmental performance of *Sample Bus and Coaches*. (insert position title) is the sole spokesperson for *Sample Bus and Coaches* on all environmental matters.

3.2 (Insert position title) is responsible for:

- ensuring compliance with all elements of this system
- inducting and training existing and future employees in the requirements of the system (as is pertinent to the employee's position or contractor's role)
- regularly reviewing and measuring the key environmental attributes of vehicles and depots/terminals
- ensuring vehicles and waste disposal infrastructure are regularly maintained according to manufacturer requirements, ADR's, government regulation and legislation
- ensuring waste materials are properly stored, handled and disposed of
- ensuring vehicles are not used unless they meet all specifications, are in a roadworthy condition and waste is disposed of according to the requirements of this system
- maintaining sample bus and coaches environmental objectives and targets
- maintaining records of maintenance and repairs to vehicles and the condition of waste infrastructure
- maintaining a list of all employees, vehicles, approved repairers, approved waste disposal suppliers and all other service providers
- maintaining all records as required by procedures within this system
- completing the weekly depot(s)/facility(s) review and inspection
- ensuring waste disposal contractors are licensed to perform assigned tasks and the waste is taken to licensed premises
- ensuring waste is recycled (where practical and feasible)
- ensuring *Sample Bus and Coaches* has access to manufacturer's manuals, warranty conditions and part replacement information, EPA and other legislative/statutory/regulatory requirements for compliance inspection
- ensuring that all staff charged with environmental responsibilities have access to all legislative, statutory or regulatory requirements and are selected to perform these duties based on qualifications and experience.

3.3 Drivers are responsible for:

- effectively completing the scheduled vehicle inspection and signing it off before departure as required (refer Appendix 1)
- reporting all vehicle faults relating to roadworthiness (to the limits of the inspection), gaseous emissions, and noise emissions
- disposing of vehicle waste (in transit) in accordance with the procedures in this system.

3.4 Contracted repairers are responsible for (*where applicable*):

- completing all maintenance requirements of *Sample Bus and Coaches* vehicles according to the manufacturer's specifications, including, but not limited to ADR's for vehicle faults detected during inspection or reported in the Vehicle Maintenance Log or comparable journal contained either in the vehicles, under direction from (*insert position title*)
- completing all maintenance requirements associated with waste disposal infrastructure according to manufacturer's specifications and applicable ADR's for vehicles used for this purpose
- ensuring all repairs are tested before a vehicle is returned for duty or waste disposal equipment is used
- notifying *Sample Bus and Coaches* if:
 - the environmental status of vehicles is unsatisfactory, requiring further maintenance or inspection
 - the performance of waste storage, handling and disposal infrastructure is unsatisfactory or unserviceable, requiring further maintenance or inspection
 - the vehicles or waste disposal equipment are unavailable due to outstanding repairs, parts or testing
 - follow up, remedial or other work or monitoring is required.

3.5 Contracted suppliers are responsible for (*where applicable*):

- ensuring hazardous materials are handled and delivered according to regulations and statutory requirements
- maintaining their licences and waste transport permits
- ensuring waste products are delivered to licensed premises
- notifying (*insert position title*) if they no longer hold the required licences and permits.

4. Scheduled vehicle inspections

4.1 All drivers are responsible for completing scheduled vehicle inspections pertaining to environmental and roadworthiness matters (only to the limits of the inspection).

4.2 The driver should conduct a scheduled vehicle inspection as per the company's usual routine. An example form of such an inspection routine is included in the back of this section as Appendix 1. The inspection form should be dated and signed in the appropriate space in the relevant "Vehicle Inspection Log". Inspections or records will not be required on days where the vehicle is not driven.

4.3 If the driver considers that a fault may compromise the environmental performance or status of the vehicle, that fault should be reported to (*insert position title*) immediately. The driver should then follow the instructions of (*insert position title*) to ensure the vehicle is promptly repaired. Where (*insert position title*) is the driver, the (*insert position title*) should decide on the appropriate action. All actions should be documented, and may relate to (but not be limited to):

- tyre inflation pressures
- tyre wear
- worn, modified or inappropriate muffler systems
- the status of the exhaust system
- corroded or damaged muffler systems
- leaks from the intake and exhaust systems
- performance of temperature controlled cooling fans
- engine or component oil leaks
- speed limiters
- braking systems
- fuel lines

- fluid leaks and levels
- air leaks
- general roadworthiness.

4.4 Faults found during the inspection and not fixed immediately should be recorded and reported in accordance with the fault reporting procedures contained in this manual.

5. Regular depot inspections (weekly recommended)

5.1 *(Insert position title)* or an officer/s) nominated by *Sample Bus and Coaches* is responsible for completion of the regular depot inspection and review. The nominated officer/s) or *(insert position title)* should complete a regular depot inspection as per Appendix 5, date it and sign it in the appropriate space in the company's depot inspection log. Any breaches may be reported by staff and action taken accordingly. All breaches shall be documented and reviewed to ensure that corrective actions are sufficient to minimise the possibility of a recurrence.

5.2 Any fault that compromises the environment should be reported to *(insert position title)* immediately. *(insert position title)* shall ensure these faults are attended to promptly. These faults may include (but are not limited to):

- uneven or damaged approaches to driveways
- excessive noise levels from depot activities
- broken surfaces to bunded areas
- incomplete labelling of all storage containers
- malfunctioning interceptors and separators
- incorrectly stored hazardous materials (outside secure bunded areas)
- out-of-date lists of hazardous materials
- damaged or rusted containers
- leaking containers, batteries, underground storage tanks and refuelling areas
- incorrectly stored batteries (not placed on acid resistant trays)
- incorrectly stored hazardous (away from heat, naked flames, direct sunlight and other flammable goods)
- unquarantined materials for collection (not quarantined in a nominated area or readily accessible).

5.3 Faults or problems found during the inspection that are not addressed immediately should be recorded and reported in accordance with the fault reporting procedures contained in this manual.

6. Vehicle environmental compliance inspections

Vehicles

6.1 Environmental compliance inspections should be undertaken for all vehicles at intervals close to 200,000 kilometres or at 12 months whichever is first. An annual vehicle service record should include, not just roadworthiness, but also the fact that the vehicle has been maintained to manufacturer's specifications and complies with the applicable emission based ADR's .

6.2 *(Insert position title)*, a qualified and experienced mechanic or the relevant state environment authority is authorised to undertake this inspection. Typically this inspection is performed by *(insert position title)*.

6.3 Any faults or issues detected during inspection that compromise the environmental performance of the vehicle/s should be recorded and rectified in consultation with *(insert position title)* of *Sample Bus and Coaches*.

- 6.4 Other non-environmentally related faults found during the inspection should be recorded and reported in accordance with the fault reporting procedures detailed in the maintenance manual.
- 6.5 A table of tolerances detailed in the maintenance manual is to be made available to the service provider by *Sample Bus and Coaches* and used to assist in determining the environmental status of the vehicle(s).
- 6.6 (*Insert position title*), as nominated by *Sample Bus and Coaches*, is to periodically review the table of tolerances for continued relevance.

The depot

- 6.7 Environmental compliance inspections will be undertaken for all depots every 12 months. (*Insert position title*) and/or an accredited officer from the relevant state authority should undertake the inspection if the operation is of a sufficient scale.
- 6.8 Any environmental faults or problems found during the inspection are to be recorded.

7. Vehicle and facility service schedules

- 7.1 (*Insert position title*) is to ensure that all vehicles are made available for routine servicing at the prescribed intervals, with particular reference to that component of the service that influences the environmental status of the vehicle/s.
- 7.2 (*Insert position title*) and or any contract repairers are responsible for completing the scheduled services and for the standard of work performed. Work undertaken to maintain or enhance the environmental performance of the vehicle should be recorded.
- 7.3 The contract repairer is to provide details of repairs/service undertaken and parts fitted, in writing, to *Sample Bus and Coaches*. (*Insert position title*) is responsible for retaining and storing any invoices and proof of work completed.
- 7.4 Any faults or issues identified during the service that have the potential to compromise the environmental performance of the vehicle(s) must be recorded and rectified in consultation with *Sample Bus and Coaches*.
- 7.5 Maintenance schedules should reflect the manufacturer's recommendations, operational requirements and any recommendations from contract repairers and contract suppliers. *Sample Bus and Coaches* should endeavour to develop any new schedules (with suppliers and manufacturers) if needed and refine any current schedules. However, the schedules cannot be less stringent than those recommended by the vehicle manufacturer.
- 7.6 Service schedules pertaining to environmental performance of vehicles owned or maintained by *Sample Bus and Coaches* are in the rear of the manual. Contract repairers should hold the appropriate qualifications.
- 7.7 *Sample Bus and Coaches* management shall ensure that the depot is available and accessible for routine maintenance to manage noise emissions, waste disposal and the storage/handling of hazardous products.
- 7.8 *Sample Bus and Coaches* management and (*insert position title*) are responsible for completing the service schedules and for the standard of work performed. This shall be undertaken in conjunction with nominated service providers. Work undertaken to enhance the environmental performance of the depot/terminal vehicle shall be recorded, either in a Depot Maintenance Log or comparable journal or comparable reporting system already in place in your business.
- 7.9 The contract repairer is to provide details of repairs/service undertaken and parts fitted in writing. (*Insert position title*) is responsible for retaining and storing any invoices and proof of work completed.

- 7.10 Any faults and repairs to waste disposal infrastructure identified during maintenance that compromise the environmental performance of the depots/terminals must be recorded and rectified in consultation with *Sample Bus and Coaches*. All corrective actions implemented should be sufficient to minimise the possibility of a recurrence.
- 7.11 Maintenance schedules should reflect the manufacturer's recommendations, operational requirements and any recommendations from contract repairers, contract suppliers and state authorities. *Sample Bus and Coaches* is responsible for developing any new schedules if needed and refining any current schedules. However, the schedules cannot be less stringent than those recommended by the manufacturer or the relevant environmental authority.
- 7.12 Service schedules pertaining to a depot's/terminal's environmental performance are appended to the manual. Contract repairers should hold appropriate qualifications.

8. Waste disposal reporting

- 8.1 *Sample Bus and Coaches* should prepare waste management reports including:
- status of on-site separators and/or interceptors (where applicable)
 - a list of labelled trade waste bins
 - a list of the contracted waste disposal suppliers
 - state of repair of containers and drums
 - a list of all hazardous goods stored
 - storage areas
 - inspection reports (leaks etc)
 - any licenses held by *Sample Bus and Coaches* for transporting hazardous goods
 - details of any spills
 - status of spill kits
 - potential leaks from underground storage
 - status of all breaches.

Reporting shall be on a monthly basis.

9. Fault recording, reporting and repairs

Vehicles

- 9.1 All vehicles operated by *Sample Bus and Coaches* should include within their fault reporting systems the ability to record environmental matters.
- 9.2 Any driver detecting a fault that has the potential to compromise the environmental performance of the vehicle, must record the fault in the Vehicle Maintenance Log or comparable journal. The entry must record the nature of the fault, person reporting the fault, date recorded and an assessment urgency according to:
- **Minor fault** – Non-environmental or safety-related faults are to be recorded for assessment at the next service or other specified time. Records should show what alternative, if any, can be used to maintain compliance until the repair has been carried out.
 - **Major fault** – Significant environmental or safety-related faults should be referred to *Sample Bus and Coaches*, the workshop manager or person responsible for maintenance. This person must organise incident containment and cleanup, vehicle recovery (if required) and immediate repair.

Details of the repair should be recorded in the Vehicle Maintenance Log or comparable journal or reporting document including:

- nature of the repair
- recommended time-frame for repair
- person responsible for repair
- likely date of compliance
- recommended monitoring standards (such as condition of exhaust and/or noise emission levels).

9.3 *Sample Bus and Coaches* must nominate a responsible person to assess the faults. This person and/or the contract repairer must assess all faults.

9.4 Records must show what action has been undertaken for each reported fault. Typical actions would include:

- fault fixed
- repair deferred to another time (time limits shall be defined along with the name of the person making the determination to defer)
- fault to be monitored
- no repairs required.

9.5 Where an environment-related fault has been repaired, records must show who performed the repair, what was done and when. The record is typically kept as part of the repairer's invoice. If the fault is repaired in-house a record of the repair and parts fitted should be recorded in the vehicle's maintenance history file. The workshop manager or the person responsible for the maintenance must sign off and date the appropriate column in the Vehicle Maintenance Log or comparable journal to indicate that the fault has been repaired or a timeframe has been identified to repair the fault.

9.6 Repairs are to be tested for their environmental compliance.

9.7 If the repair of a fault is deferred, records must indicate who made the decision and the planned time frame for repair. This is to be shown in the Vehicle Maintenance Log or comparable journal.

9.8 If it is considered that a fault does not need to be repaired this must be recorded in the Vehicle Maintenance Log or comparable journal.

9.9 All environment-related repairs must be acceptable to the workshop manager, or the person responsible for the repair. This person will inspect or test the repairs to ensure they conform to environmental standards.

Premises

9.10 Every depot and/or terminal operated by *Sample Bus and Coaches* should contain a Depot Maintenance Log or comparable journal for environmental matters.

9.11 Any employee noticing a problem with the storage, handling and disposal of waste or hazardous goods that compromises the environment must notify responsible *Sample Bus and Coaches* staff and record the fault in the Depot Maintenance Log or comparable journal. The entry must record the nature of the problem, the person reporting the problem, the date recorded and an assessment of urgency according to:

- Minor problem - for assessment at the next depot/terminal inspection. Records should show what alternative, if any, can be used to maintain compliance until the action is effective
- Major problem - advise (insert position title) who is to immediately action the problem.

Details of the repair should be recorded in the Depot Maintenance Log or comparable journal including:

- nature of the repair
- recommended time-frame for repair

- person responsible for repair
- likely date of compliance
- recommended monitoring standard

9.12 *Sample Bus and Coaches* management should assess all problems in a timely manner.

9.13 Records must show what action has been undertaken for each reported problem.

Typical actions would include:

- problem fixed
- deferred to another time
- problem to be monitored
- no action required.

9.14 Where an environment related fault has been addressed, records must show who corrected the problem, what was done and when and what review action is required. The record is typically kept as part of the contractor's/ supplier's invoice. If the problem is addressed in-house a record of the action and any parts fitted should be recorded in the depot's/terminal's Depot Maintenance Log or comparable journal. *(Insert position title)* must sign off and date the appropriate column in the Depot Maintenance Log or comparable journal to indicate that the fault has been addressed.

9.15 Wherever possible and practical, problems are to be monitored for environmental compliance.

9.16 If repair is deferred, records must indicate the planned time frame for correction and the name of the person making the decision. This is to be recorded in the Depot Maintenance Log or comparable journal.

9.17 If a problem is considered not to need attention this must be recorded in the Depot Maintenance Log or comparable journal.

9.18 All environmental related actions must be acceptable to *(insert position title)* who will inspect or test the actions to ensure they conform to environmental standards.

10. Records management

10.1 *Sample Bus and Coaches* must ensure that records are kept up to date and maintained according to procedures detailed in the Policy/Procedures Manual.

10.2 All vehicles' maintenance histories should include the following information to assist in recording gaseous and noise emissions issues:

- vehicle identification (registration details)
- scheduled maintenance undertaken
- unscheduled maintenance undertaken
- defect and rectification reports
- compliance records
- date that rectification/s occurred
- contractor and supplier information (including invoices)
- inspection and maintenance records
- deferred and re-work repair reports.

10.3 For depots/terminals, the Depot Maintenance Log or comparable journal should record the following:

- the location of the depot or terminal
- scheduled maintenance undertaken
- unscheduled maintenance undertaken
- incident reports
- fault/s identification and rectification reports
- compliance records
- date that fault/s rectified
- contractor and supplier information (including invoices)
- inspection and maintenance records
- deferred and re-work repair reports.

10.4 Other records that must be maintained include:

- induction and other training records
- audit results
- any vehicle calibration records
- all information on applicable environmental laws, legislation and regulation
- vehicle specifications
- emergency preparedness and response
- management reviews.

10.5 The driver of the vehicle would be responsible for documenting and signing-off vehicle inspections for the appropriate inspection log when they are due.

10.6 (*Insert position title*) is responsible for documenting and signing-off the weekly depot/terminal maintenance inspection in the appropriate inspection log.

10.7 Environmental Compliance Inspections are undertaken as part of the annual service. A record of annual service is a record of Environmental Compliance Inspection.

11. Training and education

11.1 *Sample Bus and Coaches* is responsible for ensuring that all personnel whose work may impact on the environment receive appropriate induction and ongoing training.

11.2 Training must be established, implemented and maintained to encompass the:

- importance of complying with the company's environmental objectives and the EMS
- environmental impacts of employees' work activities
- requirements of the EMS including emergency preparedness and response requirements
- consequences of departing from the EMS.

11.3 The training program must:

- identify the organisation's requirements and employees roles and responsibilities
- develop a training plan
- verify that the training plan meets regulatory and legislative requirements
- train target employee groups
- document and evaluate the training plan
- review process to ensure that employees' knowledge of regulatory requirements, company standards, policies and objectives is current.

11.4 The minimum training requirements are detailed below:

- vehicle maintenance provider - training relating to the requirements of the company's EMS and a copy of the EMS
- contractor/supplier - meeting to detail the requirements of the company's EMS
- contractors – provided with a copy of the EMS
- driver - all drivers are to be trained in scheduled vehicle inspections and fault reporting requirements/procedures
- depot staff - training relating to the requirements of the company's EMS, weekly inspections and a copy of the EMS
- general - training needs in both developing the EMS and training requirements have been met.

11.5 After each training session, all staff must sign off and date a training form or training log that indicates that the program has been successfully completed. The training form should also indicate those employees that are competent to perform environmental related functions.

12. Specifications

12.1 The table below details vehicle and depot/terminal specifications in determining the environmental worthiness of the company's activities. *Sample Bus and Coaches* is to review the table annually.

12.2 Changes to operational requirements will require the table to be reviewed.

See Waste Disposal Guidelines.

ATTRIBUTE		LIMIT/SPECIFICATION	
Vehicle			
Gaseous Emissions		ADR 30/00 and 70/00	
Noise Emissions		ADR 28/01 and State Regulation	
Mufflers		OEM	
Exhaust System		OEM	
Intake and Exhaust Seals		OEM	
Cooling Fans		OEM	
Valve covers and oil sumps		OEM	
Engine and speed limiters		OEM	
Depot/Terminal			
See BIC Waste Disposal Guidelines			

13. Inspections

Vehicle inspections

During regular maintenance inspections (at least once a month) the following should be inspected: (Refer also to Appendices 2 & 3)

- tyre pressures
- rust or damage to the muffler and exhaust system
- temporary mufflers or exhaust system components have not been fitted
- mufflers or the exhaust system have not been altered
- condition and position of intake and exhaust system seals
- function of temperature controlled cooling fans
- valve covers and oil sumps are not damaged, leaking or displaced.

The relevant staff are to sign and date inspection reports when inspections are completed.

Faults are to be reported and recorded in Vehicle Maintenance Log or comparable journal or publication.

Depot inspections

Check that:

- nothing but clean rainwater (i.e. no oil or chemicals etc) enters stormwater drains
- areas adjacent to stormwater drains are clean
- surfaces in bunded areas are not cracked or pervious
- effluent flows through all separators and interceptors are uninhibited
- all hazardous materials are segregated, securely stored and clearly labelled
- hazardous materials are stored on impervious or bunded areas and away from heat, naked flames etc
- containers and drums are not rusted, damaged or leaking
- batteries are stored upright on acid resistant spill trays and are not leaking
- all tyres are stored in securely fenced areas
- all used rags, cloths and materials containing oil, fuel and solvents are stored in closed, labelled containers
- all waste materials are located in an area readily accessible to collectors
- vehicle parts are not left lying around but are drained of liquids and stored in secure, labelled bins
- cardboard and paper products are separately stored from general refuse
- glass, plastic and aluminium containers are separately stored for council collection
- broken timber pallets are stored in areas remote from flame or heat
- all spill response equipment is readily available and in a fit and operable state.

Records of faults identified and corrected are to be detailed in the Depot Maintenance Log or comparable journal.

14. List of approved suppliers

Include waste storage, handling and disposal suppliers that the organisation normally deals with.

[illegible]

15. Vehicle maintenance

Vehicle maintenance should be undertaken as per manufacturer's warranty and recommended manufacturer's maintenance specifications and should include the following procedures at the suggested kilometres travelled or time periods.

1. 5,000 - 7,000 km or fortnightly service

(Refer Appendix 2)

Due 5,000 – 7,000 km.

As per manufacturer's maintenance specifications and includes:

- tyre pressures
- rust or damage to the muffler and exhaust system
- temporary mufflers or exhaust system components have not been fitted
- mufflers or the exhaust system have not been altered
- intake and exhaust system leaks
- temperature controlled cooling fans are operating correctly
- valve covers and oil sumps are not damaged, displaced or leaking
- engine shields and aerodynamic fittings are appropriately attached
- loose suspension, body parts and chains are fastened.

2. 20,000 - 25,000 km or 6 monthly service

(Refer Appendix 3)

Due 20-25,000 km.

As per manufacturer's maintenance specifications and includes:

- noise emission testing using in-house type II meters
- an assessment of the air filter.

3. 200,000 km or a maximum of 1 year service

(Refer Appendix 4)

Due 200,000 km or maximum 12 months.

As per manufacturer's maintenance specifications and includes:

- engine tuning
- independent assessment of gaseous and noise emission levels according to ADR requirements. Undertaken at depots or terminals
- check fuel injection pump and injectors
- check air manifold leaks
- check turbocharger is functioning correctly.

A record of faults identified and repaired is to be detailed and signed off in Vehicle Maintenance Log or comparable journal.

Depot maintenance log or comparable journal checklist

DEPOT:	TERMINAL:	INSPECTOR:
FROM:	TO:	PAGE:

Note:

(1) Daily fuel reconciliation is adequate.

Fuel Tax Credit for heavy diesel vehicles: Guidelines for satisfying environmental criteria

Introduction

If you are the operator of a diesel truck or bus over 4.5 tonnes gross vehicle mass (GVM) which is used in an on-road business activity, you may be eligible to claim a fuel tax credit for fuel used in that vehicle from 1 July 2006⁴. The current Energy Grants Credits Scheme ceased to apply to these vehicles after 30 June 2006.

These guidelines have been prepared by the Department of Transport and Regional Services (DOTARS) to assist road transport operators in understanding the new environmental criteria which apply to fuel tax credit claims for diesel fuelled vehicles.

New eligibility criteria

Under the new fuel tax credit, the previous urban and regional boundary criteria for fuel grants no longer apply. From 1 July 2006, a vehicle with a GVM greater than 4.5 tonnes using diesel fuel must satisfy one of four environmental criteria to be eligible for a fuel tax credit⁵. A vehicle greater than 4.5 tonnes using a fuel other than diesel is not subject to the environmental criteria. A farm vehicle used primarily on an agricultural property in a primary production business is also excluded from the criteria.

These guidelines explain each of the environmental criteria. They also identify the documentary evidence required to verify a claim for the fuel tax credit.

For information about all other aspects of the fuel tax credit, visit the Australian Taxation Office website at www.ato.gov.au/fuelschemes, or phone the Tax Office on 13 28 66 between 8:00am and 6:00pm Monday to Friday.

Keeping records and calculating eligible fuel

Businesses can only claim fuel tax credits on their business activity statement (BAS) in a similar way to their reporting and claiming arrangements for GST credits.

To support your claims for a fuel tax credit, you must keep records that show you acquired the fuel and used it in an eligible activity. You must keep these records for five years after you make the claim. The records must be in English or easily translated into English. You do not need to send these records to the Tax Office unless requested.

These guidelines simply indicate the level of information required to demonstrate eligibility for the fuel tax credit. You do not need to prepare specific documents to establish your eligibility, provided the normal records you keep are adequate. Templates are provided for each criterion which you can choose to use if convenient. These templates can be downloaded from www.dotars.gov.au.

The Tax Office can examine your claims at any time to ensure they meet the eligibility requirements of fuel tax credit. If you cannot support your claims with adequate records, you may have to repay all or part of the credit you receive. You may also have to pay penalties and interest, and you could lose your eligibility to participate.

Making a claim

The environmental criteria set out in Section 3 of these guidelines only apply to diesel fuelled vehicles greater than 4.5 tonnes GVM⁶. Vehicles greater than 4.5 tonnes which operate on fuels other than diesel are not subject to the environmental criteria.

Before you make a claim for a fuel tax credit you need to establish the basis of your entitlement. You should first examine the Environmental Criteria 1 – 4 in Section 3 of these guidelines to determine whether you are eligible to claim a fuel tax credit for diesel fuel used in that vehicle. Each vehicle must be assessed separately.

You need to meet only one of the criteria.

If you determine that you are eligible, you will then need to maintain and retain adequate records applicable to the criterion under which you are making a claim.

Environmental Criteria

This section explains each of the four environmental criteria, how to demonstrate that you have complied with the criteria and what records should be kept.

You need to meet only one of the criteria.

Criterion 1 - Vehicles manufactured on or after 1 January 1996

Explanation

1996 and later model vehicles

If the vehicle has been manufactured on or after 1 January 1996, diesel fuel used in the vehicle is eligible for the fuel tax credit.

Under Section 5 of the Motor Vehicle Standards Act 1989 (MVSA), all vehicles must be fitted with either a compliance (identification) plate or a used import plate. These plates include date of manufacture.

In the case of vehicles which were originally supplied to the Australian market as new vehicles, the date on the compliance (identification) plate is the “date of manufacture” (month/year) as defined in the Australian Design Rules.

In the case of imported used vehicles, there are two dates on the used import plate - the approval date (month/year) and the year the vehicle was actually built (there may be a gap of some years between these two dates).

Many vehicles will also be fitted with a data plate by the manufacturer which includes the actual build date, but this is not a legal requirement and such a plate may not be present.

For the purposes of Criterion 1, the date of manufacture shall be taken as:

- a. the month and year displayed on the Compliance (Identification) Plate defined in Section 5 of the Motor Vehicle Standards Act 1989, for those vehicles fitted with an identification plate (see Figure 1) or
- b. the year of manufacture displayed as part of the description of the vehicle on the used import plate defined in Section 5 of the Motor Vehicle Standards Act 1989, for those vehicles fitted with a used import plate (see Figure 2).

Figure 1 – Compliance (Identification) Plate

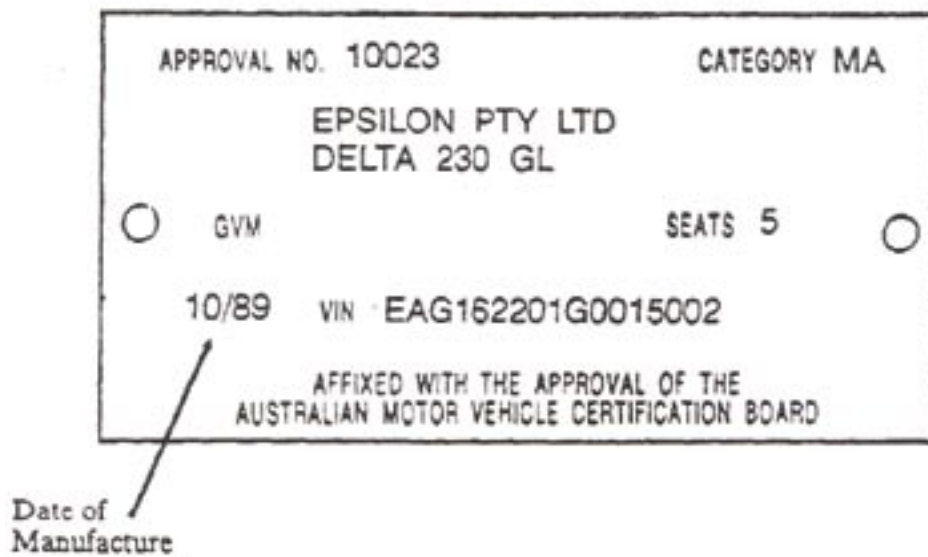
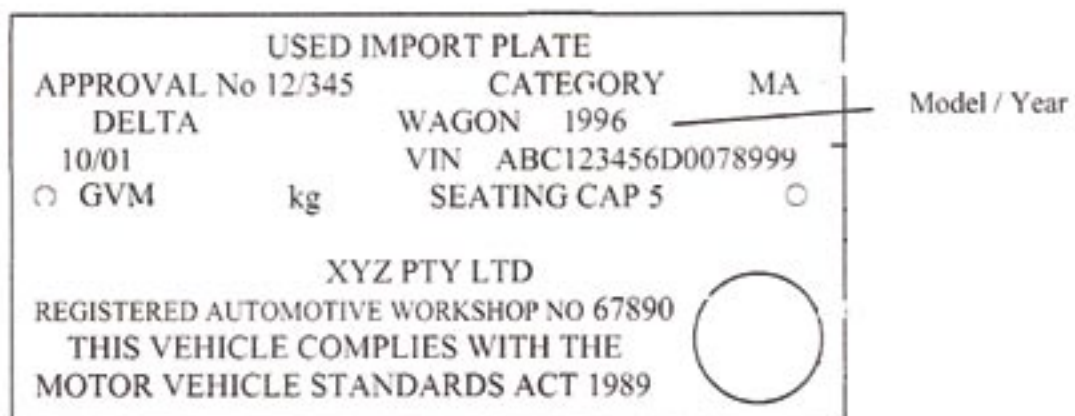


Figure 2 – Used Import Plate



Vehicle registration papers will not be accepted as proof of date of vehicle manufacture.

Pre-1996 vehicles fitted with Post-1 January 1996 engines

Vehicles, manufactured before 1996, that have been retrofitted with an engine manufactured on or after 1 January 1996, may qualify for the fuel tax credit. For a vehicle with a retrofitted engine to be eligible, the engine must be certified to Australian Design Rule (ADR) 70/00 or later emission standard (currently ADR 80/00 or ADR80/01), be properly installed, and retain all the original (or equivalent) components.

Record keeping 1996 and later model vehicles

In order to make a claim under Criterion 1, you must be able to demonstrate from the information on the compliance (identification) plate, or used import plate fitted to the vehicle, that the vehicle was manufactured on or after 1 January 1996.

You may wish to use the template at Attachment A to assist you with your records, but other systems providing an equivalent level of information are acceptable. The template is also available on the DOTARS website at <www.dotars.gov.au>.

Record keeping Pre-1996 vehicles fitted with post-1 January 1996 engines

In order to make a claim under Criterion 1, you must have:

- a. documentary evidence to demonstrate that the engine installed in the vehicle was manufactured on or after 1 January 1996 and is certified to ADR 70/00, ADR 80/00 or ADR 80/01
- b. an engineer's certificate, or proof of calculations showing that manufacturers' specifications for engine installation (including appropriate components) have been met,.

You may wish to use the template at Attachment A to assist you with your records, but other systems providing an equivalent level of information are acceptable. The template is also available on the DOTARS website at <www.dotars.gov.au>.

If your vehicle was manufactured before 1996, you are not able to claim the fuel tax credit under Criterion 1 unless the vehicle has been properly fitted with an engine manufactured on or after 1 January 1996 and certified to ADR70/00 or later emission standards.

Criterion 2 - Vehicles registered in an audited maintenance program that is accredited by the Transport Secretary

Explanation

If the vehicle is part of an eligible accredited audited maintenance program, diesel fuel used in the vehicle is eligible for the fuel tax credit.

For the purposes of the fuel tax credit, accredited maintenance programs are required to meet certain minimum requirements related to emissions performance and auditing, and must be accredited by the Transport Secretary. Eligible accredited maintenance programs will be listed on the DOTARS website at <www.dotars.gov.au>.

Record Keeping

In order to make a claim under Criterion 2, you must retain the current membership certificate or equivalent documentation demonstrating the vehicle's membership of an accredited audited maintenance program for the period for which the claim is being made.

You may wish to use the template at Attachment B to assist you with your record keeping, but other systems providing an equivalent level of information are acceptable. The template is also available on the DOTARS website at <www.dotars.gov.au> .

If you are a member of a maintenance program which is not on the DOTARS list of accredited maintenance programs, or your vehicle is not in a maintenance program, you are not able to claim the fuel tax credit under Criterion 2.

Criterion 3 - Vehicles that meet Rule 147A of the Australian Vehicle Standards Rules 1999 (the “DT80” test)

Explanation

If the vehicle has passed the Australian Transport Council’s in-service emission standard for diesel vehicles (also known as the “DT80” test) and that test was performed in a suitably equipped test facility, diesel fuel used in the vehicle is eligible for the fuel tax credit. The test is specified in Rule 147A of Schedule 1 to National Transport Commission (Road Transport Legislation — Vehicle Standards) Amendment Regulations (No. 1).

A test report is valid for 2 years, after which another test is required if you wish to continue to use this criterion as the basis for your claim.

For the purposes of the fuel tax credit, the Australian Taxation Office determines what evidence is required to satisfy Rule 147A (the DT80 test). The Department of Transport and Regional Services (DOTARS) is assisting the Tax Office by assessing the capability of test facilities to undertake the DT80 test, and listing those facilities that it considers to meet the assessment requirements on the DOTARS website. The Tax Office has indicated that a facility registered on the DOTARS website at www.dotars.gov.au as a DT80 test facility will be recognised by the Tax Office for the purposes of the fuel tax credit.

Record keeping

In order to make a claim under Criterion 3, you must have and retain a DT80 test report issued by the test facility which demonstrates that vehicle’s compliance within the last two years. The time period between the test date and the latest date of the period for which you are claiming must not be more than two years.

You may wish to use the template at Attachment C to assist you with your records, but other systems providing an equivalent level of information are acceptable. The template is also available on the DOTARS website at <www.dotars.gov.au>.

If you do not have a “pass” result on a DT80 test report issued within the last two years by a test facility recognised by the Australian Taxation Office, you are not able to claim the fuel tax credit under Criterion 3.

Criterion 4 - Vehicles which comply with a maintenance schedule endorsed by the Transport Secretary

Explanation

If you conduct regular engine maintenance on the vehicle in accordance with the requirements set out below, diesel fuel used in the vehicle is eligible for the fuel tax credit.

Guidelines relating to minimum maintenance schedules have been developed based on manufacturer's recommendations and industry advice. The schedules identify those components that require maintenance, and the frequency of that maintenance, in order to ensure satisfactory emissions performance.

You have the choice of meeting either the manufacturer's specified maintenance schedules for the vehicle, or the appropriate generic maintenance schedule endorsed by the Transport Secretary. It is recommended that you maintain the vehicle according to the manufacturer's specifications where they exist.

The generic schedules should be used where the:

1. appropriate manufacturer's service manuals/recommendations are not available, or
2. engine is outside the time frame of manufacturer's maintenance specifications, or
3. components listed below are not included in the manufacturer's maintenance specifications.

In the case of condition 3 above, you may use the manufacturer's specified maintenance schedules for those components included in the manufacturer's schedules, in combination with the appropriate generic schedule for those components which are not included.

For the purposes of Criterion 4, components requiring regular maintenance are:

- oil and Oil filters
- air filters
- fuel filters
- injectors
- injector pumps
- valves

The generic maintenance schedules for specific engine groupings are set out below. They are also available on the DOTARS website at <www.dotars.gov.au>.

Generic maintenance schedules

The schedules below are to be followed when you are not using the manufacturer's specifications for engine maintenance. Follow the schedule applicable to your vehicle.

As indicated in the schedules, the "Maintenance Items" are to be serviced in accordance with the "Maintenance Action" at intervals no longer than the applicable "Interval Period". However, operational or other matters may make it difficult for a vehicle operator to exactly comply with the maintenance intervals on some occasions. The Tax Office will not insist on strict compliance with the specified interval period, provided that the maintenance action is performed within one month of the specified time, or within 5,000 km or 10 percent of the specified distance (whichever is the greater).

Schedule 1

Vehicles greater than 16 tonnes GVM, travelling more than 80,000 km/year

MAINTENANCE ITEMS	MAINTENANCE ACTION	INTERVAL PERIOD
Oil/Oil Filter	Replace	20,000 km
Fuel Filter/s	Replace	20,000 km
Air filter	Inspect & Clean or Replace	20,000 km
Valves	Inspect & Adjust	200,000 km
Injectors	Rebuild or Replace	600,000 km
Fuel pump	Rebuild & Adjust	800,000 km
Injection timing	Check & Set	400,000 km

Schedule 2

Vehicles greater than 16 tonnes GVM, travelling less than 80,000 km/year

MAINTENANCE ITEMS	MAINTENANCE ACTION	INTERVAL PERIOD (WHICHEVER OCCURS FIRST)
Oil/Oil Filter	Replace	15,000 km / 6 months
Fuel Filter/s	Replace	15,000 km / 6 months
Air filter	Inspect & Clean or Replace	15,000 km / 6 months
Valves	Inspect & Adjust	12 months
Injectors	Rebuild or Replace	300,000 km
Fuel pump	Rebuild & Adjust	500,000 km
Injection timing	Check & Set	250,000 km

Schedule 3

Vehicles up to and including 16 tonnes GVM, travelling any distance

MAINTENANCE ITEMS	MAINTENANCE ACTION	INTERVAL PERIOD (WHICHEVER OCCURS FIRST)
Oil/Oil Filter	Replace	10,000 km / 3 months
Fuel Filter/s	Replace	20,000 km / 6 months
Air filter	Inspect & Clean or Replace	10,000 km / 3 months
Valves	Inspect & Adjust	30,000 km / 6 months
Injectors	Rebuild or Replace	200,000 km
Fuel pump	Rebuild & Adjust	200,000 km
Injection timing	Check & Set	20,000 km / 6 months

Record keeping

In order to make a claim under Criterion 4, you must complete and retain records of all appropriate maintenance activities as specified in either the manufacturer's recommendations or the appropriate generic maintenance schedule. You should be able to provide the Tax Office, if requested, with records detailing maintenance that you (or an independent workshop or similar facility) have undertaken.

If you are following the manufacturer's engine maintenance schedules, you need to provide these on request, and demonstrate that you have complied with them.

If you are using the generic schedules, you need to document which schedule you are using and demonstrate that you have complied with it.

You may wish to use the maintenance template at Attachment D to assist you with your records, but other systems providing an equivalent level of information are acceptable. The template is also available on the DOTARS website at <www.dotars.gov.au>.

If you cannot demonstrate that you have conducted regular periodic maintenance on the vehicle in accordance with the manufacturer's specifications or with the relevant generic schedule, you are not able to claim the fuel tax credit under Criterion 4.

Attachment A

Optional record keeping template for criterion 1

**This template is provided for your guidance and use if desired.
It is not a requirement.**

Complete the Vehicle Details table below for both 1996 and later model vehicles and pre-1996 vehicles fitted with post-1 January 1996 engines.

VEHICLE DETAILS	
Make	
Model	
VIN	
Engine No.	
Registration No.	
Date of Manufacture*:	

* Date of manufacture from the Compliance (Identification) Plate or Used Import Plate as defined in Section 3 (Criterion 1).

In addition, for pre-1996 vehicles fitted with engines manufactured on or after 1 January 1996, complete parts 1 and 2 of the Engine Retrofit Details table below by ticking the boxes and attaching documentary evidence to support the claims made in the table.

ENGINE RETROFIT DETAILS (TICK APPLICABLE BOX)	
1. Build date of the engine	
2. Engine is compliant with:	<input type="checkbox"/> ADR 70/00 <input type="checkbox"/> Later Standard <input type="checkbox"/> (specify) _____
3. An engineer's certificate, or proof of calculations showing that the manufacturer's specifications have been met in relation to the engine installation (including appropriate components) is attached.	

Attachment B

Optional record keeping template for criterion 2

This template is provided for your guidance and use if desired.

It is not a requirement.

Complete the Vehicle Details table below.

VEHICLE DETAILS	
Make	
Model	
VIN	
Engine No.	
Registration No.	

Complete the declaration below by ticking the boxes, inserting the program details and attaching a copy of the certificate or similar record demonstrating membership of an accredited audited maintenance program covering the period of the claim.

<input type="checkbox"/>	This vehicle is part of an accredited audited maintenance program endorsed by the Secretary of the Department of Transport and Regional Services
	The name of the program is:
<input type="checkbox"/>	A copy of the certificate demonstrating membership of this program for the period of the claim is attached

Attachment C

Optional record keeping template for criterion 3

This template is provided for your guidance and use if desired.

It is not a requirement.

Complete the Vehicle Details table below.

VEHICLE DETAILS	
Make	
Model	
VIN	
Engine No.	
Registration No.	

COMPLETE THE DECLARATION BELOW BY TICKING THE BOXES, INSERTING THE TEST FACILITY DETAILS AND ATTACHING A COPY OF THE TEST REPORT.

<input type="checkbox"/>	This vehicle has been issued with a test report demonstrating compliance with the Australian Transport Council's in-service emission standard for diesel vehicles (also known as the "DT80" test)
<input type="checkbox"/>	The test was performed by the following test facility which is registered with Department of Transport and Regional Services:
<input type="checkbox"/>	The date of the DT80 test report is not more than two years older than the latest date for the period that is being claimed
<input type="checkbox"/>	A copy of the test report is attached

Attachment D

Optional record keeping template for criterion 4

This template is provided for your guidance and use if desired.

It is not a requirement.

Complete the Vehicle Details table below.

VEHICLE DETAILS	
Make	
Model	
VIN	
Engine No.	
Registration No.	

Complete the declaration below by ticking the appropriate box to confirm which method you are using. If you are following the manufacturer's engine maintenance schedules you need to provide these on request.

If you are using the generic schedules, you need to document which schedule you are using.

<input type="checkbox"/>	I am using the manufacturer's maintenance schedules for all components	
<input type="checkbox"/>	I am using a combination of the manufacturer's maintenance schedules and Schedule No.of the generic schedules for the nominated components as follows (strike out non-applicable schedule):	
<input type="checkbox"/>	Oil/Oil Filter	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	Fuel Filter/s	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	Air filter	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	Valves	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	Injectors	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	Fuel pump	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	Injection timing	Manufacturer's Schedule / Generic Schedule
<input type="checkbox"/>	I am using Schedule No.of the generic schedules for all components	

Complete the following Maintenance History table summarising the servicing details.

Attach records of the servicing in sufficient detail to demonstrate compliance with the maintenance schedule you are following.

[illegible]

Appendix 1: Sample scheduled vehicle inspection

Bus / Coach Check

1. Check fuel level appropriate for driving task.
2. Check that oil /fuel/water are not leaking on ground or side of engine.
3. Check engine oil level.
4. Check steering wheel free movement is not abnormal (over 100mm at outer edge).
5. Check for any power steering fluid or other fluid leaks.
6. Visually inspect wheels for security, tyres for tread and strike to ensure tyre inflated.
7. Note any obvious structure or bodywork faults.
8. Ensure spare wheel is fitted and secure.
9. Note any air leaks, report if excessive.
10. Drain condensation from air tanks.
11. Inspect, note and report any broken springs.
12. Check all lights, and reflectors for damage and operation. This includes headlights, clearance and tail-lights, indicators and brake lights.
13. Check that instruments appear operational, gauges working, lights working (including brake fail indicator or gauges).
14. Check horn works by sounding.
15. Check that windscreen wipers and washers work.
16. Check that windscreen is clean, clean if necessary. Note and report excessive cracks or abnormalities.
17. Ensure rear-view mirrors are in good order, adjusted correctly and clean.
18. Check that jack, wheel brace, fire extinguisher is present in the Bus/ Coach.
19. Check rego label is visible and current.
20. Driver to carry driver's licence (current), logbook, Vehicle Maintenance Log or comparable journal, and where applicable, Hazardous Goods Paperwork, etc.
21. After starting engine listen for loose belts (belt squeal indicates loose belts), loose or leaking exhaust system, or component damage or malfunction.
22. When commencing driving, apply brakes at low speed as soon after take off as possible to ensure operation

NOTE: Driver to initial and date as having completed inspection in a Vehicle Inspection Log or by other appropriate means. Record of faults identified and repaired is to be detailed and signed off in Vehicle Maintenance Log or comparable journal.

Appendix 2: Example 5,000 -7,000 km maintenance

Due: Fortnightly or each 5,000 - 7,000 km

Bus / Coach:

1. Record date and odometer reading in Vehicle Maintenance Log. Check for type of service due. Oil change due (gear/ differential) or repairs due.
2. Check Vehicle Maintenance Log or comparable journal and carry out necessary repairs.
3. Check condition of universal joints.
4. Grease all lubrication points, look for broken springs, worn suspension components, other obvious faults.
5. Check transmission and differential fluid leaks and levels.
6. Jack up front axle, check king pin play, check wheel bearings for noise, axial play and oil level, grease king pins.
7. Check/top up engine oil.
8. Refill spare oil bottles.
9. Check batteries and terminals.
10. Lift cab/bonnet/ engine flap, grease pivots, check power steering fluid, condition of belts, tensions, note and report oil leaks, look for obvious faults.
11. Check brake system for leaks (service and maxi).
12. Inspect brake lining wear/travel/adjust if required.
13. Check horn, wiper and washers.
14. Check all lights and reflectors.
15. Check condition of number plates, stickers, due dates and condition of labels etc.

Record of faults identified and repaired is to be detailed and signed off in Vehicle Maintenance Log or comparable journal.

Appendix 3: Example 20,000 - 25,000 km maintenance

Due: 20,000 - 25,000 km or 6 monthly

Bus / Coach

1. All components of Appendix 2 Service, Bus or Coach.
2. Change engine oil and filters.
3. Change Fuel filters and bleed check for leaks.
4. Change air compressor filter where applicable.
5. Check clutch linkage/adjustment.
6. Adjust all brakes.
7. Check wear/movement in pittman arm, drag arm, tie rods and spring shackles.
8. Check Service Record log and change differential and gear oil if due (100,000 km intervals or at manufacturer's specification).
9. Overall visual inspection including structure and bodywork and any loose components.

Record of faults identified and repaired is to be detailed and signed off in Vehicle Maintenance Log or comparable journal.

Appendix 4: Sample annual service checklist

Due: 200,000 km or max 12 months

Bus/Coach

1. All components of Appendix 3 Service.
2. Any oil changes due, check mileage book.
3. Change power steering oil and filter.
4. Check date for air filter replacement.
5. Check alternator brushes for wear.
6. Check for coolant change/24 months.
7. Service air dryers where applicable.
8. Change oil in oil filled wheel bearings.
9. Check bus/coach for tools, triangles, extinguisher and spares etc.
10. Thorough inspection of vehicle by a suitably qualified and experienced person.
11. Re-torque all “U” bolts and cross members.

Record of this service to be kept in a Vehicle Maintenance Log or Service Record Log detailing odometer, person conducting service and service type. Record of faults identified and repaired to be detailed and signed off in a Vehicle Maintenance Log or comparable journal.

Appendix 5: Sample regular workplace/depot inspection form

To include in a Depot Maintenance Log or comparable journal.

Date: _____ Time: _____ Name: _____

CHECKLIST ITEM	RESULT OF INSPECTION (PLEASE TICK WHERE APPLICABLE FOR EACH ITEM)			
	Good	Satisfactory	Scheduled	Not Applicable
1.0 Fire				
1.1 Extinguishers in place, clearly marked for type of fire and recently serviced				
1.2 Adequate direction notices for fire exits				
1.3 Exit doors easily opened from inside				
1.4 Exits clear of obstructions				
1.5 Fire alarm system functioning correctly				
1.6 Fire instructions available and displayed				
1.7 Regular fire drills carried out				
1.8 Training sessions carried out				
2.0 Electrical				
2.1 No broken plugs, sockets or switches				
2.2 No frayed or damaged leads				
2.3 Portable power tools in good condition				
2.4 Emergency shut-down procedure in place				
2.5 No strained leads				
2.6 Circuit breakers/automatic cut outs installed				
3.0 General Lighting				
3.1 Adequate ventilation				
3.2 Good natural lighting				
3.3 Good light reflection from walls & ceilings				
3.4 No directed or reflected glare				
3.5 Light fittings clean and in good condition				
3.6 Emergency lighting operable				
4.0 Walkways				
4.1 Oil and grease removed				
4.2 Entry and walkways kept clear				
4.3 No electrical leads crossing walkways				
4.4 Walkways adequately and clearly marked				

Appendix 5: Sample regular workplace/depot inspection form *cont...*

CHECKLIST ITEM	RESULT OF INSPECTION (PLEASE TICK WHERE APPLICABLE FOR EACH ITEM)			
	Good	Satisfactory	Scheduled	Not Applicable
4.5 Unobstructed vision at intersections				
4.6 Stair and risers kept clear				
5.0 Machines				
5.1 Kept clean				
5.2 Adequately guarded				
5.3 Starting and stopping devices within easy reach of operator				
5.4 Clean provision to store waste/off cuts				
5.5 Drip pans on floor to prevent spillage				
5.6 Adequate work space				
5.7 Noise levels controlled				
5.8 No bending or stooping required				
5.9 Duck-boards in good repair				
6.0 Rubbish				
6.1 Bins located at suitable points around site				
6.2 Bins emptied regularly				
7.0 Work Benches				
7.1 Clear rubbish				
7.2 Tools not in use kept in place				
7.3 No damaged hand tools				
7.4 No damaged power tools				
7.5 Work height				
7.6 No sharp edges				
8.0 Storage				
8.1 Storage designed to minimise lifting problems				
8.2 Floors around racking clear of rubbish				
8.3 General condition of racks and pallets				
9.0 Chemicals on site				
9.1 MSDS for all chemicals				

Appendix 5: Sample regular workplace/depot inspection form *cont...*

CHECKLIST ITEM	RESULT OF INSPECTION (PLEASE TICK WHERE APPLICABLE FOR EACH ITEM)			
	Good	Satisfactory	Scheduled	Not Applicable
9.2 Containers clearly labelled				
9.3 Do special storage conditions apply?				
10.0 First Aid				
10.1 Cabinets and contents clean and orderly				
10.2 Easy access to cabinets				
10.3 Emergency numbers displayed				
11.0 Office Hazards				
11.1 Filing				
11.2 Chairs				
11.3 Desks				
11.4 SBE i.e. glare from windows				
11.5 Photocopiers - fumes				
11.6 Air conditioning system regularly maintained				
11.7 Disposal of chemical waste				
11.8 Stable non-slip floor coverings				
12.0 Vehicles				
12.1 Vehicle age				
12.2 Tyres				
12.3 Brakes				
12.4 Lighting				
12.5 Seats				
12.6 Driver's seat				
12.7 Provision of first aid				
12.8 Maintenance				

(Endnotes)

¹ The Centre of Excellence in Cleaner Production. The Western Australian Business and the Environment Manual - Environmental management programs and systems (EMP & EMS).
<http://cleanerproduction.curtin.edu.au/cecp/bemmanual/emp&ems.htm> (accessed 3 March 2007)

² particularly hazardous if mixed with other wastes.

³ See <http://www.arctick.org/index.php>

⁴ Vehicles purchased before 1 July 2006 which have a GVM of 4.5 tonnes are also eligible.

⁵ Vehicles purchased before 1 July 2006 which have a GVM of 4.5 tonnes are also subject to the criteria.

⁶ Vehicles purchased before 1 July 2006 which have a GVM of 4.5 tonnes are also subject to the criteria.

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