

## The Chartered Society for Worker Health Protection

# Diploma in Professional Competence in Occupational Hygiene

**Qualification Guide** 

PQD-POL002 Version 6.0

#### **Contents**

1. Qualification Overview	3
1.1 Qualification	
1.3 Application	
1.4 Change to the Qualification from January 2016	
1.5 Using the Online System	
2. Professional Experience Portfolio	6
2.1 Preparing a PEP	
2.1.1 Objective of the PEP	
2.1.2 Contents of the PEP	
2.1.3 Examples of Items to Include	
2.2 Submitting a PEP	
2.3 Assessment and Results	
2.4 The Next Step	
3. Researched Essay	9
3.1 Subject of the Researched Essay	9
3.2 Writing the Researched Essay	
3.3 Assessment Criteria	10
3.4 Submission of the Researched Essay	10
3.5 Assessment and Results of the Researched Essay	11
3.6 The Next Step	11
4. Professional Discussion	12
4.1 Booking your Professional Discussion	12
4.2 The Professional Discussion	12
4.2.1 Purpose	12
4.2.2 The Examiners	13
4.2.3 Professional Discussion Duration	13
4.2.4 Questions within the Professional Discussion	13
4.3 Results	13
Appendix 1: Core Competencies of the Dip OH Qualification	14
Appendix 2: Progression Routes to the Diploma OH Qualification	17

#### 1. Qualification Overview

#### 1.1 Qualification Introduction

The Diploma of Professional Competence in Occupational Hygiene (DipOH) is the highest professional occupational hygiene qualification awarded in the UK. Award of the Diploma qualifies the holder to become a Chartered Member of the Faculty, and demonstrates knowledge of, and competence in, assessment of health hazards and the extent of risk in various workplace circumstances, and an ability to advise on suitable control procedures. The Diploma is based on the core competencies shown in appendix 1.

There are two routes to this qualification, depending on a candidate's previous attainments. (See appendix 2).

- Pathway 1 is for those candidates who hold an MSc or equivalent degree that is
  accredited by BOHS. It is also for non-UK qualified occupational hygienists
  possessing an IOHA-accredited professional qualification. Candidates taking this
  pathway need to complete two components in order to achieve the qualification: a
  Professional Experience Portfolio and a professional discussion.
- Pathway 2 is for those candidates who hold the CertOH or the ICertOH. Candidates
  taking this pathway need to complete three components in order to achieve the
  qualification: a Professional Experience Portfolio, a Researched Essay and a
  professional discussion.

The Professional Experience Portfolio allows candidates to demonstrate that they have the skills and expertise to work as an occupational hygienist at a professional level by drawing on their actual work experience. The Researched Essay allows candidates to demonstrate their ability to critically analyse data and other information related to an occupational hygiene topic. The content of the Professional Experience Portfolio is assessed against the Diploma Core Competencies (see appendix 1). The oral examiners may draw upon the candidate's Professional Experience Portfolio when formulating the questions to be used in the examination.

The allowed timeframe for this qualification is **18 months** from the point of acceptance, and candidates are advised to check the BOHS website for information to help them with planning their time effectively.

#### 1.2 Entry Requirements

Applicants for this qualification must have:

Either;

- At least 5 years' comprehensive professional experience within the field of occupational hygiene
- The BOHS Certificate of Operational Competence in Occupational Hygiene (CertOH) or the International Certificate in Occupational Hygiene (ICertOH) <u>OR</u> hold a BOHS accredited postgraduate qualification (see BOHS website for current list of accreditations).

Or;

- For non-UK qualified occupational hygienists. An IOHA-accredited professional qualification. Applicants should check the IOHA website for the current list of eligible NAR qualifications;
  - www.ioha.net/national-accreditation-recognition-NAR-committee/

Applicants should note that some of the components of this qualification are assessed online, and therefore access to a computer and the internet is essential.

#### 1.3 Application

Applicants may request to enter for this qualification by submitting a completed application form. The form is located on the BOHS website. Applicants should follow the instructions for completion carefully. Applications are considered on an academic and relevant professional experience basis to ensure that entry requirements have been met, using all information provided. Candidates will be sent an email to inform them of the outcome of their application.

There is no charge for the application. Successful applicants are liable to pay fees for each component as they progress through their qualification. A full list of current fees is available on the BOHS website.

#### 1.4 Change to the Qualification from January 2016

From 1 January 2016, a new process involving the compilation of a Professional Experience Portfolio (PEP) and completion of a Researched Essay (RE) will be introduced as a means of assessing the readiness of candidates to present for the professional discussion. This process replaces the requirement to take a written examination; accordingly, the existing Core Examination has been discontinued. This change forms part of a review designed to modernise and streamline the Faculty qualifications scheme. The aim is to make the route to the BOHS Diploma more accessible to a wider range of candidates, and to make the process more relevant to current international practice, while at the same time maintaining the level and standard of the qualification.

#### 1.5 Using the Online System

Candidates will create their own account for the <a href="www.bohs-hub.org">www.bohs-hub.org</a> website which will then give them access to;

- Pay for each qualification component
- Submit the Professional Experience Portfolio (and Researched Essay, if applicable)
- View feedback comments and assessment results
- Book their professional discussion appointment

#### 2. Professional Experience Portfolio

The Professional Experience Portfolio (PEP) is the first component for all candidates working towards the DipOH.

The PEP allows the candidate to demonstrate the breadth and depth of their professional occupational hygiene practice and to show how they have developed their skills and enhanced their knowledge of the subject at a professional level, i.e. since obtaining their CertOH/ICertOH or BOHS-accredited postgraduate qualification. The PEP will also allow the candidate to demonstrate their understanding of the application of ethical principles in their professional practice.

#### 2.1 Preparing a PEP

#### 2.1.1 Objective of the PEP

To prepare a portfolio (a collection of evidence) that demonstrates the breadth and depth of professional occupational hygiene experience.

#### 2.1.2 Contents of the PEP

The content of the PEP should address core competencies of the qualification (see appendix 1).

The PEP should comprise a minimum of five and a maximum of ten items. To demonstrate the breadth of the candidate's knowledge and experience, the PEP must include:

- At least two items covering the identification and/or assessment and/or control of risks associated with workplace exposure to hazardous substances.
- At least one item covering the identification and/or assessment and/or control of risks associated with workplace exposure to noise.
- At least one item covering the identification and/or assessment and/or control of risks associated with any of the following hazards or topics:
  - Asbestos
  - o Hand-arm or whole-body vibration
  - The thermal environment
  - o lonising radiation
  - Non-ionising radiation
  - Biological hazards
  - o Ergonomics
  - External environment.

It is allowable for one item to refer to more than one of the above topics.

Each item should have an explanatory statement attached. The explanatory statement enables the candidate to set out how the actions described in the item have enhanced their professional practice in relation to the core competencies of this qualification (found in appendix 1). This statement should be no more than 200 words in length.

#### 2.1.3 Examples of Items to Include

Candidates can utilise a variety of different types of item as evidence within the portfolio. The following list sets out examples of what these might be. Ideally, the PEP should contain a mix of the types of item listed.

Examples of suitable PEP Items			
Type of Item	Description		
Investigation reports:	These must demonstrate adequate planning of the investigation, good technical skills in execution, a thorough and valid interpretation of results (including suitable statistical analysis as appropriate), and the proposition of valid and practical risk reduction measures. Basic reports such as those describing routine monitoring to a prescribed template will not be acceptable.		
Expert witness reports:	A good report will give detailed background information on the circumstances giving rise to the alleged injury or disease, a clear analysis of the issues involved, a summary of the publicly available information on the topic and any relevant legal requirements, and the author's opinion on whether the employer or other relevant person acted reasonably or not		
Original literature reviews:	These must be critical in nature, draw appropriate conclusions and be correctly referenced. Wholly descriptive reviews are not appropriate.		
Technical reviews of processes:	These should consider the occupational hygiene issues related to processes. Examples include the incorporation of control measures at the design stage and the transfer of a process from one site to another. These reviews must be analytical in nature and simple descriptive reviews will not be accepted.		
Research reports:	These must be of a standard that would be accepted by a peer reviewed journal.		
Articles for in-house or external publications:	These must effectively communicate the subject to the intended audience, be technical in nature and include some interpretation or comment. Wholly descriptive articles are not acceptable. The article can be on any subject as long as it has some relevance to the practice of occupational hygiene.		
Any other item	Of a similar standard that demonstrates the application of the Diploma Core Competencies to professional practice.		

#### 2.1.4 Format

The PEP should be compiled in an electronic format, into either a Microsoft Word or a PDF document. The online submission facility allows either one document or a collection of individual documents to be submitted.

#### 2.2 Submitting a PEP

Having completed the PEP, candidates will submit this for marking through <u>www.bohs-hub.org</u>. Instructions on how to create an online account and how to make a submission is included in the qualification acceptance email.

The PEP must be submitted in either Microsoft Word or a PDF format and use the candidate's name as the file name - e.g. smithj.pdf. The PEP may be submitted as a series of documents labelled with sequential numbers following the candidate's name e.g. smithj1.pdf, smithj2.pdf etc.

Full details on how to submit the PEP files is on the PEP submission facility on the wwwbohs-hub.org website.

#### 2.3 Assessment and Results

The PEP is allocated to an Assessor who will review the submission.

The assessment of the PEP considers the quality of the individual items and evidence of the application of the core competencies at a professional level.

If the PEP is assessed as acceptable, the candidate will be notified through email that they have passed this component. The email will contain information about the next stage of the qualification (which will either be a Researched Essay or an oral examination depending on the candidate's pathway).

If the PEP is assessed as unacceptable in terms of content or quality, or if the assessor requires further information to evaluate the PEP, the candidate will be contacted directly through the <a href="www.bohs-hub.org">www.bohs-hub.org</a> website and asked to upgrade the submission. Candidates are given the opportunity for two further resubmissions (constrained by the overall 18 month timescale of the qualification) before the application will lapse and the PEP submission and assessment fee will be forfeited.

#### 2.4 The Next Step

Once a candidate has successfully completed this component, they will move on to either prepare a Researched Essay or book for a professional discussion. This depends upon the candidate's qualification pathway, which will be stated in the acceptance information. Instructions on how to do this will be sent by BOHS through email.

#### 3. Researched Essay

Candidates following pathway 2 will be required to complete a Researched Essay, after a positive assessment of their PEP. Candidates on pathway 1 are exempt from this component, and may move straight onto the oral examination component.

#### 3.1 Subject of the Researched Essay

The essay subject must be chosen from the current list of three topics, which is available on the <a href="https://www.bohs-hub.org">www.bohs-hub.org</a> website and will be shown once a candidate registers for this component.

The examples set out below give an indication of the scope of Researched Essay subjects. Candidates should note that this is a list of examples, and that selection of topic should be made from the most current list which is available on by logging in to the candidate account on the <a href="https://www.bohs-hub.org">www.bohs-hub.org</a> website.

- EXAMPLE 1: Critically review and discuss the role of biological monitoring in the assessment of risk from exposure to welding fume
- EXAMPLE 2: Critically review evidence for the effectiveness of protective gloves against common solvents used in spray painting operations
- EXAMPLE 3: Critically review the risks from exposure to magnetic fields from use of diagnostic equipment in the healthcare sector

#### 3.2 Writing the Researched Essay

In order to complete the essay, candidates will be required to thoroughly research the topic using reliable sources of information such as research papers from scientific journals. The candidate must use information from such sources to develop their arguments within the essay. It is important that the essay includes analytical and critical content which has been developed by the candidate; wholly descriptive essays will not be acceptable.

All sources of information used in the essay must be correctly and consistently cited using the Harvard system of referencing – i.e. the style used in *The Annals of Occupational Hygiene*.

The essay should be approximately 2000 words in length (not including the reference list). A 10% variation in essay length – i.e. between 1800 and 2200 words – will be acceptable. A word count is to be included at the end of the essay.

The essay must be the candidate's own work. Essays that are not the candidate's own work or contain plagiarised content will be rejected.

#### 3.3 Assessment Criteria

The candidate will be expected to demonstrate the following:

- a. An ability to identify and critically analyse relevant sources of information;
- b. A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of occupational hygiene;
- c. Originality in the application of knowledge, together with a practical understanding of how established techniques of practice, research and enquiry are used to create and interpret knowledge in the discipline;
- d. An ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences;
- e. Originality in tackling and solving problems;
- f. An understanding of any relevant ethical issues relating to the subject matter.

Marks will be awarded for the following:

- a. The essay is well-structured and presented.
- b. There is evidence of adequate research of the topic.
- c. The arguments put forward by the candidate are based on evidence and clearly stated.
- d. The candidate has taken an analytical and critical approach rather than a purely descriptive approach.
- e. All the sources of information are correctly cited.
- f. The essay communicates the ideas in a clear and concise way.

#### 3.4 Submission of the Researched Essay

The essay should be submitted online via the submission facility on the <u>www.bohs-hub.org</u> website in the same way that the PEP was submitted previously.

#### 3.5 Assessment and Results of the Researched Essay

The Researched Essay is allocated to an Assessor who reviews the submission.

If the essay is assessed as acceptable, the candidate is notified and will be invited to book the next component of the qualification, which is the oral examination.

If the essay is assessed as unacceptable in terms of content or quality, the candidate is contacted directly and asked to upgrade it. Candidates are given the opportunity for one further resubmission (constrained by the overall 18-month timescale of the qualification) otherwise the application will lapse and the Researched Essay submission and assessment fee will be forfeited.

#### 3.6 The Next Step

Once a candidate has successfully completed this component, they move on to book an appointment for the professional discussion. Instructions on how to do this will be sent by BOHS through email.

#### 4. Professional Discussion

The final component required to achieve this qualification is the professional discussion. This section explains how to book your oral examination, how to prepare for it and what to expect on the day.

Candidates should be mindful of the fact that the total timeframe for completing this qualification is 18 months from the date of acceptance, and therefore they should plan their time carefully to ensure that they complete the professional discussion within this timeframe.

#### 4.1 Booking your Professional Discussion

Once a candidate has received a successful assessment of their Professional Experience Portfolio (and Researched Essay if required), they receive notification from BOHS advising them to proceed onwards to book the professional discussion.

Candidates book the examination through the <u>www.bohs-hub.org</u> website, which they have used previously in this qualification to make assessment submissions. Full instructions on how to do this will be included in the notification email from BOHS.

The professional discussion is conducted online, through a video conference facility. BOHS will provide you with the appropriate links to set this up on your computer. You will need to have access to a computer with a microphone or headset (which is preferable) and a camera (either built in or as a peripheral device), a good internet connection and a private room or office in which to conduct the examination.

Once the appointment has been booked, the candidates receive an automatic confirmation email.

#### 4.2 The Professional Discussion

#### 4.2.1 Purpose

The purpose of the professional discussion is to:

 assess whether the candidate has the necessary practical skills to apply that knowledge in real-life practical situations and by doing so can provide competent occupational hygiene advice

The purpose of the professional discussion is NOT to;

- retest technical knowledge
- assess how the candidate is performing in his/her current job

#### 4.2.2 The Examiners

Examiners are appointed by BOHS based on their professional background. The examiners are all qualified Occupational Hygienists with a wide range of experience and hold the Diploma of Professional Competence in Occupational Hygiene.

Wherever possible the professional discussion panel is made up of three members, but exceptional circumstances may dictate that only two panel members are present. In all cases there is a nominated Chair of the panel.

#### 4.2.3 Professional Discussion Duration

The Professional Discussion takes approximately 60 minutes in total.

#### 4.2.4 Questions within the Professional Discussion

Candidates should expect to be questioned on issues related to a number of typical workplace scenarios. The examiner will present a scenario, sometimes with a supporting visual aid, and ask the candidate to explain the approach they would take to investigate, assess and control occupational hygiene risks specific to that workplace. In addition to technical aspects related to the recognition, assessment and control of risks, candidates may be asked to comment on issues such as risk management, communication of results, conflict resolution and ethical considerations.

#### 4.3 Results

Results are issued to the candidates via email within two weeks of attending the professional discussion. If the candidate has passed the professional discussion, they receive notification by email followed by the certificate of successful completion of the qualification by post.

If the candidate has not passed the professional discussion, they will receive information from BOHS by email detailing how to rebook the oral examination. In this case, feedback is given in order to help the candidate prepare for a further attempt. Candidates will be allowed to retake the professional discussion for a two further attempts (at the current fee for an oral examination) provided that they remain within the 18-month allowable timeframe for the qualification. If candidates exceed the 18-month allowable timeframe, or are unsuccessful after their third attempt at the professional discussion, then the candidate will be required to reapply for the qualification.

#### **Appendix 1: Core Competencies of the Dip OH Qualification**

Competency Area	Competency	Expected Behaviour
1. Management	1.1 Project Planning and Management	<ul> <li>Designs occupational hygiene projects to meet specific goals.</li> <li>Manages occupational hygiene projects to ensure successful completion.</li> <li>Assesses the effectiveness of projects in meeting stated goals.</li> </ul>
	1.2 Resource Management	Identifies, acquires and manages resources required for occupational hygiene programmes.
	1.3 Cost-Benefit Analysis	<ul> <li>Uses the principles of cost-benefit analysis and applies them appropriately when making project decisions</li> </ul>
	1.4 Team Working	<ul> <li>Works effectively as a member of a team with both fellow occupational hygiene professionals and other relevant disciplines and operational personnel.</li> <li>Exercises leadership skills when leading teams.</li> </ul>
	1.5 Auditing	<ul> <li>Uses auditing as a key element of managing occupational health and safety within the workplace.</li> <li>Works effectively as a member of multi-disciplinary audit teams.</li> </ul>
2. Communication	2.1 Communication	<ul> <li>Communicates the nature of hazard and risk effectively to the workforce.</li> <li>Communicates required steps to control exposure effectively to senior managers and/or the workforce.</li> </ul>
3. Work Environment and Processes	3.1 Existing work environments and processes	<ul> <li>Communicates formally via clear, unambiguous and authoritative reports.</li> <li>Gathers relevant information to aid evaluation of unfamiliar work environments and processes.</li> <li>Uses knowledge of the physical and chemical properties of substances and the control measures in place to evaluate potential exposure risks.</li> <li>Uses knowledge of the nature of physical hazards and the control measures in place to evaluate the potential exposure risks.</li> <li>Uses knowledge of the nature of biological hazards and the control measures in place to evaluate the potential exposure risks.</li> <li>Effectively uses observation and communication to aid in the understanding of unfamiliar work environments and processes.</li> <li>Draws on experience of other work environments and processes to aid understanding of unfamiliar work environments and processes.</li> </ul>

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	3.2 New and novel work environments	<ul> <li>Effectively identifies relevant information available on potential chemical and/or physical stressors in such environments in order to identify and understand the nature of hazards that may be present.</li> <li>Uses knowledge and judgement to predict exposure risks in such environments and identify valid control measures at the pre-operational phase.</li> </ul>
4. Science	4.1 Physical and Chemical Properties of substances	Takes account of the physical and chemical properties of substances when designing control strategies.
	4.2 Physical Hazards	<ul> <li>Applies knowledge of the nature of physical hazards when designing control strategies</li> </ul>
	4.3 Biological hazards	<ul> <li>Applies knowledge of the nature of biological hazards when designing control strategies</li> </ul>
	4.4 Critical Thinking	<ul> <li>Reviews information and makes judgements based upon evidence.</li> </ul>
		<ul> <li>Uses reputable sources of information when making judgements.</li> </ul>
		Applies critical analysis to others' reasoning.
		Knows the difference between correlations and false correlations
	4.4 Use of Statistics	<ul> <li>Uses statistical principles to plan sampling strategies and evaluate exposure data</li> </ul>
	4.5 Occupational Epidemiology	<ul> <li>Collects data and plans studies in a manner compatible with subsequent use of data in epidemiological studies.</li> <li>Knows the difference between, and relevance of, different types of epidemiological study.</li> <li>Works as part of a multi-disciplinary team on epidemiological studies.</li> <li>Interprets and uses data from epidemiological studies to plan appropriate control and worker health protection strategies.</li> </ul>
5. Ethics	5.1 Ethical Principles	<ul> <li>Recognises situations in professional practice where ethical decisions need to be made.</li> <li>Applies the key ethical principles of beneficence, autonomy and justice and the relevant secondary principles derived from these when making decisions relating to professional practice.</li> </ul>
	5.2 Occupational Hygiene Professional Code of Ethics	<ul> <li>Works within their national professional occupational hygiene organisation code of ethics or, if that is not available the IOHA code of ethics.</li> </ul>
6. Workplace Chemical, Physical and Biological	6.1 Work Environments	<ul> <li>Recognises work environments where workers may be exposed to chemical, physical and biological agents.</li> <li>Understands how such exposures may present significant health risks</li> </ul>
Agents	6.2 Health Effects	<ul> <li>Reviews the scientific literature to generate usable information on health effects caused by exposure to chemical, physical and biological agents in the workplace.</li> <li>Applies physiological and toxicological principles to categorise hazards.</li> <li>Reviews exposure data to evaluate the potential for adverse health effects.</li> </ul>

		Recognises and takes into account the potential for interaction (synergistic, antagonistic, potentiation and similar) from exposure to different hazards.
	6.3 Assessment of Exposure	<ul> <li>Plans and assesses the effectiveness of different exposure assessment strategies in complex environments.</li> <li>Uses limits of detection and other relevant parameters to select appropriate measurement methods.</li> <li>Applies appropriate quality assurance procedures to measurement systems.</li> <li>Presents exposure data in a way that is accessible to both workers and management.</li> </ul>
	6.4 Assessment of Risk	<ul> <li>Integrates all relevant data when assessing levels of risk.</li> <li>Makes sound and practical judgements based upon level of risk.</li> </ul>
	6.5 Control of Exposure	Selects effective and practical control options based upon good occupational hygiene practice.     Selects the most appropriate control measure, or combination of control measures, for complex environments
		<ul> <li>Designs integrated hazard control and risk reduction programmes.</li> <li>Assesses the effectiveness of risk reduction programmes.</li> <li>Identifies actions required to ensure legislative compliance</li> </ul>
	6.5.1 Engineering Controls	<ul> <li>Selects the most appropriate engineering controls for complex environments.</li> <li>Uses cost-benefit analysis in the selection of engineering controls.</li> <li>Identifies maintenance and testing requirements for engineering controls.</li> <li>Evaluates the effectiveness of engineering control systems.</li> </ul>
	6.5.2 Non-Engineering Controls	<ul> <li>Selects the most appropriate and practicable non-engineering controls for complex environments.</li> <li>Designs and evaluates effective PPE programmes.</li> </ul>
7. External	7.1 Environmental pollution	<ul> <li>Identifies the need for emission monitoring programmes.</li> <li>Selects control measures that will reduce and control emissions to the environment.</li> <li>Is aware of current thinking on major environment issues such as global warming and how they relate to work environments.</li> </ul>
	7.2 Emergency planning	<ul> <li>Works with relevant environmental and safety professionals and managers to develop emergency preparedness and response programmes.</li> </ul>

### **Appendix 2: Progression Routes to the Diploma OH Qualification**

