

## Environmental Assessment Guides for Planners



### ROAD TRANSPORT DEPOT

November 2007

A road transport depot or terminal (which also includes a bus depot) can have minimal environmental impact if it is located in an appropriate area and sited, designed and operated properly. If proper care is not taken in addressing environmental issues, however, it has the potential to cause environmental harm.

For the purposes of this guide, a road transport depot means land used primarily for bulk handling goods for transport by road, whether or not the land is also used for:

- loading and unloading of vehicles used to transport such goods
- parking, servicing or repairing of vehicles used to transport such goods.

This is the definition of a road transport terminal contained in Schedule 1 of the Development Regulations 1993. Certain activities undertaken in conjunction with a road transport terminal may trigger a referral to the Environment Protection Authority (EPA) under Schedule 8 Item 11 Schedule 22 of the *Development Regulations* 1993. These include bulk shipping, coal handling and storage and chemical storage and warehousing.

The purpose of this guide is to help council planners assess road transport depot proposals from an environmental viewpoint. It focuses on environmental issues and does not deal with the process of assessing proposals against the provisions of the Development Plan.

### Key environmental issues

- Management of depot operations
- Noise
- Air quality
- Water quality
- Waste management

### Information requirements

The following environmental information is required to undertake an adequate assessment:

- separation distances from residential or other sensitive receivers
- air quality protection measures
- noise mitigation measures
- water demand and use
- water and soil protection measures including
  - wastewater containment and disposal
  - chemical storage and work areas
  - stormwater pollution prevention
  - solid waste storage and disposal.

Before you read further: information about noise in this document may be out of date. This document is being revised. Please refer to the Environment Protection (Noise) Policy 2007, available at [www.legislation.sa.gov.au](http://www.legislation.sa.gov.au).

*Guide for Applicants for Road Transport Terminal/Depot* provides more detail on information requirements and can be found at [www.planning.sa.gov.au](http://www.planning.sa.gov.au)

Applications lacking any of this information should not be accepted.

## Environmental assessment

### Management of depot operations

How the depot is used and the scale at which it operates are important factors in assessing potential environmental impact. Management issues that can influence the degree of impact include:

- extent and range of activities, especially loading and unloading of freight, open storage of sand and metal
- the intensity at which activities are undertaken (e.g. heavy or light mechanical repairs to trucks, spray painting and body work, the number and type of trucks using the premises, constant and regular refuelling of heavy vehicles, idling times)
- the times activities occur, including arrival and departure times of trucks
- frequency of forklift movements.

### Noise

Noise nuisance from road transport depots includes noise generated from the movement of large vehicles and forklifts (particularly early in the morning or late at night) and loading and unloading materials and reversing alarms on mobile plant.

Schedule 2 of the *Environment Protection (Industrial Noise) Policy, 1994* specifies the maximum level of noise exposure for people living near industrial and other non-domestic premises. These levels are intended for existing situations. However, people who live in these areas are typically more sensitive when a new noise is introduced into an area, and a 5dB(A) reduction should be made to the maximum permissible noise levels contained in Schedule 2 when assessing the suitability of new development proposals. The following table of maximum permissible noise levels already incorporates a 5dB(A) reduction for development assessment purposes.

Description of area in which the noise source is situated <sup>1</sup>	Maximum noise levels <sup>2</sup> - dB(A)	
	7am-10pm	10pm-7am
Rural or predominantly rural	42	35
Urban residential	47	40
Urban residential with some commerce, or with a school, hospital or the like	50	40
Urban residential with some manufacturing industry or with some place of public entertainment or place of public assembly or licensed premises	53	45
Predominantly commercial	60	55
Predominantly industrial	65	65

1. *While this description focuses on the source of the noise, it is reasonable to suggest it should also extend to the area where the nearest sensitive receivers are. Typically, the sensitive receivers will be found to exist in more sensitive zones than the source itself, for example, an industry zone may have a nearby residential zone that contains the closest houses.*
2. *Measured at any place, other than the premises from which the noise emanates, where a person lives or works.*

The above noise levels may be exceeded where an acoustic engineer can show that the noise from the development will not cause an adverse impact because of the existing influence of ambient noise, or the limited duration or frequency of the activity.

The onus of proof that the noise reduction measures prevent adverse noise impacts rests with the developer.

## Air quality

A transport depot has the potential for the emission of dust and fumes, which may be generated from unsealed roadways, the transfer of materials, and from the operation of diesel trucks or other mobile equipment. Heavily trafficked areas should be sealed to prevent the potential for dust nuisance.

The recommended minimum separation distance between a transport depot and sensitive receptors (e.g. residential premises) is 100 metres. Where this separation cannot be achieved, an applicant must demonstrate why less distance is appropriate.

## Water quality

Pollutants generated at transport depots should be prevented from entering water bodies (including groundwater) through direct discharge, seepage or through contamination of stormwater. This may include suspended solids, grease, lubricants, solvents, nutrients and oils.

### Wastewater management

Fuel storage facilities (including overhead fuel tanks and hand pumps), or chemical and hazardous material storage facilities must be bunded and preferably rainproofed to minimise the risk of surface or groundwater contamination. The EPA *Guideline for Bunding and Spill Management* provides information on designing and managing bunded areas.

Where mechanical servicing and maintenance for trucks is involved, the liquid waste from these activities needs to be collected and contained within a bunded and covered facility, and the wastes and other substances then directed to the sewer system (if available) or transported off site by an EPA-licensed waste removalist.

Truck wash bays and similar washing facilities must include washwater collection and disposal in a covered facility where all wastewater and other substances are either directed to the sewer system (if available) or transported off site by a waste transporter licensed by the EPA.

Any discharge of liquids from bunded areas or truck wash bays to sewer will require approval from SA Water's Trade Waste Group.

### Stormwater management

Roof stormwater should be collected for reuse and must be managed separately from potentially contaminated runoff (i.e. from carparks, hard paved areas or the ground).

The facility should incorporate a stormwater management system for all areas where contaminated runoff may be generated (including carparks). Structural controls such as bunded storage areas, first flush diverters, gross pollutant traps, oil/water separators, hydrocarbon absorbers, infiltration basins (e.g. grassed or vegetated swales, garden strips or stone-filled trenches), sediment traps or soluble pollutant removers are all acceptable methods. Stormwater treatment specialists should be consulted to determine which management systems will be most effective.

### Water conservation

Road transport depots should incorporate systems that enable the containment and reuse of water (including treated stormwater and wastewater) to replace potable (mains) supplies for operations such as landscape irrigation, toilet flushing and process water (e.g. machine cooling and cleaning).

Behavioural work practices, such as stormwater drain labelling, signage displaying standard operating procedures and training employees are also encouraged but should be in addition to the in-built structural controls outlined above.

### Waste management

Used oil and other wastes from truck service and maintenance activities need to be stored in a bunded and, preferably rainproof area to prevent the contamination of stormwater prior to being transported to a waste depot licensed by the EPA to accept that kind of waste.

## Checklist of environmental issues

- ❑ Siting of facility and proximity of nearby dwellings
- ❑ Type of land uses in the vicinity of the site
- ❑ Isolation of waste facilities/areas available method of removal from site
- ❑ Scale of the facility and type and number of trucks involved
- ❑ Arrival and departure times for trucks
- ❑ Need to restrict operating hours to mitigate noise impacts
- ❑ Surface pavements used by trucks are all hard stand areas
- ❑ Bunding details, and consistency with EPA Guideline
- ❑ Isolation of waste facilities/areas available method of removal from site

## Draft standard conditions

To use and adapt as may be applicable to a specific proposal

1. All roadways, entrances, loading and unloading areas, and other trafficked areas, must be hard surfaced using either bitumen, concrete, or other similar materials.
2. All hard-surfaced areas must be kept clean by regular sweeping to minimise dust and ensure it does not impact off site.
3. Any material (fuel, solvents, coolants, degreasing agents etc) likely to pollute water must be stored within a bunded compound or area to prevent it from escaping into surface or underground water resources.
4. All wastewater and cleaning liquids associated with any vehicle wash down activity undertaken on the premises must be collected or contained on the site, protected from stormwater intrusion, and regularly removed by a contractor licensed to transport the waste, or treated and disposed of to sewer (with the approval of SA Water's Trade Waste Group).
5. All used oils and other wastes from truck service and maintenance activities must be stored in a bunded and rainproof area prior to being transported to a waste depot licensed by the EPA to accept such waste.
6. Stormwater from roofs must be collected for use at the site with overflow discharged directly to the council stormwater system via underground pipes, provided the water is not contaminated.
7. All stormwater runoff from the car or truck parking, driveways, and other areas that are hard paved and used in conjunction with the development, must be directed into:
  - grassed swales, vegetated or garden strips
  - small infiltration basins over permeable soils
  - surface or underground stone-filled trenches (i.e. similar to a septic tank absorption field)
  - sediment traps, or
  - gross pollutant traps

which are sized sized to effectively contain and filter out sediment in a three (3) month average recurrence interval run off event. Allowance can be made to discharge stormwater overflow direct to the council stormwater system by means of a high flow bypass.

8. Noise generated from the development must not exceed ... between the hours of ... and ... measured and adjusted at the nearest sensitive receiver in accordance with the *Environment Protection (Industrial Noise) Policy*, 1994.

The following notes provides important information for the applicant and should be attached to the approval notice

The applicant is reminded of their general environmental duty, as required by Section 25 of the Environment Protection Act, to take all reasonable and practical measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm.

## References

Information sheets, guidance documents, codes of practice, technical bulletins etc. that are referenced in this user note may be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au)

These include the following EPA Guidelines:

*Guidelines for Separation Distances, August 2000*

*Guideline for Stormwater Management for Transport Companies, October 2003*

*Guideline for Stormwater Management for Wash Bays, April 2004*

*Guideline for Bunding and Spill Management, January 2004.*

*The Environment Protection (Water Quality) Policy, 2003 can be accessed through:*

[www.legislation.sa.gov.au](http://www.legislation.sa.gov.au)

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## FURTHER INFORMATION

### Legislation

Legislation may be viewed on the internet at: [www.legislation.sa.gov.au](http://www.legislation.sa.gov.au)

Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet	Telephone:	13 23 24
101 Grenfell Street	Facsimile:	(08) 8204 1909
Adelaide SA 5000	Internet:	<a href="http://shop.service.sa.gov.au">shop.service.sa.gov.au</a>

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For general information please contact:

Environment Protection Authority	Telephone:	(08) 8204 2004
GPO Box 2607	Facsimile:	(08) 8124 4670
Adelaide SA 5001	Freecall (country):	1800 623 445
	Internet:	<a href="http://www.epa.sa.gov.au">www.epa.sa.gov.au</a>
	Email:	<a href="mailto:epainfo@epa.sa.gov.au">epainfo@epa.sa.gov.au</a>

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