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Asbestos and Health

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REPRESENTATIVES THROUGHOUT THE WORLD

Introduction

Recent press and television publicity has drawn attention to possible hazards associated with asbestos. The articles and television programmes concerned, however, failed to make it clear that the hazard of asbestosis has been known to the asbestos industry for many years, or that during the last 40 years the industry has acquired a great deal of experience in the control of the working environment and the occupational risk that exists.

Disease associated with asbestos is rare and can be avoided altogether if appropriate precautions are taken over the emission or inhalation of asbestos dust. Only the dust is potentially harmful.

This means that TBA products containing asbestos are safe to work with and safe in use if proper control is exercised.

This booklet explains why care is required and recommends the few straightforward steps that need to be taken for the protection of employees.

6. Asbestos-Rubber Products including Compressed Asbestos Fibre Jointings

There is no asbestos dust hazard involved in the normal handling and cutting of these materials.

7. Insulation Products

The general principles laid down on page 3 will apply to the handling of these materials.

Recommended General Precautions

In the handling of asbestos, asbestos products or asbestos waste, all practical steps should be taken to minimise the inhalation of asbestos dust. The precautions will vary in detail according to the type of operation, but the following general rules should be adopted as far as possible:—

a For the dustier operations, exhaust ventilation should be provided.

b Where ventilation is absent or difficult to apply, respirators approved by the Factory Inspectorate should be worn.

c Wherever possible, the material should be handled in a damp or wet state, rather than dry. If this is done, other precautions are usually unnecessary.

d To avoid as far as possible the carrying of asbestos dust in clothing, nylon, terylene or other non-stick overalls should be worn and kept at the place of work.

e In cleaning the working place, dry sweeping should be avoided. Removal of the dust by vacuum cleaning is much to be preferred.

f Wherever possible, dusty operations involving asbestos should be carried out in segregated areas. Large airy rooms with adequate air changes are preferred to confined spaces.

IN GENERAL THE PRINCIPLES TO ADOPT FOR DUSTY OPERATIONS ARE:

(1) TO PROTECT THE OPERATOR WHERE THE WORK IS OCCASIONAL AND ON A SMALL SCALE, AND

(2) TO CONTROL THE OPERATION WHERE THE WORK IS CONTINUOUS.

The following special precautions are recommended for dealing with:—

1. Asbestos Fibre and Loose Fibrous Products

a The material should be supplied in impermeable bags of paper or plastic.

b The material should be dispensed under adequate exhaust ventilation if used dry.

c When the material is to be used wet, e.g. asbestos/cement blends for application by trowel or spray, it should be supplied in a suitable package, so that the water can be added to the material while still in the package.

d Bags in which loose asbestos has been supplied should not be re-used for any purpose.

Immediately on emptying, they should be placed in a bin with a hinged lid to await disposal or bundled into suitable impervious (e.g. plastic) bags.

2. Asbestos Slivers and Yarns

a The high speed take-off of asbestos yarns from creels etc. should be avoided unless the creel can be ventilated.

b Dust emission is greatest where yarns pass through reeds or guides. Ventilation should be provided if possible.

c Damping should be adopted wherever possible.

3. Asbestos Cloths

a Working surfaces on which cloth is being cut, sewn or otherwise handled, should be smooth.

b Tearing of cloth instead of cutting should be avoided, though this is much less important if special dust-suppressed cloths are used.

4. Asbestos Millboard and other Board Products

a These materials should be cut and trimmed under exhaust ventilation or under wet conditions except where the operation is occasional and performed by hand tools.

5. Asbestos-Resin Products including Brake Linings

a These materials should be cut, trimmed, drilled or ground under exhaust ventilation where the operation is continuous. Such precautions are not considered necessary where the operation is occasional or performed only by hand tools.

b Failing exhaust ventilation, a respirator should be worn.

Asbestosis

This disease is similar to silicosis in coal mining, gold mining, quarrying and stonemasonry. It is a fibrotic condition of the lung which can be contracted as a result of inhaling fairly high concentrations of asbestos dust over long periods of time (measured in years) and may be associated later with lung cancer in some instances. Suitable precautions will virtually elimnate any risk.

Mesothelioma

This is a rare malignant tumour, which has only recently been recognised, which attacks the lining of the chest and abdominal cavities. It has been shown epidemiologically to have an association with crocidolite (blue) asbestos, but no association has been proved with chrysotile (white) asbestos.

It is not yet known whether mesothelioma can be eliminated by reducing dust levels to the degree which will virtually prevent asbestosis, but it is clear that mesothelioma takes many years to develop (up to 40 years or more) and that it only affects an extremely small proportion of all the people who have been closely associated with asbestos in this century.

Over the last 50 years only about 600 cases of mesothelioma have been notified throughout the world (International Union against Cancer). It is therefore a very rare disease and not associated uniquely with asbestos.

The Hazard

When asbestos particles small enough to be inhaled are released into the atmosphere, a hazard exists. Most of the particles which can be seen by ordinary light are too large to be inhaled.

SIMPLE PRECAUTIONS TAKEN IN THE HANDLING OF ASBESTOS AND ITS PRODUCTS CAN CONTROL THE HAZARD.

Conclusions

When the necessary precautions are taken the hazards associated with asbestos can be controlled. Studies carried out by Knox, Doll and Hill at the TBA Rochdale factory (the largest asbestos textile plant in the world) have shown that where airborne dust levels are effectively controlled by the methods described above, the mortality rate from all causes, including lung cancer, is normal.

Advice and information on respirators, ventilation etc. are available from:

The Secretary,
Asbestosis Research Council,
P.O. Box 40,
Rochdale,
Lancs.