ASBESTOS INTERNATIONAL ASSOCIATION

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PLAINTIFF'S EXHIBIT

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MEMORANDUM

TO: Executive Committee Members

FROM: Sir Neville Stack

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UCC-CALIDRIA
NIAGARA FALLS, N.Y.

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23 May 1979

ASBESTOS WASTE DISPOSAL

The EEC Council Directive of 20 March 1978 on the disposal of toxic and dangerous waste (OJ No. L84/43 of 31 March 1978) gives member states until 19 March 1980 to effect the necessary legislation within their own countries to comply with the Directive, i.e. there are 10 months left.

Because of the urgent need for guidance on this matter our EEC Members through the EEC Advisory Council of the AIA asked this office in May 1978 to produce an AIA publication on Asbestos Waste Disposal. Data was collected from our EEC members during the summer and a first draft was sent to EAC members on 13 September 1978.

Comments were received by 31 December 1978, and a re-draft with a view to printing was sent for approval to all Executive Committee members and to Mr. Baunach on 24 January 1979.

Further comments on this draft have been received together with a two-page asbestos waste pamphlet which is used by one of our Member Associations. Comments were minor, the main criticism being that the draft was too long. All suggested amendments have been incorporated (including all the points covered in the pamphlet) and at the same time the draft has been cut down in length by one-third (1/3).

It is considered that the draft now covers those aspects of Asbestos Waste Disposal which the experience of our Member Associations shows will be in the minds of Governments when they draft their own regulations. It is not felt possible to cut the draft any further. Anything less comprehensiv would not be acceptable as a responsible document and would therefore not be worth publishing.

Waste disposal is a problem that is becoming of more and more concern to the population at large and we as a responsible industry must be seen to respect this feeling. Such a difficult subject, which embraces sensitive environmental issues, cannot therefore be too summarily dealt with. It is considered that the six well-spaced pages of the attached AIA draft represent a reasonable compromise between being too long and leaving too much out.

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(In this connection you should note that the EEC Council Directive on Waste Disposal itself runs to six pages; the ARC Recommended Code of Practice on Asbestos Waste runs to 12 pages; and the recently issued UK Government Paper No. 18 on Asbestos Wastes consists of 22 pages.)

You are therefore asked to agree (or send amendments to) the attached draft by 25 June, as it is hoped to go to print by the end of that month.

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ACL Doc 18573 · Page 1 of 9
asbestosclaims.law/library/18573/1

23 May 1979

AIA Health & Safety Publication - Recommended Control Procedure No.3 (RCP3)

ASBESTOS WASTE MATERIALS.

CONTENTS

1. Asbestos Waste.

2. Types of Asbestos Waste.

3. Collection of Waste.

   3.1. Fine Dust.

   3.2. Loose Fibre; Swarf and Floor Sweepings.

   3.3. Wet Waste in the form of Sludge or Slurry.

   3.4. Waste from Fixing or Removal of Thermal Insulation or of Sprayed Insulation containing Asbestos.

   3.5. Offcuts, Broken Pieces and Rejects of Friable Materials.

   3 6. Offcuts, Broken Pieces and Rejects from High Density Products.

   3.7. Empty Sacks or Bags

   3.8. Labelling.

   3.9. Isolation of Asbestos Waste.

4. Disposal of Waste.

   4.1. In Transit.

   4.2. At Disposal Site.

   4.3. Personal Protection and Hygiene.

5. Waste Disposal Instructions.

407381

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ACL Doc 18573 · Page 2 of 9 asbestosclaims.law/library/18573/2

AIA Health & Safety Publication - Recommended Control Procedure No.3 (RCP3)

ASBESTOS WASTE MATERIALS

1. ASBESTOS WASTE

1.1. This document gives the recommended procedures for handling and disposing of asbestos waste. However, one should not overlook the most effective and economic method of control, that is, the avoidance of waste. Some types of asbestos waste can be re-cycled or can provide raw material for a different product. The creation of waste may be minimised by improved production techniques.

1.2. There is general agreement that the occupational hazards associated with asbestos arise through the excessive inhalation of respirable asbestos fibres. There is no evidence at the present time of any harmful effects due to the ingestion (swallowing) of asbestos. Therefore, the methods of waste disposal recommended concentrate on the need to avoid the escape into the atmosphere of unacceptable levels of respirable asbestos dust from the waste material:-

1.2.1. During Collection.

1.2.2. During transit to the disposal site.

1.2.3. When finally deposited.

2. TYPES OF ASBESTOS WASTE.

2.1. It is important. to consider the different types of asbestos waste which may be encountered. They will generally fall into one or other of the following categories:

2.1.1. Fine dust - from dust control equipment. filter units, vacuum cleaners.

2.1.2. Loose fibre, swarf, floor sweepings, etc.

2.1.3. Wet waste in the form of sludge or slurry containing asbestos.

2.1.4. Waste material from the fixing or removal of thermal insulation or sprayed insulation containing asbestos.

2.1.5. Offcuts, broken pieces and rejects from friable materials.

2.1.6. Offcuts, broken pieces and rejects from high density products, where the asbestos is firmly bonded with other materials e.g. asbestos cement, moulded plastics etc.

2.1.7. Empty sacks or bags which have contained loose asbestos fibres or mixtures containing asbestos fibres.

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ACL Doc 18573 · Page 3 of 9 asbestosclaims.law/library/18573/3

3. COLLECTION OF WASTE

3.1. Fine Dust. Fine dust may be produced from material conveyors, mixing equipment or by such processes as sawing, sanding or machining.

3.1.1. The dust is collected by installed 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.

3.1.2. 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.

3.1.3. Other types of impermeable bags such as multi-wall paper sacks may be acceptable, if there is no risk of deterioration (*e.g.* by wetting) before disposal. When filled, the bags should be sealed so as to prevent the escape of dust during subsequent handling.

3.1.4. 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.

3.1.5. Approved respirators and suitable protective clothing must be worn when changing bags on a dust collector. In some cases, dust is removed by wet collectors. The resultant slurry is dealt with in 4.1.3. below.

3.2. Loose fibre, Swarf and Floor Sweepings.

3.2.1. Loose fibre is often handled by fixed extraction systems and filter units in the same way as fine dust. It can also accumulate in fibre-testing laboratories. Wherever possible, such material should be consumed in the production process.

3.2.2. Swarf accumulates around and under machines and on floors. Cleaning around machines and the collection of swarf should be carried out by the use of vacuum cleaners suitable for asbestos or by other dustless methods. Where vacuum cleaners are used, they should be fitted with disposable paper bags rather than fabric dust bags which would require emptying.

A07383

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ACL Doc 18573 · Page 4 of 9 asbestosclaims.law/library/18573/4

3.2.3. Loose material collected by other means should be placed in impermeable bags and sealed, as in 3.1.2. to 3.1.4. above.

3.2.4. Information and recommendations concerning suitable dust-collecting machines can be provided upon request.

3.3. Wet waste in the form of Sludge or Slurry containing Asbestos

3.3.1. Waste asbestos in the form of sludge or slurries likely to arise from industrial processes (e.g. board making) should only be transported in purpose-built vehicles. These should be such as to prevent spillage of liquid which may subsequently dry out and from which unacceptable quantities of asbestos dust might be released (see 4.1.3. and 4.2.5. below.).

3.4. Waste Materials from fixing or removal of (1) Thermal Insulation or (2) Sprayed Insulation containing Asbestos.

3.4.1. Waste material from fixing or stripping operations can be conveniently collected on polyethylene sheeting which is subsequently folded to form a sealed container.

3.4.2. 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 3.1.2. to 3.1.4. above.

3.4.3. In some cases, removal may be effected by the use of large quantities of water so that a slurry is created. In this case the wet material may be more conveniently collected and removed in special containers (see 4.1.3. below).

3.5. Offcuts. Broken pieces and rejects of Friable Materials.

3.5.1. By "friable" we mean material, usually of low density, which is fragile and breaks easily into small pieces.

3.5.2. The variety of shapes and sizes of offcuts, rejects etc. in different factories calls for individual collection and disposal methods Where 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 3.1.2. to 3.1.4. above.

3.5.3. 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

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(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.

3.5.4. 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.

3.5.5. When this is not possible, methods should be devised to reduce the creation of dust as far as possible (for example, by wetting) and the work should be perfomed in an area from which asbestos dust cannot escape to other working areas. Employees engaged in this work must be issued with approved respirators and protective clothing.

3.6. Offcuts, Broken Pieces and Rejects from high density products such as Asbestos Cement, Moulded Plastic materials etc.

3.6.1. Waste material of this kind does not 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 5 of this Code.

3.7. Sacks or Bags which have contained asbestos

3.7.1. Sacks or bags which have contained loose asbestos fibres, or mixtures including loose asbestos fibres should be deposited in a suitable receptacle (see 3.5.3. above) immediately after being emptied.

3.7.2. For disposal the sacks or bags should be bundled, under a dust extraction hood, and then sealed in an impermeable bag as in 3.1.2. to 3.1.4. above.

3.7.3. In no case should these bags be re-used for packing or sold for any other purpose.

3.7.4 Bags can be re-used for plastic injection or extrusion on site.

3.8. Labelling

It is recommended that all waste materials in categories 3.1. to 3.7. above be identified by a label or by imprint on the disposal receptacle as "Asbestos Waste - for Disposal as Instructed". Where the waste is of a dusty nature, the addition of the words "Do not inhale Dust" is recommended.

3.9. Isolation of Asbestos Waste

A07385 Care should be taken not to mix asbestos waste with other waste material

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ACL Doc 18573 · Page 6 of 9 asbestosclaims.law/library/18573/6

for which there are no special disposal requirements (e.g. common factory refuse). Ensure that bags containing asbestos are not exposed to damage from trucks etc. likely to cause spillage. Where possible, a separate store area is recommended for asbestos waste awaiting disposal.

4. DISPOSAL OF WASTE.

4.1. In Transit

4.1.1. Asbestos waste, whether loose or in 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. Waste which is adequately contained in impermeable bags or other sealed receptacles does not require special transport.

4.1.2. Special containers can be obtained which, when filled, are removed by specially fitted road vehicles direct to a tip. Care must be taken to prevent the emission of dust from these containers.

4.1.3. 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, watering or other dustless methods.

4.1.4. 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 upon the type of waste involved and the extent of the spillage.

4.1.4.1. Where the amount of the spilled material is small, the waste should be re-collected into its original container and re-loaded by the driver without delay.

4.1.4.2. 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.

4.1.5. 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.

4.2. At Disposal Site.

4.2.1. It should be clearly established in advance that the site to be used is suitable and acceptable for reception of the type of waste to be delivered.

A07386

4.2.2. The waste should be deposited at a tipping site where there is vehicular access to the tipping face.

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ACL Doc 18573 · Page 7 of 9 asbestosclaims.law/library/18573/7

4.2.3. All asbestos waste, when deposited on land-fill sites, should be so deposited that on completion of the site filling the asbestos waste is covered to such an extent that, under normal circumstances, the asbestos will not be exposed by subsequent excavation. A depth of at least 25 cm is recommended during daily covering until the final covering is made, when a much greater depth will be required.

4.2.4. Certain water-filled sites may be suitable for the disposal of particular types of asbestos.

4.2.5. The disposal of wet waste on a dry waste tip may be acceptable, provided that the quantities are not excessive.

4.2.6. 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 vehichles passing over it. In general, therefore, the methods of disposal described above should also be adopted for this type of waste.

4.3. Personal Protection and Hygiene.

4.3.1. Any persons who in the course of their work of collecting, transporting or disposal may be exposed to a higher level than the accepted TLV of respirable asbestos dust, must be provided with suitable protection.

4.3.2. Vehicles and re-usable receptacles and covers must be cleaned after use so that they are free of residual asbestos dust.

5. WASTE DISPOSAL INSTRUCTIONS

5.1. Where a firm itself disposes of its asbestos waste, written instructions based upon these recommendations should be issued to the staff concerned.

5.2. If a waste disposal contractor is employed, the relevant terms of these recommendations should be incorporated in the contract

5.3. The contract should state clearly that the waste disposal contractor is responsible for observing the recommended precautions at the tip.

5.4. Firms should make periodic checks to ensure that the contractor is obeying instructions.

A07387

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ACL Doc 18573 · Page 8 of 9 asbestosclaims.law/library/18573/8

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asbestosclaims.law/library/18573/9