

# International Proficiency Module Syllabus

## IP402 - Surveying and Sampling Strategies for Asbestos in Buildings

### Aim

To provide candidates with background and practical knowledge in the surveying of buildings for asbestos and to provide general guidance on management procedures necessary to minimise exposure to any identified asbestos.

### Prior Knowledge

Candidates for this course are expected to be aware of the principles required to survey for asbestos in buildings and have prior experience of carrying out asbestos surveys.

### Content

The syllabus has been structured into five sections.

	<b>Time Allocation</b>
<b>1 Introduction and Good Practice Requirements</b>	<b>5%</b>
<b>2 Asbestos in Buildings</b>	<b>25%</b>
<b>3 Risk Assessments and Management of Asbestos</b>	<b>15%</b>
<b>4 Bulk Sampling and Personal Decontamination</b>	<b>20%</b>
<b>5 Practical Work</b>	<b>35%</b>

### Note

Reference is made in this syllabus to guidance or other documentation. This may not be the most up-to-date relevant publication from their sources and is intended as guidance for candidates only.

#### 1 Introduction and Good Practice Requirements (5%)

**Educational Objectives** Candidates should have a clear understanding of the requirements relating to safe management of asbestos in buildings and be able to communicate appropriately with colleagues and clients.

- 1.0.1 Introduce the good practice requirements for management of asbestos in buildings.
- 1.0.2 Communication and Reporting: explain the requirements to communicate clearly with colleagues and clients and report findings in a formal manner.

#### 2 Asbestos in Buildings (25%)

**Educational Objectives** Candidates should be able to describe the uses of asbestos in buildings and the public health risk these might pose. Candidates must understand the principles of and requirements for asbestos surveys.

##### 2.1 *Types and Uses of Asbestos in Buildings*

- 2.1.1 Use of reference documents (1) (2) (12) (or local equivalents where available) as a primary source of information on products and their locations in buildings.
- 2.1.2 Explain the physical and chemical properties of asbestos which have determined the use to which it has been put by industry.
- 2.1.3 Discuss the three types of asbestos which have found significant commercial use (Amosite, Chrysotile and Crocidolite) in relation to sprayed and thermal insulation, insulating boards, coatings, cement products and other reinforced products (e.g. vinyl tiles, roofing felts) commonly used in building construction.

- 2.1.4 Describe the full range of health effects ranging from the benign (pleural plaques) to the terminal (mesothelioma) in the light of results from epidemiological studies carried out on asbestos workers. Review influential publications. Cover dose-response relationships, the effects of smoking whilst working with asbestos and the risks to health from low-level exposure.
- 2.1.5 Discuss the uses and composition of other asbestos products likely to be used or found inside buildings on plant, machinery or domestic appliances (e.g. textiles, friction materials, seals, gaskets etc).
- 2.1.6 Describe the use and occurrence of the other types of asbestos particularly as possible contaminants in other minerals.

## 2.2 *Surveys of Asbestos-Containing Materials in Buildings*

- 2.2.1 Discuss the types of survey which can be carried out.
- 2.2.2 Discuss how to plan, organise and conduct surveys. The importance of the survey plan, what information should be collected and included within the plan and the requirement to involve the client in this process.
- 2.2.3 Discuss what parameters need to be assessed and recorded during the survey. i.e. location, product type, accessibility, condition, surface treatment, materials which could be confused as containing as asbestos.
- 2.2.4 Discuss typical errors and how to present results and record location of asbestos-containing materials, including the use of caveats and the requirement for these to be site specific and not generic.
- 2.2.5 Discuss the level of access required for each type of survey and the potential for a phased approach for demolition/refurbishment surveys.
- 2.2.6 Discuss the quality control measures which the client will be expected to implement following receipt of survey reports.
- 2.2.7 Discuss the various safety precautions required during survey work including an initial risk assessment and PPE requirements.
- 2.2.8 Discuss the detailed reporting requirements for asbestos surveys.

## 3 Risk Assessments and Management of Asbestos (15%)

**Educational Objectives** Candidates should understand the risk assessment and risk management strategies and their role in reducing health risks.

### 3.1 *Risk Assessment of Asbestos-Containing Materials in Buildings*

- 3.1.1 Examine the purpose and strategies for risk assessment of asbestos-containing materials in buildings and the compilation of asbestos registers. Outline the types and sources of information required and discuss the uses to which this information is put.
- 3.1.2 Describe the different assessments that are required and how these help determine control actions. Outline possible control actions. Describe common errors in the survey and risk assessment process.

### 3.2 *Management of Asbestos-Containing Materials in Buildings*

- 3.2.1 Discuss the steps necessary to manage identified asbestos in buildings i.e. location survey, asbestos register, risk assessment, written plan of control actions.
- 3.2.2 Outline the on-going management actions necessary to minimise exposure to identified asbestos in buildings, i.e. maintain register, monitor condition, label, restrict access, inform, train, define and use safe systems of work, operate a permit to work system.

#### 4 Bulk Sampling and Personal Decontamination (20%)

**Educational Objectives** Candidates should have a detailed knowledge of the approved methods for sampling of bulk asbestos along with the situations where segregation may be required. In addition Candidates must have a good understanding of suitable PPE/RPE to be used and the methods for personal decontamination.

- 4.0.1 Outline the numerous reasons for bulk sampling ranging from the collection of one small sample for identification purposes through to a complete survey of a building in order to compile an asbestos register.
- 4.0.2 Discuss the quality and quantity of information required to enable valid conclusions to be reached and relevant recommendations to be made.
- 4.0.3 Discuss sampling strategies for all types of asbestos-containing materials i.e. spray coatings, pipe insulation, insulating board, ceiling tiles, cement materials.
- 4.0.4 Describe fully the techniques used and precautions required when collecting bulk samples.
- 4.0.5 Discuss face fit testing, the selection and use of PPE and RPE, its place in the control hierarchy and likely protection it affords.
- 4.0.6 Discuss transit and decontamination procedures that may need to be followed and medical records that may need to be kept together with other risk assessments that may be necessary.

#### 5 Practical Work (35%)

Practical work must be carried out to provide candidates with all practical knowledge as outlined below:

- 5.1 *Surveying Knowledge (30%)*
  - 5.1.1 Understand how to carry out surveys to identify the presence of asbestos and its type in different locations.
  - 5.1.2 This should also include an understanding of buildings and their structures.
- 5.2 *Surveying and Sampling Techniques (30%)*
  - 5.2.1 The practical must also consider the level of intrusion required for each type of survey.
  - 5.2.2 Situations where segregation would be necessary plus the appropriate methods to achieve this.
  - 5.2.3 Sampling protocol and strategies.
  - 5.2.4 Procedures for taking samples from a range of products and locations.
- 5.3 *Safety Requirements for Surveying (15%)*
  - 5.3.1 Personal protection and safety including requirements of risk assessments.
  - 5.3.2 The range of appropriate PPE and RPE and techniques for decontamination.
- 5.4 *Post Survey Evaluation (25%)*
  - 5.4.1 Calculation of material assessments.
  - 5.4.2 Calculation of priority assessments.
  - 5.4.3 Advice to building managers and occupiers.
  - 5.4.4 Reporting requirements.

#### 6 Facilities and Equipment

The following facilities and equipment are required as a minimum to deliver this module:

- Suitable PPE and RPE for taking samples of asbestos materials.
- All relevant tools and equipment for sample taking.
- Suitable dummy samples.
- Photographic examples for education purposes.

## 7 Relevant Documentation

- (1) HSE Guidance HSG 264 (2012) Asbestos: The survey guide. *(Available as PDF file)*
- (2) Asbestos and man-made mineral fibres in buildings: Practical Guidance, Thomas Telford DETR (1999).
- (3) HSE Guidance HSG53 (2013) Respiratory protective equipment at work: A practical guide. *(Available as PDF file)*
- (4) HSE Guidance HSG 247 (2006) Asbestos: The licensed contractors' guide. *(Available as PDF file)*
- (5) HSE Guidance HSG 227 (2002) A comprehensive guide to managing asbestos in Premises [pages 48-69]. *(Available as PDF file)*
- (6) HSE Guidance HSG227(2002) A comprehensive guide to managing asbestos in Premises, Appendix 2 paragraph 5-6 and table 2. *(Available as PDF file)*
- (7) HSE Guidance HSG 227 (2002) A comprehensive guide to managing asbestos in Premises, Appendix 3. *(Available as PDF file)*
- (8) HSE Guidance HSG 227(2002) A comprehensive guide to managing asbestos in Premises, Appendix 4. *(Available as PDF file)*
- (9) HSE Guidance INDG 223 rev 5 (2012) Managing Asbestos in Workplace Premises a brief Guide. *( Available as PDF file)*
- (10) HSE Guidance HSG248 (2005) Asbestos: The analyst's guide for sampling, analysis and clearance procedures. *(Available as PDF file)*
- (11) HSE ACOP (L143) (2013) Managing and working with asbestos. Control of Asbestos Regulations 2012. Approved Code of Practice and guidance. *(Available as PDF file)*
- (12) Bill Sanderson (2007) Asbestos for Surveyors 2<sup>nd</sup> edition, EG Books, ISBN 978-0-7282-0512-3.

All the Health and Safety Executive (HSE) publications listed above are available as free downloads from the HSE website: [www.hse.gov.uk/asbestos](http://www.hse.gov.uk/asbestos). Equivalent national or local documentation can be used as an alternative to the above references.

## 8 Course Length

This course will require approximately 16 hours of study time, of which at least 12 hours will be taught (teaching and formative practical assessment) and 4 hours will be independent (in the candidates' own time).

## 9 Examinations and Assessment

Candidates are required to pass all of the following parts (A, B and C below) to be awarded the module.

### A Formative Practical Assessment

The formative practical assessment is carried out by the training provider during the course. It enables candidates to demonstrate:

- knowledge of health and safety issues involved in surveying and bulk sampling of asbestos-containing materials,
- skills in taking samples of different types of asbestos-containing materials commonly used in buildings. (NB: materials that actually contain asbestos are not used in this assessment).

Further information about the formative practical assessment is published in the following document:

- Formative Practical Assessment: Guidance for Tutors and Candidates

## **B Written Theory Examination**

This is a closed-book examination comprising 40 short-answer questions to be answered in two hours. The examination covers sections 1 to 4 of the syllabus in proportion to the time allocation given on the front page this syllabus. The examination is overseen by an invigilator appointed by the training provider.

## **C Written Practical Examination**

This is an open-book practical examination with up to 35 questions, illustrated with photographs, to be answered in two hours. The examination covers section 5 of the syllabus in proportion to the time allocation shown in section 5. Candidates are permitted to access relevant reference material but not electronic databases. Communication between candidates is not permitted. The examination is overseen by an invigilator appointed by the training provider.

## **10 Certification**

Candidates who pass all the parts (A, B and C) within 12 months will be awarded an ***International Proficiency Certificate in Surveying and Sampling Strategies for Asbestos in Buildings***.

## **11 IP402RPT: Report Writing for Asbestos Surveys**

Candidates who hold IP402: Surveying and Sampling Strategies for Asbestos in Buildings may wish to gain formal recognition of their asbestos survey report writing skills by completing IP402RPT: Report Writing for Asbestos Surveys.

Candidates are required to submit two field reports to BOHS for assessment. The reports must demonstrate that candidates have carried out, possibly under supervision, two field surveys for asbestos, which must include sampling, analysis and a material assessment.

Both reports must meet the minimum standard, as set out in the BOHS mark scheme.

Further details about reporting are published in the following documents:

- Submission of Reports – Requirements for Candidates
- Additional Guidance for Asbestos Survey Report Contents

Candidates who submit two satisfactory field reports will be awarded an ***International Proficiency Certificate in Report Writing for Asbestos Surveys***.