British Occupational Hygiene Society

The Chartered Society for Worker Health Protection

P405 Proficiency Qualification:

Management of Asbestos in Buildings

Qualification Specification

www.bohs.org

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Section 1

About BOHS

BOHS - The Chartered Society for Worker Health Protection

BOHS is the Chartered Society for Worker Health Protection. Our vision is to create a healthy working environment for everyone by preventing exposure to hazardous substances in the workplace.

Founded in 1953, we have developed over the last 65 years into a highly respected and influential body on workplace health issues, working closely with organisations in the UK and overseas to promote our vision. We are a registered charity, professional society and a member of the International Occupational Hygiene Association which is recognised as a non-government organisation by the International Labour Organisation (ILO) and the World Health Organization (WHO).

We were awarded a Royal Charter in 2013 in recognition of our pre-eminent role in protecting worker health.

BOHS is a membership organisation, open to anyone who has an interest in workplace health issues, and we have over 1800 members in 57 countries.

BOHS courses and qualifications – the quality choice

We are the leading awarding body in our field. Our UK courses and qualifications are recognised and respected by independent agencies such as the Health and Safety Executive (HSE) and the United Kingdom Accreditation Service (UKAS) and further afield by industry and employers worldwide. Over 50,000 people have taken one of our qualifications through our network of training providers which offer engaging, challenging and practical courses.

Our qualifications are overseen by a team of highly experienced professionals who are dedicated to developing the competence and career opportunities for the many thousands of people who play a key role in protecting worker health, in diverse fields such as asbestos, legionella and control technologies.

Information about all our courses and qualifications is available from our website: www.bohs.org/qualifications-training/bohs-qualifications/

Section 2

P405 at a glance

What is the objective?

To provide candidates with a good understanding of asbestos surveying, removal, assessment and analytical services and provide the necessary background knowledge to procure, monitor and audit the quality of these services. The course will also provide knowledge of the legal requirements of asbestos management in buildings.

Who is it for?

Anyone who:

- Manages asbestos in buildings.
- Procures asbestos-related services.
- Is a duty holder, or provides assistance to duty holders in a supporting role.
- Has a surveying, assessment or analytical background and is looking to progress into asbestos management.
- Manages or oversees asbestos removal on site (e.g. an analyst or building owner).
- Has the day-to-day responsibility to manage the asbestos register, asbestos data information and asbestos management action plan.

What are the entry requirements?

Awareness of the contents of:

- The Control of Asbestos Regulations 2012 (Regulation 4).
- L143 - Managing and working with asbestos ACOP and guidance.
- HSG248 - Asbestos: The analysts' guide for sampling, analysis and clearance procedures.
- HSG264 - The Survey Guide.

What are the main subject areas?

- Legislation and guidance for asbestos practitioners.
- The properties of asbestos and health effects of exposure to asbestos fibres.
- The types of asbestos and its uses in buildings.
- The types of asbestos surveys.
- The asbestos register, risk assessment and management plan.
- Asbestos remediation.
- The role of asbestos analysts and laboratory procedures.

How long does it take?

Normally three days.

What level is it?

Level 4 in the BOHS qualifications framework.

How do candidates pass it?

Candidates must pass two parts within 12 months:

- Written Theory examination.
- Written Practical examination.

Who supports it?

HSE and UKAS.

Section 3

Background to the qualification

BOHS has provided asbestos Proficiency qualifications in the UK for over 15 years, working closely with globally recognised bodies such as the HSE to set educational standards and to spread best practice. In that time, over 45,000 candidates have taken a BOHS asbestos examination.

Asbestos is still a big problem in the UK and is present in most buildings constructed before the year 2000. If asbestos is disturbed by refurbishment, demolition or remediation projects, it breaks down into small fibres, which can be inhaled deep into the lungs and cause life-threatening illnesses such as lung cancer and mesothelioma. According to the HSE, around 5,500 people die from an asbestos-related disease in the UK each year.

People that own or manage non-domestic premises have a legal duty under CAR 2012, Regulation 4 to manage identified asbestos within their premises, and to protect those working within them from exposure to asbestos. The effective management of identified asbestos in buildings is an essential and challenging area of work, often requiring the procurement of services from asbestos surveyors, removal contractors and analysts.

P405 – Management of Asbestos in Buildings is the industry standard qualification for those whose work involves asbestos management, such as duty holders, building managers, responsible persons, and those who look after asbestos management data. It provides the background knowledge required to manage identified asbestos in buildings, and ensures that appropriate management processes are followed and documented properly. It also gives candidates the knowledge to make better procurement decisions, and to monitor the quality of the services provided by other asbestos professionals through understanding the standards and procedures that they should be following.

The P405 qualification conforms with the training requirements outlined in CAR 2012, Regulation 4 and *L143 – Managing and working with asbestos Approved Code of Practice*.

Section 4

Key features of the qualification

Objective

The qualification is designed to improve the knowledge and skills required by asbestos duty holders up to a standard, which is recognised as preventing ill health by minimising the risk of exposure to airborne asbestos fibres.

Target audience

The qualification is suitable for duty holders, or anyone who provides assistance to them in the discharge of their responsibilities. It is also suitable for anyone who:

- Manages asbestos in buildings.
- Procures asbestos-related services.
- Wishes to progress into asbestos management from asbestos surveying or analysis.

Entry requirements

Before taking the qualification, candidates should have an awareness of the contents of The Control of Asbestos Regulations 2012 (in particular Regulation 4) and the supporting L143 Managing and working with asbestos Approved Code of Practice and guidance. They should also be familiar with the contents of HSG248 and HSG264.

Candidates also need good literacy and numeracy skills to complete the examinations.

Age range

There is no age restriction on candidates taking the qualification. However, there are requirements within the *Management of Health at Safety at Work Regulations 1999 (Regulation 19)* which specifies that people less than 18 years old should not be employed in work which exposes them to carcinogens.

Level

The level of a qualification indicates the relative complexity and depth of knowledge and skills required to attain the qualification. This qualification is set at level 4 in the BOHS qualifications framework, equivalent to NVQ Level 4 and HNC.

Fees

The examination fee for each qualification is published on the BOHS website.

Section 5

Delivering the qualification

Teaching and learning time

The P405 course will normally run over three consecutive days and include 18 hours of teaching. The course can be delivered more flexibly, such as on one day per week for three weeks, but should still include 18 hours of teaching.

In addition to the teaching time, candidates will be expected to undertake at least 6 hours' independent study in their own time.

Tutors

The course should be taught by tutors who are experienced and qualified/certified asbestos practitioners or occupational hygienists. As a guide, tutors will typically have:

- At least three years' current experience in managing asbestos in buildings.
- A recognised asbestos qualification or a professional occupational hygiene qualification/certification such as:
  - BOHS Certificate of Competence (Asbestos).
  - BOHS Certificate of Operational Competence.
  - BOHS Diploma of Professional Competence.

This list is not necessarily exhaustive or definitive.

Teaching resources

Training providers must have the following facilities and equipment:

- An asbestos remediation enclosure with a 3-stage airlock and baglock, or a suitable set of photographs to ensure candidates understand all requirements.
- Photographic examples of asbestos utilisation together with examples of safety check lists for the facilities.
- Examples of deficiencies in management plans and plans of work.

Support for teaching and learning

BOHS provides sample examination questions for tutors.

Language

The examinations are provided in English only.

Section 6

Syllabus

The qualification is structured into five sections, each with an indicative time allocation:

Section		Time allocation
1	Legislation	20%
2	Management of asbestos in buildings	30%
3	Asbestos remediation	20%
4	Role of laboratory/analysts	5%
5	Practical work	25%

The reference numbers in brackets below refer to reference documents in Section 7.

1. Legislation (20%)

Educational objectives
Candidates should gain a clear understanding of the legislation relating to asbestos, and the aspects of other health and safety regulations relevant to the management of asbestos in buildings.

1.1 *Health and Safety at Work etc. Act 1974*

1.1.1 Discuss the basic concepts of this enabling legislation with particular reference to employers' responsibilities for asbestos.

1.2 *Health and Safety Regulations*

Review all the relevant current Regulations on asbestos:

1.2.1 Control of Asbestos Regulations 2012, especially the duty to manage asbestos in non-domestic premises.

1.2.2 Management of Health and Safety at Work Regulations 1999.

1.2.3 Hazardous Waste Regulations 2005.

1.2.4 The Construction (Design and Management) Regulations 2015.

1.3 *Approved Codes of Practice*

1.3.1 Discuss the provisions of the Approved Codes of Practice for the CAR 2012 regulations and the status of the ACOP (11).

1.3.2 Consider the management of asbestos removal projects, with particular attention being paid to legal duties imposed by the Health and Safety at Work Act, the Control of Asbestos Regulations and the various Codes of Practice which apply (5) (11).

1.4 *Health effects of asbestos*

1.4.1 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.

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2. Management of asbestos in buildings (30%)

Educational objectives
Candidates should be able to identify the main types of asbestos materials in buildings, the appropriate means of recording their locations, and be fully aware of the procedures and methods for the prevention of future damage to asbestos-containing materials. Candidates should also be able to develop an action plan based on survey data, and properly manage the asbestos that is remaining in the premises via suitable schemes.

2.1 *Types and uses of asbestos in buildings*

2.1.1 Use the HSE (7) and/or the DETR (13) 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 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.).

2.1.5 Describe the use and occurrence of the other types of asbestos particularly as possible contaminants in other minerals.

2.2 *Recording and labelling*

2.2.1 Outline the need for systems of recording and labelling asbestos identified as being present in buildings and the procedures for preventing damage to asbestos- containing materials.

2.3 *Reporting and management plan*

2.3.1 Conversion of asbestos survey report data into a proper working asbestos register with action plan and programmed reviewing. Full understanding of the principles and practice of material and priority assessments.

2.4 *Asbestos register*

2.4.1 Emphasise the need for the maintenance of asbestos registers and the use of all management actions to minimise exposure to asbestos in buildings, including permits to work to control the work of sub-contractors/maintenance operatives.

3. Asbestos remediation (20%)

Educational objectives
Candidates should be thoroughly familiar with current best working practice for asbestos remediation work (including encapsulation, sealing and removal operations), and should be able to identify examples of poor working procedures in practical situations.

3.1 *Preparation*

3.1.1 Discuss the steps required in a job specification, preparation of a plan of work by the contractor, tender evaluation and the various roles required under the CDM Regulations for management of the site.

3.1.2 Include health and safety aspects including emergency procedures (11) (12).

3.2 *Enclosures*

With reference to HSE Guidance Notes (5) and Approved Codes of Practice (11), describe with practical examples the following:

3.2.1 Correct principles of design, erection, and operation of an enclosure for asbestos removal.

3.2.2 Methods of enclosure examination and the documentation associated with the enclosure.

3.2.3 Correct facilities and procedures for entry, exit and decontamination.

3.2.4 The use of negative pressure monitors.

3.2.5 Use of secondary enclosures.

3.3 *Remediation measures*

With reference to HSE Guidance Notes (5) and Approved Codes of Practice (11), describe with practical examples the following:

3.3.1 Techniques for encapsulation of asbestos-containing materials.

3.3.2 Techniques for sealing asbestos-containing materials.

3.4 *Removal procedures*

3.4.1 Describe the various control measures available to a remediation company to ensure that asbestos waste is fully contained, and dust levels are kept as low as is reasonably practicable inside the enclosure. (5)

3.5 *Waste removal*

3.5.1 Describe the requirements for removal, storage and disposal of waste from an enclosure (5) (11).

4. Role of the laboratory/analyst (5%)

Educational objectives
Candidates should understand the role of the analyst, air monitoring techniques and the four-stage clearance procedure.

4.1 *Role of analyst*

4.1.1 Describe the role of the analyst as a competent person/consultant (6).

4.1.2 Understand the requirements for quality management systems in accordance with ISO17025 (10) and accreditation by UKAS.

4.2 *Air monitoring and other techniques*

4.2.1 Identify the various stages where air monitoring must be employed and discuss other inspection techniques such as the dust lamp, smoke tubes, negative pressure monitors which are also useful for checking of the effectiveness of the work and the control measures (5) (11).

4.2.2 Discuss the qualitative and quantitative limitations of microscopy methods for counting asbestos fibres (6).

4.3 *Four-stage clearance procedure and testing of enclosures*

4.3.1 Discuss all of the essential requirements of four-stage clearance procedure, clearance testing and reoccupation certification for an asbestos enclosure and the decontamination unit (6) (11).

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5. Practical work (25%)

Educational objectives
Candidates should be able to convert survey data into a building management action plan; carry out a thorough appraisal of contractor documentation and methods; and appreciate the pressures and demands on various parties during an asbestos removal project.

5.1 *Pre-start and post-remediation inspections (20%)*

5.1.1 Understand how to carry out inspections of an enclosure and hygiene unit both prior to works and post-remediation.

5.1.2 This should include smoke testing, checks on paperwork and method statements.

5.2 *Role playing (10%)*

5.2.1 Understand the roles played by the various parties including the client, contractor's contract manager and supervisor, HSE Inspector/EHO, analyst and TU representative, etc.

5.3 *Method statement (40%)*

5.3.1 Be able to assess the components of method statements that have been submitted

by a contractor for a project.

5.3.2 Be able to offer appropriate advice.

5.4 *Survey and action plan (30%)*

5.4.1 Be able to convert survey data into an action plan.

5.4.2 This must include detailed understanding of the principles and application of material and priority assessments.

Section 7

References and further reading

1.	HSG227 (2002), *A comprehensive guide to managing asbestos in premises* (pages 48-69), HSE
2.	HSG227 (2002), *A comprehensive guide to managing asbestos in premises* (Appendix 2 paragraphs 5-6 plus table 2), HSE
3.	HSG227 (2002), *A comprehensive guide to managing asbestos in premises* (Appendix 3), HSE
4.	HSG227 (2002), *A comprehensive guide to managing asbestos in premises* (Appendix 4), HSE
5.	HSG247 (2006), *Asbestos: The licensed contractors' guide*, HSE
6.	HSG248 (2005), *Asbestos: The analyst's guide for sampling, analysis and clearance procedures*, HSE
7.	HSG264 (2012), *Asbestos: The survey guide,* HSE
8.	INDG223(rev5) (2012), *Managing asbestos in buildings: A brief guide,* HSE
9.	INDG411 (2015) A short guide for clients on the Construction (Design and Management) Regulations, HSE
10.	ISO 17025 (2005), General requirements for the competence of testing and calibration laboratories, ISO
11.	L143 (2013), *Managing and working with asbestos. Control of Asbestos Regulations 2012. Approved Code of Practice and guidance,* HSE
12.	L153 (2015), *Managing health and safety in construction, Construction (Design and Management) Regulations (2015), Approved Code of Practice,* HSE
13.	Telford, Thomas DETR (1999), *Asbestos and man-made mineral fibres in buildings: Practical Guidance*

HSE guidance is reviewed and revised periodically. Training providers should check that the publications listed above are the current versions.

Useful websites

All the Health and Safety Executive (HSE) publications listed above are available as free downloads from the HSE website: www.hse.gov.uk/asbestos.

Section 8

Achieving the qualification

Candidates are required to pass two written examinations to be awarded the qualification:

- Written theory examination (WT).
- Written practical examination (WP).

The written examinations usually take place immediately after the course.

Written Theory examination

The written theory examination enables candidates to demonstrate that they have attained the breadth and depth of knowledge which necessarily underpins good management practice of asbestos in buildings.

The examination comprises 40 short-answer questions to be answered in 1 Hour 40 Minutes. Short-answer questions require candidates to give brief answers, sometimes as bullet points or calculations. All questions are worth a maximum of 4 marks. Candidates should attempt all questions as no marks are deducted for incorrect answers.

The pass mark is 50%.

The examination covers sections 1 to 4 of the syllabus in proportion to the time allocation given for each section. This gives a question allocation as follows:

Section		Number of Questions
1	Legislation	11
2	Management of asbestos in buildings	16
3	Asbestos remediation	11
4	Role of laboratory/analysts	2

The sections are clearly marked in the examination paper.

The written theory examination is a closed-book examination, which means that candidates are not permitted to have access to any material.

Written Practical examination

The written practical examination enables candidates to show that they understand how to apply their knowledge to real-life situations.

The examination comprises up to 35 questions, to be answered in 2 Hours 20 Minutes. Many of the questions are based on photographs, diagrams or extracts from documents and can be answered as bullet points or by writing numbers into pre-printed tables. The questions do not require candidates to write large quantities of text. Candidates should attempt all questions as no marks are deducted for incorrect answers.

The questions are worth different numbers of marks, up to a maximum of 10 marks. The number of marks is clearly shown after each question to help candidates understand the expected length of a full answer to the question.

The pass mark is 60%.

The examination covers section 5 of the syllabus in proportion to the percentages shown in the sub-sections. This gives a mark allocation as follows:

Section 5		% of Marks
5.1	Pre-start and post-remediation inspections	20%
5.2	Role playing	10%
5.3	Method statement	40%
5.4	Survey and action plan	30%

The sub-sections (5.1, 5.2, 5.3, 5.4) are clearly marked in the examination paper.

The written practical examination is an open-book examination, which means that candidates are permitted to have access to relevant reference material but not electronic devices.

General examination information

Invigilation

The written examinations are carried out in controlled conditions, to help ensure that all candidates demonstrate their true level of attainment. BOHS appoints an invigilator to ensure that the examination is conducted properly and fairly.

Marking and results
All examination papers are marked by BOHS.

Borderline fail results are automatically re-marked by a second marker. Candidates receive their results in writing from BOHS. The results are reported as pass or fail plus a percentage. Training providers are sent a list of results for all candidates on a course.

Feedback
Candidates receive feedback on their examination performance for both examinations. For example, the feedback for a written theory examination in which a candidate scored 68% would be shown as follows:

Syllabus Area		Result	
1	Legislation	30/44	(68%)
2	Management of asbestos in buildings	46/64	(72%)
3	Asbestos remediation	28/44	(64%)
4	Role of laboratory/analysts	4/8	(50%)
Total		108/160	(68%)

Training providers receive feedback on the performance of all candidates. For example, the feedback for a course with six candidates would be as follows:

Written exam performance against syllabus		Number of candidates in each scoring band		
		0-49%	50-75%	76-100%
Written Theory	1. Legislation	1	4	1
Written Theory	2. Management of asbestos in buildings	0	3	3
Written Theory	3. Asbestos remediation	2	4	0
Written Theory	4. Role of laboratory/analysts	4	2	0
		0-59%	60-75%	76-100%
Written Practical	5.1: Pre-start and post-remediation inspections	1	4	1
Written Practical	5.2: Role playing	1	4	1
Written Practical	5.3: Method statement	0	6	0
Written Practical	5.4: Survey and action plan	2	3	1

Resits
Candidates may re-sit one or both of the examinations, but both examinations must be passed within 12 months of the original sitting.

Certification
Candidates who pass both examinations will be awarded the Proficiency Certificate *in P405 - Management of Asbestos in Buildings*.

Section 9

Quality assurance

Internal quality assurance

Training providers must operate an internal quality assurance system which evaluates and improves the delivery of the qualification.

External quality assurance

BOHS undertakes desk-based reviews of documents, including teaching materials and formative practical assessment records, and conducts surveys of candidates. We also may inspect training providers.

This qualification is included in the mandatory asbestos training provider inspection scheme.

Section 10

Offering the qualification

Approved Training Providers

Please complete and return the 'Application Form for Additional Qualifications' to qualifications@bohs.org. The form is available on the BOHS website.

New Training Providers

Please send an email to qualifications@bohs.org expressing your interest in offering the qualification and we will advise you about the approvals process.

Section 11

Other qualifications for asbestos practitioners

Candidates who achieve this qualification may wish to take one of the following qualifications:

D407 - Managing Asbestos in Premises, the Duty Holder Requirements

Objective

To develop an in-depth understanding about how asbestos in domestic and non-domestic premises should be managed, to comply with the requirements of the governing legal framework and specific legal responsibilities.

Target audience

This qualification is suitable for:

- Duty holders.
- People providing duty holder services.
- People who are responsible for:
    - Managing asbestos in buildings.