

EPA Guidelines

Ventilation of fibreglass works

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EPA 123/02: These guidelines provide information that should enable fibreglass works to achieve compliance with the Environment Protection Act.

Legislation

The principal legislation addressing pollution in South Australia is the *Environment Protection Act 1993* (the Act). In particular, section 25 imposes a general environmental duty on all persons undertaking an activity that may pollute, requiring them to take all reasonable and practicable measures to prevent or minimise any resulting environmental harm.

Environment protection legislation also includes environment protection policies (EPP), which may outline both recommendations and mandatory requirements for the protection of a particular aspect of the environment, such as air quality.

Environment Protection (Air Quality) Policy 1994

Regulation of air pollution is primarily governed through the *Environment Protection (Air Quality) Policy 1994* (the Air Policy). The Schedule to the policy specifies maximum pollution levels. Not all classes of air pollutants or individual chemicals are listed, due to the large variation in circumstances and effects of the emission of particular pollutants. For pollutant types not listed in the Schedule, Section 4(7)(d) of the policy requires the use of the best practicable means of control.

Any occupier of premises where fibreglassing takes place may be required to take any action deemed necessary to reduce air pollution by an environment protection order issued by the Environment Protection Authority.

Guidelines

For control of odour and dust from fibreglass works the following have been determined as the minimum requirements to represent 'best practicable means':

- Reinforced plastic fabricators should use a low styrene emission (LSE) resin that meets a styrene emission rate of not greater than 20 grams per square metre.
- The ventilation rate for a factory should be at least 10 air changes per hour.
- Extraction should be at or near floor level and be so arranged that the air movement occurs throughout the workshop, thereby ventilating the complete work area.

- Dust should be filtered from the effluent gas using a dry media filter. Fabric or cartridge filters may be used provided that the discharge contains less than 100 mg of dust per normal cubic metre of exhaust air.
- Effluent gas should be discharged at a height to achieve a ground level concentration for styrene monomer of not more than 0.05 ppm (3-minute average). The **minimum** height of discharge should be at least three metres above the highest building structure within a radius of 30 metres. A higher chimney may be necessary in some cases to achieve the design ground level criterion.
- Effluent gas should be discharged vertically, through a chimney, at not less than 10 metres per second. Conical type rain protectors or similar devices prevent vertical discharge, thereby inhibiting dispersion, and are not acceptable to the Environment Protection Authority. If rain protection is required, a suitable design of vertical discharge cowl must be used.

Further information may also be found in the EPA Guidelines *Air Quality Impact Assessment using Design Ground Level Pollutant Concentrations* and *Odour Assessment Using Odour Source Modelling*.

Currency of these guidelines

These guidelines offer advice to assist with compliance with the general environmental duty and specific environmental policies. They are subject to amendment and persons relying on the information should check with the EPA to ensure that it is current at any given time.

FURTHER INFORMATION

Legislation

Legislation may be viewed on the Internet at: www.parliament.sa.gov.au/dbsearch/legsearch.htm □

Copies of legislation are available for purchase from:

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