Faculty of Occupational Hygiene

BOHS

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THE STANDARDS

Preparing Candidates for Proficiency Module Examinations

A guide for tutors and training providers

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#### Introduction

This document outlines BOHS' recommendations for good general teaching and examination practice, to enable tutors get the best results out of all their candidates.

This document consolidates previous guidance documents for Written Practical and Written Theory examinations into one place, and is designed to supplement rather than replace the 'Exam Guidance for Tutors' available for each specific qualification, alongside the syllabi or Qualification Specifications on our website.

# Preparing for the training course

## **Pre-requisites and facilities**

All the proficiency modules are designed as intensive courses and require the undivided attention of tutors and all candidates to gain successful results. The teaching time, quoted in the syllabi, is only a guide and assumes the pre-course requirements for reading and knowledge are fully met. Where this is not the case, either for individuals or the whole class, then tutors may need to devote extra time to these candidates over and above the teaching hours quoted in BOHS guidance.

It is important that the course and examination facilities allow proper concentration of the candidates on the subject of the course, so other distractions and external noise should not be allowed. It is also important that training providers and tutors emphasise to their clients and candidates that the course pre-requisite knowledge is important, and that the conditions for the course must be suitable to assist the learning experience and to produce good results.

#### In-house facilities and external training locations

Where courses are held at the candidate's work premises, candidates are often distracted as there is the temptation to return to the "day job". In addition, there will be a tendency to lose group continuity by use of a general canteen facility during the breaks and intervals. The results from in-house courses are generally poorer, especially in the practical application of the knowledge gained from the course.

In addition, there is the temptation in this type of environment to finish at normal office times and not complete tutorials or the assigned homework, as there will be the other distractions of normal home life. Under these circumstances, the training provider and tutor may need to consider extending the teaching hours to compensate for these shortfalls in the learning experience that will accrue from this type of environment.

For training venues based at hotels, or training provider premises where candidates are away from their normal workplace, the tutor can add extra teaching hours and assist weaker candidates or groups of candidates as and when required. For multi-day courses, the assigned homework should be relevant to the course content learned on the day, and to be fully effective must be properly reviewed by the tutor the following day as part of the routine course learning experience.



# **During the course**

### **Group discussions**

It is recommended that the time allocated within all break times should be used for seeded discussion sessions, to re-enforce the learning from the tutored sessions. This tutor seeded discussion should normally involve the practical applications of the knowledge from the immediate preceding session.

Topics for discussion could include: hazards and precautions in various scenarios that are required for sampling and inspections (P402, P404 and P405); the effect on static pressure readings under varying conditions for bag filters and cyclones (P601) and risk points in domestic water systems (P901).

Where this approach is not used, candidate examination scripts often show lower marks scored on questions where candidates are required to give advice to building occupiers, or where they need to apply the knowledge gained during the course to real-life applications.

# **Preparing candidates for examinations**

All of the BOHS level 4 and 5 Proficiency Modules are examined by short answer questions to confirm the candidate's learning. These questions are all based on the teaching specification sections and require brief answers (either a short sentence or a couple of bullet points).

# **Candidate exam briefing**

Tutors are advised that during their candidate briefing on examination technique, candidates should take a few moments at the beginning of the examination to read through the paper before starting to answer the questions. Candidates should look for questions which they have the most knowledge on. For example, candidates that are good at calculations should locate those questions for completion first, as they can gain a lot of marks early on in the exam in these. (For example, material and priority assessments in the written practical for asbestos modules, and the ventilation calculations in P601 Written Practical.)

## Read the question first, and then answer the question

Many candidates do not read the questions properly before answering. The candidate may have the knowledge to answer the question, but because they miss key words from the question they do not answer the actual question, and therefore score fewer marks.

As an example from an asbestos examination, when asked to describe the requirements of a particular stage of the four stage clearance procedure after remediation, some candidates will outline *all four* stages of this procedure, and leave out important details for the particular stage being tested on in the question, thus losing marks.

In addition, candidates do not always recognise the difference between "how" and "why" in an exam question. For example, in response to the question "describe **how** to carry out a smoke test" answers often discuss **why** a smoke test needs to be carried out, or how an enclosure is built and its materials of construction. The candidate does not give any details

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of **how** to actually carry out the smoke test. This again does not score marks, as it is not answering the question.

Similarly, many candidates do not always understand the difference between **hazards** and p**recautions**. For the question "what precautions would you need to take to take samples from this roof and flue?", many answers include hazards such as "working at heights" without giving the precautions required for working at heights, which would not score any marks.



In the photograph above, the hazard is "working at heights". The precaution might be "use a ladder with a second person footing" or "a scissor lift or cherry picker to gain safe access".

Other examples where candidates commonly misinterpret what the question is asking include:

- Scenario questions where candidates are asked how they would take samples in a building where work operations are occurring 24/7 inside the building. Candidates often suggest internal sampling techniques, rather than picking up on the fact that is not safe to take samples in a building where work is occurring 24/7. Candidates should be thinking of external sampling techniques in their answer.
- Photograph scenario questions/document text extract questions, where candidates are asked to identify a number of issues or deficiencies visible within the photograph or the document (for example, a Plan of Work extract or a photo of an asbestos removal site). Candidates often suggest answers that aren't visible in the photo or document, rather than focusing on what is there. There are always more possible answers than marks to score for the question, and the asbestos product should always be clear in the photograph.

### Use examination time effectively

Candidates have sometimes advised that they were unable to complete the written practical papers in the timeframe allocated for the exam. BOHS has identified a variety of reasons for this when reviewing individual examination scripts.

One issue is that candidates sometimes write large amounts of script, where candidates attempt to write everything they know about a subject in the hope they will score extra marks. The exam markers have to dig through lengthy text to find the answers that actually could score marks, and then discover that the question asked has not actually been answered. This technique wastes time for candidates in the exam, and causes them to score less marks.

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BOHS has also noted on some occasions the exact same script written from several candidates, which suggests that they are copying text directly from the course manual. As the written practical examination is intended as an application of knowledge from the course, this approach is again time-consuming with candidates trying to find the relevant passage in their text books, and is unlikely to score many marks.

To resolve these issues, candidates are asked to write relevant phrases and/or bullet points and not to waste time in writing complete sentences. Some candidates also lose time by writing in block capital letters.

# Marking and re-sits

## **Examination marking**

The marks available are displayed against every examination question. The space on the examination script for answers is variable, and is generally an indication of the length of answer that candidates are expected to write.

All short answer and essay examinations from BOHS use markers who are qualified in the subject area, and have had their examination marking skills verified.

The majority of candidates complete the written practical examination (P402, IP402, P404, IP404, P405, IP405, P601, P604 and IP601) with a pass rate of about 70%. Of those that run out of time to complete all questions in the paper, many candidates still score enough marks on the questions they have answered to pass the examination with its 60% pass mark requirement.

Any fail results close to the pass mark are automatically verified by a second qualified marker, to ensure that there are no errors in the marking or the resulting pass/fail decision.

## **Enquiry about a result**

Candidates who wish to subsequently question the examination decision can do so by filling in the appropriate form on the BOHS website and by paying a fee, which is only refundable if the examination decision is reversed. Their examination script will be re-marked and rechecked by an independent subject specialist examiner. The candidate will also receive more detailed feedback and is advised to share this with their training provider before sitting a retake. However, it is sensible to advise candidates that due to the earlier examination script verification and validation checking for marginal results, that changes to the result under appeal are rare.

## Re-sit candidates

Some re-sit candidates do not achieve a pass mark on their re-sit. When their scripts are reviewed and compared, it is often found that they are making the same mistakes on both sittings.

In their results feedback, they are given a breakdown of marks scored which is split down by specification section. This should enable them to ascertain where they have lost marks, and they should focus on these areas in their revision before they re-sit the examination.

Tutors who provide help to re-sit candidates are advised to use this results feedback data to

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help candidates revise on weaker areas. For asbestos exam candidates, common weaker areas include the material and priority assessments and client advice sections of the written practical papers. In ventilation exams, candidates often struggle on the calculation questions where manipulation of the equations is required.

# Common examples of where candidates lose marks in exams

## 'Hedging bets'

A common area where candidates can lose marks is identifying different asbestos types. It is marking protocol for the correct type of asbestos to be identified, and correctly spelt to gain the full available marks. A clear and unambiguous misspelling of the type will score some marks, but misspellings that are ambiguous will not score any marks at all (e.g. Chrystallite or Crocosite). Some candidates will also put down all possible answers, in the hope that they will score marks (e.g. listing the three main types of asbestos when the question only asks them to identify one). This approach is known as 'hedging bets' and will not score marks.

Also, in response to a question with a photograph of an asbestos boiler flue through a roof (below) which asks which type of asbestos is likely to be present, some candidates answer "any", which would again not score any marks.



#### **Material assessments**

P/IP402 and P/IP405 Written Practical examinations include questions asking candidates to evaluate the material assessment of a situation (as below), with an empty table that they have to fill in with scores.

This should be completed using the table from HSG227 Appendix 2. A copy of this table is supplied with the examination paper, or can be obtained from the candidates own course notes. It is worth reminding candidates that where the asbestos type is not specifically defined in the question, they should use 3 for the asbestos type value as per the HSE guidance.

However, material and priority assessments are subjective, and candidates may query whether they lose marks if their scores vary from the model answer. Tutors can reassure candidates that in material and priority assessment marking, there are spreads of marks on each section to allow for the variations in individual opinions.



The photograph shows a pub lounge. It is open for 14 hours per day, seven days per week. Carry out a material assessment on the coating on the ceiling. It has been confirmed that Chrysotile is present in the coating. (6 marks)

Product type	
Extent of damage	
Surface treatment	
Asbestos type	
Total	

## **Priority assessments**

For the priority assessment below, the priority assessment table should be filled in using the table from HSG227 Appendix 3. A copy of this table is supplied with the examination paper or can be obtained from the candidate's own course notes. Candidates need to be taught and given practice at how to do priority assessments where the average of each section is calculated, and then the score from each section is then added together to give the total priority assessment score. This total priority assessment score should then be combined with the material assessment score to give the total priority risk assessment score. Some candidates will have not have calculated averages before, so additional teaching time may be required to teach this.

Following on from the previous question, the electrical cupboard is usually locked but is periodically accessed for ammeter reading. In line with HSE guidance, carry out a priority assessment for this situation writing your scores in the relevant boxes (7 marks)

Normal occupant activity	
Likelihood of disturbance	
Location	
Accessibility	
Extent/amount	
Average	
Human exposure potential	
Number of occupants	
Frequency of use of area	
Average time in area	
Average	
Maintenance activity	
Type of maintenance activity	
Frequency of maintenance	
activity	
Average	
Total priority assessment	
Total material assessment	
Total priority risk assessment	

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#### **Ventilation calculations**

Many candidates lose marks in the ventilation examinations due to being unable to rearrange the equations into the required format for the calculation they are required to do. Tutors are advised to provide calculation formulae in all possible formats in the course notes, perhaps as a tabular format so that candidates can apply the calculations in the right format.

$$Q = V \times A \quad V = Q/A \quad A = Q/V$$

Candidates also need to be reminded of the formulae for calculating the cross-sectional area of ducts:

# A = height x width for rectangular ducts or inlets A = $\pi r^2$ or A= $\pi d^2/4$ for circular ducts or inlets

In addition, candidates need to be reminded that they do need to calculate the percent deviation from the mean face velocity (especially for fume cupboards), and that if this value is in excess of 20%, the unit will not be suitable for use.

#### **Advice to clients**

In BOHS examinations, there are many questions that will ask the candidate to demonstrate the advice that they would give their clients in real-life situations. In many cases, the answers given by the candidates are not appropriate or relevant, and often use incorrect phrasing.

For example, in asbestos examinations candidates use the phrase "encapsulate" where this would be totally impractical. For example, in the case of a broken asbestos gutter "immediate removal" would be a better answer.

Similarly, in ventilation modules candidates are often reluctant to recommend that a system should FAIL a thorough examination and test [TExT] for a system where it is clearly inadequate for the task. For example, on a fume cupboard with a greater that 20% deviation in the face velocities.

# **Further guidance**

If you would like any further guidance on delivering our qualifications, or would like clarification on this guidance document, please contact the Qualifications Team on 01332 298101 or email qualifications@bohs.org.