Cert No. 9460, ISO 9001

TECHNICAL REPORT

Occupational Hygiene

Health & Safety

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PROPERTY: Railway Cart M65451

ADDRESS: East Lancashire Railway, Bury

REPORT TYPE: Asbestos Management Survey – 137852

REPORT DATE: 04/03/2016

WORK CONDUCTED BY: Brian Wilson – Lead Surveyor

Contents

SECTION 1
INTRODUCTION

1.1 Executive Summary

The following Asbestos containing materials (ACM's) were found.

Site Address		Job Number	Date Sampled
M65451 , East Lancs Railway, Bury	Sheet 1 of 1	137852	29/02/2012

Reference Number Sample Number	Location	Material Type Quantity	Asbestos Type	Priority Risk Score	Comments/Recommendations
46454 S004	Ground floor Drivers room R003 Electric Box	Insulation board 0.5 Sq mt approx	Chrysotile	6	Add to asbestos register and Monitor No Action Required
46455 S005	Ground floor Drivers room R003 Electric Box	Cement board 1 Sq mt approx.	Chrysotile	4	Add to asbestos register and Monitor No Action Required
46456 S006	Ground floor Drivers room R004 Electrical switch gear	Cement board Typical	Chrysotile	3	Add to asbestos register and Monitor No Action Required

1.2 Report Format

We were asked by Paul Lambert to carry out a Management (HSG264) Asbestos Survey of Railway Cart M65451, East Lancashire Railway, Bury.

The survey was carried out on 01/03/2016.

All individually referenced samples were analysed by a UKAS Accredited laboratory where they are cross-referenced with survey details and catalogued for storage. Analysis is carried out by qualified analysts in accordance with **ISO17025** [*Asbestos in bulk materials: Sampling and identification by polarised light microscopy (PLM);* (June 1994)]. Product 'make-up' is reported in both asbestos free and asbestos containing products. For asbestos containing products the estimated percentage of asbestos, type (amosite, chrysotile, crocidolite) and binder is reported. The results are reported in the form of certificates of analysis held in **Section 5** of this report. Non-asbestos materials are reported based on visual assessment if analysis results in no asbestos detected (NAD).

Photography has been carried out to assist in the location of sample sites. Only those samples identified, strongly presumed or presumed as containing asbestos are documented photographically in **Section 3** of this report. It should be noted that photographs do not always show sample point. **Section 3** also serves as a recording system for the risk assessment.

1.3 Asbestos Materials in Buildings

1.3.1 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 fibers, 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 fibers.

1.3.2 Thermal insulation to boilers, vessels, pipe-work, 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 100% asbestos. The likelihood of fiber release depends upon its composition, friability and state of repair, but it is particularly susceptible to damage arid disturbance through maintenance work or the action of water leaks.

1.3.3 Asbestos insulating boards usually contain between 15 to 40% Amosite (brown) asbestos, although boards may be found to contain other types of asbestos and in other quantities. Insulating boards were developed in the *1950s* to provide an economical, lightweight, fire resisting insulating material. As insulation board is semi-compressed it is more likely to release fibers as a result of damage or abrasion. Work on asbestos insulation board can give rise to high levels of asbestos fiber.

1.3.4 Asbestos cement products generally contain 10 to 15% of asbestos fiber 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 fibers 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.

1.3.5 Ropes, yams 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 fiber release depends upon the structure of the material; bonded gasket material is unlikely to release asbestos but an unbounded woven material may release fibers when in use especially if damaged or frayed.

1.3.6 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 equipment and for thermal insulation, asbestos paper has been used as fire proofing to wood fiber panels. These materials are not well bonded and will release asbestos fibers if subject to abrasion and wear.

1.3.7 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.

1.3.8 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 01 carefully at the end of their useful life.

1.3.9 Textured coatings and paints may contain small amounts of asbestos i.e. Aertex. Non-wet table materials containing asbestos should not be removed without taking special precautions. Mastics, sealants, putties and adhesives may contain small amounts of asbestos. The only possible risk is from sanding of the hardened material, when appropriate precautions should be taken (full condition removal).

1.4 Legislation & Codes of Practise

All work with asbestos containing materials is controlled under the Control of Asbestos Regulations 2012). The object of these regulations, which are made under the Health and Safety at Work etc. Act 1974, is to minimise worker's exposure to asbestos fibre within the work place.

This is further addressed under the Management of Health & Safety at Work Regulations 1999, which place a duty on employers to assess all significant risks posed as part of their undertaking, including their buildings, and to take suitable steps to reduce these risks. Hence, if asbestos is present in the workplace, it is the responsibility of the employer to ensure, firstly, that he knows where it is, and secondly, that it is maintained in a safe and proper manner so as not to pose a threat to the health of his/her workforce.

Approved Codes of Practices' and a number of guidance notes have been produced by the Health and Safety Executive so that building managers, employers, employees and contractors can achieve compliance with the requirements of the regulations.

The substantial majority of projects which involve work with asbestos spray coating, thermal insulation materials and asbestos insulating boards, require the contractor or persons carrying out the works to be licensed under The Control of Asbestos Regulations 2012, now covered in the Approved Code of Practice and Guidance L143 (Work with materials containing asbestos: Control of Asbestos Regulations 2012).

There is no legal requirement to remove any asbestos material, which continues to perform the function for which it is installed. However, it is recommended that any material in poor condition should be removed or sealed appropriately.

The principal statutory and regulatory requirements are:-

Asbestos Specific Legislation

a) The Control of Asbestos Regulations (2012)

Approved Codes of Practice and Guidance Documents

a) The Control of Asbestos Regulations 2012. Approved Code of Practice 'Work with Containing asbestos' L143.

b) The Management of asbestos in non-domestic premises Approved Code of Practice L127

c) HSG 227 A comprehensive guide to managing asbestos in premises

d) Department of Environment Waste Management Paper No. 18 'Asbestos Waste. Memorandum on arising and disposal, including a Code of Practice'

e) HSG 248 Asbestos: The analysts guide for sampling, analysis and clearance testing Appendix 1 WHO counting method 1997)

f) HSG 247 'The licensed contractors Guide'

g) EH57 'The problems of asbestos removal at high temperatures' (1992)

h) HS (G) 53 'Respiratory protective equipment: a practical guide for users'

I) Monograph - 'Respiratory Protective Equipment: Legislative requirements and lists of HSE Standards and type approved equipment'

J) HSG 189/2 'Working with asbestos cement' (1999)

k) HSG264 Asbestos 'The Survey Guide'

General Statutory Requirements

a) The Health and Safety at Work etc. Act (1974)

b) The Management of Health and Safety at Work (1999)

c) The Hazardous Waste Regulations (England & Wales 2005)

d) The Special Waste Amendment (Scotland) Regulations 2004

e) The Carriage of Dangerous Goods (classification, packaging and labelling) and use of Transportable Pressure Receptacles Regulations (1996)

f) The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (2004)

g) The Personal Protective Equipment at Work Regulations (1992) as amended

h) The Workplace (Health, Safety and Welfare) Regulations (1992)

I) Construction (Design and Management) Regulations (2007)

j) Environmental Protection Act Part 1 (1990), (Duty of Care)

k) Control of Substances Hazardous to Health (COSHH) 2004

1.5 Methods of Bulk Sample Analysis

All samples will be analysed by UKAS Accredited laboratory.

Analysis of the samples will be carried out using methods as described in the Testing Laboratory Document. All techniques used will be in strict accordance with ISO 17025, titled “Asbestos in Bulk Materials”. A polarized light microscope (PLM) will be used for sample identification.

Identification of asbestos fibre will be based on the following analytical procedure:

A preliminary visual examination of the whole of the bulk sample is made to assess the sample type and the required sample treatment (if any). Where possible, a representative sub-sample treatment may be taken at this stage. Sample treatment is undertaken (if required) to release or isolate fibres. A detailed and thorough search under the microscope is made to classify the fibre types present.

Representative fibres are mounted in appropriate RI liquids on microscope slides;

The different fibrous components are identified using PLM.

1.6 Health & Safety Statement

All sampling will be undertaken with care to ensure that possible nuisance and potential risk to health of site visitors are reduced to minimum levels. The surveyor has five years site surveying experience

As required under the Control of Asbestos Regulations 2012, dust release in sampling must be reduced to as low a level as is reasonably practicable, an assessment in respect of likely dust release will dictate the need for precautionary measures. These may include:

- Use of personal protective equipment.
- Isolation of the sampling area.
- Wetting of material to suppress dust release.
- Appropriate cleaning process.

After sampling any broken material with potential to cause, airborne dust will be sealed, and any remaining dust or debris will be removed by wet wiping or by using an approved 'Type H' vacuum cleaner.

Immediately after collection, samples will be double sealed in suitable containers, which will not release dust when subsequently handled.

Any disposable material used in sampling, or dust created while sampling, will be treated as contaminated by asbestos.

Sampling will not impair the structural integrity of the building or plant.

Air monitoring may be appropriate in certain sampling situations for reassurance purposes.

All high-level location sampling that requires the use of an extension ladder will only be undertaken when the ladder base has been securely fixed either by ties or by additional staff.

1.7 Types of Survey Method

Management Survey:

Standard Sampling and Assessment Survey

The survey will be conducted by means of visual inspection and subsequent sampling of suspect bulk materials. Where the surveyor suspects a material to contain asbestos, a sample will be taken for analysis. The samples taken will be chosen as being representative of the material under investigation. Therefore, visually similar areas should be regarded as being of uniform composition.

Samples will be taken using a sharp knife, a cork borer, or hand drill and will be collected in self-seal plastic bags. The sample reference number will be recorded on the sample bag. Where appropriate, a label will be left on the site adjacent to the sample location. This label indicates the sample number for cross-reference with the report.

Photographs will be taken at every sampling location to confirm site details (where possible).

The object of carrying out sampling is to identify the nature and extent of any visible asbestos-bearing material and where necessary air testing may be carried out, to determine airborne repairable fibre levels.

If an area cannot be accessed, then it is presumed to contain asbestos.

Refurbishment and Development:

Full Access Sampling and Identification Survey

This type of survey will be conducted prior to any major refurbishment or Demolition works and will continue from type two. This will require full access to all areas, fixtures and fittings could be damaged and it is best taken out when the premises are unoccupied. Again, the survey will be conducted by means of visual inspection and subsequent sampling of suspect bulk materials. Where the surveyor suspects a material to contain asbestos, a sample will be taken for analysis. The samples taken will be chosen as being representative of the material under investigation. Therefore, visually similar areas should be regarded as being of uniform composition.

Samples will be taken using a sharp knife, a cork borer or hand drill and will be collected in self-seal plastic bags. The sample reference number will be recorded on the sample bag. Where appropriate, a label will be left on the site adjacent to the sample location. This label indicates the sample number for cross-reference with the report.

Photographs will be taken at every sampling location to confirm site details.

The object of carrying out sampling is to identify the nature and extent of any visible asbestos-bearing material and where necessary air testing may be carried out to determine airborne repairable fibre levels.

If an area cannot be accessed, then it is presumed to contain asbestos.

SECTION 2
SURVEY

2.1 Survey Remit

To conduct a standard sampling, identification, and assessment survey of the property in order to ascertain the presence of any unknown ACMs. Sampling of suspected ACMs was to be undertaken simultaneously with the survey. If a material is sampled and found to contain asbestos (or previous available analysis) assumptions may be made as to the asbestos content of similar homogenous materials. The survey was to be as intrusive as possible without causing harm or damage to the decoration and demeanour of the property.

2.2 Survey Objective

- to carry out a survey to ascertain the presence of asbestos based materials
- to provide a basis for an asbestos register/ management system for **Railway Cart M65451, East Lancashire Railway, Bury**
- to highlight areas of concern and specifically those requiring urgent attention
- to include a risk assessment for each individual sample or inspection item
- to remove random sections of existing insulation for examination throughout the survey
- The survey will, as far as practicable, locate and record any presumed or known ACMs in the building - the location, extent, product type, asbestos type, accessibility, condition and surface treatment were recorded at survey and that information is contained in this report.

2.3 Limitations

We have made every effort to locate all known and suspected ACMs, however, we cannot guarantee that all ACMs have been located. The fabric of the building may well conceal the location of some ACMs. Some ACMs may well be discovered during maintenance, refurbishment work or demolition. Asbestos residue to pipework or plant insulated with non-asbestos products remains a possibility.

It should be noted that all fire doors, shutters and electrical switch boxes within the building might contain asbestos materials. Similarly, any old electrical installations or appliances will probably contain asbestos textiles as flash guards and insulation.

2.4 Description of Site

Train

2.5 Background Information

This is a Management Survey (HSG264).

This report will provide the appointed duty holder with the *basis to comply* with all current and impending legislation concerning asbestos containing materials.

A Management (HSG264) Asbestos Survey was carried out under limited occupation conditions

2.6 Access

All areas were accessed.

2.7 Findings – Asbestos

Site Address		Job Number	Date Sampled
M65451 , East Lancs Railway, Bury	Sheet 1 of 1	137852	29/02/2012

Reference Number Sample Number	Location	Material Type Quantity	Asbestos Type	Extent of Damage/ Deterioration	Surface Treatment	Accessibility	Material Risk Score	Priority Risk Score and Action
46454 S004	Ground floor Drivers room R003 Electric Box	Insulation board 0.5 Sq mt approx	Chrysotile	0	1	0	5	6 No Action Required
46455 S005	Ground floor Drivers room R003 Electric Box	Cement board 1 Sq mt approx.	Chrysotile	0	1	0	3	4 No Action Required
46456 S006	Ground floor Drivers room R004 Electrical switch gear	Cement board Typical	Chrysotile	0	0	0	2	3 No Action Required

Material scores above 10 have high potential to release fibres

2.8 Findings - None Asbestos

Ref Num:	46450	**Material Type:**	None	
Sample Num:	Visual	**Quantity**	N/A	
Comments		**Location**	N/A	
No Suspect Material, underneath carriage		**Room Number**	External	
		Floor Level	Ground floor	
Ref Num:	46451	**Material Type:**	Floor covering	
Sample Num:	S001	**Quantity**	20 Sq mt approx.	
Comments		**Location**	Floor	
No Asbestos Detected		**Room Number**	R001	
		Floor Level	Ground floor	
Ref Num:	46452	**Material Type:**	Bitumen	
Sample Num:	S002	**Quantity**	80 Sq mt approx.	
Comments		**Location**	Ceiling & Walls	
No Asbestos Detected - Presume bitumen to coat the whole carriage		**Room Number**	R001	
		Floor Level	Ground floor	
Ref Num:	46453	**Material Type:**	Floor covering	
Sample Num:	S003	**Quantity**	20 Sq mt approx.	
Comments		**Location**	Floor	
No Asbestos Detected		**Room Number**	R002	
		Floor Level	Ground floor	
Ref Num:	46457	**Material Type:**	Boarding	
Sample Num:	S007	**Quantity**	2 Sq mt approx.	
Comments		**Location**	Electrical switch gear	
No Asbestos Detected - Presume all fuse boards to contain asbestos		**Room Number**	R004	
		Floor Level	Ground floor	
Ref Num:	46458	**Material Type:**	Cement board	
Sample Num:	As Sample S005	**Quantity**	Extent Not Known	
Comments		**Location**	Electric Box	
No Asbestos Detected - Lining to cupboard, shelves and behind fuse board		**Room Number**	R004	
		Floor Level	Ground floor	

If in doubt as to the presence of asbestos in materials not covered in this report. Such materials should be treated as asbestos until further investigation is carried out.

2.9 Summary & Recommendations

It is important that ACM's are sealed, labelled and actively managed as a minimum as this is the thrust of the new regulations to be imposed (Control of Asbestos Regulations 2012).

If refurbishment is required, then great care must be taken when 'soft stripping' the area. A risk assessment should be drawn up which provides an adequate procedure of what to do in the event of locating unknown/ suspicious materials.

If any further ACM's are discovered during refurbishment, removal and remedial works should be carried out by a licensed contractor under fully controlled conditions.

If any ACM's are to be left in the building a 'management system' should be developed that allows for the following;

- regular inspection of the materials – pre-planned and documented
- a site contact with responsibility for the system and named in the register
- staff or contractors must be aware of ACM's in their relevant work areas
- what to do in the event of locating damaged (or deteriorating) asbestos products
- a permit to work system

Areas of the building that were not accessed may contain other suspect materials. It is important that any major refurbishment, or any areas outlined for use that were previously unused, should proceed with caution. Hidden materials may still be present and any planning should account for this fact. This survey is intended to form the basis for an asbestos register to be kept updated as various remedial works are carried out. This will ensure the register remains current, relevant and complies with all current relevant legislation concerning asbestos.

For further information or explanation, please contact the surveyor, Neil Hardy, on 07740 448667.

Date **04/03/2016**

…….. ……..

Neil S. Hardy

Principal Surveyor/Reporting Officer

SECTION 3

RISK ASSESSMENT SHEETS & SAMPLE LOCATION PHOTOGRAPHS

3.1 Risk Assessment Format

Each ACM, identified, known (previous analysis) strongly presumed (similar identified ACM) or presumed (knowledge based or default) is recorded on the individual risk assessment sheet. The risk sheet comprises 5 parts;

- **Photograph** secondary identifier to be used in conjunction with the area plan
- **ACM** information on asbestos type, content, quantity and location
- **Material Assessment** the algorithm determines the risk associated with the material i.e. the propensity of airborne fibre release for the specific fibre type
- **Priority Assessment** the priority assessment bar refines the risk data associated with the material. The algorithm takes into account various human factors i.e. is the ACM likely to be damaged or disturbed by human activity and is exposure likely
- **Action** details minimum control measures or actions

3.2 Material Assessment

Presumed or strongly presumed ACMs will be scored as crocidolite unless analysis of similar samples from the same building show a different asbestos type or if there is a reasoned argument that another type of asbestos was almost always used. Non-asbestos materials are not scored.

The algorithm is based on four variables. Values are assigned for each of the four parameters giving a material risk score (MRS). The higher the risk score, the greater the propensity for fibre release. The MRS will be between 2 and 12:

High Risk Materials – MRS >9

A. Medium Risk – MRS 7-9 Inc.
B. Low Risk – MRS 5-6 Inc.
C. Very Low Risk – <4

The following table details the scoring system used for the material assessment:

Sample Variable	Score	Basis of Risk Score
ACM Type or ACM Type Debris	1	**Encapsulated materials:** Asbestos reinforced composites (plastics & resins), bitumen, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, textured coatings
	1	**Asbestos cement products (chrysotile only):** profiled sheets, semi-compressed flat sheet, fully compressed flat sheet, pre-formed moulded and extruded products.
	2	**Asbestos boards, papers and textiles**: insulating board, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper, cardboard and felt, asbestos cement products (crocidolite, amosite containing).
	3	**Insulation & sprayed coating:** pipe and plant lagging, pre-formed pipe and plant lagging, loose fill, acoustic, thermal, fire protection and anti-condensation sprayed coatings.
Damage & Deterioration - Condition	0	**Good:** No visible damage
	1	**Minor damage:** the item is generally in good condition although there may be scratched and impact marked surfaces, broken edges, damage around screws *etc*.
	2	**Medium damage:** significant breakage or the item has sustained damage to several areas revealing loose asbestos fibres.
	3	**High damage:** the item has sustained damage over many areas, visible asbestos debris, and falling debris. Visible asbestos debris, which may be as a result of previous work and unconnected with any current asbestos installation, is assigned 3 risk points.
Surface Treatment	0	**Sealed:** the ACM is well encapsulated by cloth/paint, paint, *etc.*
	1	**Sealed/minor damage:** the item is generally well sealed although some minor damage has caused a break in the seal. Asbestos cement products are assigned a score of 1.
	2	**Poor seal:** the item has sustained damage to the seal or is generally inadequately sealed. No part of the item is sealed or encapsulated; disrepair/other has rendered any seals ineffective.
	3	**No seal:** No part of the item is sealed or encapsulated; disrepair/other has rendered any seals ineffective.
Asbestos Type	1	**Chrysotile only**
	2	**Amphibole asbestos excluding crocidolite**
	3	**Crocidolite, presumed or strongly presumed** (with no evidence to the contrary)

3.3 Priority Assessment

The priority assessment algorithm incorporates the MRS and produces a more refined priority risk score (PRS) which takes into account various human factors such as occupancy, maintenance activity and the likelihood of damage or disturbance i.e. what is the likelihood of human exposure to airborne asbestos fibre. An ACM with a high MRS may, in some circumstances pose less of a risk than an ACM with low MRS

The algorithm is based on five variables. The MRS is carried over and values are assigned for four of the five parameters giving a total risk score. The higher the risk score, the greater the propensity for fibre release. The PRS will be between 2 and 24:

A. material risk score, 2-12

B. **Category A** - high risk of human exposure to airborne asbestos fibre – PRS >17

C. **Category B -** medium risk of human exposure to airborne asbestos fibre – PRS 14-17 Inc.

D. **Category C** - low risk of human exposure to airborne asbestos fibre – PRS 9-13 Inc.

E. **Category D** - very low risk of human exposure to airborne asbestos fibre – PRS <9

The following table details the scoring system used for the priority assessment:

Sample Variable	Score	Basis of Risk Score
Area Activity	0	**Rare ACM disturbance or area activity:** the ACM is located in an area of infrequent use (e.g. sub-floor void, roof space). Access for emergency work only.
	1	**Low ACM disturbance or area activity:** low usage of frequent access e.g. office type activity.
	2	**Medium ACM disturbance or area activity:** medium usage area of frequent access resulting in periodic disturbance e.g. busy offices, thoroughfares, storerooms, industrial or vehicular activity
	3	**High ACM disturbance or area activity:** area usage is extremely likely to cause ACM disturbance.
Accessibility	0	**Inaccessible:** usually inaccessible or unlikely to be disturbed e.g. roofing, pipe lagging in sub-floor void.
	1	**Low accessibility:** the likelihood of accidental disturbance is unlikely due to the ACM location e.g. high level pipework, ceiling tiles ('out of reach' items)
	2	**Medium accessibility:** likelihood of accidental disturbance during normal area activity e.g. wall panels, partitioning *etc.* in office
	3	**High accessibility:** the ACM is disturbed on a regular basis e.g. fire door, panelling to escalator, plant or machinery damage to panelling.
Frequency of Use	0	**Infrequent**
	1	**Monthly**
	2	**Weekly**
	3	**Daily**
Maintenance Activity	0	**Unlikely:** maintenance activity is unlikely to disturb ACM
	1	**Low:** Low disturbance (e.g. changing light bulbs in AIB ceiling) activities, or maintenance <1 per year
	2	**Medium:** medium disturbance (e.g. lifting one or two AIB ceiling tiles), or maintenance >1 per year
	3	**High:** high or regular maintenance activities will result in disturbance, or maintenance >1 per month

3.4 Risk Categories

Each ACM will be awarded a risk category (A, B, C or D) based on the total risk score. This provides a priority rating. For example, a category a rated ACM is a high risk item and should be actioned prior to B, C, or D items. Similarly, an A rated ACM with a 24 PRS should be actioned before an A rated ACM with an 18 PRS.

3.4.1 Category A - PRS >17 – High Risk ACM, Immediate/Urgent Action

Category A invokes immediate action. This could be in the form of sealing or locking the area (followed by further actions) or emergency removal or encapsulation. The category an item is likely to cause, or is presently exposing persons to airborne asbestos fibre in the ACM location area, adjacent or connected areas or other areas within the building. In some cases it may be necessary to carry out air sampling in order to clarify the exposure level. If the area is sealed or locked, or a delay in action occurs, a management plan should be implemented and appropriate signage and warning labels should be posted.

3.4.2 Category B - PRS 14-17 Inc. – Medium Risk ACM, Planned Remedial Action

Category B items are potentially hazardous and generally warrant some form of planned remedial action. This could be in the form of a planned asbestos removal programme (in a specified timescale) after emergency encapsulation, environmental clean, repair or enclosure. A management plan should be implemented and appropriate signage and warning labels should be posted. The condition and risk status of the ACM will need to be monitored on a regular basis.

3.4.3 Category C - PRS 9-13 Inc. – Low Risk ACM, Inspection & Labelling

A Category C item does not pose an imminent risk and the likelihood of fibre release is low under the existing conditions. A management plan should be implemented and warning labels should be posted. The condition and risk status of the ACM will need to be monitored on a regular basis, generally a six monthly inspection cycle.

3.4.4 Category D - PRS <9 – Minor Risk ACM, Inspection & Labelling

Although the risk is minor with little likelihood of fibre release or exposure under the existing conditions, a management plan should be implemented and warning labels should be posted. The condition and risk status of the ACM will need to be monitored on an annual basis.

Job Number	137852
Sample Number	S004
Ref Number	46454
Sheet Number:	Page 1 of 3
Sampled By:	Brian Wilson
Date Sampled:	29/02/2012

ACM		
Asbestos Type Description:	Chrysotile	**Comments**
Analysis Description:	Significant	Chrysotile
Material Type:	Insulation board	
Quantity	0.5 Sq mt approx	
Room Number	R003	
Room Description	Drivers room	
Location	Electric Box	
Floor Level	Ground floor	

MATERIAL ASSESSMENT					
Risk Item	**Product Type**	**Damage/Deterioration:**	**Surface Treatment:**	**Asbestos Type:**	**MRS**
Risk Points	2	0	1	2	**5**
Risk Scale	1,2,3	0,1,2,3	0,1,2,3	1,2,3	1 -12

PRIORITY ASSESSMENT					
Risk Item	**Material Risk Score**	**Area Activity**	**Accessibility**	**Frequency of use**	**Maintenance Activity**
Risk Points	5	0	0	0	1
Risk Scale	-	0,1,2,3	0,1,2,3	0,1,2,3	0,1,2,3
Priority Risk Score =		**6**	**Risk Category =**		**D**

ACTION		
Action Types	No Action Required	**Comments/Recommendations**
Inspection Cycle	3 Monthly	Add to asbestos register and Monitor
Removal Priority	High	
Remedial Action	No Action Required	

Job Number	137852
Sample Number	S005
Ref Number	46455
Sheet Number:	Page 2 of 3
Sampled By:	Brian Wilson
Date Sampled:	29/02/2012

ACM		
Asbestos Type Description:	Chrysotile	**Comments**
Analysis Description:	Significant	Chrysotile - Lining to and behind fuse board
Material Type:	Cement board	
Quantity	1 Sq mt approx.	
Room Number	R003	
Room Description	Drivers room	
Location	Electric Box	
Floor Level	Ground floor	

MATERIAL ASSESSMENT					
Risk Item	**Product Type**	**Damage/Deterioration:**	**Surface Treatment:**	**Asbestos Type:**	**MRS**
Risk Points	1	0	1	1	**3**
Risk Scale	1,2,3	0,1,2,3	0,1,2,3	1,2,3	1 -12

PRIORITY ASSESSMENT					
Risk Item	**Material Risk Score**	**Area Activity**	**Accessibility**	**Frequency of use**	**Maintenance Activity**
Risk Points	3	0	0	0	1
Risk Scale	-	0,1,2,3	0,1,2,3	0,1,2,3	0,1,2,3
Priority Risk Score =		**4**	**Risk Category =**		**D**

ACTION		
Action Types	No Action Required	**Comments/Recommendations**
		Add to asbestos register and Monitor
Inspection Cycle	6 Monthly	
Removal Priority	Medium	
Remedial Action	No Action Required	

Job Number	137852
Sample Number	S006
Ref Number	46456
Sheet Number:	Page 3 of 3
Sampled By:	Brian Wilson
Date Sampled:	29/02/2012

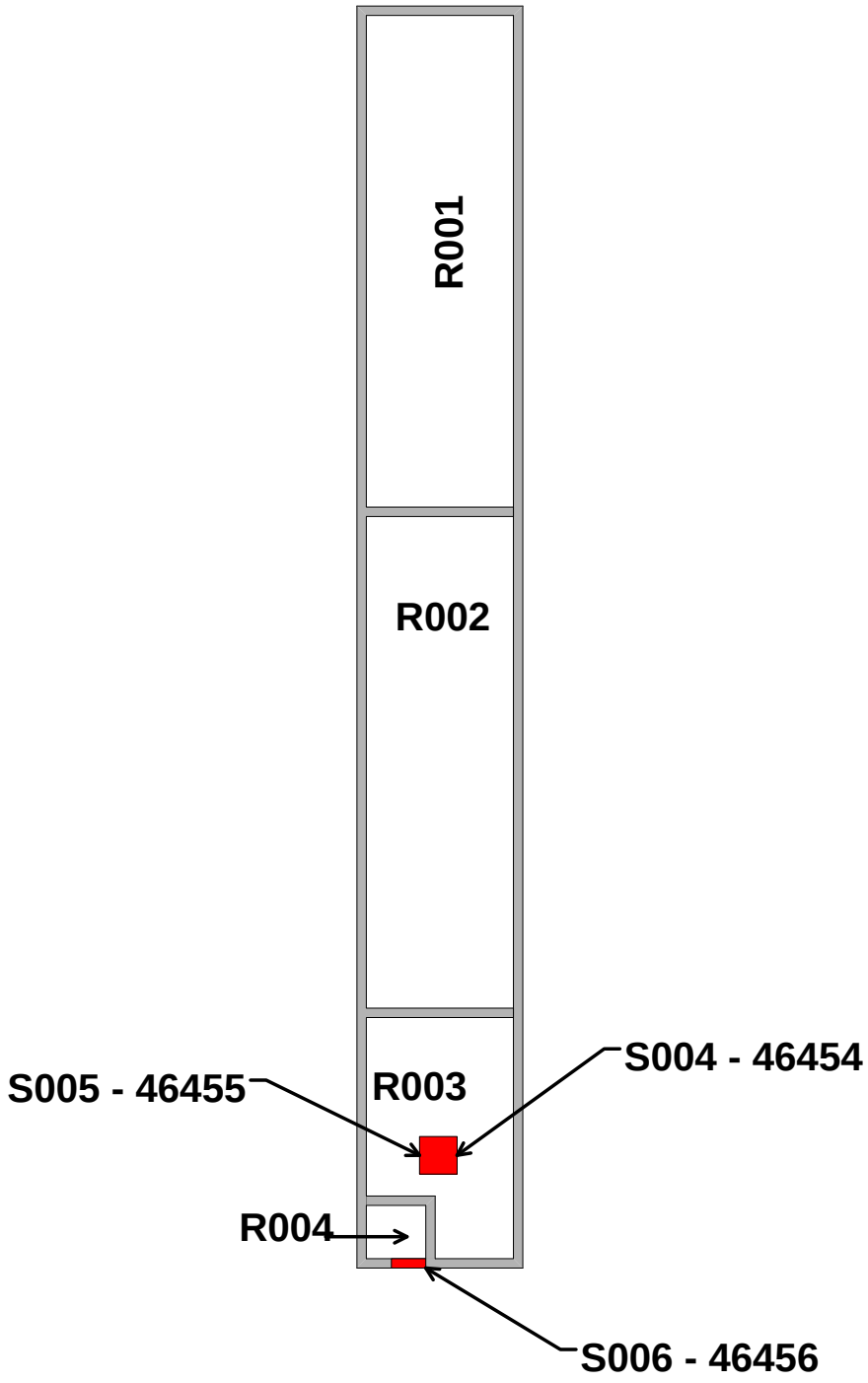
ACM		
Asbestos Type Description:	Chrysotile	**Comments**
Analysis Description:	Significant	Chrysotile
Material Type:	Cement board	
Quantity	Typical	
Room Number	R004	
Room Description	Drivers room	
Location	Electrical switch gear	
Floor Level	Ground floor	

MATERIAL ASSESSMENT					
Risk Item	**Product Type**	**Damage/Deterioration:**	**Surface Treatment:**	**Asbestos Type:**	**MRS**
Risk Points	1	0	0	1	**2**
Risk Scale	1,2,3	0,1,2,3	0,1,2,3	1,2,3	1 -12

PRIORITY ASSESSMENT					
Risk Item	**Material Risk Score**	**Area Activity**	**Accessibility**	**Frequency of use**	**Maintenance Activity**
Risk Points	2	0	0	0	1
Risk Scale	-	0,1,2,3	0,1,2,3	0,1,2,3	0,1,2,3
Priority Risk Score =		**3**	**Risk Category =**		**D**

ACTION		
Action Types	No Action Required	**Comments/Recommendations**
Inspection Cycle	12 Monthly	Add to asbestos register and Monitor
Removal Priority	Low	
Remedial Action	No Action Required	

137852
M65451
East Lancs Railway



SECTION 5

5.1 Certificate of Analysis

UKAS TESTING 2707

SCOPES
Asbestos Analysis Services Ltd.

CERTIFICATE FOR IDENTIFICATION OF ASBESTOS FIBRES

STANDARD ☐
PREMIUM ☐
EMERGENCY ☐

Client:	ARMCO ASBESTOS CONSULTANTS		
Address:	BURY BUSINESS CENTRE KAY STREET BURY BL9 6BU	Analysis Report No.	SCO/16/1913
Attention:	TECHNICAL MANAGER	Report Date.	03/03/16
Site Address:	M65451 EAST LANCASHIRE RAILWAY BURY	Site Ref No.	137852 1725
Date sample taken:	01/03/16	Page No:	1 Of 1
Date sample received:	03/03/16	No. of Samples:	7
Date of Analysis:	03/03/16	Obtained:	DELIVERED

Samples of material, referenced below, have been examined to determine the presence of asbestos fibres, using Scopes Asbestos Analysis "in house" method of transmitted/polarised light microscopy and centre stop dispersion staining, based on HSE's HSG248.
If samples have been DELIVERED the site address and actual sample location is as given by the client at the time of delivery. Scopes Asbestos Analysis Services Limited are not responsible for the accuracy or competence of the sampling by third parties. Under these circumstances Scopes Asbestos Analysis Services Limited cannot be held responsible for the interpretation of the results shown.

SCOPES SAMPLE No.	CLIENT SAMPLE No.	Sample Location	Fibre Type Detected
1	S001	FLOOR COVERING TO FLOOR	NADIS
2	S002	BITUMEN TO CEILING AND WALLS	NADIS
3	S003	FLOOR COVERING TO FLOOR	NADIS
4	S004	INSULATION BOARD TO ELECTRIC BOX	CHRYSOTILE
5	S005	CEMENT BOARD TO ELECTRIC BOX	CHRYSOTILE
6	S006	CEMENT BOARD TO ELECTRICAL SWITCH GEAR	CHRYSOTILE
7	S007	BOARDING TO ELECTRICAL SWITCH GEAR	NADIS

KEY: NADIS - No Asbestos Detected in Sample

Note: All samples will be retained for a minimum of six months.
Note: This Certificate for Identification of Asbestos Fibres shall not be reproduced except in full without the written approval of the Laboratory.

Analysed by:	M ZHOU	Authorised signatory:	
		Print name:	S BOLTON- Q.C.M

BULK 001-VER 5 12-AUGUST-09-QCM

2 Nobel Square, Courtauld Road, Burnt Mills Industrial Estate, Basildon, Essex SS13 1LS
Tel: 01268 724785 Fax: 01268 724796 Mob: 07765 685132 E-Mail: enquiries@scopesaasl.co.uk
Company Reg No: 5191390 Reg Address: As above

Armco Asbestos Consultants accepts no responsibility for samples collected and/or provided by persons other than their own staff.

5.2 Terms and Abbreviations

AF	-	Asbestos Free
AIB	-	Asbestos Insulation Board
ACM	-	Asbestos Containing Material
ACS	-	Asbestos Cement Sheet
CAF	-	Compressed Asbestos Fibre
MMMF	-	Man Made Mineral Fibre
MRS	-	Material Risk Score
NAD	-	No asbestos detected
NFC	-	No Fibrous Content
P	-	Presumed
PRS	-	Priority Risk Score
SP	-	Strongly presumed
Asbestos Textiles	-	Woven or spun chrysotile
Amosite	-	Brown asbestos
Beater Sheet	-	Asbestos paper
Chrysotile	-	White asbestos
Crocidolite	-	Blue asbestos
Forte	-	Wax suppressed chrysotile
Lagging	-	Thermal insulation
Superflux	-	Non-asbestos fire retardant board
Turn all	-	Bonded high density sheet
TBC	-	To be confirmed
ASAP	-	As soon as possible

SECTION 6
QUALITY ASSURANCE & DISCLAIMER

6.1 Quality Assurance Statement

The survey was carried out in accordance with Armco Asbestos Consultants quality and technical procedures, and conformed to the requirements of The Institute of Occupational Hygiene guidance document for asbestos surveys.

The survey was carried out by an experienced survey team, who inspect all accessible parts of the building, and look for any installation, which, potentially, could contain asbestos.

Any suspect materials were sampled and subsequently analysed in accordance with MDHS 77 - 'Asbestos in bulk materials'. This method identifies the asbestos types present and their percentage content.

Samples are taken using low - disturbance techniques, whereby a small amount of material (approx. 1 cm^3) will be taken, after firstly wetting the sample location with a polyvinyl acetate (PVA) solution spray. This minimises the release of asbestos fibres during the process. Air monitoring carried out during sampling work of this type has shown airborne fibre concentrations to stay below the clearance indicator level of 0.010 fibres per millilitre of air.

Sampled materials are immediately placed in sealable, airtight sample bags and appropriately labelled. Sample points will be suitably filled / sealed using PVA spray, 'Polyfilla' or adhesive tape.

The surveyors do not disturb any suspected asbestos installation in any other way than to take a representative sample. This measure shall minimise the risk of asbestos fibre release, but shall prevent access above/behind a suspected asbestos installation. It is possible, therefore, that further asbestos material could be present behind an existing asbestos installation.

All relevant sample point data is recorded and shown in the final report e.g. condition, extent of material, etc.

It should be noted that the findings of the survey are discussed across the report in its entirety. Readers should note the contents in all sections of the report and should not rely purely on the information given in individual sections of the report.

6.2 Disclaimer

Every reasonable effort has been made to ensure that the information contained in this report is as accurate, and as comprehensive as was practicable at the time of preparation. It is not reasonably practicable to categorically state whether an area is free of all asbestos containing materials.

Armco Asbestos Consultants cannot therefore accept liability for loss: injury: damage: or penalty caused by omissions or errors contained in this report. The report does not waive the responsibility of the building owner, contractor etc.; to ascertain for himself as to the composition of materials which may be disturbed or with which he may work.

Certain asbestos products contain asbestos fibres that are so well bound into the matrix of the parent material, that they do not readily generate respirable asbestos fibres under reasonably foreseeable circumstances. Examples of such materials include sealing mastics: rubber gaskets: and damp proof membranes. All such materials have therefore been deliberately excluded from the report.

Certain ‘Aertex’ type coatings and decorative plasters may contain very small quantities of asbestos. In situ, these coatings are often composed of different batches of product or may have been repaired/patched at different times. It is therefore possible that any ‘Aertex’ samples taken may not be representative of the entire coating.

It is possible that unidentified asbestos residues resulting from earlier asbestos removal works may be present in relatively inaccessible locations. These include: behind column claddings, attached to earlier ceiling tile grids or suspension systems or covered with new or continuous panelling or certain areas of pipework covered with non-asbestos insulation products.

Duct covers below carpets or inset within wood block floors etc. we’re not raised, any unreasonable degree of dismantling of the structure of the building, were not investigated.

Access to roof areas was not undertaken (unless outlined). Areas deemed too high to reach from stepladders or otherwise considered unsafe were not inspected.

Access to electrical and process equipment was not possible due to safety and technical considerations. Such items may therefore contain unidentified asbestos materials or components.