Australian Standard®

SAA TIMBER PRESERVATION SAFETY CODE

Part 1—PLANT DESIGN

This Australian standard was prepared by Committee TM/106, Timber Preservation. It was approved on behalf of the Council of the Standards Association of Australia on 25 November 1985 and published on 2 December 1985.

The following interests are represented on Committee TM/106:

Acceptable Standards of Construction Committee, N.S.W.
Agricultural and Veterinary Chemical Association of Australia Ltd.
Australian Federation of Timber Merchants Associations
Australian Institute of Building
CSIRO Division of Chemical and Wood Technology
Commonwealth Department of Health
Department of Conservation Forests and Lands
Department of Forestry, Queensland
Department of Public Works, N.S.W.
Electricity Supply Association of Australia
Forest Products Association (W.A.)
Forestry Commission of N.S.W.
Master Builders Federation of Australia
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New South Wales Timber Advisory Council
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Timber Preservers Association of Australia
Timber Promotion Council
Timber Research and Development Advisory Council
Timber and Building Material Merchants Association (N.S.W.) Ltd.
Victorian Sawmillers Association
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Part 1—PLANT DESIGN

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PREFACE

This standard was prepared by the Association's Committee on Timber Preservation. It is Part 1 of the AS 2843 series on safety in timber preservation and is concerned with the siting and layout design of new timber preservation plants (and the improvement of existing plants where practicable) to promote their safe operation and reduce environmental and occupational hazards.

The adoption of the requirements of this standard will improve occupational safety in treatment plants and help lower environmental pollution.

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FOREWORD

This standard is directed towards improving the occupational health and safety of plant personnel and controlling environmental contamination around and downstream of timber preservation plants by drawing attention to siting, design and layout procedures. A timber preservation plant should be designed and constructed so as to reduce the risk to those working therein, the public, livestock and crops in the vicinity of the plant, and the environment generally including the quality of surface and sub-surface water.

These proposals are directed towards—

(a) preventing as far as is practicable, the dispersion of toxic chemicals in places other than where they are intended to be applied, namely within the structure of preservative treated timber; and

(b) preventing, as far as is practicable, the contamination of personnel engaged in the timber preservation operation.

This standard is not intended to be definitive as to specific details of plant design, but describes, in general terms, measures to control some of the hazards associated with the use of various toxic chemicals in such plants.

Minimum safety requirements should be prescribed for the siting, design and layout of timber preservation plants, and those responsible for design should have an understanding of the consequences of unsound practice. The requirements for the associated treatment plant practice and procedures are covered in AS 2843.2.

All those involved with the design and installation of such plants should be aware of the requirements for safe and effective handling, storage and transport of pesticides. In this connection, attention is drawn to AS 1678, and AS 2508.

There are some prescribed procedures for the safe disposal of waste industrial chemicals, the safe disposal of waste material from the plant, and the safe disposal of concentrate containers, which have been established by various government agencies such as Departments of Agriculture and Environment Protection Authorities. Designers should be conversant with such procedures and with the Australian Code for Transport of Dangerous Goods by Road and Rail, and should apply them when formulating arrangements for the disposal of waste materials.

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard deals with the siting, layout and design of timber preservation plants, (hereinafter referred to as plant(s)). It deals in general terms with these aspects in a manner intended to reduce the occupational health risk to plant operators and to lower the potential for environmental pollution.

1.2 APPLICATION. This standard is intended as a guide to plant and equipment designers, owners, managers and operators. It is also intended to be of assistance to Regulatory Authorities responsible for approving and certifying timber preservation plants in Australia.

NOTE: This standard is intended to have general application throughout Australia, but in New South Wales the Timber Marketing Act 1977 and in Queensland the Timber User's Protection Act 1949—1972, require prior approval of a preservative treatment and registration of a brand before timber offered for sale in either of the States can be described as preservative treated. Detailed information about the requirements of such legislation may be obtained from the State forestry departments concerned.

1.3 REFERENCED DOCUMENTS. A list with titles of the documents referred to in this standard is given in Appendix B.

1.4 TRANSPORT. Timber preservative chemicals at any concentration shall be transported in accordance with the requirements of the Australian Code for the Transport of Dangerous Goods by Road and Rail, Commonwealth of Australia Gazette No. P2, 24 February 1982. They shall be transported direct to the chemical store or treatment tanks and shall not be off-loaded elsewhere in the timber preservation plant.

1.5 EMERGENCY PROCEDURE GUIDE—TRANSPORT. Emergency procedure guide cards, detailing procedures to be followed in the event of accidents involving hazardous timber preservative materials, shall be carried in all vehicles transporting timber preservative materials and permanently displayed in areas adjacent to the operator stations in the plant. (See AS 1678 and AS 2508.)

1.6 IDENTIFICATION OF TIMBER-PRESERVATIVE CONTAINERS. All containers of timber preservative materials shall be clearly identified by conspicuous labelling. The labels shall comply with the relevant requirements of the appropriate Regulatory Authority.

1.7 APPROVAL BY REGULATORY AUTHORITIES. Approval is required from the Regulatory Authorities for the siting, construction and operation of plants in Australia. A list of Regulatory Authorities is given in Appendix A but the list does not purport to be a complete listing of all the Regulatory Authorities involved in this subject. Users are therefore advised to check with State authorities regarding particular details in areas and locations under consideration.

SECTION 2. PLANT SITE

2.1 GENERAL. This Section deals with the siting of plants in relation to habitation, flora, fauna and topography of the selected locality. Consideration should be given to buffer zones.

2.2 WATER BODIES. The site should be chosen with due regard to the occurrence of bodies of water both surface and underground and the regulations concerning them.

2.3 FLOODING. The site shall be away from flood plains and not subject to flooding.

2.4 FUTURE LAND USE. Land that has been used for timber preservation plants shall not be used for grazing animals or for the production of food crops, unless it can be shown to the satisfaction of all the Regulatory Authorities concerned that the land is free from unacceptable chemical contamination.

2.5 AIR EMISSIONS. The choice of the plant site shall take into account planning projection for the locality. In particular, the plant shall not be sited close to centres of habitation across which prevailing winds from the site predominantly blow.

2.6 RAIN WATER DISCHARGE OUTLETS. All rain water discharge outlets from the plant site shall have a sump with a capacity not less than 1000 L to allow Environmental Protection Authorities to monitor site discharge water.

2.7 TREATED TIMBER STORAGE AREA. It is recommended that a designated area be available for the storage of all timber after removal from the drip pad area. This area shall be drained into a suitable sized pond prior to discharge from this site.