

Unit One: Asbestos in Buildings

Summary of Outcomes:

To achieve this unit a candidate must:

1. **Outline the properties, uses and risks to health of asbestos, by being able to:**
 - State the properties and characteristics of different types of asbestos.
 - Review the types and uses of asbestos containing products.
 - Explain the risks to health of asbestos.

2. **Assess factors affecting the presence and location of asbestos in a building, by being able to:**
 - Determine the age of a building from its method of construction.
 - Describe how construction techniques affect asbestos usage.
 - Discuss fire protection within a building.
 - Outline the effect of building services on the distribution and spread of asbestos.

3. **Discuss procedures for the management of risk from asbestos in buildings, by being able to:**
 - State the requirement of duty holders to manage and reduce the risks from asbestos.
 - Describe methods for preventing or reducing exposure to asbestos.
 - Explain requirements for the removal and disposal of asbestos waste.

4. **Review legislation relating to asbestos, by being able to:**
 - Summarise appropriate legislation relating to the control and use of asbestos.

Content:

1. Properties, Uses and Risk to Health

Asbestos types: crocidolite (blue asbestos), chrysotile (white asbestos) amosite (brown asbestos), actinolite, anthophyllite and tremolite; properties and characteristics to include fibre size and shape, biopersistence, friability and solubility

Use: asbestos content, extent of use and friability of: sprayed coatings; lagging; insulating boards; ropes and yarns; cloth; millboard, paper and paper products;

asbestos bitumen products; asbestos cement products; flooring; textured coatings and paints; mastics, sealants, putties and adhesives; reinforced plastics; plugging compounds; domestic appliances.

Risk to health: asbestos related diseases: mesothelioma; asbestosis; lung cancer; risk of developing disease; incubation periods; levels of exposure to asbestos fibres including control limits.

2. **Factors affecting the presence and likelihood of spread of asbestos in a building**

Age of a building: estimation of a building's age from its construction; likelihood of asbestos being present and amount of asbestos present due to age of material likely to contain asbestos, estimates of total amounts of crocidolite, chrysotile and amosite used in the U.K for building during different periods, and estimates of amount of asbestos remaining in buildings.

Construction techniques: Review construction techniques in common use at the time of the original construction; take into account the possibility of later maintenance, refurbishment and any extension works.

Fire protection: types of fire protection used within buildings according to age of building; compartmentalisation of buildings and other methods to prevent spread of fire; materials used in fire protection and reasons for its use; location and amount of asbestos used in fire protection.

Building services: key services used in buildings; operation of these services; use of asbestos in building services; potential of services to spread asbestos fibres.

3. **Management of risk**

Requirements of employers: duties of employers to assess and manage the risks from asbestos on premises; requirements of a management plan; purpose of an asbestos inspection with regard to the management plan process.

Preventing or reducing exposure: maintenance of asbestos containing material in good condition; action to prevent disturbance of asbestos containing material; remedial action required for damaged asbestos-containing material; typical asbestos exposure levels produced by remedial action; requirements to notify HSE; main points of and compliance with HSE guidance notes; use of specialist contractors or trained staff.

Removal and disposal of asbestos-containing waste: definition of asbestos waste; main requirements of the Hazardous Waste (England & Wales) Regulations 2005; suitability of waste containers; labelling of waste.

4. **Legislation**

Legislation: main points of the following Acts and Regulations that are relevant to asbestos **or any superseding legislation**; Health and Safety at Work etc. Act

1974, Control of Pollution Act 1974, Water Act 1989, Consumer Safety Act 1978, Management of Health and Safety at Work Regulations 1999, Control of Substances Hazardous to Health Regulations and amendments, Control of Asbestos Regulations 2006, Construction (Design and Management) Regulations, Waste Management Licensing Regulations 1994, Hazardous Waste (England & Wales) Regulations 2005, The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004; duties of employers in control of workplaces; legal status of Approved Codes of Practise, HSE regulations and guidance notes.

Unit Two: Inspection Procedures for Asbestos

Summary of Outcomes

To achieve this unit a candidate must:

1. **Review the processes and procedures to be used prior to performing any level of inspection, by being able to:**
 - Outline the different levels of inspection relating to asbestos.
 - Prepare and review plans for inspecting buildings for asbestos.

2. **Outline procedures for carrying out asbestos inspections, by being able to:**
 - Inspect buildings for the presence of asbestos.
 - Explain the requirements relating to the collection of samples for analysis.
 - Perform material assessment.

3. **Report on the inspection findings, by being able to:**
 - Outline the requirements of a report.
 - Interpret analytical results and material assessment.
 - Prioritise material for remedial action.
 - Suggest possible course(s) of action.

Content:

1. **Processes and procedures**

Inspections relating to asbestos: presumptive, sampling, pre-demolition/major refurbishment inspections; benefits and limitations of each inspection type; appropriateness of each inspection type for different scenarios.

Prepare and review plans: risk assessments prior to inspection and sampling to include working at heights, working in confined spaces, working on operable machinery or plant, hazards (electrical, chemical, biological, fire and noise), lone working; reducing risk and safe systems of work; the use of personal protective equipment; type of inspection to be used; inspection plans and sampling strategies; decontamination requirements; methods for reporting and presenting data.

2. **Exposure to asbestos**

Inspect buildings for the presence of asbestos: use of building plans; consideration of the age of the building and refurbishments; likely location of asbestos-containing materials; identification of building structures and components which may contain asbestos such as barge boards, chimney cowls, ducts, eaves, fascias, fire dampers, flue terminals and risers, gables, plenums,

soffits and stud partitions; identification of asbestos-containing material; potential for fibre release due to type of material and its properties, type of asbestos, condition and location of material.

Explain the requirements for the collection of samples for analysis: precautions to take during sampling; methods for collection of samples from different asbestos-containing materials; recording and labelling of samples; air-monitoring, its benefits and limitations; main points of and compliance with HSE guidance; use of trained staff or contractors.

Conduct a material assessment: Use of algorithms, decision trees and flow diagrams; advantages and disadvantages of assessment processes.

3. **Inspection report**

Requirements of a report: report format to include descriptions of the areas included in the inspection, description of any areas not included in the inspection, the identification of the asbestos location, extent of asbestos (such as area, length, thickness, volume), type of asbestos product, type of asbestos, accessibility (if appropriate), damage or deterioration (if appropriate), surface treatment of asbestos containing material (if appropriate), assessment of potential for asbestos fibre release.

Interpret analytical results: limitations of different analytical techniques (polarised-light microscopy, scanning electron microscopy and transmission electron microscopy); importance of ISO17025 accreditation; units of measurement; control limits; assessment of risk due to release of asbestos fibres by use of algorithms, decision trees and flow diagrams.

Prioritise material for remedial action: distinguish between asbestos containing materials that require immediate attention and those that do not; rank material for action by consideration of material assessment scores, location and extent of material, use and occupancy of location.

Possible courses of action: advise on options for dealing with asbestos containing material, such as leave alone and monitor, repair, seal, enclose, remove; reference to requirements for management plan; guidance on reasonable report caveats.

Assessment:

Attainment of the Learning Outcomes for Unit 1 will be assessed by a multiple-choice examination consisting of 25 questions to be answered in 45 minutes. A candidate who is able to satisfy the learning outcomes will be awarded a score of at least 65% in the examination.

Attainment of the Learning Outcomes for Unit 2 will be assessed by an examination consisting of 10 short-answer questions, to be answered in one hour. A candidate who is able to satisfy the learning outcomes will be awarded a score of at least 65% in the examination.

In order to be awarded the certificate candidates must achieve the learning outcomes for both units.

Guidance:

The following websites also have useful information:

Asbestos Removal Contractors Association www.arca.org.uk

Health and Safety Executive www.hse.gov.uk

Royal Institution of Chartered Surveyors www.rics.org.uk

Recommended prior learning:

There are no recommended prior learning requirements for this qualification. The RSPH does, however, recommend that candidates have experience of working in the inspection, asbestos removal or construction industries, or in facilities management.

Key Skills:

It is expected that the delivery of this qualification should provide opportunities for the development of the following *key skills*:

Communication Level 3

Information Technology Level 3

Numeracy Level 2

Guidelines for key skills are shown in Appendix 1.

Other Issues:

The delivery of this qualification could provide opportunities for contributing to an understanding of Spiritual, Moral, Ethical, Social and Cultural issues and an awareness of Environmental issues, Health and Safety considerations and European developments. Possible areas for discussion are shown below.

Spiritual	Asbestos inspections may have to be conducted at sites that are of religious significance, such as churches, mosques, synagogues etc, or at locations within buildings that have been reserved for spiritual and religious purposes. Candidates could discuss the need to treat such sites sensitively and the need for any specific items of clothing (where this does not contravene Health and Safety considerations).
Moral and Ethical	Moral and ethical issues can be developed in a discussion of the duties placed on employers regarding the health and safety of their employees and visitors to their premises.
Social and Cultural	The importance of effective communication with minority groups and speakers of other languages and awareness of cultural sensibilities should be discussed in relation to the conduct of asbestos inspections.
Environment	Awareness of environmental issues can be raised through consideration of the safe disposal of asbestos containing materials.
Health and Safety	All of this specification is concerned with Health and Safety. Tutors should stress to candidates the health and safety requirements for carrying out inspection work and the health and safety implications of any advice and guidance offered to employers and managers.
European	European legislation and directives regarding asbestos management could be discussed.

Restrictions on Candidate Entry:

Candidates should not enter, with another awarding body, for a Level Three qualification in Asbestos Inspections.

Special Needs:

Centres that have candidates with special needs should consult the RSPH's *Regulations and Guidance for Candidates with Special Assessment Needs*, this is available from the RSPH and the RSPH's web site www.rsph.org.uk

Recommended Qualifications and Experience of Tutors:

The RSPH would expect that tutors have teaching experience and a qualification in a relevant subject area, but recognises that experienced teachers can often compensate for a lack of initial subject knowledge, or experienced practitioners for a lack of teaching experience.

The RSPH recommends that centres utilise a team of tutors in the delivery of this qualification, and that at least one tutor has suitable practical experience in the conduct of asbestos inspections and/or building surveys within the previous five years

Centres should be registered with the RSPH.

Any enquiries about this qualification should be made to:

The Qualifications Department,
Royal Society for Public Health
3rd Floor
Market Towers
1 Nine Elms Lane
SW8 5NQ

Appendix One: Key Skills Guidelines

This qualification provides a number of opportunities for candidates to develop competence in key skills and to produce evidence towards attainment of key skills. Successful completion of the qualification does not in itself imply attainment of the listed key skills; this is dependent on the candidate producing a portfolio of evidence and the teaching and learning methods adopted by the tutor(s) and candidate in the delivery of the qualification.

The specification content, which provides the most appropriate opportunity for key skill development, is signposted below.

Communication Level 3

<i>Skill</i>	<i>Specification Content</i>
<p>C3.1a Contribute to a group discussion about a complex subject.</p>	<ul style="list-style-type: none"> • Describe methods for preventing or reducing exposure to asbestos. • Suggest possible course(s) of action. <p>(These are examples only, most of the specification content will allow for the development of this aspect of communication).</p>
<p>C3.2 Read and synthesise information from two extended documents about a complex subject. One of these documents should include at least one image.</p>	<ul style="list-style-type: none"> • Review the types and uses of asbestos containing products. • Explain the risks to health of asbestos • Summarise appropriate legislation relating to the control and use of asbestos. • Interpret analytical results and material assessment. <p>(These are examples only, most of the specification content will allow for the development of this aspect of communication).</p>
<p>C3.3 Write two different types of documents about complex subjects. One piece of writing should be an extended document and include at least one image.</p>	<ul style="list-style-type: none"> • Prepare and review plans for inspecting buildings for asbestos. • Report on the inspection findings

Application of Number Level 2

Skill	Specification Content
<p>N2.1 Interpret information from two different sources, including material containing a graph</p>	<ul style="list-style-type: none"> • Review the types and uses of asbestos containing products. • Determine the age of a building from its method of construction
<p>N2.2 Carry out calculations to do with: a amounts and sizes b scales and proportion c handling statistics d using formulae</p>	<ul style="list-style-type: none"> • Perform material assessment. • Interpret analytical results and material assessment.

Information Technology Level 3

Skill	Specification Content
<p>IT3.1 Plan and use different sources to search for, and select, information required for two different purposes</p>	<p>Candidates can make use of a variety of sources to obtain information relating to the properties and uses of asbestos, the extent of its use and associated health risks. Building plans can be used to locate likely sources of asbestos within a building.</p>
<p>IT3.2 Explore, develop and exchange information, and derive new information, to meet two different purposes</p>	<ul style="list-style-type: none"> • Prepare and review plans for inspecting buildings for asbestos. • Perform material assessment. • Interpret analytical results and material assessment.
<p>IT3.3 Present information from different sources for two different purposes and audiences.</p> <p>Your work must include at least one example of text, one example of images and one example of numbers</p>	<ul style="list-style-type: none"> • Report on the inspection findings.