

# Assessment of wood processing works

Updated September 2017

*EPA 681/17: This guideline will assist a relevant authority (as defined by the Development Act 1993) to undertake an environmental assessment proposals for wood processing works.*

## Introduction

The information contained in this guideline is in lieu of the advice given by the Environment Protection Authority (EPA) in responses to referred development applications prior to removal of the activity from Schedule 21 of the *Development Regulations 2008*.

For the purposes of this guide, wood processing is defined as the conduct of works (other than works at a builders supply yard or home improvement centre) a which timber is sawn, cut, chipped, compressed, milled or machined with a total processing capacity not exceeding 4,000 m<sup>3</sup> per year. When a wood processing works proposal exceeds this scale it must be referred to the EPA under Schedule 8 Item 11 Schedule 22 (2)(13) of the *Development Regulations 2008*.

## Assessing environmental issues

### Air quality

Timber product manufacturing operations often result in complaints about the fallout of sawdust from mechanical extraction systems. Extracted waste products from machines in the work area should be efficiently collected before the extracted air is passed to the atmosphere.

Where the waste contains a significant proportion of particles that are less than 20 microns (sander dust), the use of a fabric or cartridge filter is necessary to obtain satisfactory collection efficiency. This is preferable to using a high efficiency cyclone because it will collect fine wood dust. At no time should the discharge from any of the dust extraction systems exceed 100 mg/m<sup>3</sup>.

Even with good design and good management there may be some dust emissions. There should be sufficient separation between materials handling facilities and sensitive land uses<sup>1</sup> taking into account the type of material stored, the size and location of the facility, and the sensitivity of the surrounding environment.

When spray painting or lacquering will often be carried out in association with wood processing works, refer to the EPA [Assessment of surface coating – spray painting and powder coating](#).

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<sup>1</sup> Sensitive land uses include, but are not limited to, residential housing, child care centres, educational establishments, hospitals, nursing homes, parklands and recreation areas. Industrial and commercial premises can also be affected by noise and air emissions.

## Noise

Noise nuisance from wood processing is generated from circular saws, planers, routers and other equipment.

The applicant will also need to demonstrate that relevant indicative noise levels specified in clause 5 of the [Environment Protection \(Noise\) Policy 2007](#)<sup>2</sup> (Noise Policy) would not be exceeded at the nearest sensitive receiver, both during the day and at night. This may require a report from an acoustic engineer stating that noise from all fixed and transient noise sources on site will meet the Noise Policy at the nearest sensitive receivers; otherwise the acoustic report should recommend measures to achieve this.

## Landfill sites

When considering a site for wood processing works, consideration needs to be given to the presence of any closed or operational landfills.

There are a range of inherent risks associated with landfills including adverse impact on the environment and human health due to landfill gas, odour, litter, vermin, dust and leachate.

The EPA guideline, [Environmental management of landfill facilities \(municipal solid waste and commercial and industrial general waste\)](#), recommends a minimum separation distance of 500 m between development and a landfill boundary, historic, currently operational and future designated landfill areas, and active tipping face. The buffer should be maintained for the life of the landfill<sup>3</sup>. Maintaining a 500-m separation distance will reduce the likelihood of impacts from the landfill, including the accumulation of landfill gas in structures.

A proposed wood processing works in which landfill gas could accumulate and that is within 500 m of a landfill should proceed only on the basis of a landfill risk assessment undertaken by a site contamination consultant or a site contamination auditor. Any development within the buffer should be assessed and determined as suitable and compatible. The [Landfill gas and development near landfills – advice for planning authorities and developers](#) contains further information.

## Waste management

Sawdust and off-cuts should be collected and disposed of. The storage and transfer of sawdust from bins should be undertaken within a sheltered area to minimise spillage. Waste from treated timber products, like permapipe, should be segregated from untreated timber waste products, which may then be recycled.

The development should include:

- provision for implementation of the waste management hierarchy<sup>4</sup> as identified in the *Environment Protection (Waste to Resources) Policy 2010*.
- dedicated covered areas for all non-toxic solid waste materials

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<sup>2</sup> The Noise Policy sets noise goals and provided a consistent approach to noise issues in the assessment of development applications. Clause 5 identifies indicative noise levels considered to be acceptable in various land use categories, including industrial and commercial. Clause 20 sets out the process the relevant authority should use when assessing development applications.

<sup>3</sup> The life of the landfill includes the period after closure and capping, and continues for as long as the landfill has the potential to create offsite impacts to the environment (particularly due to landfill gas emissions or leaching to groundwater), which may be decades after the landfill has closed.

<sup>4</sup> Waste management hierarchy, as described in the *Zero Waste SA Act 2004*, refers to an order of priority for the management of waste, being: avoidance of the production of waste, minimisation of the production of waste, reuse of waste, recycling of waste, recovery of energy and other resources from waste, treatment of waste to reduce potentially degrading impacts, and disposal of waste in an environmentally sound manner.

- dedicated covered and bunded areas for all toxic waste materials
  - liquid wastes should be contained and/or treated before transport off-site by an EPA-licensed transporter
  - solid toxic wastes should be removed from the site regularly by an EPA-licensed transporter.

The EPA guideline, [Bunding and spill management](#), contains further information on design, capacity, operation and maintenance of bunds.

### **Water quality**

Pollutants generated by wood processing should be prevented from entering water bodies (including groundwater) through direct discharge, seepage or through contamination of stormwater. Pollutants include timber residues (including sawdust), litter, petroleum products, paints, solvents, coolants, degreasing agents, sediments, rubber particles and detergents.

Large hard-paved areas associated with industrial premises, such as car parks, will increase stormwater runoff, possibly leading to siltation and pollution of adjacent waterways, and should be treated to ensure that stormwater is of a suitable quality before discharge off site. Wood processing works should incorporate a stormwater management system for all areas where contaminated runoff may be generated (including car parks). Structural controls such as bunded storage areas, first flush diverters, gross pollutant traps, oil/water separators, hydrocarbon absorbers, infiltration basins (may be 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.

### **Stormwater – Water sensitive urban design**

Water sensitive urban design is an approach to urban planning and design that seeks to integrate the management of the total water cycle to minimise the impacts of development, protect water quality, make more efficient use of water, reduce the cost of water infrastructure and address flooding.

Water sensitive urban design could be used in many parts of a wood processing works including treatment of roadways and footpaths with bio-filtration systems or capturing roof water and using this for toilet flushing.

Further information on water sensitive urban design can be found at:

- [Planning professionals and developers](#)
- [Water Sensitive SA](#)
- [Creating more liveable and water sensitive cities in South Australia.](#)

### **Construction management**

Construction activities undertaken as part of a development can detrimentally affect the environment and community health. Air emissions, noise, site contamination, stormwater, and waste need to be managed to prevent impacts on nearby land uses and the natural environment.

The relevant authority may require a construction environmental management plan (CEMP) from the proponent. The plan describes how activities undertaken during the construction phase of development will be managed to avoid or mitigate negative environmental impacts on site and how the environmental management requirements will be implemented.

For further information on the impacts of construction activities and preparing a CEMP refer to the EPA's guideline, [Construction environmental management plans](#).

## Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

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## Further information

### Legislation

[Online legislation](#) is freely available. Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet  
Adelaide Service SA Centre  
108 North Terrace  
Adelaide SA 5000

Telephone: 13 23 24  
Facsimile: (08) 8204 1909  
Website: [shop.service.sa.gov.au](http://shop.service.sa.gov.au)  
Email: [ServiceSAcustomerservice@sa.gov.au](mailto:ServiceSAcustomerservice@sa.gov.au)

### General information

Environment Protection Authority  
GPO Box 2607  
Adelaide SA 5001

Telephone: (08) 8204 2004  
Facsimile: (08) 8124 4670  
Freecall: 1800 623 445 (country)  
Website: [www.epa.sa.gov.au](http://www.epa.sa.gov.au)  
Email: [epainfo@sa.gov.au](mailto:epainfo@sa.gov.au)

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