



ASBESTOS

MANAGEMENT

PLAN

Bridgewater Housing Association Ltd is a recognized Scottish Charity No. SC 035819
Property Factor Registration Number PF000105

Date: August 2021

Policy on the Management of Asbestos and Asbestos Containing Materials

Bridgewater Housing Association have previously arranged for asbestos surveys to be undertaken in the common areas of all buildings and sites under their responsibility. The findings of the surveys are available via **the Asbestos Register which can be issued electronically.**

Bridgewater Housing Association recognises that exposure to respirable asbestos fibres has the potential to cause serious and irreversible disease. It will, however, be necessary to periodically remove or maintain asbestos containing materials (ACM's). It is the policy of Bridgewater Housing Association to prevent the exposure of our employees, contractors and any other persons to asbestos fibres. Where this is not possible, for example, during removal of asbestos containing materials, then it is our policy to reduce that exposure to the lowest level that is reasonably practicable.

This Asbestos Management Plan is intended to put this policy into effect.

It is the responsibility of all relevant personnel to be familiar with the procedures contained within the Asbestos Management Plan, to comply with these procedures, current legislation, official guidance and good practice.

In this way, Bridgewater Housing Association will ensure that the health and safety of all our staff and other persons is not put at risk from exposure to asbestos fibres.

This management plan forms the basis of Bridgewater Housing Association's arrangements for satisfying the relevant legislation and is in keeping with the statements contained within the Association's Health & Safety Manual,

Signed: _____

Designation: _____

Date: _____

Date: August 2021

Contents

Management Plan

	Policy	2
Section 01	The Asbestos Management Plan	4
Section 02	The Asbestos Action Plan	5
Section 03	Amendments to the Asbestos Register, Asbestos Management Plan & Asbestos Action Plan	6
Section 04	Condition Inspections	7
Section 05	Procedure for works on Asbestos Containing Materials	8
Section 06	Control of Contractors and In-house Maintenance Tasks	9
Section 07	Work on/adjacent to materials of unknown composition	10
Section 08	Procedure for works with Asbestos Containing Materials where an HSE Asbestos Licence is not required	11
Section 09	Procedure when asbestos is accidentally disturbed or damaged during work	14
Section 10	Supervision of work on or near to Asbestos Containing Materials	15

Appendices

Appendix 01	Personnel and responsibilities	19
Appendix 02	Contact details	21
Appendix 03	What is Asbestos?	22
Appendix 04	Asbestos related diseases	23
Appendix 05	Statutory requirements	25
Appendix 06	Asbestos Products Table	30
Appendix 07	Control limits	38
Appendix 08	8.1 Survey types	39
	8.2 "Asbestos: The survey guide" – Guidance for Clients or Dutyholders	
Appendix 09	Asbestos risk assessment	43
Appendix 10	Decisions regarding management options	48
Appendix 11	Determining regarding Asbestos Work categories	56
Appendix 12	Training	60
Appendix 13	Re-inspection schedule	61
Appendix 14	Guidance to the health effects of inadvertent exposure to asbestos fibre and actions to be taken	62
Appendix 15	Asbestos Action Plan	66
Appendix 16	List of Contractors and Consultants	68

Date: August 2021

Section 1

The Asbestos Management Plan

The Asbestos Management Plan consists of the following elements and Appendices:

- The details of how the location and condition of known or presumed asbestos containing materials are recorded (see Appendix 8)
- Priority assessments, including priority assessment scores if algorithms have been used (see Appendix 9)
- Decisions about management options (see Appendixes 10 & 11)
- Monitoring arrangements (see Section 5 and Appendix 13)
- Personnel and their responsibilities (see Appendixes 1 and 2)
- Training arrangements for employees and contractors (see Appendix 12)
- Who will oversee the quality of entries made on the management plan (see Appendixes 1 & 2)
- Procedure for review of plan, including timetable (see Section 3 and Appendix 15)
- The asbestos Action Plan –a practical and achievable timetable of prioritising management/remedial actions (see Section 2 and Appendix 15)

The Asbestos Management plan and Asbestos Action Plan will be reviewed annually.

Copies of the Asbestos Management Plan have been issued to the following persons and to the Contractors/Consultants listed in Appendix 16:

**Director
Housing Services Manager
Technical Services Manager
Property /Maintenance Officer**

Sheltered Housing Wardens

The Asbestos Management Plan will be available on the Association's web-site and Intranet.

Date: August 2021

Commented [MB1]: Check all contacts listed in App 16

Section 2

The Asbestos Action Plan

The priorities and the timetable for action have been formulated following careful risk assessment, taking into account the principals given in HSE publication INDG 103 "5 Steps to Risk Assessment" and HSG227 "A Comprehensive Guide to Managing Asbestos in Premises".

Material, priority and total risk assessment scores are formulated during and as a result of the asbestos survey programme. The information is stored in hard copy report format and is the responsibility of the Asbestos Co-ordinator.

The Asbestos Action Plan is reviewed yearly or as follows:

1. Whenever the use of an area changes
2. Whenever circumstances change
3. Should there be reasons to suspect the plan is no longer valid
4. In the event of an incident such as accidental damage

The Asbestos Action Plan is given at Appendix 15.

Date: August 2021

Section 3

Amendments to the Asbestos Register, Asbestos Management Plan and Asbestos Action Plan

It is vital that the Asbestos Register, Asbestos Management Plan and Asbestos Action Plan are amended to reflect the existing situation and conditions. It is the responsibility of the Asbestos Co-ordinator to ensure that such amendments are completed and accurate.

The Asbestos Register and Asbestos Management Plan are only to be amended by or with the authority of the Asbestos Co-ordinator.

Commented [MB2]: Is the Asbestos Co-ordinator named

A review of the Management Plan is to be undertaken by the Asbestos Co-ordinator and external Asbestos Consultant every 12 months unless:

- There are changes in site conditions (e.g. changes in personnel or use of building)
- There are changes in the condition of asbestos containing materials

In such cases, the Plan will be amended and re-issued immediately.

Important areas for assessment review are:

- Confirmation that removal, repair and encapsulation works have been completed satisfactorily
- Checking that periodic monitoring of the condition of remaining asbestos containing materials is effective
- Confirmation that records are being maintained and kept up to date
- Investigation of incidents/accidents, development of future preventative measures
- Checking that the plan is communicated to all concerned and included in tenders and contracts from external companies
- Confirmation that emergency procedures are in place and that the emergency services are aware of the presence of asbestos on the premises

Date: August 2021

Section 4

Condition Inspections

It is imperative that asbestos containing materials that are not removed are maintained in a good, sound condition.

Retained asbestos containing materials are, therefore, to be re-inspected on a regular basis and any necessary repair undertaken promptly. The results of the re-inspections are to be recorded and the database updated accordingly.

The frequency of such condition inspections is based upon the original assessments carried out at the time of the Management surveys and the foreseeable risk of deterioration addressing the following risk factors:

- Type of asbestos containing material
- Building use/frequency of use
- Impact/abrasion damage risk
- Vandalism risk
- Vermin damage risk
- Water ingress risk
- Fire damage

Condition inspections are to be co-ordinated by the Asbestos Co-ordinator in consultation with the independent Asbestos Consultant.

Frequencies of inspection are given at Appendix 13.

Date: August 2021

Section 5

Procedure for Works on Asbestos Containing Materials

Only approved Contractors will be used for work on any asbestos materials

The list of Contractors is given in Appendix 16.

Commented [MB3]: Check list of contractors

All work shall be undertaken strictly in accordance with the Control of Asbestos Regulations 2012, Approved Code of Practice and HSE Guidance. See sections 06, 07, 08, 09, 10 and Appendix 10.

Decision flow charts determining whether an asbestos license is required for works and whether non-licensed work is notifiable or not are found in Appendix 11.

In all instances where work on a material of a known asbestos composition is to take place, the removal specification or method statement provided by the contractor is to be strictly adhered to.

An independent Asbestos Consultant, along with the Asbestos Co-ordinator(s), co-ordinates the safe system of work, method statement and controls.

Date: August 2021

Section 6

Control of Contractors and In-house Maintenance Tasks

The following procedure is to be adopted before **any** work takes place on the premises:

1. The asbestos register is made available to all parties by the **Asbestos Co-ordinator or his Deputy**.
The register is to be consulted prior to any work being carried out by all contractors.
2. In the event that ACM material is suspected or identified, work is to stop and the area isolated.
The Asbestos Co-ordinator is to be notified immediately; the responsible person will then be notified as well as the Duty Holder.
3. Work shall only be undertaken by named nominated Contractors or a Contractor named on the list of licensed contractors who has access to the asbestos register and is fully acquainted with the procedures contained in the Asbestos Management Plan.
4. A formal written safe system of work has been prepared and approved by the Asbestos Co-ordinator and verified by the independent Asbestos Consultant where necessary.
5. The Asbestos Co-ordinator will arrange for a specialist contractor to carry out the work or removal, repair and/or disposal of the ACM once instructed by the Duty Holder.

Commented [MB4]: Are they listed

Date: August 2021

Section 7

Work On/Adjacent to Materials of Unknown Composition

Work on asbestos cement, miscellaneous materials and work of "short duration" on coatings, insulation and asbestos insulating board may be undertaken by non-HSE licensed contractors, subject to compliance with the Control of Asbestos Regulations 2012 and relevant HSE guidance. However, it is **Bridgewater Housing Association** policy that any work with all asbestos containing materials is undertaken by HSE Licensed Contractors, even when this is not a statutory requirement. The exception to this is maintenance and repair work on items of plant where there are specific, written methods approved by **Bridgewater Housing Association**.

Where work is to take place on:

1. Materials of unknown composition that, in the opinion of the Asbestos Co-ordinator, have the potential to contain asbestos fibres.
2. Work adjacent to such materials that may involve disturbance or damage to such materials.

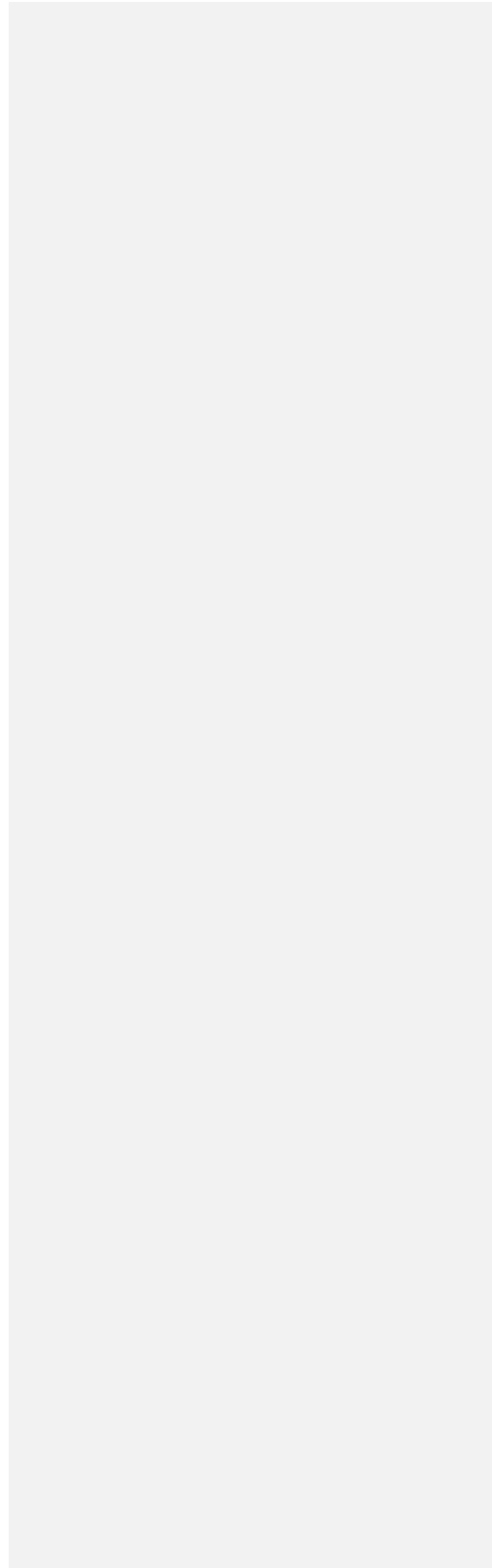
Procedure to be adopted:

1. In the first instance the Asbestos Co-ordinator is to check the Asbestos Register to confirm if the material to be worked on contains asbestos or not.
2. If the material can be confirmed as non-asbestos either by reviewing the Asbestos Register or by inspection by a competent person then the works can proceed.
3. If the Asbestos Register does not identify the material and the competent person cannot confirm the material is non-asbestos then all such materials will be sampled and analysed for the presence of asbestos fibres before work is allowed to commence. If asbestos is found to be present, all relevant provisions of the Control of Asbestos Regulations 2012 and relevant HSE guidance shall be complied with. See Appendices 10 & 11 for management options.

Date: August 2021

Date: August 2021

Page 11 of 71



Section 8

Procedure for works with asbestos containing materials where an HSE Asbestos Licence is not required

Work on asbestos cement, miscellaneous materials and work of "short duration" on coatings, insulation and asbestos insulating board may be undertaken by non-HSE licensed contractors, subject to compliance with the Control of Asbestos Regulations 2012 and relevant HSE guidance. However, it is Bridgewater Housing Association policy that any work with all asbestos containing materials is undertaken by HSE licensed contractors. The exception to this is maintenance and repair work on items of plant where there are specific, written methods approved by Bridgewater Housing Association.

CAR 2012 introduced 2 categories of non-licensed work - Notifiable Non-Licensed Work (NNLW) and Non-Licensed Work (NLW) – see Appendix 11 for decision flow charts.

If work is required to be carried out due to an emergency situation or for operational reasons then the following will apply:

Where work with asbestos containing materials is deemed to be sporadic and low intensity (does not exceed the control limit of 0.6 f/cc over a 10 minute period– see Appendix 07) and of short duration and as such a Licensed Asbestos Removal Contractor is not required, it is important to remember that the Control of Asbestos Regulations will continue to apply, as will waste disposal requirements. Exposure to any employee requires to be below the control limit of 0.1 f/ml over a 4 hour period -see Appendix 07.

Guidance on appropriate precautions and methods of work is given in HSE publication – "Asbestos Essentials, Task Manual HSG 210".

(Note: this manual is available in an updated format electronically from the HSE website: <http://www.hse.gov.uk/asbestos/essentials/index.htm>)

The requirements of this publication are to be regarded as the minimum standard acceptable to Bridgewater Housing Association.

The publication gives guidance on the following Tasks:-

Introduction

A00. Advice on non-licensed work with Asbestos

Work with Asbestos Cement (AC) (non-licensed)

- A9. Drilling holes in asbestos cement and other highly bonded materials
- A10. Cleaning debris from guttering on an asbestos cement roof
- A11. Removing asbestos cement debris
- A12. Cleaning weathered asbestos cement roofing and cladding
- A13. Repairing damaged asbestos cement
- A14. Removing asbestos cement sheets, gutters etc.
- A15. Removing asbestos cement or reinforced plastic product e.g. tank, duct, water cistern
- A16. Painting asbestos cement sheets
- A35. Replacing an asbestos cement flue pipe or duct

Date: August 2021

Commented [MB5]: Check Asbestos Essentials for updates

Commented [BG6R5]: BG checked Asbestos essentials – no changes noted.

- A36. Removing an asbestos cement panel outside, beside or beneath

Working with textured coatings (TC) containing asbestos (non-licensed)

- A26. Drilling and boring through textured coatings
- A27. Inserting and removing screws through textured coatings
- A28. Removing textured coating from a small area, e.g. 1m²
- A29. Clearing up of debris following collapse of a ceiling or wall covered with textured coating

Strictly controlled minor work on Asbestos Insulating Board (AIB)

- A1. Drilling holes in asbestos insulating board
- A2. Removal of a single (screwed in) asbestos insulating board ceiling tile
- A3. Removal of a door with asbestos insulating board fire-proofing
- A4. Removal of a single screwed-in asbestos insulating board panel under 1m² in area, fixed in with nails or screws
- A5. Cleaning light fittings attached to asbestos insulating board
- A6. Repairing minor damage to asbestos insulating board
- A7. Painting undamaged asbestos insulating board

Safe work with undamaged asbestos materials

- A8. Enclosing undamaged asbestos materials to prevent impact damage
- A20. Laying cables in areas containing undamaged asbestos materials
- A34. Removing pins and nails from asbestos insulating board panel

Removal and replacement of other asbestos containing materials

- A17. Removing asbestos paper linings
- A18. Removing asbestos friction linings
- A19. Removing an asbestos fire blanket
- A21. Removing asbestos containing bituminous products
- A22. Removing metal cladding lined with asbestos containing bitumen
- A23. Removing asbestos containing floor tiles and mastic
- A24. Removing flexible asbestos textile duct connectors (gaiters)
- A25. Removing compressed asbestos fibre gaskets and asbestos rope seals
- A30. Removing an asbestos containing arc shield from electrical switchgear
- A31. Removing a single asbestos containing gas or electric heater
- A32. Replacing an asbestos containing part in a "period" domestic appliance
- A33. Replacing an asbestos containing fuse box or single fuse assembly
- A37. Removing asbestos containing mastic, sealant, beading, filler, putty or fixing

Fly-tipped waste

- A38. Making safe and collecting fly-tipped waste

Equipment and method sheets

EM0 Risk Assessments and Plans of Work

- EM1. What to do if you discover or accidentally disturb asbestos during your work
- EM2. Information, Instruction and Training

Date: August 2021

- EM3. Building and dismantling a mini-enclosures
- EM4. Using a class-H vacuum cleaner for asbestos
- EM5. Wetting asbestos materials
- EM6. Personal Protective Equipment (PPE)
- EM7. Using damp rags to clean surfaces of minor asbestos contamination
- EM8. Personal decontamination
- EM9. Disposal of asbestos waste
- EM10. Statement of cleanliness after textured coating removal

Date: August 2021

Section 9

Procedure when asbestos is accidentally disturbed or damaged during work

Any accidental damage to, or disturbance of, asbestos containing materials or suspected, asbestos containing materials, **HOWEVER MINOR**, must be reported to the Asbestos Co-ordinator immediately.

In all circumstances the work must be immediately suspended and all persons removed from the vicinity of the damage.

The Asbestos Co-ordinator will then decide upon appropriate action, after consulting with the customer's appointed asbestos consultants. Reference shall also be made to procedure EM1 given in "Asbestos Essentials, Task Manual". An extract from EM9 is given in Appendix 14.

Where persons have or may have been exposed to airborne asbestos fibre at or above the "control limit", they shall be informed of the event in writing and a record made of the incident upon their personnel record. Further guidance and advice to exposed employees is given in Appendix 14.

Guidance on when an asbestos exposure should be reported to the HSE as a Reportable Incident under The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) is given in Appendix 14, section 14..

Date: August 2021

Section 10

Supervision of work on asbestos containing materials

Work on asbestos containing materials shall be adequately supervised.

Reference should be made to sections 5, 7, 8 and Appendix 11.

Where larger scale works are planned and undertaken, Bridgewater Housing Association's independent Asbestos Consultants, , will be employed to supervise all aspects of the project. In this context larger scale works are defined as works of significant size and/or complexity which are being removed under HSE lice

Commented [MB7]: Supervisory Licences

For works that do not fall into the above category and are not carried out under HSE licensed conditions, supervision would be for asbestos removal by the Licensed contractor's supervisor and for all other aspects by normal arrangements (Main Contractor, Clerk of Works etc).

In all cases the Main and/or Licensed Asbestos Contractor shall submit the following documents to the Asbestos Co-ordinator and/or Bridgewater Housing Association's independent Asbestos Consultant before works are approved and allowed to commence.

- Assessment of exposure
- Plan of work / risk assessment
- Current HSE licence (if applicable)
- Specification of plant and equipment to be used
- Details of waste disposal arrangements
- Training/medical records of operatives
- Current certificate of insurance

The HSE must be notified using ASB5 documentation of all works requiring a license for removal and supervision with 14 days notification. Notifiable non-licensed work must be notified to the HSE using ASB NNLW1 form.

Air quality monitoring will be undertaken throughout asbestos removal works in accordance with the Control of Asbestos Regulations 2012, the Analysts' Guide (HSG 248) and relevant HSE Guidance Notes and be carried out by an Asbestos Consultant independent of the Main Contractor or the Licensed Asbestos Contractor.

Date: August 2021

APPENDIXES

Date: August 2021

Page 17 of 71

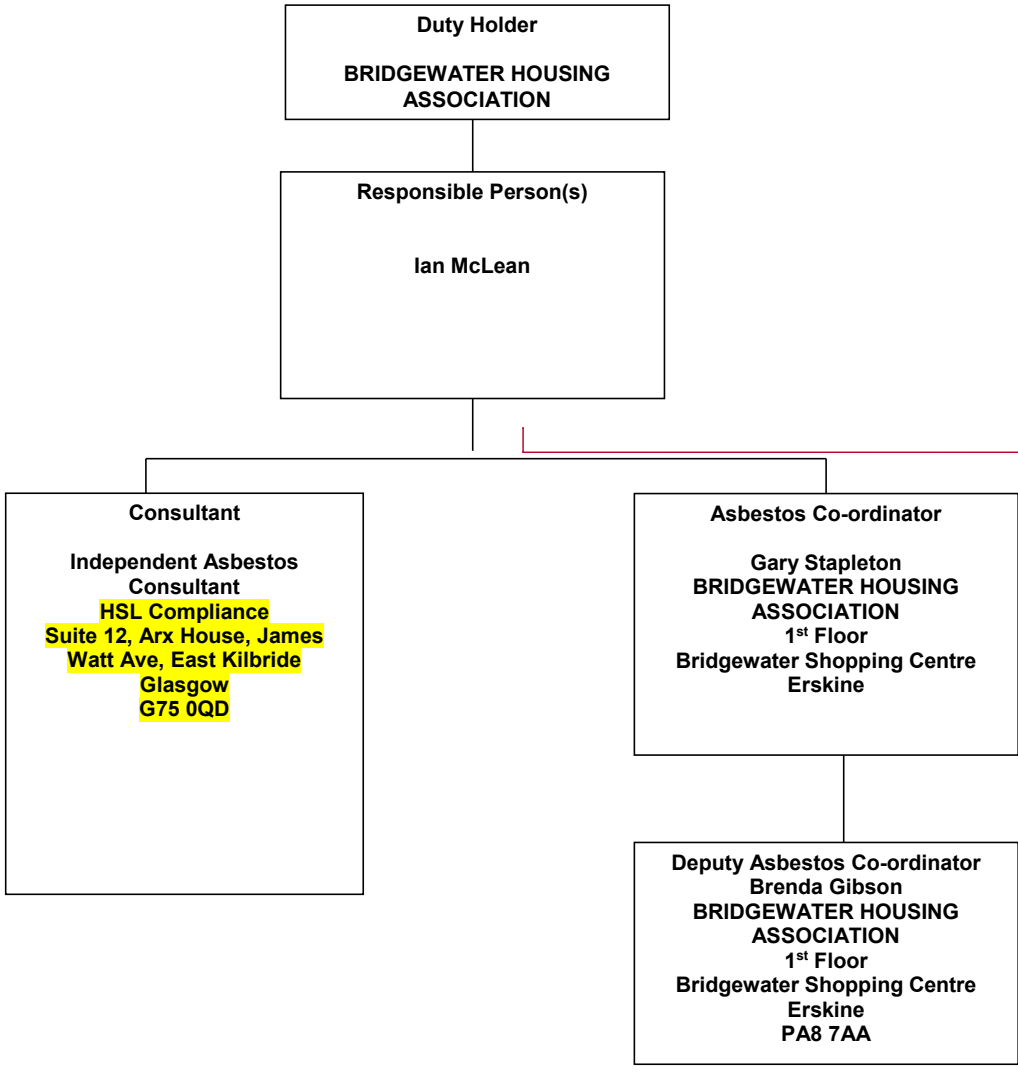
Appendix 1

Personnel and Responsibilities

- 1.1 Bridgewater Housing Association's Health and Safety Policy, the Asbestos Management Plan and the **persons named within the Plan** have overall responsibility for ensuring the health and safety of employees and others using the Association's properties including the protection of those persons from asbestos.
- 1.2 The Asbestos Co-ordinator
Is to be given appropriate training, authority and resources to enable him to fulfil this role and reports to the Director. He will be responsible for the development and implementation of the following:
- The Asbestos Policy Statement
 - Organisation and arrangements to put the Asbestos Management Plan into effect
 - Maintenance and amendment of the Asbestos Register
 - Annual and periodic review of the operation of the Asbestos Management Plan
 - Vetting or appointment of licensed and non-licensed asbestos contractors to undertake work on asbestos containing materials
 - Ensuring supervision of asbestos removal works
 - Maintenance of records associated with work with asbestos
 - Training and staff liaison regarding asbestos containing materials
- 1.3 Deputy Asbestos Co-ordinator
The Deputy Asbestos Co-ordinator reports to the Asbestos Co-ordinator and adopts the role of the Asbestos Co-ordinator in his absence.
- 1.4 Independent Asbestos Consultants
The Independent Asbestos Consultants will be appointed as soon as possible following the adoption of the Asbestos Management Plan and will provide technical and legal advice to the Asbestos Co-ordinator and his Deputy as and when required. The independent Consultant also supervises/monitors asbestos works as and when required to do so, including sampling, analysis and the issue of relevant certificates/documentation. The independent Consultant advises upon the competence of licensed and non-licensed Contractors during the selection of Contractors.

Date: August 2021

Personnel and Responsibilities



Commented [MB8]: Update to HSL Compliance

Date: August 2021

Appendix 2

Contact Telephone Numbers

2.1 Asbestos Co-ordinator

Name: Gary Stapleton
Designation: Technical Services Manager
Office address: Bridgewater Housing Association, 1st Floor, Bridgewater Shopping Centre, Erskine PA8 7AA
Telephone: 0141-812-2237
Fax: 0141-812-7154
e-mail: gstapleton@bridgewaterha.org.uk

2.2 Deputy Asbestos Co-ordinator

Name: Brenda Gibson
Designation: Technical Services Officer
Office address: Bridgewater Housing Association, 1st Floor, Bridgewater Shopping Centre, Erskine PA8 7AA
Telephone: 0141-812 2237
Fax: 0141-812-7154
e-mail: Brenda.gibson@bridgewaterha.org.uk

2.5 Asbestos Consultants

Name: HSL Compliance

Designation: Independent Consultants

Office address: Suite 12

Arx House
James Watt Ave,
East Kilbride
Glasgow

G75 0QD

Telephone: 01355 242280

Fax: 01355 247470

Date: August 2021

Appendix 3

What is Asbestos?

- 3.1 Asbestos is a term used for the fibrous forms of several naturally occurring silicate minerals. The three main types of asbestos which have been commercially used are:
- Crocidolite (often referred to as 'blue asbestos');
 - Amosite (often referred to as 'brown asbestos');
 - Chrysotile (often referred to as 'white asbestos').
- 3.2 Other forms of asbestos are also found, but are much less common – fibrous Actinolite, fibrous Anthophyllite and fibrous Tremolite. Analysis may detect the presence of these materials, but usually in combination with the more common types.
- 3.3 Chrysotile is referred to as a serpentine mineral and the other five of the fibre types are referred to as amphibole minerals. It is important to remember that the colours are not a reliable indicator of the type of asbestos and laboratory analysis is always required to both confirm the presence of and type of asbestos within a material.
- 3.4 From antiquity through time asbestos minerals have been incorporated into various products because of the technical properties of these minerals, namely: rot proof, good insulator, good acid resistance, good fire resistance, good electrical insulator. Some of the minerals can also be woven and at certain points in time asbestos was a very cheap commodity and so was used to bulk-out products.
- 3.5 In all it is reckoned that there are over 3000 products that contain asbestos minerals. Appendix 6 gives details of the most common asbestos containing products.

Date: August 2021

Appendix 4

4.1 Asbestos Related Diseases

- **Asbestos Warts** – caused when the sharp fibres lodge in the skin and are overgrown, causing callous-like growth which are benign;
- **Pleural Plaques** – discrete fibrous or partially calcified thickened areas when can be seen on X-rays of individuals exposed to asbestos. They do not become malignant nor normally cause any lung impairment;
- **Diffuse Pleural Thickening** – similar to above and can sometimes be associated with asbestosis. Usually no symptoms shown, but if extensive can cause lung impairment;
- **Asbestosis** – irreversible fibrosis or scarring of the lungs in which the tissue becomes less elastic, making breathing progressively more difficult. This is an industrial disease arising from high levels of exposure to asbestos fibres, including blue, brown and white. There is no risk of asbestosis from normal levels of environmental exposure to asbestos;
- **Lung Cancer** – an increased incidence of lung cancer has been found in people who work with asbestos and research suggests that both lung cancer and asbestosis do exhibit a dose response relationship. The three main types of asbestos can all cause lung cancer, but blue and brown are more dangerous than white. **It is also important to remember that people who are exposed to asbestos fibres and who smoke are at an even greater risk of developing lung cancer than those who do not smoke;**
- **Mesothelioma** – a cancer of the inner lining of the chest or the abdominal wall. This cancer is generally shown to be due to exposure to asbestos in the workplace or to living in the same house as someone who works/worked with asbestos. The risk of Mesothelioma is not influenced by smoking. Although a threshold has not been established, evidence shows that low/short exposures to asbestos fibres, primarily from blue and brown asbestos, have resulted in this disease.

4.2 Is there a safe level?

4.21 The risk of developing an asbestos-related disease depends on a number of factors, including the cumulative dose received, the time since first exposure and the type and size of asbestos fibres concerned. We are all exposed to a background level of asbestos fibres – externally from erosion of rocks/mining and indoors from proximity to asbestos containing materials. The theory that 'one fibre kills' is therefore not borne out by science.

4.22 The majority of people now dying from asbestos-related diseases were exposed to asbestos during the 1950's and 1960's, when asbestos use in the UK was at its peak. Many of them were employed in the production of asbestos products and in the building trade, and were exposed to high concentrations of airborne asbestos fibres at work, often over many years. Some were exposed due to contact

Date: August 2021

with dusty work clothes from asbestos workers at home. These exposures were not measured as accurately as we are able to do now, so it is not possible to compare past exposures with incidence of the diseases – there is insufficient information to deduce a 'safe' level.

4.23 This relationship can be better established as more information about exposures can be compared with incidences of disease. However, the long latency period makes this slow work.

4.24 There is usually a long delay between first exposure to asbestos fibres and diagnosis of disease, ranging from 15 to as many as 60 years. Current UK regulations are such that those now knowingly working with asbestos are unlikely to develop asbestos-related diseases, provided they observe the required precautions.

4.3 Persons at Risk

4.31 A study carried out by Professor Peto and HSE epidemiologists in 1995 showed that the largest single group of people at risk of coming into contact with asbestos was building and maintenance workers, often accidentally exposed to asbestos containing materials. This group accounts for approximately 25% of the 3,500 annual deaths from asbestos-related diseases. The workers, their own employers and even those in control of the building are often unaware that asbestos was present during maintenance work.

4.32 Maintenance and building workers may have breathed in asbestos fibres during their day-to-day work with asbestos materials, or because work with asbestos was carried out near to them. Until recently, it was thought that those now dying from asbestos-related diseases were exposed to large amounts of asbestos, either regularly or during a single spell of work lasting from a few weeks to a few years. It is now thought possible that repeated low-level exposures, such as those that could occur during routine repair work, may also lead to asbestos-induced cancers. The scientific evidence on exactly what levels of exposure cause disease is unclear, but we do know that the more asbestos fibres are inhaled, the greater the risk to health. That is why it is important that everyone who works with asbestos, or presumed asbestos, should take the strictest precautions.

Date: August 2021

Appendix 5

Statutory Requirements

5.1 What does the law require?

5.11 There are many health and safety regulations that directly or indirectly place duties on employers in relation to asbestos. The key facts of these regulations are listed below. It is important that you are familiar with these. If you have followed the steps detailed in this guidance in managing asbestos containing materials on your premises, we will have taken major steps towards preventing or minimising exposure to asbestos. We will also have taken major steps towards complying with our duties under these Regulations.

- The Health and Safety at Work etc Act 1974 (HSWA) requires an employer to conduct their work in such a way that their employees will not be exposed to health and safety risks, and to provide information to other persons about their workplace which might affect their health and safety. Section 3 of HSWA contains general duties on employers and the self-employed in respect of people other than their own employees. Section 4 contains general duties for anyone who has control, to any extent, over a workplace.
- The Control of Asbestos Regulations (CAR) 2012 requires an employer to prevent the exposure of his employees to asbestos, or where this is not practicable, to reduce the exposure to the lowest possible level. The CAR includes a regulation placing a duty on employers in occupation of premises to manage the risk from asbestos in those premises. There is a duty on anyone else that has maintenance and repair responsibilities for the premises, because of a contract or tenancy, to manage those risks. The duty is supported by:-
 - Approved Code of Practice (L143)
 - HSE Guidance Note (HSG 227)
 - HSE Guidance Note (HSG 264)
 - A free leaflet specifically published to give advice to small to medium sized companies (INDG223)
- The Management of Health and Safety at Work Regulations 1999 require employers and self-employed people to make an assessment of the risks to the health and safety of themselves, employees and persons not in their employment arising out of or in connection with the conduct of their business – and to make appropriate arrangements for protecting those people's health and safety.
- There are duties to maintain workplace buildings/premises to protect occupants and workers under the Workplace (Health, Safety and Welfare) Regulations 1992.

Date: August 2021

- The Construction (Design and Management) Regulations 2015 require the client to pass on information about the state or condition of any premises (including the presence of hazardous materials, such as asbestos) before any work commences. Through the Principal Designer the client will be provided with a health and safety plan giving safety information on managing the work.

Specific legal duties under Regulation 4 of the CAR 2012

5.12 The broad requirements on employers and others are to:

- Take reasonable steps to find materials likely to contain asbestos;
- Presume materials to contain asbestos, unless there is strong evidence to suppose they do not;
- Make a written record of the location and the condition of the asbestos containing materials and presumed asbestos containing materials and keep it up to date;
- Provide information on location and condition of asbestos containing materials to people who may disturb them and those who occupy the premises;
- Monitor the condition of asbestos containing materials and presumed asbestos containing materials;
- Assess the risk of the likelihood of anyone being exposed to asbestos fibres from these materials; and
- Prepare a plan to manage that risk and put into effect to ensure that
 1. Information on location and condition of asbestos containing materials is given to people who may disturb them during work activities;
 2. Any material known or presumed to contain asbestos is kept in a good state of repair; and
 3. Any material that contains or is presumed to contain asbestos is, if necessary, because of the likelihood of disturbance and its location or condition, repaired or removed.

5.2 Background

5.21 The following list and summary of regulations is included to provide background if more detail is needed on specific requirements:

Asbestos Regulations 1931

Applied to those working with asbestos and based on experiences of mills where raw asbestos was processed. A 'datum' level was set and if processes were likely to exceed that threshold, exhaust ventilation had to be provided. For other processes, such as cleaning, breathing apparatus had to be used. Some processes were exempt because it was said that they did not reach the datum level.

Date: August 2021

Asbestos Regulations 1969

Thirty years later, more work on asbestos had led to more detailed regulations applying to all processes involving asbestos, except processes where asbestos dust was not given off. Again, ventilation and PPE requirements were included, as well as standards of cleanliness and cleaning of protective clothing. For the first time, hygiene standards were published, based on work by British Occupational Hygiene Society (BOHS), against which compliance with the Regulations could be judged.

Control of Asbestos at Work Regulations 1987/2002

These Regulations deal with nearly all work with asbestos, including monitoring and laboratory analysis. The Regulations adopt the approach used in the Control of Substances Hazardous to Health Regulations (COSHH) of carrying out an assessment of work and then taking appropriate measures to control the risk. The control limits for each type of asbestos are written into the Regulations. The recent revisions to the Regulations include the "duty to manage" asbestos containing materials.

Asbestos (Licensing) Regulations 1983 and 1998

1983 Regulations laid down the licensing conditions for work with asbestos insulation and coatings and this was extended in 1998 to include Asbestos Insulating Board (AIB).

Asbestos Prohibitions Regulations 1985

Prohibited certain uses of Crocidolite and Amosite (blue and brown) asbestos.

Asbestos Prohibitions Regulations 1992

Prohibited the remaining uses of blue and brown and certain uses of white (Chrysotile) asbestos, such as textured coatings.

Asbestos Prohibitions (Amendment) Regulations 1999

Banned all remaining uses of white asbestos, except for very specific and specialised purposes.

Control of Asbestos Regulations 2006

These came into force on 13 November 2006 and incorporated the former CAWR with the Asbestos Licensing and Asbestos Prohibition Regulations.

Control of Asbestos Regulations 2012

These came into force on 6th April 2012 and supersede the 2006 regulations. The revision brings the UK regulations in line with the EU asbestos directive. The core elements of the 2006 regulations remained but a new category of non-licensed work (Notifiable Non-Licensed Work NNLW) is introduced which requires notification, medical examinations and record keeping.

The Control of Asbestos Regulations 2012 SI 2012 No. 632, ISBN 978-0-11-152108-3

Date: August 2021

5.3 **References**

- Asbestos: The analysts' guide for sampling, analysis and clearance procedures*, HSG248 HSE Books 2005 ISBN 0 7176 2875 2.
- Asbestos: The licensed contractors' guide*, HSG247 HSE Books 2006 ISBN 0 7176 2874 4.
- Asbestos and man-made mineral fibres in buildings*, Practical Guidance DTLR 1999 ISBN 0 7277 2835 0.
- Asbestos essentials task manual: task guidance sheets for the building and maintenance trades* HSG210 Books 2001 ISBN 0 7176 1887 0.
- Introduction to asbestos essentials: Comprehensive guidance on working with asbestos in building maintenance and allied trades* HSG213 HSE Books 2001 ISBN 0 7176 1901 X.
- Continuing increase in Mesothelioma mortality in Britain*, Julian Peto et al, The Lancet, Vol 345 March 4 1995, Pages 535-539.
- Construction (Design and Management) Regulations 2015* SI 2015/51 The Stationery Office ISBN 978-0-11-112781-0.
- Health and Safety at Work etc Act 1974* The Stationery Office 1974 ISBN 0 10 543774 3.
- Health and Safety (Consultation with Employees) Regulations 1996* SI 1996/1513 The Stationery Office 1996 ISBN 0 11 054839 6.
- Workplace (Health, Safety and Welfare) Regulations 1992* SI 1992/3004 The Stationery Office 1992 ISBN 0 11 025804 5.
- Managing asbestos in premises* Leaflet INDG223(rev2) HSE Books 2001.
- Safety Representatives and Safety Committees Regulations 1977* SI 1977/500 The Stationery Office ISBN 0 11 070500 9.
- Surveying, sampling and assessment of asbestos containing materials* MDHS 100 HSE Books 2001 ISBN 0 7176 2076 X.
- Managing and working with asbestos*, Approved Code of Practice L143 2nd edition, HSE books 2013, ISBN 978 0 7176 6618 8.
- A Comprehensive Guide to Managing Asbestos in Premises* HSG 227, HSE books ISBN 07176 23815.
- Manage Buildings? You Must Manage Asbestos* Leaflet C5000, HSE Books 2008.
- Asbestos: The survey guide* HSG264, HSE Books January 2010, ISBN 978 0 7176 6385 9.

Date: August 2021

5.4 Organisations Providing Advice

HSE

Web Site: www.hse.gov.uk/asbestos

E-mail: asbestos.campaign@hse.gsi.gov.uk

Asbestos Removal Contractors Association (ARCA)

Address: Unit 1 Stretton Business Park
Brunel Drive
Stretton
Staffordshire
DE13 0BY
Tel: 01283 566467

Asbestos Testing and Consultancy (ATAC)

Address: Unit 1 Stretton Business Park
Brunel Drive
Stretton
Staffordshire
DE13 0BY
Tel: 01283 566467

Asbestos Control and Abatement Division (ACAD)

Address: Tica House
Allington Way
Yarm Road Business Park
Darlington
C/o Durham
DL1 4QB
Tel: 01325 466704

British Occupational Hygiene Society (BOHS)

Address: 5/6 Melbourne Business Court
Millennium Way
Pride Park
Derby
DE24 8LZ
Tel: 01332 298101

United Kingdom Accreditation Service (UKAS)

Address: 2 Pine Trees
Chertsey Lane
Staines-upon-Thames
TW18 3HR

Date: August 2021

Street

Tel: 020 8917 8400

Date: August 2021

Appendix 06

Asbestos Product Table (Extract From HSE Guidance)

Asbestos containing materials in buildings (listed in approximate order of ease of fibre release)

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
<p>Loose insulation Bulk loose fill, bulk fibre-filled mattresses, quilts and blankets. Also 'jiffy bag'-type products used for sound insulation</p>	<p>Bulk loose fill insulation is now rarely found, but may be encountered unexpectedly, e.g. DIY loft insulation and fire-stop packing around cables between floors. Mattresses and quilts used for thermal insulation of industrial boilers were filled with loose asbestos. Paper bags/sacks were also loose-filled and used for sound insulation under floors and in walls.</p>	<p>Usually pure asbestos except for lining/bag. Mattresses and quilts were usually filled with crocidolite or chrysotile. Acoustic insulation may contain crocidolite or chrysotile.</p>	<p>Loose asbestos may readily become airborne if disturbed. If dry, these materials can give rise to high exposures.</p> <p>Covers may deteriorate or be easily damaged by repair work or accidental contact.</p>
<p>Sprayed coatings Dry applied, wet applied and trowelled finish</p>	<p>Thermal and anti-condensation insulation on underside of roofs and sometimes sides of industrial buildings and warehouses. Acoustic insulation in theatres, halls etc. Fire protection on steel and reinforced concrete beams/columns and on underside of floors. Over-spray of target areas is common.</p>	<p>Sprayed coatings usually 55-85% asbestos with a Portland cement binder. Crocidolite was the major type until 1962. Mixture of types, including crocidolite until mid-1971. Asbestos spray applications were used up to 1974.</p>	<p>The surface hardness, texture and ease of fibre release will vary significantly depending on a number of factors. Sprays have a high potential for fibre release if unsealed, particularly if knocked or the surface is abraded or delaminates from the underlying surface. Dust released may then accumulate on false ceilings, wiring and ventilation systems.</p> <p>'Limpet' (also used for non-asbestos sprays).</p>

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
<p>Thermal insulation Hand-applied thermal lagging, pipe and boiler lagging, pre-formed pipe sections, slabs, blocks. Also tape, rope, corrugated paper, quilts, felts and blankets.</p>	<p>Thermal insulation of pipes, boilers, pressure vessels, calorifiers etc.</p>	<p>All types of asbestos have been used. Crocidolite used in lagging until 1970. Amosite was phased out by the manufacturers during the 1970's. Content varies 6-85%. Various ad hoc mixtures were hand-applied on joints and bends and pipe runs. Pre-formed sections were widely used, e.g. '85% magnesia' contained 15% amosite, 'Caposil' calcium silicate slabs and blocks contained 8-30% amosite while 'Caposite' sections contained ~85% amosite. Blankets, felts, papers, tapes and ropes were usually ~100% chrysotile.</p>	<p>The ease of fibre release often depends on the type of lagging used and the surface treatment. Often will be encapsulated with calico and painted (e.g. PVA, EVA, Latex, bitumen or propriety polymer emulsions or PVC, Neoprene solutions), e.g. 'Decadex' finish is a propriety polymer emulsion. A harder chemical/weather-resistant finish is known as 'Bulldog'.</p>
<p>Asbestos boards 'Millboard'</p>	<p>'Millboard' was used for general heat insulation and fire protection. Also used for insulation of electrical equipment and plant.</p>	<p>Crocidolite was used in some millboard manufacture between 1896 and 1965; usually chrysotile. Millboards may contain 37-97% asbestos, with a matrix of clay and starch.</p>	<p>Asbestos 'Millboard' has a high asbestos content and low density, so is quite easy to break and the surface is subject to abrasion and wear.</p>

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
Insulation board	Used for fire protection, thermal and acoustic insulation, resistance to moisture movement and general building board. Found in service ducts, firebreaks, infill panels, partitions and ceilings (including ceiling tiles), roof underlay, wall linings, external canopies and porch linings.	<p>Crocidolite used for some boards up to 1965, amosite up to 1980, when manufacture ceased.</p> <p>Usually 15-25% amosite or a mixture of amosite and chrysotile in calcium silicate. Older boards and some marine boards contain up to 40% asbestos.</p>	<p>AIB can be readily broken, giving significant fibre release. Also significant surface release is possible by abrasion, but surface is usually painted or plastered. Sawing and drilling will also give significant releases.</p> <p>'Asbestolux', Turnasbestos', 'LDR', 'asbestos wallboard', 'insulation board'. Marine boards known as 'Marinite' or 'Shipboard'.</p>
Insulating board in cores and linings of composite products	Found in fire doors, cladding infill panels, domestic boiler casings, partition and ceiling panels, oven linings and suspended floor systems. Used as thermal insulation and sometimes as acoustic attenuators.	<p>Crocidolite used for some boards up to 1965, amosite up to 1980, when manufacture ceased.</p> <p>16-40% amosite or a mixture of amosite and chrysotile.</p>	<p>Can be broken by impact; significant surface release possible by abrasion, but usually painted or plastered. Sawing and drilling will also give significant releases.</p>

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
Paper, felt and cardboard	Used for electrical/heat insulation of electrical equipment, wiring and plant. Also used in some air conditioning systems as insulation and acoustic lining. Asbestos paper has also been used to reinforce bitumen and other products and as a facing/lining to flooring products, combustible boards, flame-resistant laminate. Corrugated cardboard has been used for duct and pipe insulation.	Asbestos paper can contain ~100% chrysotile asbestos, but may be incorporated as a lining, facing or reinforcement for other products, e.g. roofing felt and damp-proof courses, steel composite wall cladding and roofing (see asbestos bitumen products below), vinyl flooring. Asbestos paper is also sometimes found under MMMF insulation on steam pipes.	Paper materials, if not encapsulated/combined within vinyl, bitumen, or bonded in some way, can easily be damaged and release fibres when subject to abrasion or wear, e.g. worn flooring surface with paper backing. Asbestos paper, asbestos felt, 'Novilon' flooring, Durasteel laminates, vinyl asbestos tile, roofing felt and damp-proof course etc. 'Pax felt'. 'Viceroy' (foil-coated paper). 'Serval'.
Textiles Ropes and yarns	Used as lagging on pipes (see above), jointing and packing materials and as heat/fire-resistant boiler, oven and flue sealing. Caulking in brickwork. Plaited asbestos tubing in electric cable.	Crocidolite and chrysotile were widely used due to length and flexibility of fibres. Other types of asbestos have occasionally been used in the past. Chrysotile alone since at least 1970. Asbestos content approaching 100% unless combined with other fibres.	Weaving reduces fibre release from products, but abrading or cutting the materials will release fibres, likely to degrade if exposed, becoming more friable with age. If used with caulking, fibres will be encapsulated and less likely to be released.
Cloth	Thermal insulation and lagging (see above), including fire-resisting blankets, mattresses, and protective curtains, gloves, aprons, overalls etc. Curtains, gloves etc., were sometimes aluminised to reflect heat.	All types of asbestos have been used in the past. Since the mid-1960's, the vast majority has been chrysotile. Asbestos content approaching 100%.	Fibres may be released if material is abraded.

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
Gaskets and washers	Used in domestic hot water boilers to industrial power and chemical plant.	Variable, but usually around 90% asbestos, crocidolite used for acid resistance and chrysotile for chlor-alkali. Some gasket materials will continue to be used after asbestos prohibition takes effect.	May be dry and damage easily when removed. Mainly a problem for maintenance workers. 'Klingerit', 'Lion jointing', 'Oernabute', 'CAF'-compressed asbestos fibre or 'It' in German gaskets.
Strings	Used for sealing hot water radiators.	Strings have asbestos contents approaching 100%.	
Friction Products Resin-based materials	Transport, machinery and lifts, used for brakes and clutch plates.	30-70% chrysotile asbestos bound in phenolic resins. Used up to November 1999.	Low friability, dust may build up with friction debris.
Drive belts/conveyor belts	Engines, conveyors.	Chrysotile textiles encapsulated in rubber.	Low friability, except when worn to expose textile.

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
Cement products Profiled sheets	Roofing, wall cladding. Permanent shuttering, cooling tower elements.	10-15% asbestos (some flexible sheets contain a proportion of cellulose). Crocidolite (1950-1969) and amosite (1945-1980) have been used in the manufacture of asbestos cement, although chrysotile (used until November 1999) is by far the most common type found.	Likely to release increasing levels of fibres if abraded, hand sawn or worked on with power tools. Exposed surfaces and acid conditions will remove cement matrix and concentrate unbound fibres on surface and sheet laps. Cleaning asbestos containing roofs may also release fibres. Asbestos cement, Trafford tile, 'Bigsix', 'Doublesix', 'Supersix', 'Twin twelve', 'Combined sheet', 'Glen six', '3" & 6" corrugated', 'Fort', 'Monad', 'Troughsec', 'Major tile and Canada tile', 'Panel sheet', 'Cavity decking'.
Semi-compressed flat sheet and partition board	Partitioning in farm buildings and infill panels for housing, shuttering in industrial buildings, decorative panels for facings, bath panels, soffits, linings to walls and ceilings, portable buildings, propagation beds in horticulture, domestic structural uses, fire surrounds, composite panels for fire protection, weather boards.	As for profiled sheets. Also 10-25% chrysotile and some amosite for asbestos wood used for fire doors etc. Composite panels contained ~4% chrysotile or crocidolite.	Release as for profiled sheets. Flat building sheets, partition board, 'Poilite'.

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
Fully compressed flat sheet used for tiles, slates, board	As above, but where stronger materials are required and as cladding, decking and roof slates, e.g. roller-skating rinks, laboratory worktops.	As for profiled sheets.	Release as for profiled sheets. Asbestos containing roofing slate, e.g. 'Eternit', 'Turners', 'Speakers', 'Everite', 'Turnall', 'Diamond AC', 'JM slate', 'Glasal AC', 'Emalie Eflex', 'Colourglaze', 'Thrutone', 'Weatherall'.
Pre-formed moulded products and extruded products	Cable troughs and conduits. Cisterns and tanks. Drains and sewer pressure pipes. Fencing. Flue pipes. Rainwater goods. Roofing components (fascias, soffits, etc.). Ventilators and ducts. Weather-boarding. Windowsills and boxes, bath panels, draining boards, extraction hoods, copings, promenade tiles etc.	As for profiled sheets.	Release as for profiled sheets. 'Everite', 'Turnall', 'Promenade tiles'.
Other encapsulated materials Textured coatings	Decorative/flexible coatings on walls and ceilings.	3-5% chrysotile asbestos. Chrysotile added up to 1984, but non-asbestos versions were available from the mid-1970's.	Generally fibres are well contained in the matrix, but may be released when old coating is sanded down or scraped off. 'Artex', 'Wondertex', 'Suretex', 'Newtex', 'Pebblecoat', 'Marblecoat'.
Bitumen products	Roofing felts and shingles, semi-rigid asbestos bitumen roofing. Gutter linings and flashings. Bitumen damp-proof courses (dpc). Asbestos/bitumen coatings on metals (Car body underseals). Bitumen mastics and adhesives (used for floor tiles and wall coverings).	Chrysotile fibre or asbestos paper (approximately 100% asbestos) in bitumen matrix, usually 8% chrysotile. Used up to 1992. Adhesives may contain up to a few per cent chrysotile asbestos. Used up to 1992.	Fibre release unlikely during normal use. Roofing felts, dpc and bitumen-based sealants must not be burnt after removal. See felts and papers.

Date: August 2021

Asbestos Product	Location / Use	Asbestos Content and Type / Date Last Used	Ease of Fibre Release and Product Name
Flooring	<p>Thermoplastic floor tiles.</p> <p>PVC vinyl floor tiles and unbacked PVC flooring.</p> <p>Asbestos paper-backed PVC floors.</p> <p>Magnesium oxychloride flooring used in WC's, staircases and industrial flooring.</p>	<p>Up to 25% asbestos.</p> <p>Normally 7% chrysotile.</p> <p>Paper backing approximately 100% chrysotile asbestos. Used up to 1992.</p> <p>About 2% asbestos.</p>	<p>Fibre release is unlikely to be a hazard under normal service conditions. Fibre may be released when material is cut and there may be substantial release where flooring residue, particularly paper backing, is power-sanded. 'Novilon', 'Serval asbestos'.</p> <p>Very hard, fibre release unlikely.</p>
Reinforced PVC	Panels and cladding.	1-10% chrysotile asbestos.	Fibre release is unlikely.
Reinforced plastic and resin composites	<p>Used for toilet cisterns, seats, banisters, window seals, lab bench tops.</p> <p>Brakes and clutches in machines.</p>	<p>Plastics usually contain 1-10% chrysotile asbestos. Some amphiboles were used to give improved acid resistance eg., car batteries.</p> <p>Resins were reinforced with woven chrysotile cloth, usually contain 20-50% asbestos.</p>	<p>Fibres unlikely to be released, limited emissions during cutting. 'Sindanyo', 'Siluminite', 'Feroasbestos'.</p> <p>Minor emission when braking, most asbestos degrades with frictional heat.</p>

Date: August 2021

Appendix 7

Control Limits

- 7.1 The Control of Asbestos Regulations 2012 introduce a single "Control Limit" of 0.1 fibres per cm³ of air for work with all types of asbestos measured over a 4 hour period and 0.6 fibres per cm³ over a 10 minute period
- 7.2 Control limits for all asbestos are as follows:

Asbestos type	4 hr control limit fibre per cm³ (or f/ml)	10 min control limit fibre per cm³ (or f/ml)
All Types	0.1	0.6

f/ml = fibres per millilitre of air

- 7.3 For comparison, the following fibre concentrations for work with asbestos containing materials have been measured. They illustrate the levels, which can be obtained if precautions are not taken – inclusion certainly does not indicate that a practice listed here is acceptable.

Activity	Typical exposures (f/ml)
<u>Asbestos cement</u>	
Machine cutting with:	
- jig saw	2-10
- circular saw	10-20
- abrasive disc	15-25
Hand sawing	Up to 1
Machine drilling	Up to 1
Removal of asbestos cement sheeting	Up to 0.5
<u>Asbestos lagging, coating and AIB</u>	
Drilling AIB overhead	5-10
Drilling vertical columns	2-5
Using jig saw on AIB	5-20
Hand sawing AIB	5-10
Repair/replace ceiling tiles	0.45

Date: August 2021

Appendix 8

08.1 Survey Types

It is important to appreciate the differences between the different types of asbestos survey, their content and limitations.

Up to the end of January 2010 three types of survey were defined in HSE document MDHS100 (see Appendix 05, References). These were as follows:

TYPE 1 surveys were known as presumptive surveys, as no sampling was carried out. There was no positive identification of asbestos containing materials, instead any material, which could be reasonably expected to contain asbestos must be presumed to do so. All materials, which are presumed to contain asbestos must be assessed.

TYPE 2 surveys were known as sampling surveys. Samples of suspect asbestos containing materials were collected and analysed to confirm or refute the suspected presence of asbestos. Again, the asbestos containing material's condition must be assessed.

TYPE 3 surveys were carried out prior to major refurbishment or demolition. This survey may involve destructive inspection to gain access to all areas. This type of survey was designed to be used as a basis for tendering for the removal of asbestos containing materials from the building, prior to demolition so the survey does not assess the condition of the asbestos.

A major revision to MDHS100 was published on 29 January 2010 and the new document is known as "**Asbestos: The Survey Guide**" (**HSG264**) (see Appendix 05, R). Asbestos surveys have been re-classified as:

Management surveys – formerly Type 1 and Type 2 – to comply with the Duty to Manage regulation (regulation 4 of CAR2012).

Refurbishment / demolition surveys – formerly Type 3 – to be carried out prior to work disturbing building fabric from refurbishment to demolition.

Guidance on the new document HSG264 "Asbestos: The survey guide" from the client's or dutyholder's perspective is given in the next section Appendix 08.2.

NB. In certain circumstances it will be necessary to commission the asbestos consultants to undertake a survey in a specific area, relevant to refurbishment works. In these instances a localised more in depth inspection than a Management (former Type 2) survey is required without causing the disruption that a full intrusive survey incurs. Refurbishment/demolition surveys also require an un-occupied area, which is often not practical in such instances. Therefore in these instances it will only be possible to undertake an intrusive inspection of localised areas specified by the client and any alterations to the scope of works may necessitate a further inspection / survey.

Date: August 2021

08.2 “Asbestos: The survey guide” – Guidance for Clients or Dutyholders

The following is a brief overview of the latest recommended changes brought about by the introduction of this new guidance document and the **requirements for compliance from the client’s or dutyholder’s perspective.**

Asbestos: The Survey Guide (HSG 264) is the **new guidance document** released by the Health & Safety Executive on 29 January 2010 to help everyone responsible for conducting asbestos surveys or those with specific responsibilities for managing the risks from asbestos in non-domestic premises under regulation 4 of the Control of Asbestos Regulations 2012.

Commented [MB9]: Current

Asbestos: The Survey Guide HSG 264 supersedes the previous asbestos survey guidance document MDHS 100.

HSG 264 guidance is aimed at Surveyors who carry out asbestos surveys; in particular it sets out how to survey premises for asbestos containing materials and outlines survey strategies to use when surveying a large number of similar properties. The guidance document also places more emphasis on those who commission surveys (e.g. clients/dutyholders). The document sets out how to decide what type of survey is appropriate, how to select a competent surveyor, what the client should expect from a surveyor and **what the client should provide to the surveyor/surveying company.**

HSG 264 has renamed the Survey types previously used in MDHS 100. Types 1 & 2 Survey are now referred to as a Management Survey. This survey should be carried out on properties which contain or possibly contain Asbestos Containing Materials. The information collated from the survey should form the basis of the properties Asbestos Management Plan. A Type 3 destructive survey is now referred to **Refurbishment/Demolition Survey** is required where the premises, or part of it, need upgrading, refurbishment or demolition. The survey does not need a record of the condition of asbestos-containing materials (ACM). The survey must locate and identify all ACM before any structural work begins at a stated location or on stated equipment at the premises. It involves destructive inspection and asbestos disturbance. The area surveyed must be vacated, and certified 'fit for reoccupation' after the survey. **Refurbishment and demolition surveys will be required where refurbishment work or other work involving disturbing the fabric of the building is to be undertaken.**

Commented [MB10]: Split out – Refurbishment as separate from Demolition surveys.

Commented [BG11R10]: Not sure what Mark meant here as all reference to refurb/ demo contain a joint description. I've used HSE description to refresh it?

The guidance makes clear that the key to an effective survey is the planning. The degree of the planning and preparation will depend on the extent and complexity of the building portfolio. The survey is not about turning up and taking samples. There needs to be a sufficient initial exchange of information between the dutyholder or client and the surveyor/surveying company to establish a clear understanding by all parties of the survey requirements – this information will form the basis of the contract.

HSG 264 recommends that all surveys are pre-planned and suggest that the following steps indicated below are followed. These steps are listed separately but in practice there will be overlap or they will run simultaneously.

Step 1: Collect all the relevant information to plan the survey.

Information the surveyor/surveying company **needs from the client:-**

- Details of buildings or parts of buildings to be surveyed and survey type(s).

Date: August 2021

- Details of building(s) use, processes, hazards and priority areas.
- Plans, documents, reports and surveys on design, structure and construction.

- Details about whether the buildings have been extended, adapted or refurbished, and if they have, when the work was done.

- History of the site if available; any buildings previously demolished; presence of underground ducts or shafts.
- Whether a listed building, conservation area etc.
- Extent or scope of survey required (possibly mark details on a site plan or architects' drawing).
- Whether the surrounding ground and associated buildings or structures are to be included in the scope of the survey.
- Current plans or drawings of the site and previous plans/specifications of major changes and refurbishments.
- Whether the premises are vacant or occupied.
- Any restrictions on access.
- Special requirements or instructions.
- Whether survey damage is to be made good (refurbishment/demolition surveys).
- Responsibility for isolation of services, power, gas, chemicals etc.
- Details of previous surveys (Types 1/2/3 Surveys), current asbestos registers and all records of asbestos removal or repairs.
- Safety and security information; fire alarm testing, special clothing areas.
- Responsibility and arrangements for access/permits.
- Contacts for operational or health & safety issues.

Step 2: Consider the information (desk-top study)

- Competency to undertake the work.
- Available resources.
- Intended programme of work.
- Expected equipment to be used for access (into structure, high level, contaminated areas, confined spaces or through known asbestos containing materials).
- The need for additional trades (joiner, electrician, builder) to gain access during the survey or to reinstate areas on completion.
- Bulk sampling strategy and expected number of samples to be taken with reference to the site plan.

Step 3: Prepare a survey plan (including how data will be recorded)

Following collation of information, preliminary site inspections and desk top study a written plan/brief for the main survey can be produced. The plan essentially sets out the content of the survey and can form the basis of the contract between the surveying company and the client. The plan can include:

Scope:

- The scope of the buildings' survey.
- Any external areas to be included.
- Any areas to be excluded.
- The type of survey (management or refurbishment and demolition).
- Any possible or known asbestos containing materials, not to be included in the survey.

Date: August 2021

Survey Procedure:

- How the survey will be conducted – sampling strategy including:-
 - Agreed number of samples and sampling protocols.
 - Agreed number of photographs.
 - Procedures for making good.
 - Agreed survey times of work.
 - Agreed signage.
 - Key access.
 - Agreed start and completion dates.
- The material assessment method.
- The information to be recorded and the method and format to be used.
- The quality assurance checks and procedures to be undertaken.
- Any known areas where access will not be possible. **Report**
- Report format.
- What data will be reported.
- How the data will be presented (each room/area should be individually recorded).
- The way the survey data will be stored, accessed and updated.
- The way photographic and marked up plans will be stored and reported.
- How to cross reference identical asbestos containing materials.
- Summary of results in a format that can be used as the basis for an updatable register of asbestos containing materials.
- Other information required by the dutyholder or the client.

Step 4: Conduct a risk assessment for the survey.

The client should provide information relating to any hazards specific to the at the Step 1 stage. The types of non-asbestos hazards which may be associated with surveys include:

- Working at heights, in ceiling voids or on a fragile roof.
- Working on operable machinery or plant.
- Working in confined spaces.
- Chemical hazards.
- Biological hazards.
- Noise hazards.
- Lone working.

The new Survey Guide states that survey restrictions and caveats can seriously undermine the management of asbestos in buildings. They should be included only where absolutely necessary and should be fully justified. Most can be avoided by proper planning and discussion. Caveats and restrictions must be agreed between the dutyholder/client and the surveyor/surveying company. This will be agreed and documented in the survey report.

The HSE strongly recommends the use of accredited or certificated surveyors/company's for asbestos surveys. The dutyholder should not appoint an independent surveyor to carry out a survey unless the surveyor/surveying company is competent.

Date: August 2021

Appendix 9

Asbestos Risk Assessment

9.1 The risk assessment of asbestos containing materials is a two-stage process. Individual risk assessments are contained within the electronic and paper based asbestos materials registers.

The risk assessment is a two stage process each worked out to established numerical algorithms to give scores which are then summed to give a total risk assessment. Details are given below:

The Material Assessment

The report prepared by the surveyor should include this assessment. The assessment addresses the condition of the materials and the likelihood of releasing fibres on disturbance. The material assessment will give a good initial guide to the priority for management, as it will identify the materials, which will most readily release airborne fibres if disturbed. However, this may not always indicate high priority for remedial action e.g. where the asbestos containing materials are in an inaccessible area and the asbestos fibres cannot be inhaled by people. The following criteria are assessed:

MDHS 100 Materials Assessment Score:

The Material Assessment Score comprises four separate elements, as follows:
(i) the type of the asbestos material, (ii) its condition, (iii) its surface treatment and (iv) the type of asbestos identified

Material Type

Belts	1	Mattress Material	3	Soil	2
Bituminous Product	1	Mill Board	2	Strings	2
Cement product	1	Packing	3	Thermal Insulation	3
Coating (Non-Sprayed)	1	Plastic	1	Thermoplastic Floor Tiles	1
Corrugated paper	2	Reinforced PVC	1	Vinyl product	1
Dust and debris	3	Quilt	3	Wallpaper	1
Felt	2	Resin	1	Decorative Tiles	1
Gaskets	2	Rope	2	Woven Insulation	2
Insulation Board (IB)	2	Roofing Felt	1		
Lose Insulation	3	Semi Rigid Paint	1		
Low Density Board (Not IB)	2	Sprayed Coatings	3		
Mastics	1				

Extent of Damage

Date: August 2021

This takes into consideration any damage to the actual ACM (not damage to any surface treatment).

Good Condition – No Visible Damage	0
Low Damage – Scratches/Broken Edges	1
Medium Damage – Significant Breakage/Exposed Fibres	2
High Damage – Visible Debris	3

Surface Treatment

This takes into consideration any treatment or covering to the ACM.

Composite Materials: reinforced plastics, resins, vinyl tiles etc	0
Enclosed sprays and laggings, AIB with exposed face painted or encapsulated, asbestos cement	1
Unsealed AIB, encapsulated laggings & sprays	2
Unsealed laggings & sprays	3

Asbestos Type

Analysed samples are given a score according to the type of asbestos identified to be present in each sample:

Chrysotile	1
Amphiboles Excluding Crocidolite	2
Crocidolite	3

In accordance with MDHS100 these scores are then added together which result in each material being scored between 2 and 12 and these can be then further categorised as follows:

Category A (10 or >) - regarded as having a **High** potential to release fibres if disturbed.

Category B (7 – 9) - regarded as having **Medium** potential to release fibres if disturbed.

Category C (5 & 6) - regarded as having **Low** potential to release fibres if disturbed.

Category D (4 or <) - regarded as having **Very Low** potential to release fibres if disturbed

Note: Asbestos debris may automatically be assessed as **Category A**.

The Priority Assessment

The Priority Assessment addresses the human health effects and the likelihood of the asbestos containing material being disturbed. Remember even an asbestos containing material in the poorest condition only presents a risk to health if the fibres are disturbed into the air we breathe. This priority assessment takes into account factors such as:

Date: August 2021

- Maintenance activities (including cleaning if appropriate)
- Likelihood of disturbance
- Human exposure potential (numbers of people and duration of exposure)
- Occupant activity

The 4 general categories are sub divided so that one or more factors may be taken into account. The score for each main category is the averaged score for that category rounding up where necessary. The scoring system used is as given in HSE publication HSG227.

Occupant Activity

When carrying out a risk assessment the main type of use of an area and the activities taking place within it should be considered.

Normal Occupant Activity - Non-Maintenance

Rare Disturbance – Little used store	0
Low Disturbance – Office type	1
Periodic Disturbance – Industrial or vehicular activity	2
High Disturbance – e.g. Fire door in constant use	3

Other Occupant Activity - Non-Maintenance

Rare Disturbance – Little used store	0
Low Disturbance – Office type	1
Periodic Disturbance – Industrial or vehicular activity	2
High Disturbance – e.g. Fire door in constant use	3

Likelihood of Disturbance

The 3 factors that will determine the likelihood of disturbance are the location, accessibility and its extent or amount of asbestos.

Location

Outdoors	0
Large Rooms > 100m ²	1
Rooms up to 100m ²	2
Confined spaces - e.g. Plant rooms, ducts and lofts	3

Accessibility

Usually Inaccessible	0
Occasionally Visited	1
Easily Visited	2
Routinely Visited	3

Date: August 2021

Extent/Amount

Small Amounts (fuse boxes, single items etc)	0
< 10m ² or < 10Lm	1
> 10m ² but < 50m ² or > 10Lm but < 50Lm	2
> 50m ² or > 50Lm	3

Human Exposure Potential

The human exposure potential will depend on the number of people exposed, the frequency of use of the area and the time period the area is occupied.

No of occupants

None	0
1 to 4	1
4 to 10	2
> 10	3

Frequency of Use

Infrequently	0
Monthly	1
Weekly	2
Daily	3

Average Time of Use

< 1 hour per day	0
> 1hour and < 3 hours per day	1
> 3 hours and < 6 hours per day	2
> 6 hours per day	3

Maintenance Activities

There are 2 types of maintenance that should be considered, planned and un-planned, along with the frequency of any maintenance.

Maintenance Activity

Minor Disturbance Possible	0
Low Disturbance Possible	1
Medium Disturbance Possible	2
High Disturbance Possible	3

Maintenance Frequency

Material Unlikely to be Disturbed	0
-----------------------------------	---

Date: August 2021

- < 1 Activity per year
- > 1 Activity per year
- > 1 Activity per month

1
2
3

Adding the averaged scores from the above four factors results in a score for the Duty Holder's Priority Assessment. However, the Duty Holder has the ultimate responsibility to check any assessments made by 3rd parties and to make sure that the estimate of the Duty Holder's Priority Score is correct, as he has a detailed knowledge of the site rather than a surveyor (i.e. he should check each calculation, and review the scores if corrections are necessary, or when changes occur).

Total Risk Assessment

Adding the Materials Assessment score and the Priority Risk score for each asbestos containing material at each location gives a series of Total Risk Assessments. These total scores can then be used within the Management Plan to prioritise the risk and plan any actions, as follows:

Risk Priority Code 1, risk scores 18 or higher = HIGH RISK

Recommended Action: Manage ACM's and carry out planned remedial action to reduce the risk score within a short time scale (typically within 12 months or less) to below risk score 18 in accordance with your Asbestos Policy and Management Plan.

Risk Priority Code 2, risk scores 12 to 17 = MEDIUM RISK

Recommended Action: Manage as Priority 1's, but remedial action may be deferred to action in the medium term or until next maintenance period, or demolition or major refurbishment is planned.

Risk Priority Code 3, risk scores 11 or less = LOW RISK

Recommended Action: Manage and consider removal if the item falls within a demolition or major refurbishment area and works is likely to disturb the material.

Any change in property usage, including maintenance activities should prompt a formal re- assessment and update of the "Asbestos Register" (including "Risk Priority Scores" and recommended actions). It is recommended that a review/audit should be carried out at least every 12 months to update the system. A written record must be made of each review and any information about ACM's given to anyone who may be at risk from disturbing them (e.g. maintenance workers).

The total risk scores (material assessment and priority assessment) are entered into the asbestos management database and will form the basis for the Asbestos Action Plan.

Date: August 2021

Appendix 10

Decisions regarding Management Options

10.1 Explanatory notes Figure 1 – Materials suspected of containing asbestos

10.1.1 The Control of Asbestos Regulations 2012 (Regulation 6) require that employers shall not carry out any work which exposes or is liable to expose any of their employees to asbestos, unless they have made an adequate assessment of that exposure. Furthermore, employers are obliged (Regulation 5) to identify the type of asbestos involved in the work, or assume that it is not chrysotile alone and for the purposes of the Regulations, treat it accordingly.

10.1.1 The purpose of an assessment (Regulation 6) is to enable a correct decision to be made about the measures necessary to control exposure to asbestos. If the assessment concludes that exposure is liable to exceed the control limit and will not be sporadic, low intensity and of short duration (Regulation 8), then other provisions of the Regulations will apply. The assessment also enables employers to satisfy themselves and to demonstrate to others that all the factors pertinent to the work have been considered and that an informed and correct judgement has been reached about the risks and the steps that need to be taken to achieve and maintain adequate control.

10.1.3 Where material is in good condition but is, or will become, highly vulnerable to damage, management alone may not be sufficient to prevent a hazard. Treat the material as not in good condition.

10.1.4 Insulating board was frequently used as a general building board and visually may be confused with plasterboard, non-asbestos insulating board, e.g., Supalux, or flat asbestos cement sheet. Bulk samples will distinguish insulating board from plasterboard. Asbestos cement was normally made with chrysotile and insulating board with amosite, but all types of asbestos have been used in varying proportions in both products. Insulating board was frequently nailed in position while asbestos cement was often fixed with screws or bolts.

Some types of 'Caposil' insulation blocks, found in some storage and warm air heaters manufactured prior to 1976, contain asbestos. For the purposes of these assessment charts, these blocks should be treated like insulating board.

10.1.6 If it is necessary to disturb asbestos frequently, the cost of precautions may make it more cost-effective to remove the material. In housing, occupants, especially those in public sector rented accommodation, should be made aware of the location of any asbestos materials and advised of appropriate precautions.

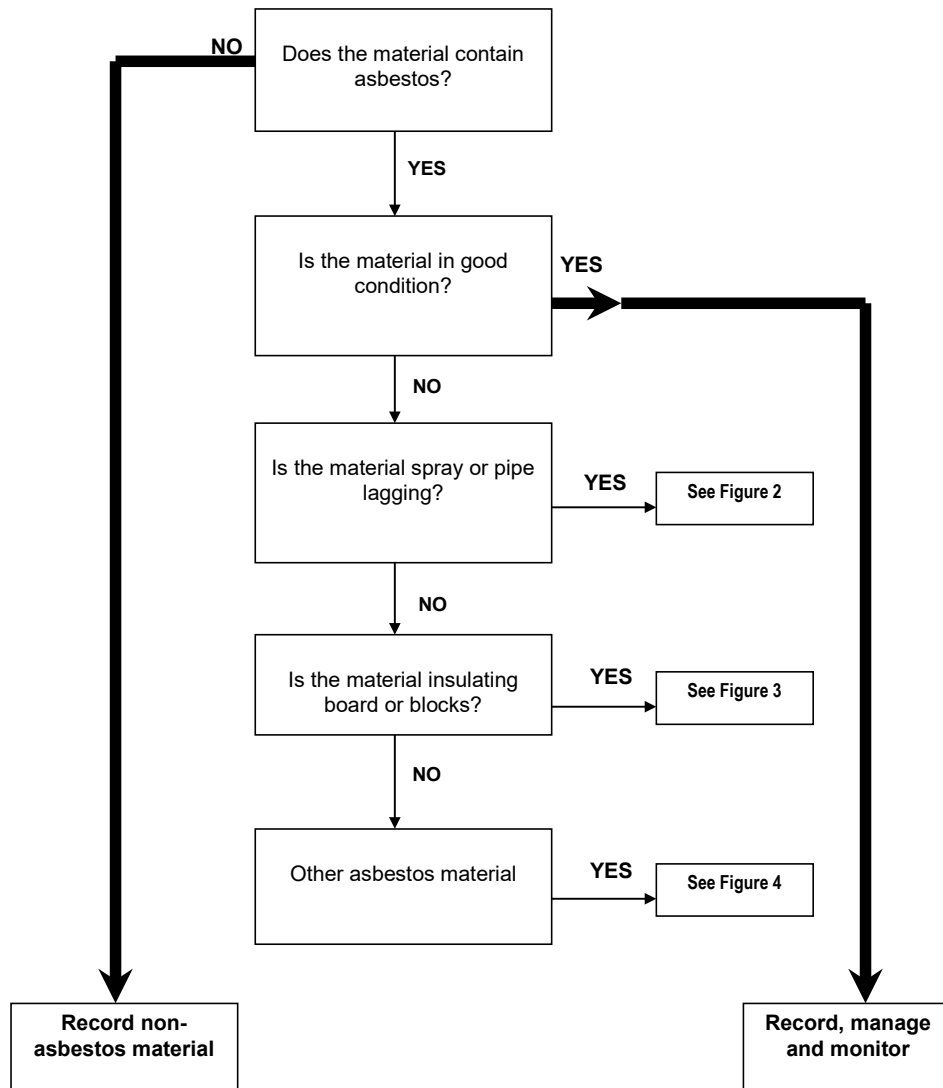
Date: August 2021

10.1.7 Options for management of the condition of asbestos containing materials include the following: labelling or colour coding of the ACM, protecting or enclosing the ACM, sealing or encapsulating the ACM, repairing the ACM and removing the ACM. The following flow charts and explanatory notes outline procedures for the selection of appropriate actions.

Date: August 2021

FIGURE 1

Materials suspected of containing asbestos



Date: August 2021

Note: Reference should be made to Appendix 11 - decisions regarding asbestos work categories.

10.2 **Explanatory notes Figure 2 – Sprayed asbestos and lagging**

10.2.1 This flow chart deals with materials which are considered not to be in good condition. All, except work of a sporadic, low intensity and short duration must be carried out in accordance with the Approved Code of Practice, "Managing and working with asbestos" (L143) 2013 and be carried out by a licensed contractor.

10.2.1 To be readily repairable, damage to the installed material must be slight. Repair work should be restricted to:-

- Patching of small areas of the asbestos material;
- Applying small areas of sealant;
- Making good slight damage to boxing

Repairs should be carried out taking the appropriate precautions and observing the Control of Asbestos Regulations, the Approved Code of Practice (L143) 2013 and HSE guidance.

10.2.3 Material that is readily accessible may be vulnerable to further accidental or deliberate damage, due to adjacent repair or maintenance, impact by people, vehicles or objects, or vandalism. Damage by water or vermin (rodents and birds) is also possible. The assessment should take account of the current and planned building use and occupancy.

10.2.4 Accessible material that is not extensively damaged will probably need protection against further damage and sealing or enclosure may be necessary.

10.2.5 Dust, loose debris and quantities of material detached from the main body may indicate that the asbestos is breaking up and highly friable. If there is no evidence of this and the asbestos is firmly bonded to the substrate, it can be sealed or enclosed. Sprayed coatings and lagging can be sealed with sprayed or bituminous coating or with a hard-setting cement-type coating. If necessary, cement coatings can be supported by metal mesh. Sealed sprayed coatings may be vulnerable to water damage, particularly when they are located on the underside of flat roofs.

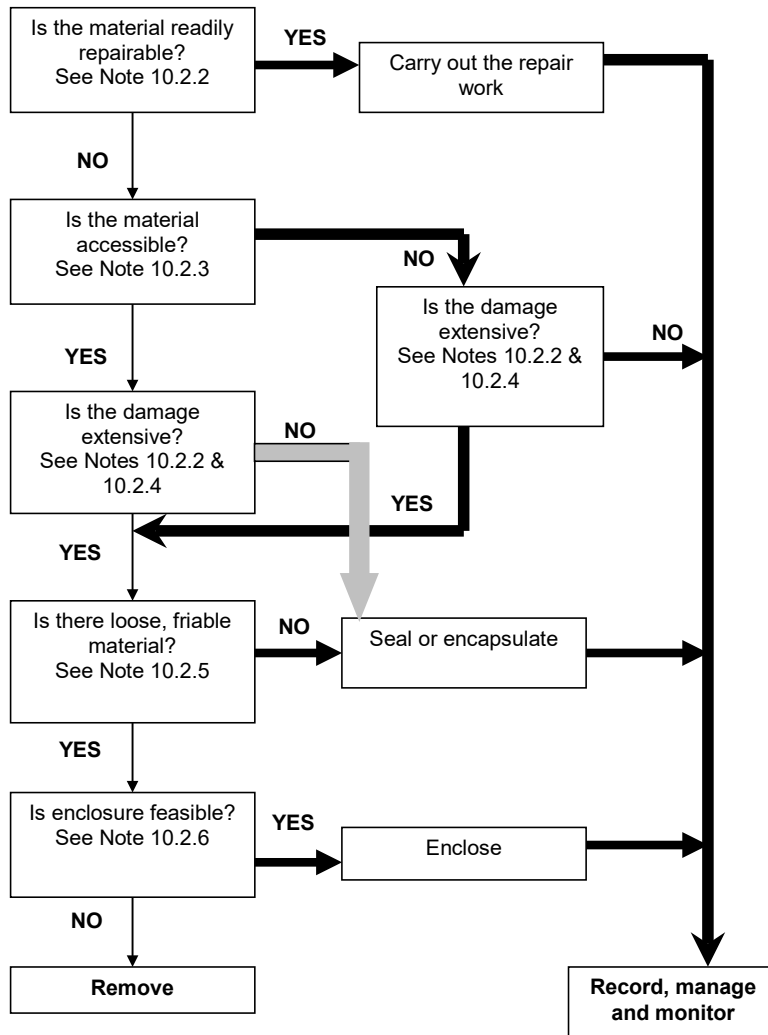
10.2.6 Enclosure may not be feasible if the area involved is very large, for example, in long roofing structures or where access to asbestos material is restricted. If the enclosure would be vulnerable to damage, if access is needed for maintenance and repair, or enclosure is not feasible, then the asbestos must be removed.

10.2.7 When sprayed coatings or laggings are removed, it will be necessary to empty and enclose or seal off the working area. The whole area should be thoroughly cleaned afterwards. As it is not usually possible to remove all traces of asbestos, a sealing coat should be applied to the substrate after removal. After removal work, the airborne fibre concentration should be measured before the area is reoccupied, using procedures specified for site clearance in the "Analysts Guide" HSG248 and other HSE Guidance.

Date: August 2021

FIGURE 2

Sprayed asbestos coatings and pipe and vessel insulation



Note: Reference should be made to Appendix 11 - decisions regarding asbestos work categories.

Date: August 2021

10.3 Explanatory notes Figure 3 – Asbestos insulating board and insulating blocks

10.3.1 The chart deals with material that is considered not to be in good condition. All work with asbestos is controlled by the Control of Asbestos Regulations 2012. Any work on insulating board should follow HSE guidance in the Approved Code of Practice (L143) 2013 and Asbestos Essentials (HSG 210)

10.3.2 To be readily repairable, damage to board must be slight. Surface scratches may be sealed or painted, breaks taped and small punctures patched with filler. If the board is not covered it may be painted or otherwise sealed as a precaution against light abrasion.

10.3.3 Material that is readily accessible may be vulnerable to accidental or deliberate damage, due to adjacent repair or maintenance, impact by people, vehicles or objects or vandalism. Damage by water or vermin (rodents and birds) is also possible. The assessment should take account of the building use and occupancy.

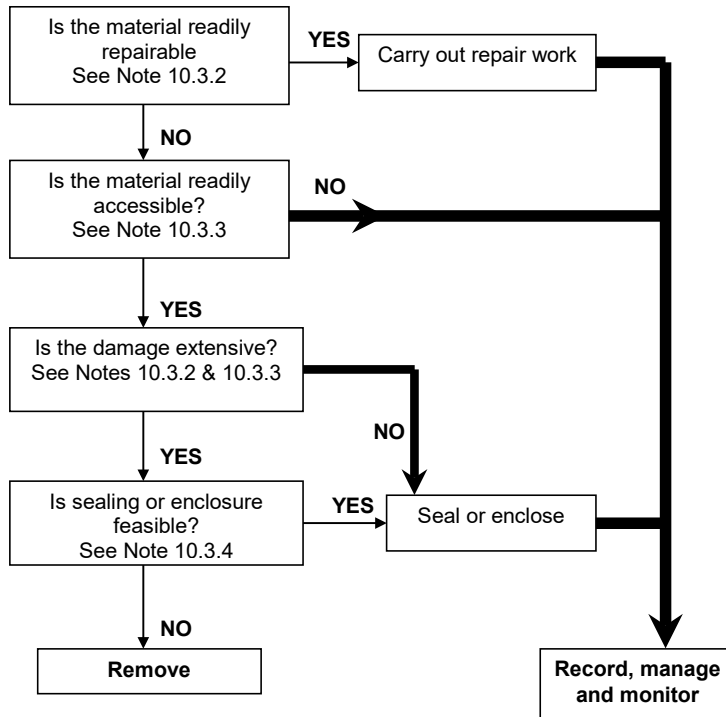
10.3.4 The material can be sealed by spraying with an initial coat of diluted PVA emulsion, followed by one or more full strength coats. The surface should be prepared. Damaged material should be repaired where possible (see Note 10.3.2), but the material should not be sanded or wire brushed. Dusty surfaces can be cleaned with a suitable industrial vacuum cleaner that conforms to BS 8520-3:2009 (Type H) or wiped with a damp cloth, which should be sealed in a plastic bag afterwards while still damp. A domestic vacuum cleaner must not be used. Sealing does not protect the material from more violent impact. Covering the board with hardboard, plasterboard or a similar material may be preferred; materials chosen must take into consideration any fire protection issues and the prevention of the spread of fire through cavities.

10.3.5 If the material is very badly damaged, is very extensive in area, or is subject to frequent violent impact, then sealing or enclosure may not be feasible and removal should be considered.

10.3.6 Removal of large areas of asbestos insulating board must be carried out by a licensed contractor. The HSE's Approved Code of Practice "Managing and working with asbestos", 2013 (L143) provides advice on work with asbestos insulation board and guidance is also available on controlled stripping. Although it may not be necessary to empty a building, the working area should be segregated and people not engaged in the work should be kept away. Asbestos insulating board should be wetted to suppress dust during removal and sheets should be removed whole, not broken up. Replacement board must have equivalent fire performance where this is required.

FIGURE 3

Asbestos insulating board and insulating blocks

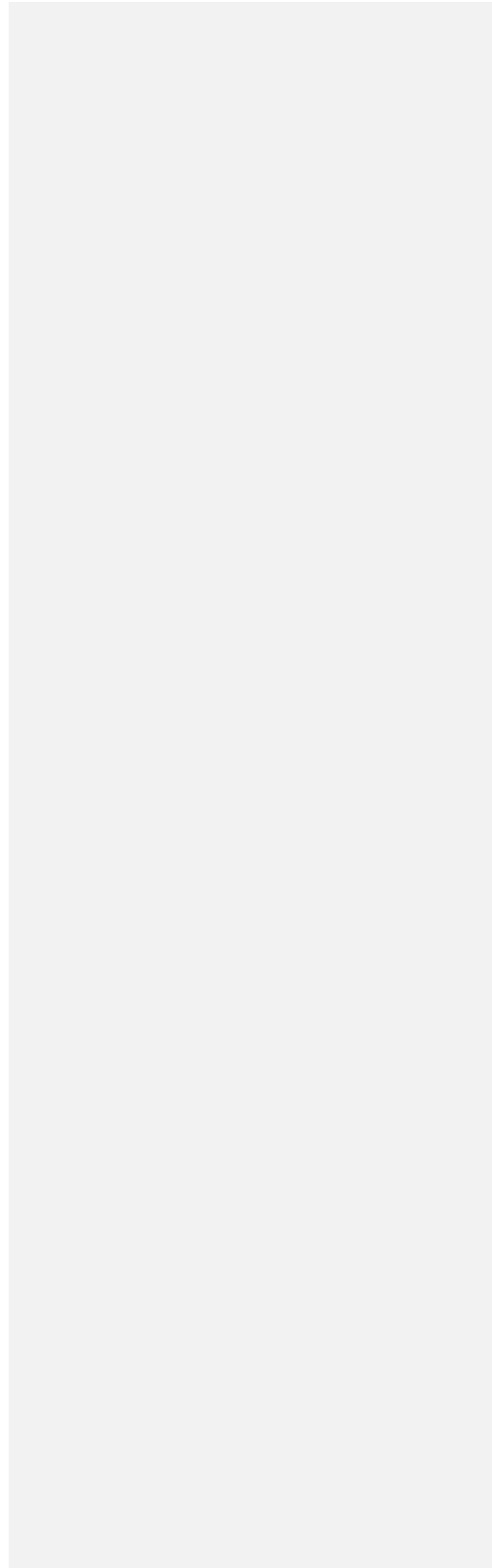


Note: Reference should be made to Appendix 11 - decisions regarding asbestos work categories.

Date: August 2021

Date: August 2021

Page 55 of 71



10.4 **Explanatory notes Figure 4 – Other asbestos materials**

10.4.1 The chart deals with material that is considered not to be in good condition. Work on asbestos cement should follow HSE guidance in the Approved Code of Practice L143, 2013 and the guidance in Asbestos Essentials HSG 210 & 213 and HSE website:

<http://www.hse.gov.uk/asbestos/essentials/index.htm>

10.4.2 To be readily repairable, damage to the material must be slight. Surface scratches may be sealed or painted, breaks taped and small punctures patched with filler.

10.4.3 Material that is readily accessible may be vulnerable to accidental or deliberate damage, due to adjacent repair or maintenance, impact by people, vehicles or objects, or vandalism. Damage by water or vermin (rodents and birds) is also possible. The assessment should take account of the building use and occupancy. Old sheet material used outside (e.g. for roofs) may have extensive moss and lichen growth on it, which will accelerate degradation and weathering of the cement matrix and thus lead to greater release of fibres.

Asbestos cement is a very common material. It is unlikely to be sealed where it is used outside and where it is used inside buildings, sealing is likely to be confined to painting – although some products have factory-applied coatings. Water damage and vermin are unlikely to be a problem, although the material becomes porous with age and may then allow water to leak through.

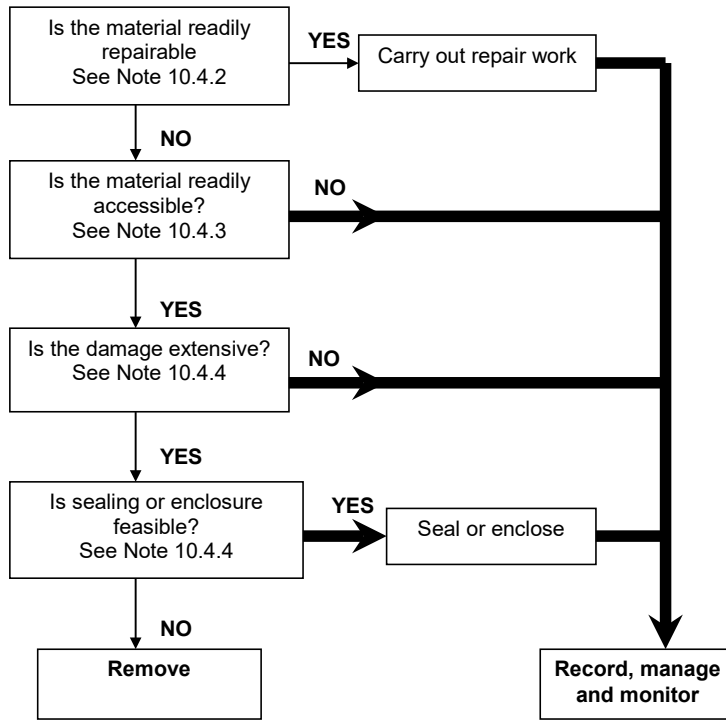
10.4.4 Accessible asbestos cement which is not readily repairable but which has only suffered slight damage, can be sealed with a suitable coating. The surface should be prepared. Damaged material should be repaired where possible (see Note 2), but the material should not be sanded or wire-brushed. Dusty surfaces can be cleaned with a suitable industrial vacuum cleaner that conforms to BS 8520-3:2009 (Type H) or wiped with a damp cloth, which should be sealed in a plastic bag afterwards, while still damp. A domestic vacuum cleaner must not be used. Asbestos cement used outside may need treatment with a biocide before painting. Moss and lichen may be removed by low pressure water jetting. Asbestos cement is alkaline and should be primed with an alkali-resistant primer or a chlorinated rubber or oleo resinous paint, followed by one or more top-coats. Where possible, both sides of flat sheets should be painted. Installations, which are badly deteriorated and will not allow a surface to adhere, should be removed.

10.4.5 Warning notes should be attached where material is readily accessible. In the case of asbestos cement roofs, the notes should indicate the material is fragile and the risk of falling through it. Asbestos cement roofing sheets or tiles may have fibre washed off which can collect in gutters and this should be borne in mind during maintenance of buildings.

10.4.6 Removal of large amounts of asbestos cement should be carried out by a specialist contractor or trained staff. Small quantities can be safely removed by householders, provided that safety precautions are followed. Although it may not be necessary to empty a building, or seal off the working area during removal, people not engaged in the work should be kept away. Sheets should be wetted to suppress dust during removal and removed whole, not broken up. The material removed and any dust and debris should be carefully collected, small pieces dampened and sealed in strong plastic bags marked 'Asbestos'. The whole area should be thoroughly cleaned (see Note 4) using a dustless method. After large-scale work, especially where there has been breakage of asbestos cement sheets, a visual inspection should be undertaken and airborne fibre concentrations should be measured before the area is reoccupied.

Date: August 2021

FIGURE 4
Other asbestos materials (read notes below first)



Notes

1. This chart includes products not included in Figures 2 and 3 such as asbestos cement, textiles, gaskets, ropes and encapsulated products such as vinyl and thermoplastic floor tiles, roofing felt etc. Materials which are encapsulated in a resilient matrix will have limited ability to release fibres therefore asbestos in reinforced plastics, vinyls, resins, rubber, mastics, bitumen, paints, flexible plasters and cements will have little opportunity to release fibres unless the matrix is removed (degraded, dissolved or burnt) or subject to high levels of abrasion (e.g. use of power tools).
2. Management of these types of materials should be by the prevention of maintenance workers using abrasive methods or power tools and in so doing minimise airborne asbestos fibre release.
3. Sealing may be considered if there is evidence of routine wear and abrasion.
4. Unless damage is significant or material is in a vulnerable position urgent remedial action is unlikely to be necessary.
5. Products should be removed when they come to the end of their useful life or before refurbishment or demolition.
6. Products such as asbestos textiles and gaskets which are not so well encapsulated will release fibres more readily and the use of controlled work methods and enclosures, encapsulation, sealing to prevent damage may be necessary.

Date: August 2021

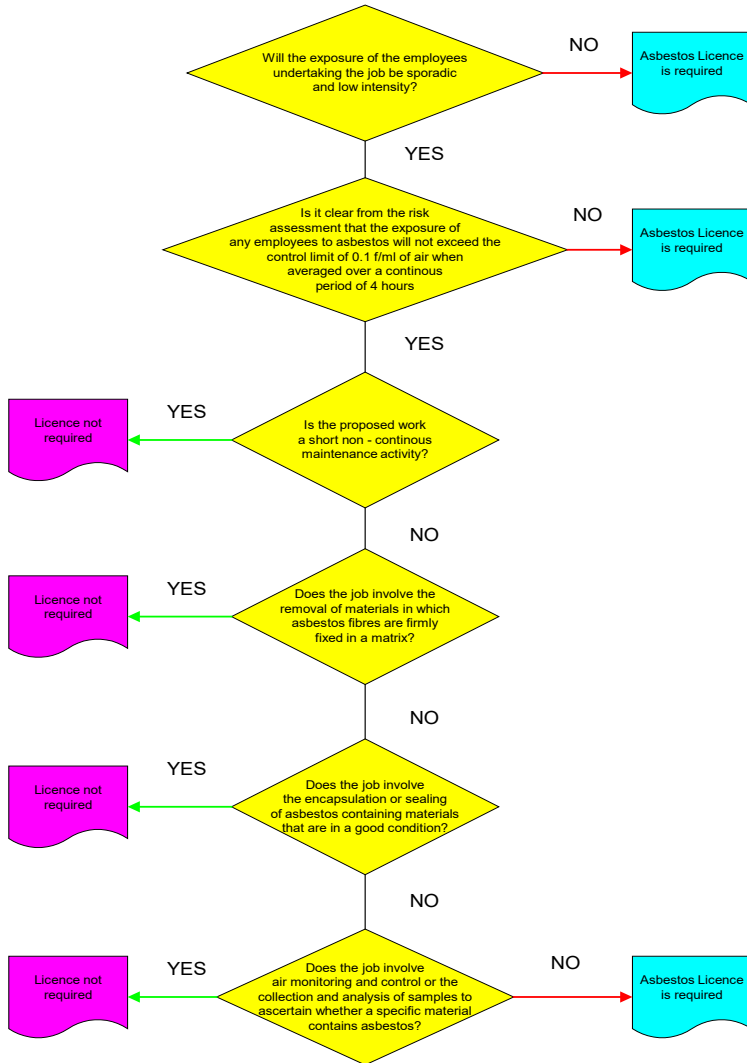
Note: Reference should be made to Appendix 11 - decisions regarding asbestos work categories
Appendix 11

Decisions regarding Asbestos Work categories

Decision Flow Chart – Asbestos Licence Required?

Date: August 2021

Determining Whether An Asbestos Licence Is Required



Decision Flow Chart – Notifiable Non-Licensed Work (NNLW) or Non-Licensed Work (NLW) (from Asbestos Essentials A0)

Date: August 2021

Decision flow chart

Use this simple flow chart to help you decide who needs to do the work:

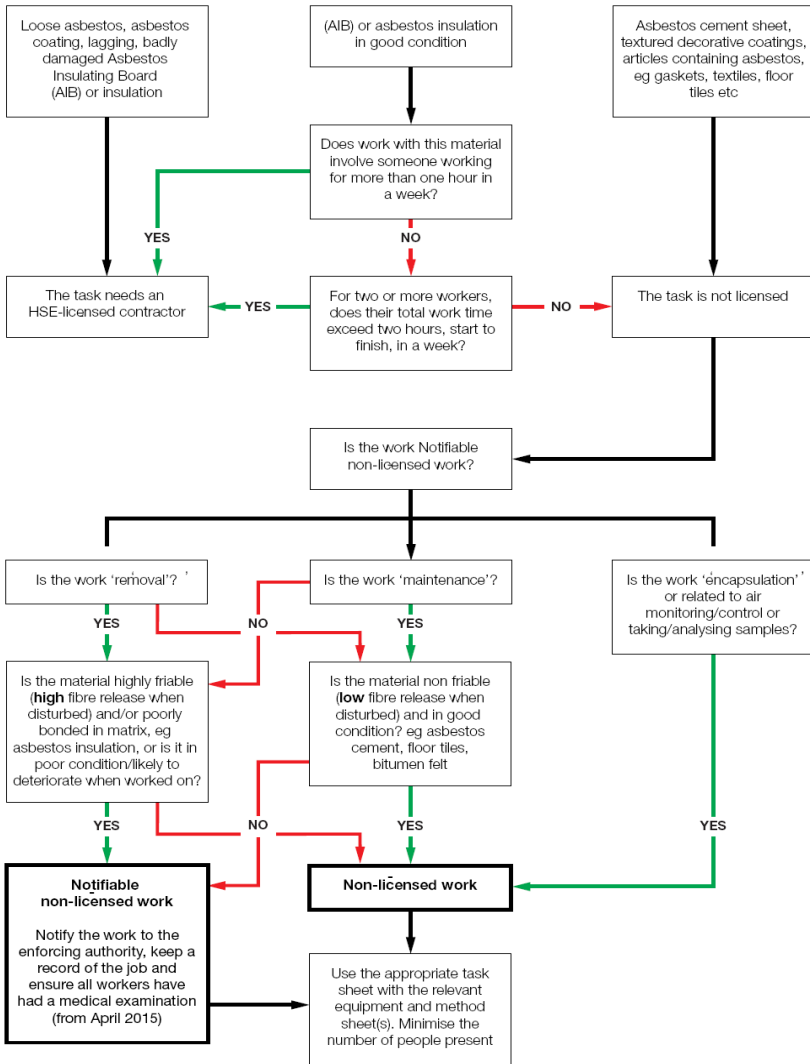
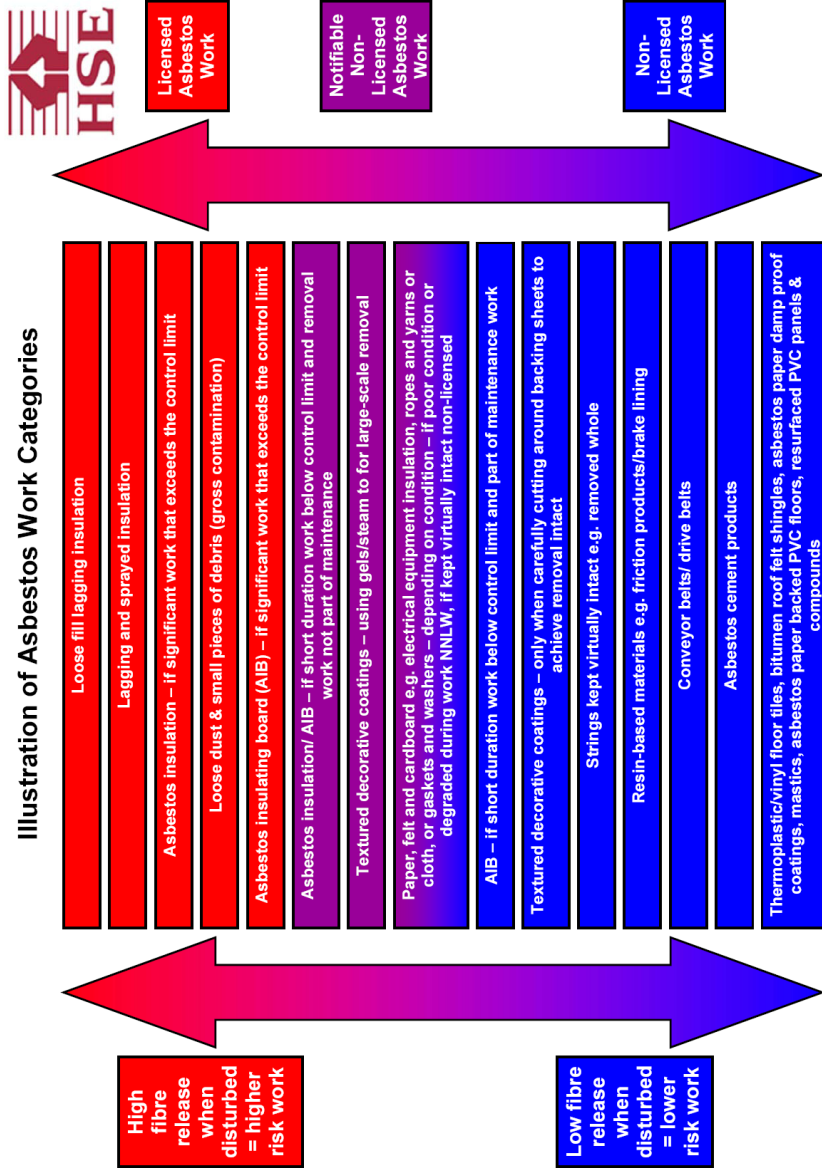


Illustration of Asbestos Work Categories



Date: August 2021

Examples of>NNLW and NLW

Examples of>NNLW include, (assuming in all cases exposure is sporadic and of low intensity and will not exceed the control limit):

- minor, short duration, maintenance work involving asbestos insulation, e.g. repairing minor damage to a small section of pipe insulation where the exterior coating has been broken or damaged;
- minor removal work involving AIB, when short duration and as part of a refurbishment project, e.g. removing AIB panels fixed with screws following water damage;
- entry into the roof space above an AIB tiled ceiling, when no decontamination or cleaning has taken place;
- removal work involving textured decorative coatings where the method of removal requires deterioration of the material, e.g. where the material is treated by steam, hydrating gel etc and scraped off the underlying surface, or where it is very badly flood-damaged;
- removal of asbestos paper and cardboard products if not firmly bonded in a matrix;
- removal of asbestos cement (AC) which is substantially degraded e.g. badly fire-damaged or de-laminated material, or where substantial breakage is unavoidable to achieve removal.

NNLW will **not** normally include the following, which will continue to be categorised as **non-licensed work** (which is not notifiable), (assuming in all cases exposure is sporadic and of low intensity and will not exceed the control limit):

- short, non-continuous maintenance work involving AIB which is in good condition, e.g. drilling holes in AIB to attach a fitting or pass through a cable or pipe, cleaning light fittings attached to AIB, removing a door with AIB fire-proofing, or lifting ceiling tiles for inspection where there is no full-body entry into the roof space;
- short, non-continuous maintenance work on asbestos cement (AC), e.g. work on weathered AC roof tiles;
- removal of AC, which is kept virtually intact;
- short, non-continuous maintenance work on textured decorative coatings, e.g. drilling holes, inserting screws or painting;
- small-scale maintenance work with textured decorative coatings when this can be achieved without deterioration of the material, e.g. by careful cutting around backing sheets to achieve removal intact;
- removal, for example, of gaskets or asbestos rope cords from heating appliances, which can be left in situ for disposal or can be lifted out virtually intact, without substantial breakage;
- short, non-continuous maintenance work on clutch discs, brakes, friction products etc unless significant damage is required e.g. by power tools;
- removal of floor tiles or bitumen felt, when done with the appropriate controls, e.g. inline with [Asbestos Essentials sheets A21 and A23](#);
- work to enclose or seal asbestos materials that are in good condition (and that do not require a licence);
- air monitoring and control, and the collection and analysis of samples.

Date: August 2021

Appendix 12

Training

12.1 Asbestos Co-ordinator

The Asbestos Co-ordinator and his Deputy shall receive adequate information, instruction and training so as to enable him to completely fulfil their roles.

This training shall include as a minimum Asbestos Awareness training in accordance with CAR 2012 Regulation 10 and should be supplemented by enhanced "Asbestos Management for Managers" or "Duty to Manage" training. Attendance on the BOHS P402 (Surveying and Sampling) and/or P405 (Management of Asbestos) and P407 (Managing Asbestos in Premises) courses is recommended. Refresher training should be undertaken annually or as circumstances dictate.

12.2 Professional Personnel

All professional personnel who influence any works or potential works with asbestos shall receive Asbestos Awareness training in accordance with CAR 2012 Regulation 10 provided by an independent Asbestos Consultant or in-house through the Corporate Health & Safety Unit by a person competent to do so. Refresher training should be at least every 2 years or earlier if any significant changes in legislation.

12.3 Tradesmen/Maintenance Personnel

Tradesmen/maintenance personnel shall receive Asbestos Awareness training in accordance with CAR 2012 Regulation 10 provided by an independent Asbestos Consultant or in-house through the Corporate Health & Safety Unit by a person competent to do so. Refresher training should be at least every 2 years or earlier if any significant changes in legislation.

12.4 Non-Licensed Contractors

Non-licensed contractors employed by the Association will not undertake work on asbestos materials. However, they will have to demonstrate that they are competent for the work and have received appropriate Asbestos Awareness training by submitting the relevant training certification.

12.5 Licensed Asbestos Contractors

Operatives and supervisors employed by Licensed Asbestos Removal Contractors shall demonstrate training and refresher training in compliance with published HSE guidance (see Contractors' Guide – Appendix 16).

12.6 Asbestos Consultants

Analysts, surveyors and project managers shall demonstrate training and refresher training in compliance with CAR 2012 and HSE Guidance (BOHS P401, P402, P403, P404, P405, P406 and P407 proficiency modules as appropriate). The company shall hold UKAS accreditation to ISO 17020 and 17025 for asbestos surveying, bulk analysis, air monitoring, 4 stage clearance and sampling.

Date: August 2021

Appendix 13

Asbestos Containing Materials Re-inspection Frequencies

The following types of asbestos materials have been identified to be present:

- Bitumen Products
- Textured Coatings
- Gaskets
- Cement Products
- Insulating Board
- Insulation Materials
- Woven Materials
- Plastic Products
- Vinyl Products
- Composite Flooring

The re-inspection frequencies will be as follows:

Not to exceed every 2 Years

- Bitumen Products
- External Cement Products
- Vinyl Products
- Textured Coatings
- Gaskets
- Woven Materials
- Plastic Products
- Composite Flooring

Annually

- Insulation Materials
- Insulation Board
- Internal Cement Products

More Frequently

Materials likely to be damaged

Date: August 2021

Appendix 14

14.1 Guidance as to the health effects of inadvertent exposure to asbestos fibres

From time to time, circumstances arise in which people are inadvertently exposed to asbestos fibres, usually in small quantities, in a variety of situations; examples have included: office workers exposed to asbestos dust during renovation work which disturbed asbestos ceiling tiles, council workers possibly exposed to asbestos dust whilst performing routine maintenance on air ducted central heating systems in residential flats and staff and pupils of secondary schools potentially exposed to asbestos, again from damaged ceiling tiles.

Those exposed receive little or no prior warning of the possible risk to health. In many cases those responsible for the exposure claim to have been unaware of the presence of asbestos prior to the work being carried out.

People who may have been exposed to asbestos are understandably anxious and concerned about the possible effects on their health. Moreover, where incidents involve members of the public or vulnerable sections of the population, widespread publicity may result. Departmental managers may receive requests from employers, employees, trade unions, other interested parties and members of the public for advice on how to manage the health aspects of such exposure. This section gives managers and employees advice on how to deal with such requests consistently. There is at present no effective post-exposure prophylaxis for the effects of inhaled asbestos fibres, although in smokers the risk of asbestos-induced lung cancer (but not Mesothelioma) can be reduced by stopping smoking. There are also no generally available techniques for determining individual lung burdens of asbestos fibres, other than post mortem.

In many cases, exposure will have been minimal, with little likelihood of any long-term ill-effects. However, although the type of asbestos may be known, there will often be little if any, reliable quantitative information concerning the level and duration of exposure. Work with asbestos cement is unlikely to pose the same risks as work with asbestos insulation, asbestos sprayed coating and asbestos insulating board.

Asbestos incidents arouse concern and anxiety and often unrealistic expectations of medical tests or even treatment. This should be addressed by offering prompt and reasoned advice, without contributing to unnecessary alarm. The information in this Appendix and the referenced HSE guidance should be sufficient in many cases and is intended to assist those responsible for managing such situations.

14.2 Inadvertent exposure to asbestos – Advice for employers

Breathing in asbestos fibres can eventually lead to a number of diseases, including:

1. asbestosis or fibrosis (scarring) of the lungs
2. lung cancer, and
3. mesothelioma, a cancer of the inner lining of the chest wall or abdominal cavity.

Date: August 2021

It is possible that repeated low-level exposures may lead to asbestos-related diseases, although high exposure for long periods is linked more clearly to these diseases. There is usually a long delay between first exposure to asbestos and the first symptoms of disease; this can vary between 15 and 60 years.

It is unfortunately, not uncommon for people to be inadvertently exposed to asbestos fibres, usually in small quantities, during building operations, maintenance work or following damage to asbestos containing materials (many of those suffering today from asbestos-related diseases worked in the building trades and were exposed to asbestos in their day-to-day work with asbestos materials, or because work with asbestos was carried out near them).

Such incidents understandably cause anxiety about the possible effects, both short and long term, of the exposure. In many circumstances, exposure will have been minimal, with little likelihood of any long-term effects. Unfortunately, although the type of asbestos involved may be known, there is often little, if any, reliable information concerning the amount of asbestos, which may have been inhaled.

It is important to ascertain as far as possible, the type of asbestos, the duration of exposure and the likely exposure levels. You may need to seek advice from occupational hygienists or occupational health specialists. The local office of the HSE may be able to give general advice and provide information on the availability of local specialist services.

You shall keep accurate and detailed records concerning the incident and those persons involved. The Control of Asbestos Regulations require records to be kept for 40 years. Although these Regulations may not apply, you may wish to follow their requirements.

If exposure is unlikely to have exceeded the Control Level (see Appendix 7) it will usually have been insufficient to pose a significant long-term risk to health. Where you are able to estimate the extent of exposure, the advice that those who have been exposed can be given should reflect the risk as far as possible.

Exposed individuals should be informed that if they wish to consult their GP, they should ask for a note to be made in their personal medical record of the possible exposure, including date(s), duration, type of fibre and likely exposure levels (if known). (Their GP may refer them to a specialist in respiratory medicine, but this is not normally considered necessary by the HSE). Each case should be considered on its merits, but the HSE does not normally advocate routine X-rays for persons exposed to asbestos in these circumstances.

Alternatively, or in addition, you may choose to refer employees for counselling. You may wish to select an occupational health service for this purpose. The local office of the HSE's Employment Medical Advisory Service may be able to provide information on services in the area.

You should, in addition, consider carefully what went wrong in causing your employees to be exposed to asbestos on this occasion, and how you will prevent this happening again in future.

14.3 Inadvertent exposure to asbestos – Advice for employees

Breathing in asbestos fibres can eventually lead to a number of diseases, including:

1. asbestosis or fibrosis (scarring) of the lungs
2. lung cancer, and

Date: August 2021

3. mesothelioma, a cancer of the inner lining of the chest wall or abdominal cavity.

It is possible that repeated low-level exposures may lead to asbestos-related diseases, although high exposure for long periods is linked more clearly to these diseases. There is usually a long delay between first exposure to asbestos and the first symptoms of disease; this can vary between 15 and 60 years.

It is unfortunately, not uncommon for people to be inadvertently exposed to asbestos fibres, usually in small quantities, during building operations, maintenance work or following damage to asbestos containing materials (many of those suffering today from asbestos-related diseases worked in the building trades and were exposed to asbestos in their day-to-day work with asbestos materials, or because work with asbestos was carried out near them).

Asbestos exposure incidents understandably cause anxiety about the possible effects, both short and long-term, of the exposure. In many cases, exposure will have been low, with little likelihood of any long-term side effects. Unfortunately, although the type of asbestos involved may be known, there is often little, if any, reliable information concerning the amount of asbestos which may have been inhaled, so it is often difficult to be certain exactly how much long-term risk to health may have been caused.

Your employer should try to find out as much as possible about the type of asbestos, the duration of exposure and the likely exposure levels and should keep accurate and detailed records concerning the incident and those people involved. You may wish to request a copy of your record, or to ask your employer to send a copy to your GP.

Your employer may arrange for you to have an opportunity to see an occupational health doctor for further advice, or may suggest that you consult your GP. Your GP should be given details about the possible exposure, including date(s), duration, type of asbestos and likely exposure levels (if known), and you should ask for a note of these details to be made in your personal medical record. Your GP will decide whether you should be referred to a chest specialist (although this is not usually necessary) or whether you should undergo any tests, such as a chest X-ray. Again, this is not usually necessary or helpful, particularly because in the short-term, a chest X-ray would not show anything wrong, even after heavy exposure to asbestos. In particular, a chest X-ray cannot show whether or not asbestos fibres have been inhaled.

Your employer should also consider carefully what went wrong to cause you to be exposed to asbestos on this occasion, and how this can be prevented from happening again.

14.4 Action to be taken when there is Risk that Asbestos Dust has been Released into the Atmosphere

Where damaged ACMs are uncovered or ACMs are damaged refer to Section 9 and the flow chart and procedures given overleaf (extract from Asbestos Essentials EM1).

Where asbestos dust has been released into a contained area the action is to be as specified in Section 9.

Where it is suspected that asbestos dust has been released into open atmosphere or there has been a significant fire involving ACM's, the Asbestos Co-ordinator is to be informed. Advice may be sought from the independent Asbestos Consultant.

Date: August 2021

There are circumstances when a possible release of dust into the atmosphere need not be monitored. The following list specifies why air monitoring may not be required:

- where exposures are known to be very low (i.e. well below the recommended control limit)
- where the work is intermittent or of short duration and adequate information is available to enable the appropriate protective equipment to be provided
- where such a high standard of personal protective equipment is provided for the predicted exposure that no foreseeable measurement result could indicate a need for a higher level of protection.

14.5 When does inadvertent exposure to asbestos constitute a reportable incident under RIDDOR?

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) places duties on employers, the self-employed and people in control of work premises to report serious workplace accidents, occupational diseases and specified dangerous occurrences.

Exposure to asbestos is reportable under RIDDOR when a work activity causes the accidental release or escape of asbestos fibres into the air in a quantity sufficient to cause damage to the health of any person. Such situations are likely to arise when work is carried out without suitable controls, or where those controls fail – they often involve:

- Use of power tools (to drill, cut etc) on most ACMs;
- Work that leads to physical disturbance (knocking, breaking, smashing) of an ACM that should only be handled by a licensed contractor e.g. sprayed coating, lagging, asbestos insulating board (AIB);
- Manually cutting or drilling AIB;
- Work involving aggressive physical disturbance of asbestos cement e.g. breaking or smashing.

If these activities are carried out without suitable controls, or the precautions fail to control exposure, these would be classed as a 'dangerous occurrence' under RIDDOR and should be reported.

Remember, if you need to report a dangerous occurrence relating to asbestos, you should review your asbestos management plan or your working practices.

Date: August 2021

Appendix 15

The Asbestos Action Plan

The overall aim is to ensure that all asbestos containing materials, through re-inspections, training, remedial or removal works are effectively managed and risk is reduced to its lowest practical level.

With any management plan it is important to schedule actions required, owners and a timeline for these actions by the owners. As these actions are numerous the action plan timetable is detailed below:

Bridgewater Housing Association - Asbestos Management Action Plan

The overall aim is to ensure that all asbestos containing materials, through re-inspections, training, remedial or removal works are effectively managed and risk is reduced to its lowest practical level.

Item No	Action	By who	Complete by
1	Implementation of Asbestos Management Plan	BHA	October 2021
2	Asbestos Management Plan issued to Departments and Contractors	BHA	re-issue October 2021
3	Re-inspections of non-domestic asbestos ACM's	Asbestos Consultant	Annually latest 24 th February 2021; next survey no later than 24 th February 2022
4	Type 2 survey of Office	Shepherds (BHA landlord)	Complete by Shepherds December 2003 (no ACM's present)
5	Staff Asbestos Awareness training	Asbestos Consultant	April 2022 Technical staff; Housing Management staff; HSS staff
6	Training session on interpretation of asbestos survey reports	Asbestos Consultant	October 2021 Technical Staff
7	Asbestos Management Training	Asbestos Consultant	No later than March 2022 Gary Brenda
8	Prioritise risk assessments for previous surveys	BHA/Asbestos Consultant	Completed January 2021; Asbestos Register comprehensively reviewed Dec 2018
9	Asbestos Management Plan Comprehensive Review	BHA/Asbestos Consultant	Completed – August 2021

Date: August 2021

			Next Comprehensive review Due September 2024
10	Asbestos Management Plan Annual Review	BHA/Asbestos Consultant	Review Due September 2022
11	Management (formerly Type 2 survey) of domestic properties for MCRP	Asbestos Consultant	As and when required

Committee Review Date: September 2024

Date: August 2021

Appendix 16

List of Contractors and Consultants

NAME	ADDRESS	DISCIPLINE	STATUS
Turner Services	65 Craigton Rd, Glasgow, G51 3EQ	Reactive Repairs Contractor	External Contractor
James Frew (trading as GasSure)	83 New St Stevenston KA20 3HD	Reactive Gas Maintenance Contractor	External Contractor
ADA Construction Consultants Ltd	Pavilion 3 St James Business Park Linwood Road, Paisley Renfrewshire PA3 3AT	Quantity Surveyors	External Consultants
Survey Solutions	97 Ellon Way, paisley PA3 4BQ	Chartered Building Surveyors	External Consultants
H2o Legionella Control Services	Caledonia House Evanton Drive Thornliebank Industrial Estate Glasgow G46 8JT	Water systems management	External Consultants
Cocoon Environmental Safety Ltd	Unit J Minerva Works Miller Street Johnstone. PA5 8HP.	Water systems management	External Contractor
Orbis	Harmony Court, Loanbank PI, Govan, Glasgow G51 3HN	Commercial cleaning and pest control	External Contractor
HSL Compliance	Suite 12 Arx house James Watt Ave East Kilbride Glasgow G75 0QD	Asbestos Consultant	External Consultant

Commented [MB12]: Update all references of SOSS to HSL Compliance

Date: August 2021