

ASBESTOS SURVEY REPORT

SITE

St Leonards Church

Wolborough Street Newton Abbot Devon

Major Refurbishment/Demolition Survey

Compiled by

Signed

Report Nº 7061

Date 6th February 2017

Mr R Aze

On behalf of Newton Abbot Town Council

ned .

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CONTENTS

SECTION TITLE

1.00	INTRODUCTION

- 2.00 SUMMARY OF ASBESTOS INCIDENCE
- **3.00** RECOMMENDATIONS
- 4.00 METHOD OF MATERIAL RISK ASSESSMENT

APPENDICES

- A REGISTERS
- B BULK SAMPLE REPORTS
- C ANNOTATED FLOOR PLANS
- D PHOTOGRAPHS
- *E* LEGISLATION, CODES OF PRACTICE AND GUIDANCE NOTES RELATING TO WORK WITH ASBESTOS AND ASBESTOS RELATED MATERIAL

HSE ILLUSTRATION OF DEFINITION OF ASBESTOS WORK CATORGORIES (To be read in conjunction with the HSE Asbestos Essentials Guide Task Manual)

F DEFINITION OF TERMS

1.00 INTRODUCTION

- 1.1 This report contains the findings of an Asbestos Survey carried out at St Leonards Church, Wolborough Street, Newton Abbot, Devon, by Mr R Aze acting on the instructions of LSN Architects acting for Newton Abbot Town Council.
- 1.2 The areas of survey were as follows:-

Basement Boiler Room, Entrance Lobby & Understairs Store/'L' Cupboard, Kitchen Area & W/C, Male/Female W/C's, Main Church, Enclosed Organ Area, Organ Box, Vestry Passage & Vestry, Rear Cross Passage, FF Gallery, Main & Rear Roof Voids – Internally & Externally to Ground Level

1.3 Inspection was not carried out in the areas noted below:-

a/All areas not within item 1.2

b/ Although every effort as far as reasonably practicable is taken during survey works it should be taken into consideration by all contractors that there may be ACM's still within the fabric of the areas surveyed, for example, packers to wall lining panels/battens, door/window surrounds plus roof/floor joists which can only be discovered during major rip out/demolition works.

1.4 Specific exclusions:-

a/ All electrical and mechanical machinery suspected of being 'live' at time of practical survey were not accessed due to health and safety precautions.

1.4.1 The survey was limited to those areas accessed at the time of the survey.

2.00 SUMMARY OF ASBESTOS INCIDENCE

2.1 Asbestos Coatings

2.1.1 No asbestos coatings were found in this survey.

2.2 Asbestos Insulation

2.2.1 No asbestos insulation was found in this survey.

2.3 Asbestos Insulating Board (AIB)

2.3.1 Asbestos insulating board was found in the areas noted below: a/ Organ Blower Box – Internal lining panels

2.4 Asbestos Cement Products

2.4.1 Asbestos cement products were found in the areas noted below:
a/ Rear Extension – Pitched & Lean-to Roof Areas – Roof tiles *Note: Common to debris within roof voids below accessed via the vestry passageway.*b/ Basement Boiler Room – Boiler flues *Note: Visually common to external vent sited externally at roof level on top of boiler flue chimney stack.*

2.5 Asbestos Rope, Gaskets and Paper Products

2.5.1 Asbestos textiles were found in the areas noted below:
a/ GF – Rear Extension Cross Passage – Floor lino
Strongly Suspected Asbestos Gaskets/Textiles:
b/ Asbestos Textiles (Fuse Flashbacks) - Refer 2.11.1a

2.6 Asbestos Textured Coatings

2.6.1 No asbestos textured coatings were found in this survey.

2.7 Asbestos Floor Tiles

2.7.1 No asbestos floor tiles were found in this survey.

2.8 Asbestos Millboard

2.8.1 No asbestos millboard was found in this survey.

2.9 Bituminous Asbestos Materials

- 2.9.1 No bituminous asbestos materials were found in this survey.
- 2.10 Asbestos Reinforced Composites
- 2.10.1 No asbestos reinforced composites were found in this survey.

2.11 Suspected Asbestos Containing Materials (ACMs)

2.11.1 Strongly suspected ACM's may be contained within the following areas:
a/ Gaskets/Textiles – Within Boilers still intact.
b/ Textiles – GF beneath stairs within entrance lobby – 'L' intake – Fuse flashbacks.
Note: Items not bulk sampled due to equipment 'Live' or not physically accessible during practical survey.

3.00 **RECOMMENDATIONS**

- 3.1 Our recommendations are made based upon each items assessed potential for fibre release as recommended by the guidance published by the Department of the Environment and the Health and Safety Executive, and with regard to the safety of asbestos in buildings.
- 3.2 A quantifiable assessment of the risk of fibre release has been made using an algorithm which takes into account all the factors relevant to the item and the normal activities of the buildings occupants, so as far as we have been able to establish. Recommended action will normally involve removal, encapsulation or management as described below.
 - *a* Removal of those items vulnerable to damage or in such poor condition that removal is the only practicable option or where refurbishment or demolition works are planned, such that these works will impinge on the asbestos materials present and render such removal necessary.
 - *b* Enclosure or encapsulation (together with repair where necessary) where the material is in poor condition / vulnerable to damage.
 - *c* Management of the asbestos materials present where these are not in poor condition / vulnerable to damage, by labelling / registering / periodic inspection as necessary. Such management should be undertaken to comply with the employer's duty of care under the Health and Safety at Act 1974. The Management of Health and safety at Work Regulations 1999 and the Control of Asbestos Regulations 2006.

3.2.1 **Definition of terms:**

- *a* Enclosure: Provision of physical barrier to provide mechanical protection of the material so as to prevent it being disturbed / damaged.
- *b* Encapsulation: Provision of paint type coating to effect a continuous seal to surface of the material and thereby prevent fibre release.
- *c* Registering: Entering of details, including nature / location / extent of material in a register which is brought to the attention of all persons who might plan or undertake works in the building.
- *d* Periodic inspection: Inspection of the material at regular (defined) intervals to verify that its condition has not deteriorated such as to necessitate enclosure / encapsulation / removal.
- *e* Repair: Addition of a seal to the material to prevent the further deterioration and breakdown of the material, (should also be carried out with labelling).
- *f* Removal: Complete removal of the material under controlled conditions so as to comply with CAR 2006.

- *g* Manage: Provision of a policy of regular (periodic) inspection, together with procedures including, but not exclusively limited to action should deterioration be observed, as well as training for staff and persons possibly coming into contact with the material.
- 3.3 We suggest that all items recommended for removal be actioned as soon as possible to minimise potential health risks. These items are either damaged or are liable (by virtue of their location or material type) to be damaged in normal occupation or maintenance of the premises, and therefore pose significant health risk to any persons in the vicinity.

The recommendations generated by the risk rating indicated on the asbestos register are overridden if the building is due for demolition or major structural alteration. Current guidance requires removal of all asbestos containing materials likely to be affected by such works. Where materials are suspected to be present and consist of, or contain asbestos, contractors should (prior to commencing refurbishment works) first confirm the existence of such materials under controlled conditions. Such contractors must be licensed to work with asbestos materials in accordance with the CAR 2006.

3.4 Works on or removal of the asbestos cement items should be carried out using precautions in accordance with the guidelines within the Health and Safety Executive guidance note HSG 189/2: Working with Asbestos Cement and HSG 210 Asbestos Essentials (Task Manual). These guidelines outline basic precautions that should be used to prevent fibre release during works, such as wetting of the materials before removal and preventing unauthorised persons from entering the work area. Using these guidelines, it is expected that asbestos fibre levels would be low. A contractor will still need to make an assessment.

Whilst there is no requirement for these works to be undertaken by a contractor licensed to work with asbestos, in practice it is unlikely that an unlicensed contractor will possess the necessary expertise to undertake major works competently.

- 3.5 An assessment and plan of work is required to be prepared by the contractor undertaking the works, taking account of the relevant regulations and guidance, and the local enforcing authority notified that such works are to take place. All waste generated by the works is to be disposed of as asbestos waste.
- 3.6 The Construction (Design and Management) Regulations 2015 apply to all Asbestos Removal work, the duty to Notify Asbestos removal works exists if works are longer than 30 days with more than 20 workers working at the same time or involving in excess of 500 person days of construction works, will be notifiable to the Health and Safety Executive. The client is required to appoint a Principal Designer and Principal Contractor and must ensure their competency for the nature of the project. Any work, which involves demolition, will also attract CDM.

4.00 METHOD OF MATERIAL RISK ASSESSMENT

4.1 Introduction

- 4.1.1 The system of material risk assessment adopted within this report is based on the HSG264 Algorithm.
- 4.1.2 The algorithm is based on four main parameters, which will determine the amount of fibre release from an ACM when subject to standard disturbance.

The four main parameters are:

- Product type
- Extend of damage or deterioration
- Surface treatment
- Asbestos type

Each parameter is scored as high = 3, medium = $2 \text{ or } \log = 1$.

Two categories also allow a nil score.

The value assigned to each parameter is added together to give a total score of between 2 and 12. Presumed or strongly assumed ACMs are scored as Crocidolite (3), unless analysis of similar samples from the building shows a different asbestos type, or there is reasoned argument that another type of asbestos was almost always used.

4.1.3 Materials with assessment scores of 10 or more are regarded as having a high potential to release fibre.

Scores between 7 & 9 are regarded as having a medium potential, and between 5 & 6 a low potential. Scores of 4 or less have a very low potential to release fibres.

Non-asbestos materials are not scored.

Management surveys will have a calculated material risk assessment.

Major Refurbishment/Demolition surveys do not require an assessment.

4.2 Material Assessment Algorithm

Sample Variable	Score	Materials
Product Type (or debris from product)	1	Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc).
	2	Asbestos insulating board, millboards, other low-density insulation board, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.
	3	Thermal insulation (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.
Extent of Damage Deterioration	0	Good condition: no visible damage.
Deterioration	1	Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.
	2	Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.
	3	High damage or delamination of materials, sprays and thermal insulations. Visible asbestos debris.
Surface Treatment	0	Composite materials containing asbestos; reinforced plastics, resins, vinyl tiles.
	1	Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated) asbestos cement sheets etc.
	2	Unsealed AIB, or encapsulated lagging and sprays.
	3	Unsealed lagging and sprays.
Asbestos Type	1	Chrysotile.
	2	Amphibole Asbestos excluding Crocidolite.
	3	Crocidolite.
Total		

Total

APPENDIX A

REGISTERS

Asbestos Register for	St Leonards Church, Newton Abbot Date 06/02/17
Area / Location Note: Common to rear	External – Rear Extension Pitched & Lean-to Roof Areas – Roof tiles pitched & lean-to roof areas – roof tile debris within roof void.
Sample / Date / Number	RA/060217/1
Product Type	Asbestos Cement
Analysis	Positive – contains Chrysotile Asbestos fibre.
Extent / Quantity	All rear Extension Pitched / Lean – to Roof Areas.
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	This material should only be worked on/with in accordance with The Control of Asbestos Regulations 2012. This material is classified as a 'hazardous' waste for disposal purposes. If to remain in 'situ', this material requires hazard warning labelling and a 12 monthly recorded inspection by a suitably trained/competent person or immediate re-assessment if damaged / disturbed.

Signed



Asbestos Register for	St Leonards Church, Newton Abbot	Date	06/02/17

Area / LocationInternal – Organ Blower Box
Internal box lining panels

Note:

Nole.	
Sample / Date / Number	RA/060217/2
Product Type	Asbestos Insulating Board
Analysis	Positive – contains Chrysotile Asbestos fibre.
Extent / Quantity	All Internal Lining Panels.
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	This material should only be worked on/with in accordance with The Control of Asbestos Regulations 2012. This material is classified as a 'hazardous' waste for disposal purposes. If to remain in 'situ', this material requires hazard warning labelling and a 12 monthly recorded inspection by a suitably trained/competent person or immediate re-assessment if damaged / disturbed.

Signed



Asbestos Register for	St Leonards Church, Newton Abbot
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Date 06/02/17

Area / Location Internal – Front L/H/S – Kitchen / W/C Floor tiles – L/Green

Note:

Sample / Date / Number	RA/060217/3
Product Type	Vinyl
Analysis	Negative – no asbestos fibre detected.
Extent / Quantity	N/A
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	None required.

Signed



Date 06/02/17

Area / Location Internal – Front L/H/S – Kitchen / W/C Floor tiles – D/Green

Note:

Sample / Date / Number	RA/060217/4
Product Type	Vinyl
Analysis	Negative – no asbestos fibre detected.
Extent / Quantity	N/A
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	None required.

Signed



Asbestos Register for	St Leonards Church, Newton Abbot	Date 06/02/17
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Area / Location Internal – Front R/H/S – Ladies W/C Floor tiles – Blue

Note:

Sample / Date / Number	RA/060217/5
Product Type	Vinyl
Analysis	Negative – no asbestos fibre detected.
Extent / Quantity	N/A
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	None required.

Signed



06/02/17

Asbestos Register for	St Leonards Church, Newton Abbot	Date
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Area / Location Internal – Front R/H/S – Male W/C Floor tiles – Grey fleck

Note:

Sample / Date / Number	RA/060217/6
Product Type	Vinyl
Analysis	Negative – no asbestos fibre detected.
Extent / Quantity	N/A
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	None required.

Signed



Asbestos Register for	St Leonards Church, Newton Abbot	Date	06/02/17

Area / Location	Internal – Main Church Pitched Roof
	Roof tiles

Note:

Sample / Date / Number	RA/060217/7
Product Type	Cement
Analysis	Negative – no asbestos fibre detected.
Extent / Quantity	N/A
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	None required.

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Asbestos Register for	St Leonards Church, Newton Abbot	Date	06/02/17

Area / LocationInternal – Rear Pitched & Lean-to Roof Areas
Roof felt

Note:

Sample / Date / Number	RA/060217/8
Product Type	Bituminous product
Analysis	Negative – no asbestos fibre detected.
Extent / Quantity	N/A
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	None required.

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Asbestos Register for	St Leonards Church, Newton Abbot	Date	06/02/17

Area / LocationInternal – Rear Extension Cross Passage
Floor lino

Note:

	D.4.10.00017/0
Sample / Date / Number	RA/060217/9
Product Type	Asbestos Textiles
Analysis	Positive – contains Chrysotile Asbestos fibre.
Extent / Quantity	All Floor Lino.
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	This material should only be worked on/with in accordance with The Control of Asbestos Regulations 2012. This material is classified as a 'hazardous' waste for disposal purposes. If to remain in 'situ', this material requires hazard warning labelling and a 12 monthly recorded inspection by a suitably trained/competent person or immediate re-assessment if damaged / disturbed.

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Asbestos Register for St Leonards Church, Newton Abbot Date 06/02/17

Area / LocationBoiler Room – Boiler flues

Note: Common to external roof area - boiler flue chimney cowl – Refer 2.11.1a

Sample / Date / Number	RA/060217/10
Product Type	Asbestos Cement
Analysis	Positive – contains Chrysotile Asbestos fibre.
Extent / Quantity	All Cement Flues.
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	This material should only be worked on/with in accordance with The Control of Asbestos Regulations 2012. This material is classified as a 'hazardous' waste for disposal purposes. If to remain in 'situ', this material requires hazard warning labelling and a 12 monthly recorded inspection by a suitably trained/competent person or immediate re-assessment if damaged / disturbed.

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Asbestos Register for St Leonards Church, Newton Abbot Date 06/02/17

Area / Location Boilers – Gaskets/Textiles within

Note: Items not bulk sampled due to equipment 'Live' or not physically accessible during practical survey.

practical survey.	
Sample / Date / Number	Not Bulk Sampled
Product Type	Strongly suspected Asbestos Gaskets/Textiles
Analysis	Strongly suspected ACM's
Extent / Quantity	Not Known.
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	If proven positive by analysis, this material should only be worked on/with in accordance with The Control of Asbestos Regulations 2012. This material is classified as a 'hazardous' waste for disposal purposes. If to remain in 'situ', this material requires hazard warning labelling and a 12 monthly recorded inspection by a suitably trained/competent person or immediate re-assessment if damaged / disturbed.

Signed

Asbestos Register for	St Leonards Church, Newton Abbot	Date 06/02/17
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Area / LocationTextiles – GF beneath stairs within entrance lobby
'L' intake – Fuse flashbacks

Note: Items not bulk sampled due to equipment 'Live' or not physically accessible during practical survey.

Sample / Date / Number	Not Bulk Sampled
Product Type	Strongly suspected Asbestos Textiles
Analysis	Strongly suspected ACM's
Extent / Quantity	Not Known.
Condition	N/A
Surface Treatment	N/A
Algorithm / Risk	N/A
Accessibility	N/A
Management	If proven positive by analysis, this material should only be worked on/with in accordance with The Control of Asbestos Regulations 2012. This material is classified as a 'hazardous' waste for disposal purposes. If to remain in 'situ', this material requires hazard warning labelling and a 12 monthly recorded inspection by a suitably trained/competent person or immediate re-assessment if damaged / disturbed.

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APPENDIX B

BULK SAMPLE REPORTS



RA/060217/5

RA/060217/6

RA/060217/7

BS093647

BS093648

BS093649

Vinyl

Vinyl

Cement

Scientific Services Ltd. The Fuel Depot, Scorrier, Redruth Cornwall TR16 5UT TEL: 01209 311350 FAX: 01209 820315 E mail: <u>enquiries@scientificservices.org</u> Web: <u>www.scientificservices.org</u>



Detected No Asbestos

Detected

No Asbestos

Detected No Asbestos

Detected

ASBESTOS BULK ANALYSIS TEST REPORT

TEST REPO	ORT NUMBER:	J121258	ssue No: 1	Report Date: 10 Feb	2017		
T T I Environmental Ltd 2 Occombe Valley Road, Preston, Paignton, Devon TQ3 1QU				Location:-	St Leonards Church, Wolborough Street, Newton Abbot, Devon, 06/02/2017		
				Date Sampled:-			
				Date Tested:-	10/02/2017		
Date samples received by Lab:- 07/02/2017			02/2017	Your Order:-	7061	7061	
			TES	T RESULTS			
SSL Number	Client Sample Number	Sample Type	Sample Details		Asbestos Type(s) Present		
BS093643	RA/060217/1	Cement	Roof tiles, External - Rear extension, pitched & lean to roof areas		Chrysotile		
BS093644	RA/060217/2	Insulating Board	Internal lining panels, Internal - Organ blower box		Chrysotile		
BS093645	RA/060217/3	Vinyl	Floor tiles - L/Green, Internal - Front L/H/S church, kitchen / W/C		No Asbestos Detected		
BS093646	RA/060217/4	Vinyl	Floor tiles - D/Green, Internal - Front L/H/S church, kitchen / W/C		No Asbestos Detected		

Floor tiles - Blue, Internal - Front R/H/S church, Ladies W/C

Floor tiles - Grey fleck, Internal - Front R/H/S church, Gents

W/C

Roof tiles, Internal/External - Main church pitched roof

Asbestos Bulk Analysis Test Report Issue 11.1

Page 1 of 2



Date samples received by Lab:-

Scientific Services Ltd. The Fuel Depot, Scorrier, Redruth Cornwall TR16 5UT TEL: 01209 311350 FAX: 01209 820315 E mail: <u>enquiries@scientificservices.org</u> Web: <u>www.scientificservices.org</u>



ASBESTOS BULK ANALYSIS TEST REPORT

EST REPORT NUMBER:	J121258	Issue No: 1
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Report Date: 10 Feb 2017

T T I Environmental Ltd	
2 Occombe Valley Road, Preston, Paignton, Devon	
TQ3 1QU	

Location:-	St Leonards Church, Wolborough Street, Newton Abbot, Devon,
Date Sampled:-	06/02/2017
Date Tested:-	10/02/2017
Your Order:-	7061

TEST RESULTS

07/02/2017

SSL Numb	Sample	Sample Type	Sample Details	Asbestos Type(s) Present
BS0936	650 RA/060217/8	Bituminous Product	Roof lining felt, Internal - Rear extension roof void	No Asbestos Detected
BS0936	651 RA/060217/9	Textiles	Floor lino, Internal - Rear extension, passageway	Chrysotile
BS0936	652 RA/060217/10	Cement	Boiler flues, Boiler House	Chrysotile

Additional Comments: N/A	Analysed By: Emily Badcock
	Approved By: Stephanie Delbridge
Notoriola have been referred to an Ant	

arks: Materials have been referred to as Asbestos insulation Board or Asbestos Cement based upon their asbestos content and visual appearance alone. Water Absorption testing of materials has not been carried out unless stated otherwise. Where samples have not been taken by Scientific Services Ltd, it can only report analysis results. No responsibility can be taken for any consequences arising from the client's sampling strategy or procedures, or the use of these results in subsequent reports. Tests marked \$ in this report have been subcontracted to a UKAS accredited laboratory.

SOP No. D3TA1 based on HSG248 Appendix 2. This report relates only to the samples tested. Opinions and interpretations herein are outside the scope of UKAS accreditation. This report may not be reproduced except in full, without written approval of the laboratory.

Asbestos Bulk Analysis Test Report Issue 11.1

Page 2 of 2

APPENDIX C

ANNOTATED FLOORPLANS

ST LEONARDS CHURCH NEWTON ABBOT



APPENDIX D

PHOTOGRAPHS



External – Rear Extension Pitched & Lean-to Roof Areas Roof tiles

> Bulk Sample Nº RA/060217/1 Photograph Nº 001



Internal – Organ Blower Box Internal box lining panels

> Bulk Sample Nº RA/060217/2 Photograph Nº 002



Internal – Organ Blower Box Internal box lining panels

Bulk Sample Nº RA/060217/2 Photograph Nº 003



Internal – Front L/H/S – Kitchen / W/C Floor tiles – L/Green & D/Green

> Bulk Sample Nº RA/060217/3&4 Photograph Nº 004



Internal – Front R/H/S – Ladies W/C Floor tiles – Blue

> Bulk Sample Nº RA/060217/5 Photograph Nº 005



Internal – Front R/H/S – Male W/C Floor tiles – Grey fleck

> Bulk Sample Nº RA/060217/6 Photograph Nº 006



Internal – Main Church Pitched Roof Roof tiles

> Bulk Sample Nº RA/060217/7 Photograph Nº 007



Internal – Rear Pitched & Lean-to Roof Areas Roof felt

> Bulk Sample Nº RA/060217/8 Photograph Nº 008



Internal – Rear Extension Cross Passage Floor lino

> Bulk Sample Nº RA/060217/9 Photograph Nº 009


Boiler Room Boiler flues

Bulk Sample Nº RA/060217/10 Photograph Nº 010

Note: Refer 2.11.1a



External Roof Area Boiler flue chimney cowl

Common to Bulk Sample Nº RA/060217/10 Photograph Nº 011



Rear Pitched & Lean-to Roof Areas Roof tile debris within roof void

Common to Bulk Sample Nº RA/060217/1 Photograph Nº 012



Strongly Suspected Asbestos Textiles Understairs 'L' Intake – Fuse flashbacks Refer 2.11.1b

Photograph Nº 013

APPENDIX E

LEGISLATION, CODES OF PRACTICE AND GUIDANCE NOTES RELATING TO WORK WITH ASBESTOS AND ASBESTOS RELATED MATERIALS

HSE ILLUSTRATION OF DEFINITION OF ASBESTOS WORK CATORGORIES

(To be read in conjunction with the HSE Asbestos Essentials Guide Task Manual)

LEGISLATION, APPROVED CODES OF PRACTICE, AND GUIDANCE NOTES FOR WORK WITH ASBESTOS AND ASBESTOS CONTAINING MATERIALS

- 1 Legislation, Approved Codes of Practice and Guidance Notes dealing with asbestos for England, Wales and Scotland include but not exclusively those listed on the following pages. Equivalent documentation exists for Northern Ireland under local legislation.
- 2 All Legislation, Approved Codes of Practice and Guidance Notes listed together with any subsequent amendments or revisions and any new relevant requirements should be considered before undertaking any work with asbestos or asbestos containing materials.
- 3. The following Legislation, Approved Codes of Practice and Guidance Notes deal primarily with asbestos. Other legislation dealing with health and safety matters have not been listed here, although such legislation still applies to work with asbestos and should be considered at all times.
- 4. The following list was last revised in April 2012.

LEGISLATION

1.00 THE HEALTH AND SAFETY AT WORK ETC. ACT 1974:-

- *A* _Control of Asbestos Regulations and subsequent amendments.
- *B* Reporting of Injuries, Diseases and Dangerous Occurrence Regulations.
- *C* Management of Health and Safety at Work Regulations.
- *D* Personal Protective Equipment (PPE) at Work Regulations.
- *E* Provision and Use of Work Equipment Regulations.
- *F* Construction (Design and Management) Regulations.
- *G* Carriage of Dangerous Goods by Road Regulations.
- *H* Carriage of Dangerous Goods by Rail Regulations.
- *I* Control of Substances Hazardous to Health Regulations.
- *J* Control of Asbestos Regulations 2012.

2.00 CONTROL OF POLLUTION ACT 1974:-

A Hazardous Waste (England and Wales) Regulations 2005.

3.00 ENVIRONMENTAL PROTECTION ACT 1991:-

A Environmental Protection (Duty of Care) Regulations.

- *B* Waste Management Licensing Regulations.
- *C* Controlled Waste Regulations.
- *D* Controlled Waste (Regulations of Carriers and Seizure of Vehicles) Regulations.
- *E* Environmental Protection (Prescribed Processes and Substances) Regulations.

4.00 DEREGULATION AND CONTRACTING OUT ACT 1994:-

A Section 33.

5.00 CONSUMER SAFETY ACT 1978:-

A Asbestos Products (Safety) Regulations.

6.00 WATER ACT 1989, WATER INDUSTRY ACT 1991, WATER RESOURCES ACT 1991, LAND DRAINAGE ACT 1991, STATUTORY WATER COMPANIES ACT 1 991 & WATER CONSOLIDATION (CONSEQUENTIAL PROVISIONS) ACT 1991:-

A Trade Effluents (Prescribed Processes and Substances) Regulations.

APPROVED CODES OF PRACTICE:-

- 1. The Management of Asbestos in Non-Domestic Premises, Regulation 4 of the Control of Asbestos Regulations 2006.
- 2. Work with Materials Containing Asbestos, Control of Asbestos Regulations 2012
- 3. Waste Management. The Duty of Care. A Code of Practice 1991.
- 4. Respiratory Protective Equipment (RPE), A Practical Guide for Users 1990.
- 5. Respiratory Protective Equipment, Legislative requirements and lists of HSE approved standards and type approved equipment (*Fourth Edition*) 1995.
- 6. Selecting respiratory protective equipment for work with asbestos, INDG 264.

HEALTH AND SAFETY EXECUTIVE GUIDANCE NOTES

1.00 MEDICAL SERIES:-

- *A* MS 5: Lung Function (July 1977).
- *B* MS 6: Chest x-rays in dust diseases (September 1980).
- C MS 13: Asbestos (revised, April 1988).

2.00 HEALTH AND SAFETY GUIDANCE SERIES:-

- A HSG 264: Asbestos: The Survey Guide
- B HSG247: Asbestos: The Licensed Contractors Guide
- C HSG248: Asbestos: The analyst's guide for sampling, analysis and clearance procedures
- D HSG 189/2: Working with asbestos cement (Second Edition 1999).
- E HSG 53: Respiratory protective equipment at Work (2005).
- F HSG Guidance Notes AO Asbestos 04/12
- G HSG Guidance Notes Asbestos Essentials Task Sheets 04/12

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APPENDIX F

DEFINITION OF TERMS

Appendix F Definitions In Terms

1.00 ASBESTOS MATERIALS IN BUILDINGS

- 1.01 Sprayed coatings applied in the UK were typically a mixture of hydrated asbestos cement containing up to 85% asbestos, mainly Amosite but Crocidolite and mixtures have been used. Primarily used for anti-condensation and acoustic control and fire protection to structural steelwork. It is a friable material and is likely to release fibres, especially if disturbed during repair and maintenance work. As it ages the binding medium of sprayed asbestos may degrade with the consequent release of more fibres.
- 1.02 Thermal insulation to boilers, vessels, pipework, valves, pumps, etc. also known as lagging. Lagging may have a protective covering of cloth, tape, paper, metal or a surface coating of cement. All types of asbestos may be found in lagging and the content can vary between 15 to 95% asbestos. The likelihood of fibre release depends upon its composition, friability and state of repair, but it is particularly susceptible to damage and disturbance through maintenance work or the action of water leaks.
- 1.03 Asbestos insulating boards usually contain between 16 to 40% Amosite (brown) asbestos, although boards may be found to contain other types of asbestos and in other quantities. Insulating boards use boomed in the 1950s to provide an economical, lightweight, fire resisting insulating material. As insulation board is semi-compressed it is more likely to release fibres as a result of damage or abrasion. Work on asbestos insulation board can give rise to high levels of asbestos fibre.
- 1.04 Asbestos cement products generally contain 10 to 15% of asbestos fibre bound in a matrix of Portland Cement or autoclaved calcium silicate. All three types of asbestos have been used in the manufacture of asbestos cement. The asbestos fibres in asbestos cement are usually firmly bound in the cement matrix and will be released only if the material is mechanically damaged or as it deteriorates with age.
- 1.05 Ropes, yarns and cloths are usually high in asbestos content, approaching 100% and all three types of asbestos have been used in their manufacture. They were used as packing, caulking or gasket materials where thermal of fire protection was required. The risk of fibre release depends upon the structure of the material; bonded gasket material is unlikely to release asbestos but an unbonded woven material may release fibres when in use especially if damaged or frayed.
- 1.06 Millboard, paper and paper products are usually high in asbestos content, approaching 100%, and all three types of asbestos have been used in their manufacture. They were used for insulation of electrical insulation, asbestos paper has been used as fireproofing to wood fibre panels. These materials are not well bonded and will release asbestos fibres if subject to abrasion and wear.
- 1.07 Bitumen felts and coatings may contain asbestos, either bound in the bitumen matrix or as an asbestos paper liner. These materials are not likely to present a hazard during normal installation or use, but should be removed and disposed of carefully at the end of their useful life.

- 1.08 Reinforced plastics and floor tiles may contain asbestos, either bound in the matrix or as an asbestos paper liner. These materials are not likely to present a hazard during normal installation or use, but should be removed and disposed of carefully at the end of their useful life.
- 1.09 Textured coatings and paints may contain small amounts of asbestos, e.g. 'Artex'. Non-wettable materials containing asbestos should not be removed without taking special precautions.
- 1.10 Mastics, sealants, putties and adhesives may contain small amounts of asbestos. The only possible risk is from sanding of hardened material when appropriate precautions should be taken.

2.00 FORMS OF INSPECTION

2.01 Management Survey

A management survey is the standard survey, its purpose being to locate, as far as is reasonably practicable the presence and extent of any suspect ACM's in the building which could be damaged or disturbed during normal occupancy, including any foreseeable maintenance and installation and to assess their condition.

Management surveys will often involve minor intrusive work and some disturbance. The extent of intrusion will vary between premise and depend on whats is reasonably practicable for individual properties. A management survey should include an assessment of the condition of the various ACM's and their ability to release fibres into the air. This will give a good initial guide to the priority for managing ACM's. The survey will usually involve sampling and analysis to confirm the presence or absence of ACM's. However a management survey can also involve the presumption of ACM's. By presuming the presence of asbestos, the need for sampling and analysis can be deferred until a later date.

All areas will be accessed and inspected so far as is reasonably practicable, including under floor coverings, above false ceiling, inside risers, service ducts etc. Management surveys only involve the use of simple tools such as screw driver and chisel. Any area not accessed will be detailed within this report and presumed to contain Asbestos. Maintenance / disturbance works must not take place in these areas until further checks can be made.

A management survey is undertaken to determine so far as is reasonably practicable the full extent of asbestos materials within a building or site. All areas where access is readily available (including areas accessible using hand tools and ladders) will be inspected. All suspect materials will be sampled in accordance with the DETR guidance 'Asbestos and Man Made Fibres in Buildings' and HSE guidance note MDHS 77 (unless otherwise instructed). The report will detail all items of asbestos found, including the nature of the material, asbestos content, condition and extent, as well as fully annotated plans and photographs (where necessary to locate or identify). A full risk assessment will be provided for each item together with recommendations for remedial action. Where the presence of asbestos materials is suspected in areas / parts, which are not readily accessible, these will be identified in the report and recommendation made for further investigation. A methodology for such work may be found below.

2.02 Refurbishment and Demolition Survey

This type of survey is used to locate and describe, so far as is reasonable practicable, all acm's in the area where refurbishment work will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. Aggressive inspection techniques will be used to lift carpets, break through walls, ceilings, cladding and partitions and open up floors

Under CDM the survey information should be used to help in the tendering process for the removal of ACM's from the building before work starts

Refurbishment and demolition surveys are intended to locate all of the asbestos within the building Where there is high probability of asbestos materials being disturbed during opening-up a HSE licensed asbestos contractor will be engaged to ensure safe access, (otherwise appropriate building trades will be engaged for all necessary opening-up).

The report will detail all items of asbestos found, including the nature of the material, asbestos content, condition and extent, as well as fully annotated plans and photographs (where necessary to locate or identify an item). A full risk assessment will be provided for each item together with recommendations for remedial action.

A methodology for such work may be found below.

3.00 METHODOLOGY FOR INSPECTION/SURVEY OF ASBESTOS CONTAINING MATERIALS

- 3.01 The procedure for identifying suspected asbestos containing building materials is as follows:-
- *a* Carefully check all spaces in the building(s) or area(s) to be inspected where safe access is granted in a systematic manner. Devise a methodical order applicable to the site and inspect walls, partitions, ceilings, floors, beams, ducts, risers, plant and equipment.
- *b* Identify the suspected asbestos containing building materials. All materials not readily identifiable as non-asbestos should be considered suspect until the results of sampling prove otherwise.
- *c* Group these materials into homogeneous sampling areas, uniform in texture, colour, and which in all other respect appear identical. Materials which appear to have been installed at different times or if there is any other reason to suspect that materials may be different then the materials must be allocated to different sampling areas.
- *d* Identification of suspect materials and selection of homogeneous sampling areas are by their very nature subjective processes. If there is any doubt the material must be considered suspect or allocated a separate sampling area as appropriate.
- 3.02 Prepare and annotate sketch plans.

- 3.03 Determination of the number of samples to be taken is accordance with Annex 2 of the current edition of the Department of the Environment, Transport and the Regions publication, 'Asbestos and Manmade Fibre Materials in Buildings'.
- 3.04 Determination of the locations from where samples will be taken is dependent upon the nature of the material but should be chosen so as far as is possible the sample will be representative of the area and that personal bias is avoided.
- 3.05 Samples will then be collected using the techniques set out in the Company Safety Policy.
- 3.06 All information will be recorded on standard sample report forms, which details the location, condition, nature and extent of the material from where the sample was taken together with the unique reference number and results of analysis; asbestos type and percentage content.
- 3.07 How the information is recorded on site will ultimately reflect in the register, risk assessment and recommended remedial action. Location of all materials sampled will be recorded on annotated plans to avoid confusion encountered by using descriptive text. The annotation will include the nature, condition, location and extent of the material.
- 3.08 A mathematical algorithm based upon all the factors, which give rise to fibre release, which can be assessed at the time of inspection. Use of this algorithm produces uniformity between Surveyors and of sites surveyed leading to a more precise product.
- 3.09 Whilst on site, we will make every effort to establish the full extent of asbestos materials within the limits defined for inspection / survey / intrusive survey.

However where access has been limited by presence of other 'hazards', refusal of access by tenant or similar, or there are parts present of which we have no knowledge, we will not be able to inspect these parts and thus cannot report on any asbestos that may be present in such parts. These parts will, where possible, be detailed in the areas excluded from inspection / survey within the written report. Typically such parts may include any or all of the following:-

- *a* Flues, ducts, voids or any similarly enclosed areas, the access to which will necessitate the use of specialist equipment or tools or which will cause damage to decoration, fixtures, fittings or the structure.
- *b* Lift shafts, plant rooms or similar which require the attendance of a specialist engineer unless arrangements have been specifically made for such an engineer to be in attendance.
- *c* Any parts or surfaces that would require the removal or relocation of carpets, furniture, blinds, curtains, fixtures or fittings.

- *d* Any part requiring specialist access equipment other than stepladders. No provision is made for specialist access equipment unless otherwise stated.
- *e* Concealed spaces, which may exist within the fabric of the building, where the extent or presence of these is not evident due to inaccessibility or insufficient knowledge or information supplied as to the structure.
- f The presence of asbestos in voids e.g. under floors, walls or ceilings other than those opened up during the site investigation.
- *g* Bulk samples to be taken, at the density recommended by DETR guidance, from all materials that upon visual inspection appear likely to contain asbestos. However a reduced sampling density may be adopted to meet client imposed technical or financial restraints (e.g. fixed price fee) and the report annotated accordingly.
- *h* Samples will not be taken where the act of sampling would endanger the surveyor or compromise the functional integrity of the item concerned. For example, flash guards to fuse carriers within live electrical boxes, panels within fire doors, gaskets associated with heating, glazing or power plant etc.
- *i* Whilst every effort will be made to identity the true nature and extent of the asbestos material present in the building(s), no responsibility can be accepted for the presence of asbestos in materials other than those sampled at the requisite density (see *g* above).
- *j* Items of bitumen, plastic, resin or rubber, which may contain asbestos, the thermal and acoustic properties of which are incidental to its main purpose, will be excluded from the survey unless specifically stated.
- *k* Reference to materials as Asbestos Insulating Board or Asbestos Cement will be based upon their asbestos content and visual appearance alone. Density tests on materials will not be carried out unless stated otherwise.
- *l* Where heating or hot water service pipework, other services or structural components are covered with a non asbestos insulation, fire protection, or similar, only limited inspection will be made of the underlying item or surface for the evidence of any residue from any earlier/previous insulation etc. Removal of all non-asbestos insulation for the purposes of a full examination is specifically excluded, unless otherwise stated.
- 3.10 The criteria for sampling of suspected asbestos materials are that for the first homogeneous area all suspect materials will be sampled in accordance with Bulk Sampling Procedures contained within Asbestos: The Survey Guide (HSG 264).

- *a* For sprayed coatings where the material appears to be uniform and consistent, two samples should usually be enough if taken at either end of the sprayed surface. If the installation is particularly large e.g. over 100 m² one sample every 25 30 m² should be sufficient. Care being taken to include all layers of the coating and extra samples taken from all patches repairs or alterations.
- *b* Thermal system insulation. In general, one sample per 3 m run of pipe will usually be sufficient. Particular attention should be paid to pipe-elbows, taps and valves. For long runs of pipe greater than 20m, one sample per 6m will usually be enough.
- c Insulating board. One sample per room or $25m^2$ is usually adequate, provided it is representative of the sheet as a whole.
- *d* Asbestos cement Products. Unless there are obvious differences between sheets, pipe runs etc, one samples should be taken for each roof, or run of guttering or pipework. Particular care should be taken to avoid accidents when sampling roofing materials.
- *e* For asbestos ropes, yarns, cloth, millboard and paper products one sample from each location should be sufficient.
- *f* For textured coatings 2 3 samples should be taken in different areas of the ceiling or coated areas as the material is unlikely to be uniform in content.
- *g* Thermoplastic floor tiles, sealants and mastics. One sample from one tile of each colour used in each room or location where they are laid.
- *h* Bitumen roofing felt, damp proof course, gutter lining and flashings. One small sample per roll or run of material.
- *i* One sample only will be taken from all similar subsequent findings unless:
 - i) results exist for identical building elements.
 - ii) where a building element is suspected to contain an asbestos containing material of known composition and that material is within the building element concerned.
 - iii) in which case NO further samples will be taken of the repeat finding(s).
- *j* Only one sample of each type of debris found in any one functional space will be taken.

- 3.11 Reports compiled as a result of the inspection strategy noted above will detail:
 - *a* Details of the nature, location, extent and condition of the material, along with risk assessments and laboratory test results of samples taken, photographs (where specified) and annotated location diagrams.
 - *b* Details of the sites, buildings and locations, together with annotated floor plans.
 - *c* A risk assessment algorithm to produce an objective Risk Rating that may be used for comparative purposes.
 - *d* Periodic inspection record, providing an up to date risk assessment and historical record of the material, from its discovery to eventual removal.
 - *e* Management plan in accordance with proposed legislation.
- 3.12 Where required by the client, a database for the management of the asbestos information in a site (used to provide a fast, easy to use and comprehensive tool to help property owners and managers record all information generated by survey and used for risk assessment), will contain the following information:
 - *a* Details of the nature, location, extent and condition of the material, along with risk assessments and laboratory test results of samples taken, photographs and location diagrams.
 - *b* Details of the sites, buildings and locations managed, together with diagrams, floor plans and photographs.
 - *c* A risk assessment algorithm to produce an objective Risk Rating that may be used for comparative purposes.
 - *d* Periodic inspection record, providing an up to date risk assessment and historical record of the material, from its discovery to eventual removal.