

BOHS

British Occupational
Hygiene Society

The Chartered
Society for Worker
Health Protection

IP405 International Proficiency
Qualification:

Management of Asbestos in Buildings

Qualification Specification

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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 60 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 Qualifications – The Quality Choice

We are the leading awarding body in our field. Our UK 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 qualifications is available from our website:

www.bohs.org/qualifications-training/bohs-qualifications/

Section 2

IP405 at a Glance

What is the objective?

To provide candidates with the background knowledge required to procure asbestos surveying, removal, assessment and analytical services and to monitor the quality of the services by understanding the work procedures.

Who is it for?

Anyone residing in a country that does not have a recognised asbestos management qualification who:

- manages asbestos in buildings;
- procures asbestos-related services;
- is a dutyholder/PCBU or provides assistance to them in the discharge of their responsibilities;
- has a surveying, assessment or analytical background and is looking to progress into asbestos management.

What are the entry requirements?

An awareness of the health risks associated with asbestos in buildings and the general methods for exposure control.

What are the main subject areas?

- the properties of asbestos and health effects of exposure to asbestos fibres;
- an introduction to regulatory requirements;
- types of asbestos and its uses in buildings;
- 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 5 days as a set course.

What level is it?

Level 4 in the BOHS qualifications framework.

How do candidates pass it?

Candidates must pass two examinations within 12 months:

- written theory examination;
- written practical examination.

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 Health and Safety Executive (HSE) to set educational standards and to spread best practice. In that time, over 40,000 candidates have taken a BOHS asbestos examination.

The risk to health from asbestos in buildings is a worldwide problem and, in response to increasing demand from outside the UK, BOHS is drawing on its expertise to develop a comprehensive suite of international asbestos qualifications for asbestos practitioners. The qualifications focus on all aspects of asbestos management and provide a taste of the different approaches used around the world.

IP405 Management of Asbestos in Buildings is the second in the suite of international asbestos qualifications following on from and complementing IP402 Surveying and Sampling Strategies for Asbestos in Buildings. The effective management of asbestos is an essential and challenging area of work, often requiring the procurement of services from asbestos surveyors, removal contractors, assessors and analysts. This qualification provides the background knowledge required to make better procurement decisions and to monitor the quality of the services by understanding the work procedures and acceptable standards of performance.

Section 4

Key Features of the Qualification

Objective

The qualification is designed to provide the background knowledge required to procure good quality asbestos surveying, removal, assessment and analytical services and to monitor the standard of the services by understanding the work procedures.

Target Audience

The qualification is suitable for dutyholders and persons conducting a business or undertaking (PCBU), 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, assessment or analysis.

Entry Requirements

Before taking the qualification, candidates should have an awareness of the health risks associated with asbestos in buildings and the general methods for exposure control.

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

Age Range

There is no age restriction on candidates taking the qualification but different countries may impose minimum age requirements for working with asbestos.

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.

Different countries use different levels but this qualification is comparable to level 4 in the Regulated Qualifications Framework in England and level 5 in the European Qualifications Framework.

Fees

The examination fee for each candidate is published on the BOHS website:

www.bohs.org/qualifications-training/examination-fees/

Section 5

Delivering the Qualification

Teaching and Learning Time

The IP405 course will normally run over five consecutive days and include 24 hours of teaching.

The course can be delivered more flexibly, such as on one day per week for five weeks, but should still include 24 hours of teaching.

The teaching hours may be reduced by approximately 6 hours for more experienced candidates.

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' 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;
 - ABIH Certified Industrial Hygienist;
 - AIOH Certified Occupational Hygienist.

This list is not necessarily exhaustive or definitive.

Teaching Resources

Training providers must have the following facilities and equipment:

- an asbestos remediation enclosure with at least one 3-stage airlock, 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:

- a comprehensive Student Manual which covers the full range of subject areas included in the qualification;
- a support pack for tutors which includes sample examination questions.

Language

The course may be delivered in any language but the Student Manual and the examinations are provided in English only.

Candidates will need the necessary English language skills to benefit from taking the qualification. Further information about English language proficiency is available on the IELTS website: <http://www.ielts.org/default.aspx>

Section 6

Syllabus

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

Section		Time Allocation
1	Asbestos Properties and Regulatory Requirements	20%
2	Management of Asbestos in Buildings	30%
3	Asbestos Remediation	20%
4	Role of Laboratory/Analyst	5%
5	Practical Work	25%

1 Asbestos Properties and Regulatory Requirements (20%)

Educational Objectives

Candidates should gain an overview of legislation and regulations relevant to the management of asbestos in buildings in different countries.

1.1 General Health and Safety Practice

- 1.1.1 Discuss the basic concepts of national legislation with particular reference to the responsibilities of employers and building occupiers for asbestos.

1.2 Asbestos Regulations and their Application

- 1.2.1 Control of asbestos risks in the workplace and the duty to manage asbestos in non-domestic and domestic premises.
- 1.2.2 Workplace health and safety general requirements.
- 1.2.3 Requirements for the safe disposal of hazardous waste containing asbestos.
- 1.2.4 Requirements specific to the construction industry.

1.3 Management of Projects with Asbestos

- 1.3.1 Discuss good practice guidance for the control of projects, with particular reference to surveyors, assessors, contractors and analysts.
- 1.3.2 Consider the management of asbestos removal projects with reference to national legal duties or international best practice guidelines.

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.

2 Management of Asbestos in Buildings (30%)

Educational Objectives

Candidates should be able to identify the main types of asbestos-containing 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. Candidates should be able to develop an action plan on the basis of survey information and properly manage the asbestos that is remaining in the premises by suitable schemes.

2.1 *Types and Uses of Asbestos in Buildings*

- 2.1.1 Use reputable reference documents 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 good practice for asbestos remediation, 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 for management of the site.
- 3.1.2 Include health and safety aspects including emergency procedures.

3.2 Enclosures

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

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.

3.5 Waste Removal

- 3.5.1 Describe the requirements for removal, storage and disposal of waste from an enclosure.

4 Role of the Laboratory/Analyst (5%)

Educational Objectives

Candidates should be able to understand the roles of the assessor and analyst, air monitoring techniques and clearance procedures.

4.1 Roles of the Assessor and Analyst

- 4.1.1 Describe the roles of the assessor and analyst as competent

people/consultants.

- 4.1.2 Understand the requirements for quality management systems in accordance with ISO 17025 and accreditation by national bodies.

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.
- 4.2.2 Discuss the qualitative and quantitative limitations of microscopy methods for counting asbestos fibres.

4.3 *Clearance Procedure and Testing of Enclosures*

- 4.3.1 Discuss all of the essential requirements of clearance procedures, clearance testing and reoccupation certification for an asbestos enclosure and the decontamination unit.

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 plans of work/method statements.

5.2 *Role Playing (10%)*

- 5.2.1 Understand the roles played by the various parties such as the client, contractor's contract manager and supervisor, national Inspector, assessor, analyst and trade union representative.

5.3 *Method Statement (40%)*

- 5.3.1 Be able to assess the components of plans of work/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

A comprehensive Student Manual is available as part of the IP405 course.

Useful Websites

The following websites include useful information about the management of asbestos in buildings in different countries:

Australia

www.safeworkaustralia.gov.au/sites/SWA

New Zealand

www.business.govt.nz/worksafe/

Great Britain

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 of asbestos in buildings.

The examination comprises 40 short-answer questions to be answered in two hours. Short-answer questions require candidates to give brief answers, sometimes as bullet points or calculations. All questions are worth 4 marks and candidates may be awarded between 0 and 4 marks per question. 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	Asbestos Properties and Regulatory Requirements	11
2	Management of Asbestos in Buildings	16
3	Asbestos Remediation	11
4	Role of Laboratory/Analyst	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 two hours. 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. Candidates may be awarded between 0 marks up to the maximum number of marks per 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.

The training provider must appoint a competent invigilator to ensure that the examinations are conducted properly and fairly. Full details about the examination procedure are provided in the BOHS 'Handbook for Invigilators for International Qualifications'.

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	Asbestos Properties and Regulatory Requirements	30/44	(68%)
2	Management of Asbestos in Buildings	46/64	(72%)
3	Asbestos Remediation	28/44	(64%)
4	Role of Laboratory/Analyst	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 6 candidates would be as follows:

Written Exam Performance against syllabus		Number of candidates in each scoring band		
		0-49%	50-75%	76-100%
112: Written Theory	1: Asbestos Properties and Regulatory Requirements	1	4	1
112: Written Theory	2: Management of Asbestos in Buildings	0	3	3
112: Written Theory	3: Asbestos Remediation	2	4	0
112: Written Theory	4: Role of Laboratory/Analyst	4	2	0
		0-59%	60-75%	76-100%
113: Written Practical	5.1: Pre-Start and post-Remediation Inspections	1	4	1
113: Written Practical	5.2: Role Playing	1	4	1
113: Written Practical	5.3: Method Statement	0	6	0
113: 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 the qualification receive a certificate which shows they have been awarded the '*International Proficiency Certificate in 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 conducts surveys of candidates. We also may inspect training providers.

This qualification is not 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

IP402 Surveying and Sampling Strategies for Asbestos in Buildings

Objective

The objective of IP402 is to improve the knowledge and skills required by asbestos surveyors up to a standard which is recognised as reducing ill health by minimising the risk of exposure to airborne asbestos fibres.

Target Audience

The qualification is suitable for anyone who is:

- required to survey buildings for asbestos as part of their work;
- considering a career in asbestos surveying;
- responsible for managing surveyors and surveying teams.

IP402RPT Report Writing for Asbestos Surveys

Objective

The completion of clear and comprehensive asbestos survey reports for clients is an important part of an asbestos surveyor's work. This qualification recognises that asbestos surveyors have the necessary knowledge and skills to write reports.

Target Audience

The qualification is for asbestos surveyors who have completed IP402.

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Information in this Qualification Specification is correct at the time of issue but may be subject to change.

BOHS
5/6 Melbourne Business Court
Millennium Way
Pride Park
Derby
DE24 8LZ

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No. 1150455