FILE NAME: Asbestos Cement Pipe and Sheet (ACPS)

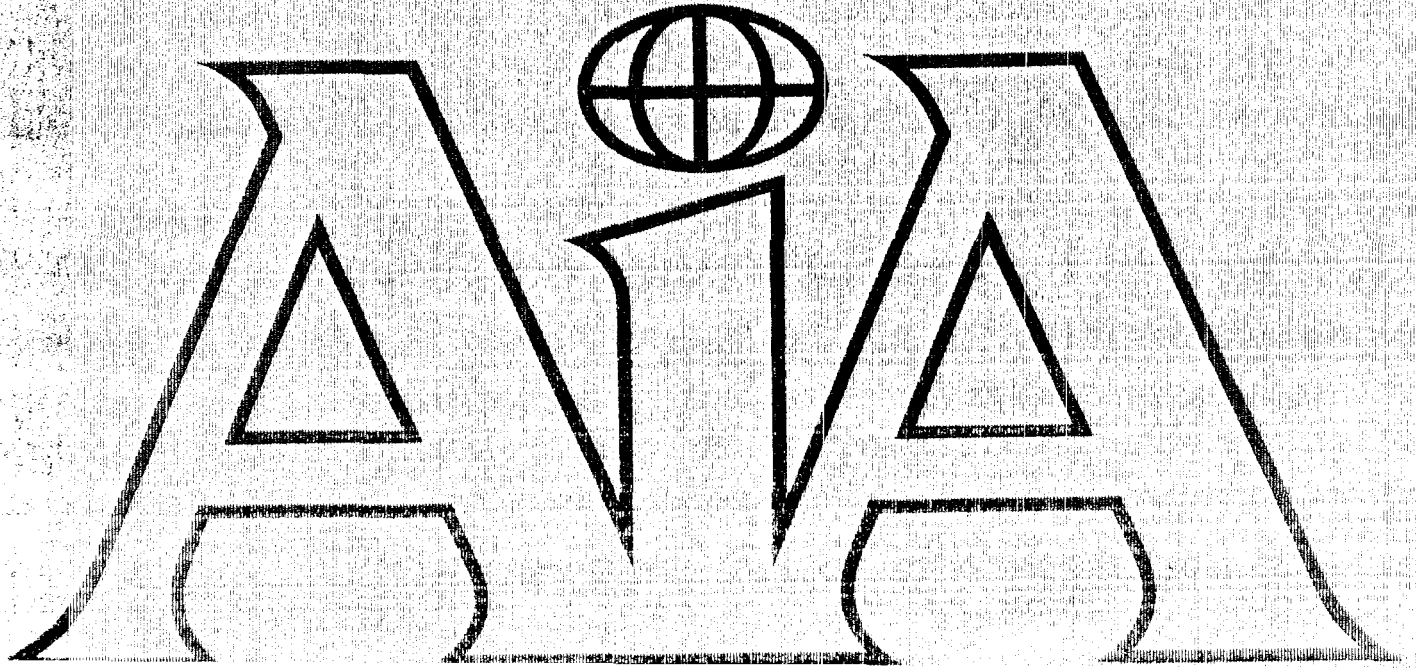
DATE: 0000

DOC#: ACPS030

DOCUMENT DESCRIPTION: Recommended Practices - Asbestos International Association (AIA)

AIA Health and Safety Publication
Recommended Control Procedure No.2 (RCP2)

Asbestos Cement Products



INTRODUCTION

The prime object of this Association is to encourage and facilitate the endeavours of its members to eliminate risks to health, occupational and environmental, arising from the use of asbestos.

Many countries have official regulations and guide lines which producers, manufacturers and consumers are required to observe in order to prevent such risks occurring, and progressively the standards stipulated are being achieved. In the course of applying these requirements much practical experience has been acquired, and the interchange of such knowledge and the maximising of control techniques is seen as the principle means by which our members can attain our prime objective.

There are still areas where official guidance has not been provided, and others where the problems of applying statutory requirements are new and may appear formidable. The Asbestos International Association believes that it has an opportunity and a responsibility to provide what help it can to those concerned with this problem from the wide experience of its members, and has decided therefore to produce a series of advisory publications for this purpose.

We wish to remind readers of two important points. First, in considering any recommendations in the AIA publications these should be related to the specific legal requirements in the country concerned. It is clearly not possible in such publications to relate the recommendations in every respect to the specific detailed regulations in each state. Nevertheless, the greater part of existing laws on the subject calls for similar forms of control and where no official regulation exists we advise that action should be based on the recommendation of the ILO meeting of experts on the safe use of asbestos, December 1973.
Secondly, the development of techniques of control is a continuous process, and we hope that the efforts we are undertaking will help to accelerate the process. Techniques which are recommended have reached their present stage as a result of interchange of ideas and practical experience between international experts in the asbestos industry, plant manufacturers, government agencies and many others. It will certainly be necessary regularly to up-date and amend these publications in the light of new ideas and criticisms. All such will be welcomed and will be given full consideration during revision stages.

Asbestos International Association
68 Gloucester Place,
London W1H 3HL, England.
Telephone: 01-486 3528
Telex: 298618 INTA G

AIA Health and Safety Publication
Recommended Control Procedure No.2 (RCP2)

Asbestos Cement Products

Asbestos Cement Products

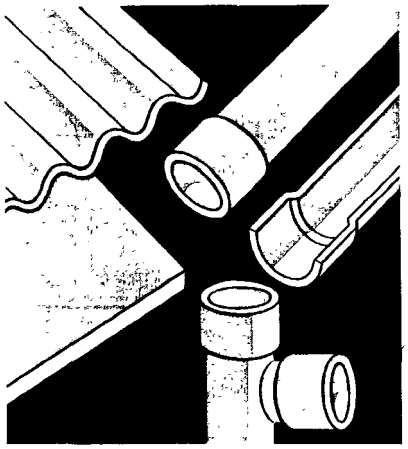
CONTENTS

1. **Products covered by these recommendations**
2. **Basic requirements for working with asbestos and asbestos-cement products**
3. **Operations to which these recommendations may apply**
4. **Recommended procedure for the control of dust in the use of asbestos cement products**
5. **Suitable equipment**
6. **Waste disposal**
7. **General**

1. Products covered by these recommendations

All building materials and their ancillaries made of asbestos-cement such as:

slates, sidings or shingles
corrugated and profiled sheets
flat sheets
pipes
moulded and extruded products.



2. Basic requirements for working with asbestos and asbestos-cement products

Harmful effects on health from working with asbestos may arise from inhaling excessive quantities of fine asbestos dust. The effectiveness of control measures is normally assessed by measuring the average amount of such dust over a working period For practical purposes, such measurements may be taken for part of a working day (e.g. one hour) if this can be regarded as representative of the full period.

Where concentrations above prescribed levels are unavoidable by technical improvement, operatives should be provided with personal protective equipment.

In asbestos-cement products the normal asbestos content can vary from 10 to 15 per cent and this asbestos is locked in the binder. The hard product does not release free respirable fibre under normal handling conditions. The only occasion when such fibres may be released into the atmosphere in significant numbers is when high-speed cutting or other abrasive action is carried out without the provision of proper controls.

3. Operations to which these recommendations may apply

Working on asbestos-cement products:

cutting and machining
sanding
drilling
filing

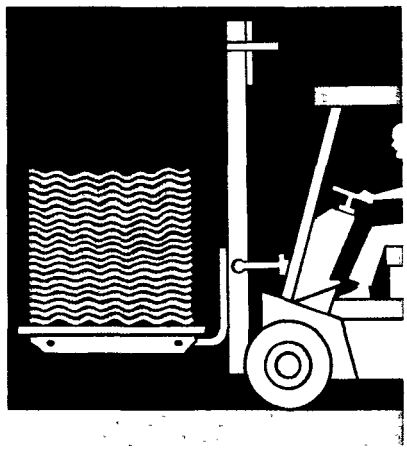
4. Recommended procedure for the control of dust in the use of asbestos-cement products

4.1 Remember the three main rules for eliminating unnecessary risks:

avoid creating dust and use hand or slow-running tools which only produce coarse dust or chips, rather than those which cut by abrading the material, thus generating inhalable dust;

when it is necessary to use abrasive or high-speed tools, these should be fitted with dust extraction equipment;

use vacuum cleaning equipment to collect dust and chips or sweep using a dust suppressant.



4.2 Handling, stacking, transporting, warehousing.

4.2.1 Manufacturer's standard asbestos-cement products do not need special precautions, since no fabrication of the products is involved.

4.3 Work under factory or workshop conditions.

4.3.1 Purpose-designed dust extraction equipment should be fitted to every power-sawing, drilling, sanding or milling machine to eliminate dust and loose swarf created by such operations. High-velocity, low-volume equipment should be used for portable tools; industrial vacuum cleaners are often adaptable for such purposes. Low-velocity, high-volume systems are generally most suitable for fixed machine applications.

4.3.2 Wherever possible, sheets should be cut singly, but whatever cutting method is used care should be taken to avoid leaving excess dust on cut edges. Ensure that dust and loose material is removed from all surfaces of sheets (especially if pack-cutting methods are used), by vacuum-cleaning before stacking. Where considerable fabrication is involved, surface and/or edge sealing with special solutions could also be considered as a means of ensuring that machined products are entirely free from surface dust.

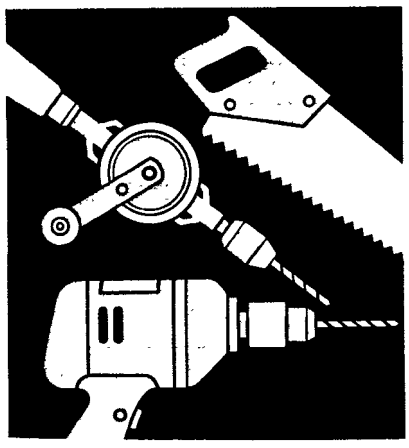
4.3.3 Loose swarf and dust should be removed from the work place by vacuum cleaning. Where this is not possible, the material should be thoroughly wetted before removal.

4.3.4 There will be some operations such as maintenance of dust filters, etc., where it is necessary for personnel to be provided with protective clothing and respiratory protection. Detailed recommendations as to type of respirators and clothing, for training in use, for laundering and for changing and storage accommodation is contained in the special AIA publication covering this matter (in preparation).

4.4 Site work

4.4.1 Many asbestos-cement products, including slates, shingles and pipes, are generally used as standard products and do not require machining on site. However, most jobs will require a certain amount of field fabrication. In this case, some form of control may be necessary.

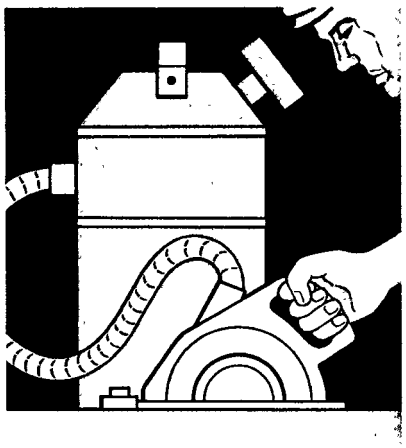
4.4.2 For hand operations, or short time and intermittent use of slow-running tools in the open air, special precautions are not normally required.



4.4.3 When long continuous runs are carried out extraction equipment should be used with the machines, as in workshop conditions. Sometimes, tools

4.4.4 Specialised tools have been developed, by co-operation between the asbestos industry and equipment manufacturers, which can perform a variety of machining operations without producing harmful quantities of asbestos dust. Use of this equipment together with sound work practices have been shown to prevent the generation of dust above specified limits.

4.4.5 Working-areas should be kept free from cutting-dust by means of a cleaning attachment available for use with the installed exhaust ventilating system, or by using portable industrial vacuum cleaning machines suitable for use with asbestos materials. If these are not available, floors should be thoroughly wetted and/or spread with damp sawdust before sweeping.



5. Suitable equipment

dust extraction
vacuum cleaning
specialised tools
personal protective equipment

Full details of suppliers of suitable equipment which has been tested for use with products together with advice on the design and specification of such equipment may be obtained from AIA or from the Association's members. They will be pleased to supply names and addresses of national suppliers of such equipment.

6. Waste disposal

6.1 Loose swarf and dust collected from fabrication processes should be collected for disposal in a controlled manner acceptable to local authorities and in accordance with regulations where these exist.

6.2 Broken pieces and off-cuts of asbestos-cement material will not normally produce harmful quantities of dust. However, to avoid unnecessary anxiety (and in some countries to comply with legal requirements), where such waste materials occur in quantity they should be collected and disposed of in a manner which does not generate and disperse dust.

7. General

Further information on any aspect of safe working with asbestos will gladly be supplied by the Asbestos International Association or by any of the Association members whose addresses are contained elsewhere in this publication.