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Recommended Code of Practice for the Handling and Disposal of Asbestos Waste Materials

Introduction

When the new Asbestos Regulations come into force in May 1970, the protection of workers from industrial disease which might arise from the inhalation of asbestos dust will become a statutory obligation wherever asbestos materials are used in such a way as to give rise to the emission of dust dangerous to the health of employees. It is also important that the general public should not inadvertently be exposed to risk, such as might arise through the indiscriminate or uncontrolled dumping of asbestos waste materials.

The Asbestosis Research Council has given careful consideration to the problems of the collection of waste asbestos material in accordance with the requirements of the new Regulations, and its disposal in such a manner that it will not constitute a risk to the health of the general public.

This Code of Practice has been drawn up as a result, and is recommended in the belief that it will assist those concerned with satisfying both of these requirements.

1 Types of Asbestos

Generally speaking, asbestos waste falls into the following categories:

(1) Fine dust.

(2) Loose fibre, swarf, small off-cuts, floor sweepings, etc.

(3) Waste material from fixing or stripping of insulating materials containing asbestos.

(4) Offcuts, broken pieces and reject material from friable materials.

(5) Offcuts, broken pieces and reject material from high density products such as asbestos cement, moulded plastic materials, etc.

(6) Empty sacks or bags which have contained loose asbestos fibre or mixtures containing loose asbestos fibre.

PART I

2 Collection of Waste

2.1 *Fine dust*

Fine dust is normally produced by sanding or machining operations and the dust is collected by fixed extraction systems. The air is filtered and the dust collected in hoppers which are normally fitted with bagging-off outlets. These outlets should be designed to make bag changing easy and dust leakage minimal. A useful design is a beaded circular outlet fitted with a strong circular-section rubber ring. A bag is fitted to the outlet and the ring rolled down to secure the neck of the bag. No damper is used, thus eliminating one of the most common sources of leakage. Polyethylene bags of adequate strength* for good handling are recommended so that the dust level can be seen and the bag changed before it is over-filled.

When filled, the bags should be sealed so as to prevent the escape of dust during subsequent handling. Polyethylene sacks should be twisted tightly, folded over and the neck secured in the folded position by wire tie, adhesive tape or other equally effective method. Paper sacks should be folded over twice and stapled along the folded edge.

Approved respirators and suitable protective clothing must be worn when changing bags on a dust collector.

In some cases, the dust is removed by wet collectors. The resultant slurry is dealt with as detailed in 3.1 below.

2.2 ***Loose fibre, swarf, small offcuts, floor sweepings, etc.***

Loose fibre is often handled by fixed extraction systems and filter units in the same way as fine dust. It is, however, more usual for swarf to accumulate around and under machines and on floors. Cleaning around machines and the collection of swarf should be carried out in accordance with the requirements of Part III of the Asbestos Regulations 1969.

Where vacuum cleaners are used they should be fitted with disposable paper bags rather than fabric dust bags which would require emptying. Information and recommendations concerning machines conforming to these requirements can be provided on request. Loose material collected by other means should be placed in impermeable bags and sealed, as in 2.1.

**200 gauge polyethylene, double-sealed at bottom, has been found satisfactory.*

2.3 *Waste materials from fixing or stripping of insulating materials containing asbestos*

Waste material from fixing or stripping operations can be conveniently collected on polyethylene sheeting which is subsequently folded to form a sealed container. Where such material has been allowed to fall on floors, it should be thoroughly damped before sweeping up and the damped material should be placed in impermeable bags or other disposable receptacles and sealed, as in 2.1.

2.4 *Offcuts, broken peices and rejects of friable material*

The variety of shapes and sizes of offcuts, rejects, etc. encountered in different factories calls for collection and disposal methods designed to suit individual situations. Wherever possible provision should be made in the design of machines for the automatic removal of offcuts, etc. and their collection in disposable receptacles which can be removed and sealed as described in 2.1.

When automatic removal and collection is impracticable, suitable receptacles must be provided. Attention should be given to the following requirements:

(a) Receptacles must be capable of being closed so as to prevent the escape of dust.

(b) If, during use, dust arises from the mouth of the receptacle a dust extraction hood should be provided to prevent the uncontrolled escape of dust into the work place.

(c) The supply of receptacles should be sufficient to prevent over-filling and to be conveniently available to the work place.

(d) Regular removal of full receptacles and replacement by empty ones should be arranged.

Offcuts and rejects may sometimes need to be broken down to a more convenient size for collection. Wherever possible this should be done mechanically with adequately ventilated equipment. When this is not possible, methods should be devised to reduce the creation of dust as far as possible (for example, by wetting), the work should be performed in an area from which asbestos dust cannot escape to other working areas, and employees engaged in the work must be issued with approved respirators and protective clothing.

2.5 *Offcuts, broken pieces and rejects from high density materials such as asbestos cement, moulded plastic materials, etc.*

Waste material of this kind does not normally give rise to the emission of dangerous dust and in such cases need not be placed in special receptacles. Where such material is kept separate from other asbestos waste it may be stored in a suitable area to await transport and disposal as detailed in section 3 of this code.

2.6 *Empty sacks or bags*

Sacks or bags which have contained loose asbestos fibre, or mixtures including loose asbestos fibre, should be deposited in a suitable receptacle (see 2.4 above) immediately after being emptied. For disposal the sacks or bags should be bundled, under a dust extraction hood, and then sealed in an impermeable bag as in 2.1 above.

PART II

This part of the code, which deals with the final disposal of asbestos waste, has been agreed with the Government Departments having general responsibilities for environmental health in England, Wales, Scotland and Northern Ireland. Copies of the code have been sent to all local authorities.

3 Disposal of Waste—Tipping Practice

3.1 Asbestos waste, whether loose or in sealed bags or other sealed receptacles, should be disposed of in such a way that no dust is emitted into the air during transport or in the act of tipping or subsequently. Where the waste is derived from blue asbestos, the receptacles containing it should be clearly marked to show this.

Waste which is adequately contained in impermeable bags or other suitably sealed receptacles does not require special transport.

Special containers can be obtained which, when filled, are removed by specially fitted road vehicles direct to a disposal tip. Whatever type of container is used steps should be taken to prevent emission of dust from containers when in use.

Wet waste should be transported to the disposal area in sludge tankers or similar vehicles. After use, all vehicles and containers should be cleared of loose fibre or dust, by vacuum cleaning or other dustless method.

3.2 In the event of accidental spillage (for example as the result of a road accident) during transport to the tipping site, the action to be taken will depend on the type of waste involved and the extent of the spillage. Where the amount of spilled material is small, the waste should be re-collected into its original receptacle and reloaded by the vehicle driver without delay.

In the event of substantial spillage, it may be necessary to seek assistance and certain precautions will need to be taken. Should the material be dusty, it should be contained as quickly as possible by covering or wetting or both. The spilled material should be removed as quickly as possible, safety precautions being observed according to the nature of the waste, and only those persons directly concerned with the removal permitted in the working area. The local authority (public health inspector's office) should be promptly notified of the occurrence and of the measures taken for recovery.

Written instructions on the action to be taken in the event of accidental spillage should be issued to drivers of vehicles used for carrying asbestos waste.

3.3 The waste should be deposited at a tipping site, where, as is normal for the controlled tipping of solid waste, there is vehicular access to the tipping face so that the waste can be deposited at the face itself. To avoid the risk of receptacles breaking and dust dispersal, vehicles used for transporting the waste should have a low discharge point in relation to the ground.

3.4 Whenever practicable the waste should be deposited at the foot of the tip face itself so as to minimise the need for further disturbance of the waste as the tip is formed, and so as to facilitate coverage with other suitable dry waste if such is also tipped (see 3.5 below). Where this is not practicable, and the waste has to be deposited over the tip face, that and any subsequent further movement of the waste in formation of the tip should be done with care to avoid spillage from receptacles. The depth of the tip face should not exceed six feet.

3.5 All waste deposited should be covered with at least 9 ins of consolidated earth or other suitable material capable of forming a seal to prevent subsequent interference and dispersal of dust. Where other dry wastes are disposed of at the same site, those wastes may well include materials which can be used to provide the required cover. Covering should be done promptly (immediately in the case of waste derived from blue asbestos) and no waste should be left uncovered at the end of a working day.

3.6 The disposal of wet waste on a dry waste tip is acceptable, provided that the quantities are not excessive. It should be remembered that, even if waste is wet when tipped, it must still be covered so that dust cannot escape from the dried out material. Where there is a large quantity of wet waste for disposal it may be necessary to make special arrangements in consultation with the local authority.

3.7 Exceptional local circumstances may make it acceptable to dispose of asbestos waste at sites where the precautions given in paragraphs 3.3-3.6 above are not applicable. In such cases the detailed arrangements for disposal should be agreed with the appropriate local authority (see 5.3 below); those arrangements must, of course, be such as to avoid the emission of dust into the air during the act of tipping and subsequently. Special considerations which apply only to the disposal

of waste from high density materials such as asbestos cement are set out in paragraph 3.8 which follows.

3.8 Whilst it is accepted that waste from high density materials such as asbestos cement, moulded plastic materials, etc. is not likely to produce a dust hazard when tipped, a hazard may arise subsequently if the waste is subjected to pounding by vehicles passing over it. In general, therefore, the methods of disposal described above should also be adopted for this type of waste, although the requirement for daily covering may be dispensed with. Nevertheless, the waste should always be covered as soon as practicable. High density waste of this kind may be disposed of also in wet pits so long as at all times there is sufficient water to cover any waste deposited.

(Note: Disposal into wet pits is NOT generally suitable for other forms of asbestos waste, although exceptional circumstances might make this method acceptable—see 3.7 above.)

4 Waste Disposal Contractors

4.1 Where a firm itself disposes of its asbestos waste, written instructions based on this code of practice should be issued to the staff concerned. If a waste disposal contractor is employed, the relevant terms of this code of practice should be incorporated in the contract with the disposal contractor.

4.2 As all contractors do not have direct management of the tips they use for disposal of wastes, it is important that the firm's contract should cover responsibility of the contractor for ensuring that the recommended precautions at the tip are observed. Additionally, the firm should carry out periodic checks to ensure that the recommended system of disposal is being followed.

5 Contact with Local Authorities

5.1 Except where the waste is collected by a local authority, all firms producing asbestos waste should notify the appropriate local authority (see paragraph 5.3 below) of their existing arrangements for disposing of the waste. Notification should be in writing and should state the location of the site or sites being used, the type of waste being tipped and the name and address of any waste disposal contractor employed.

5·2 The firm should arrange consultation with the appropriate local authority whenever it is proposed to change any arrangements for the disposal of waste. When new arrangements have been settled the firm should send a written notification to the appropriate local authority as in paragraph 5.1 above.

5·3 In England (other than Greater London), in Wales and in Northern Ireland the appropriate local authority in this matter will be the county borough council, borough council, urban district council or rural district council in whose area the waste is disposed of. In Greater London the appropriate authority will be a London borough council or the Common Council of the City of London. In Scotland the appropriate authority will be a town council or a county council.

(Note: A copy of any notification sent to a London borough council should be sent to the Greater London Council since that Council is responsible for refuse disposal in London.)

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