

COURSE OVERVIEW HE1941
Industrial Hygiene Certification Program
BOHS-M505: Control of Hazardous Substances
(Accredited by the British Occupational Hygiene Society - BOHS)

Course Title

Industrial Hygiene Certification Program: BOHS-M505: Control of Hazardous Substances
(Accredited by the British Occupational Hygiene Society - BOHS)

Course Date/Venue

December 06-10, 2026/TBA Meeting Room,
 Centro Corniche Al Khobar by Rotana, Al Khobar,
 KSA

Course Reference

HE1941

Course Duration

Five days/3.7 CEUs/37 PDHs



Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course aims to provide candidates with an understanding of how exposure to hazardous substances arises and where they may occur, in the workplace and introduce methods and technologies which are available to control exposures and help reduce risks to health.



On completing this course successfully, participants will be able to:-

- Describe how airborne contaminants are generated by industrial processes, how this would impact on the control strategy, and how control solutions can be optimised
- Recognise the range of approaches to risk reduction embodied in the hierarchy of control and select appropriate strategies for implementation
- Describe the meaning of “adequate control” in relation to personal exposures
- Discuss the importance of design considerations in terms of the workplace, process, and plant, as a means of reducing occupational exposures





- Describe the principal elements of a local exhaust ventilation system, give examples of typical installations, and know how to conduct the necessary measurements to assess whether a local exhaust ventilation system is effective and operating to the design specification
- Recognise the limitations of local exhaust hoods and enclosures and the means to optimise their effectiveness
- Describe how personal protective equipment programmes may be used in an effective manner
- Recognise the impact that control measures may have on other workplace hazards and understand the need to take a holistic approach to the design of control solutions

This course is designed to provide participants with a detailed and up-to-date overview of BOHS-M505: Control of Hazardous Substances. It covers the range of properties of airborne contaminants and the potential hazards they may present; develop an understanding of the approach to controlling exposure problems and how to select appropriate control strategies; the workplace control principles covering hierarchy of control, achieving effective control and the role of assessment (by all routes); the practical applications of the hierarchy of control and identifying effective control strategies, adopting the principles of reasonable practicability.

During this interactive course, participants will learn the design of equipment and workplace and apply prevention, elimination and substitution; the general ventilation systems and local exhaust ventilation (LEV) and apply proper measurement and testing of LEV systems; the personal protective equipment, respiratory protective equipment, chemical protective clothing (CPC), gloves and dermal care; and the various administrative elements.

The course will require at least 45 hours of study time, of which at least 37 hours will be taught (teaching and practical assessments) and 8 hours will be independent (in the candidates' own time).

Candidates for this course are expected to be aware of the general contents of the Control of Substances to Health (COSHH) regulations, HSE Guidance Note HSG193 COSHH Essentials Easy Steps to Control Chemicals, HSE Guidance Note HSG258 controlling Airborne Contaminants at Work and HSE Guidance Note HSG53 Respiratory Protection at Work.

Course Objectives/Outcomes & Benefits for the Participants

Upon the successful completion of this course, each participant will be able to:

- Achieve the BOHS Certificate in BOHS-M505: Control of Hazardous Substances
- Consider the range of properties of airborne contaminants and the potential hazards they may present
- Develop an understanding of the approach to controlling exposure problems and how to select appropriate control strategies
- Discuss the workplace control principles covering hierarchy of control, achieving effective control and the role of assessment (by all routes)
- Carryout practical applications of the hierarchy of control and identify effective control strategies, adopting the principles of reasonable practicability
- Describe the design of equipment and workplace and apply prevention, elimination and substitution

- Recognize general ventilation systems and local exhaust ventilation (LEV) and apply proper measurement and testing of LEV systems
- Use personal protective equipment, respiratory protective equipment, chemical protective clothing (CPC), gloves and dermal care as well as identify the various administrative elements

Exclusive Smart Training Kit - H-STK®



*Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of control of hazardous substances for technicians and technologists who conduct measurements and testing in workplaces.

Exam Eligibility & Structure

There are no prerequisites required for this qualification.

Suggested References and Further Reading

- (1) WHO Guidelines on the prevention of toxic exposures
- (2) ACGIH Industrial Ventilation A Manual of Recommended Practice
- (3) ACGIH Guidelines on Selection of Chemical Protective Clothing
- (4) Controlling airborne contaminants at work HSE books HSG258
- (5) Respiratory Protection at Work HSE Books HSG53
- (6) ISO 16900 series standards on Respiratory Protective Devices
- (7) ISO 16602 Protective Clothing for Protection against Chemicals – Classification, labelling and performance requirements
- (8) NIOSH guide to industrial respiratory protection
- (9) NIOSH A guide for assessing the performance of protective clothing
- (10) Controlling Skin Exposure to Chemicals and Wet-Work

Training Fee

US\$ 9,750 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Exam Fee

US\$ 215 per Delegate + **VAT**

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

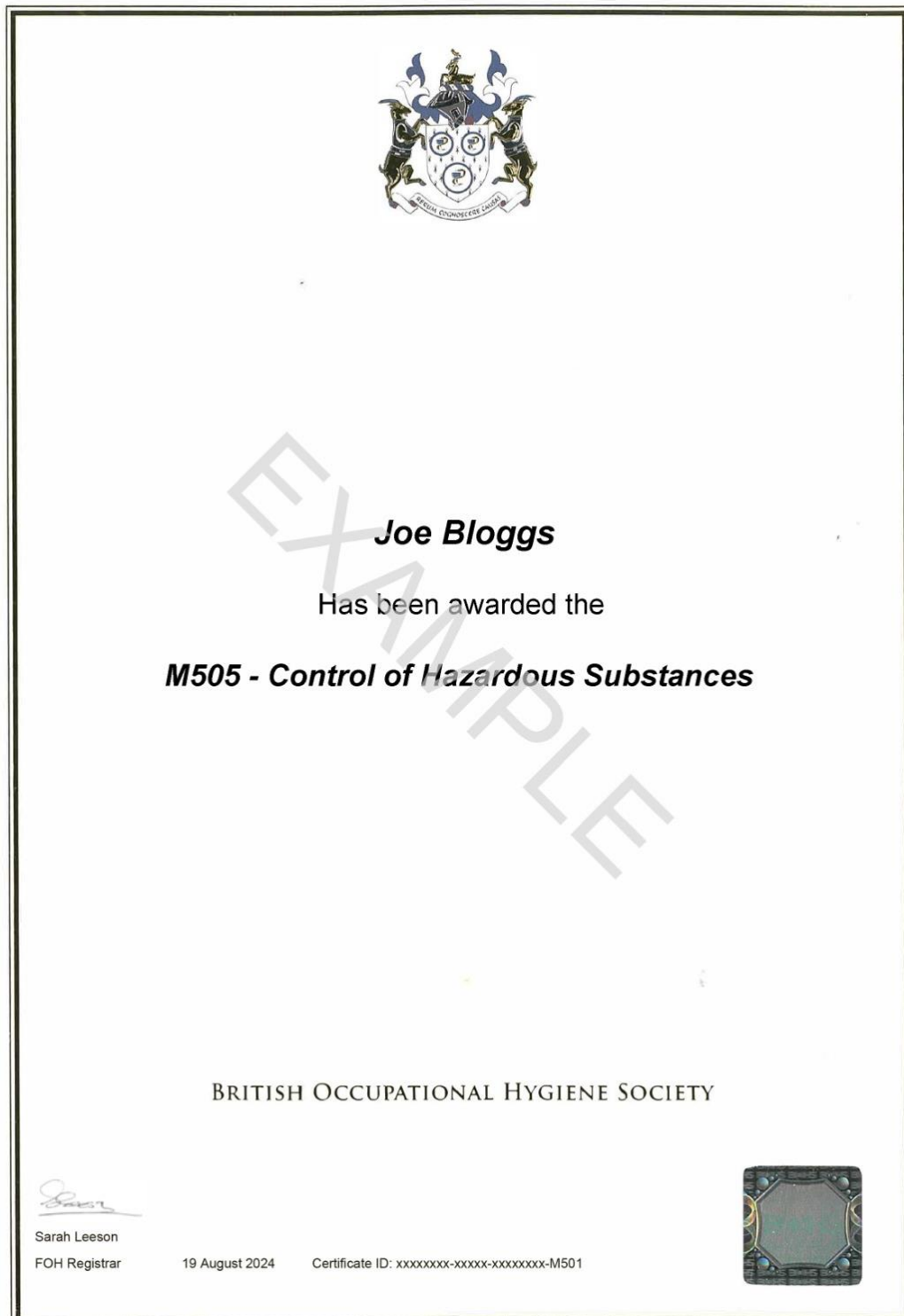


Course Certificate(s)

- (1) BOHS-M505 – Control of Hazardous Substances will be awarded to participants who have successfully completed the course and passed all the parts (A and B) within 12 months.

BOHS Certificate(s)

The following certificate is a sample of the BOHS certificates that will be issued to successful candidates:-





- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *

 **Haward Technology Middle East**
Continuing Professional Development (HTME-CPD)

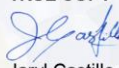
CEUs

CEU Official Transcript of Records

TOR Issuance Date: 15-Nov-23
HTME No. 74851
Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE1941	Industrial Hygiene Certification Program BOHS-M505: Control of Hazardous Substances (Accredited by the British Occupational Hygiene Society - BOHS)	November 11-15, 2023	37	3.7

Total No. of CEU's Earned as of TOR Issuance Date **3.7**

TRUE COPY

Jaryl Castillo
Academic Director

Haward Technology has been approved as an Accredited Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2018 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2018 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@haward.org | Website: www.haward.org

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *

Certificate Accreditations

Haward Technology is accredited by the following international accreditation organizations:-

- 

The British Occupational Hygiene Society (BOHS)

Haward Technology is an Approved Training Partner of the British Occupational Hygiene Society (BOHS) for the M201 and M500 series modules, which are designed to maintain a high standard of occupational hygiene education.

Together with BOHS, Haward Technology supports hygiene professionals in their mission to create safe working environments globally and is committed to advancing the practice of occupational hygiene to promote healthier workplaces worldwide.

- 

British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- 

The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.7 CEUs** (Continuing Education Units) or **37 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Richard Topliss, Dip, OHTA-BOHS, NEBOSH, COH, in **Professional Competence in Occupational Hygiene** and an **Enthusiastic Occupational Hygienist** with over **30 years** of extensive experience in the areas of **Occupational Hygiene**, Health Risk Assessments (HRA), **COSHH Risk Assessments**, **Workplace Monitoring**, **Hand-Arm Vibration Risk Assessments**, **Stack Emissions Monitoring**, **Effluent Sampling**, **Ground Water Monitoring**, **Local Extraction Systems**, **Engineering Controls Design**, **Hazardous Substances Measurement**, **Ergonomics**, **Asbestos & Other Fibres**, **Dust Explosion Hazards**, **Stack & Noise Monitoring**, **Health Hazards & Risks Management**, **Hazardous Substances Substitution**, **Personal Protective Equipment (PPE)**, **Materials Handling & Storage**, **Safe Use of Chemicals & Hazardous Materials**, **Chemical Risk Assessment**, **Manual Handling**, **Pollution Control**, **Lab Chemicals Handling & Storage**, **Site Safety**, **Industrial Plants Safety**, **Incident Investigation & Root Cause Analysis**, **Safety Management**, **Emergency Planning for Crisis**, **Root Cause Analysis & Reporting**, **Emergency Procedures**, **Industrial Hygiene**, **Occupational Health**, **Safety & Environment (HSE)**, **Hazardous Waste Management & Pollution Prevention**, **Waste & Environmental Management**, **Occupational Safety**, **Industrial Safety** in Oil Industries, **Process Safety Management (PSM)**, **Environment Management**, **Hazardous Materials & Chemicals Handling**, **Risk Assessment & Prevention**, **Workplace Emergency Action Plan**, **Environmental Management & Technology (EMT)**, **Environmental Engineering**, **Impact Assessment & Sustainable Reporting**, **Environmental Monitoring & Modelling**, **Risk Assessment & Evaluation**, **Incident & Accident Investigation**, **Emergency Response**, **Job Safety Analysis & Inspection Techniques**, **Hazard Recognition & Job Safety Analysis**, **Workplace Health Hazard**, **Heat Stress**, **Exhaust Ventilation** and **Naturally Occurring Radioactive Materials (NORM)**.

During Mr. Topliss's career life, he held significant positions such as the **Director**, **Principal Trainer**, **Occupational Hygienist**, **Senior Occupational Hygiene & Environmental Project Manager**, **Occupational Hygienist**, **COSHH & Noise Compliance Officer**, **Environmental Officer**, **Senior Instructor/Trainer**, **Committee** and **Faculty** for Hygienics Training, Croft Occupational Hygiene, National Britannia Environmental Safety Division, Institute of Occupational Medicine Limited, Steetley Quarry Products Limited and British Occupational Hygiene Society.

Mr. Topliss has a **Diploma in Professional Competence in Occupational Hygiene** from the **British Occupational Hygiene Society** and a **Diploma in Minerals Processing and Materials Reclamation**. Further, he has a **NEBOSH National General Certificate in Occupational Safety and Health** and a **Certificate in Operational Competence in Comprehensive Occupational Hygiene** from the British Examining Board in Occupational Hygiene (BEBOH). He is also a **Chartered Occupational Hygienist**, a member of British Occupational Hygiene Society (BOHS) and has further delivered numerous trainings, conferences, workshops and seminars globally.



Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Sunday, 06th of December 2026

0730 – 0745	Registration & Coffee
0745 – 0800	Welcome & Introduction
0800 – 0815	PRE-TEST
0815 – 0930	Hazardous Substances Uses & Processes <i>Consider the Range of Properties of Airborne Contaminants (Dusts – Aerosols – Vapours – Gases) & the Potential Hazards They May Present</i>
0930 – 0945	Break
0945 – 1130	Hazardous Substances Uses & Processes (cont'd) <i>Using a Series of Short Case Studies, Provide an Overview of the Health Hazards & Risks & the Sources & Factors Affecting Emission of Airborne Contaminants, in Order to Develop an Understanding of the Approach to Controlling Exposure Problems & How to Select Appropriate Control Strategies. These should Include such Processes as in the Use of Rotary Tools (e.g. Circular Saws, Rotary Sanders) Other Directional Processes (e.g. Paint Spraying) & Fume Yielding Processes (e.g. Welding & Soldering)</i>
1130 – 1230	Hazardous Substances Uses & Processes (cont'd) <i>Using a Series of Short Case Studies, Provide an Overview of the Health Hazards & Risks & the Sources & Factors Affecting Emission of Airborne Contaminants, in Order to Develop an Understanding of the Approach to Controlling Exposure Problems & How to Select Appropriate Control Strategies. These should Include such Processes as in the Use of Rotary Tools (e.g. Circular Saws, Rotary Sanders) Other Directional Processes (e.g. Paint Spraying) & Fume Yielding Processes (e.g. Welding & Soldering) (cont'd)</i>
1230 – 1330	Lunch
1330 – 1415	Hazardous Substances Uses & Processes (cont'd) <i>The Principles of Containment & Control Techniques for Common Process such as Weighing & Dispensing Solids & Liquids from Containers to Process Equipment should be Considered for a Range of Materials from Low to High Hazard</i>
1415 – 1500	Workplace Control Principles: Hierarchy of Control <i>Principles of Identifying Hazards & Risks in the Workplace • Hierarchy of Control & Its Underlying Principles - Work Procedures, Process Engineering Control, Ventilation & PPE. (Practicable Programmes May Involve a Combination of Measures)</i>
1500 – 1515	Break
1515 – 1620	Workplace Control Principles: Achieving Effective Control <i>The Meaning of Adequate Control including the Use of Occupational Exposure Limits, Other Published & In-House Standards (Including those for Carcinogens, Asthmagens & Biological Agents)</i>
1620 – 1630	Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise them of the Topics to be Discussed Tomorrow</i>
1630	End of Day One



Day 2: Monday, 07th of December 2026

0730 – 0930	Workplace Control Principles: The Role of Assessment (By All Routes) Identify Exposures, Confirm Compliance & Achieve Adequate Control • Identify Risks at the Design Stage & in Existing Facilities to Identify Risks from Normal Operations & During Non-Routine or Maintenance Activities
0930 - 0945	Break
0945 – 1030	Workplace Control Principles: The Practical Application of the Hierarchy of Control e.g. Use of a Combination of Measures, Stepwise Approach
1030 - 1115	Workplace Control Principles: Identifying Effective Control Strategies, Adopting the Principles of Reasonable Practicability (Including COSHH Essentials/ILO Toolbox)
1115 - 1230	Process Design & Principles: Design of Equipment & Workplace General Design of Equipment & Workplace Layout & How This Influences Exposure
1230 – 1330	Lunch
1330 - 1530	Process Design & Principles: Design of Equipment & Workplace (cont'd) The Effects of Automation & Robotics
1530 – 1545	Break
1545 - 1620	Process Design & Principles: Prevention, Elimination & Substitution Prevention of Exposure by Good Process Design, including Containment, Elimination or Substitution of Hazardous Substances & Activities
1620 – 1630	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise them of the Topics to be Discussed Tomorrow
1630	End of Day Two

Day 3: Tuesday, 08th of December 2026

0730 – 0900	Process Design & Principles: Prevention, Elimination & Substitution (cont'd) Examples of Industrial Processes Where Hazards May be Minimised by Changes to Substance or Form (e.g. Reduction of Volatile Constituents, Granulation of Dusty Powders)
0900 - 0915	Break
0915 - 1130	Ventilation Systems: Types of System General Ventilation Systems, Local Exhaust Ventilation (LEV)
1130 - 1230	Ventilation Systems: Principles Basic Principles of System Design- Fans, Ducts, Air Cleaners & Discharges • Fan Types & their Typical Applications • Duct Sizing, Configuration & Duct Materials
1230 - 1330	Lunch
1330 - 1500	Ventilation Systems: Principles (cont'd) Principles of System Balancing • Facilities for Thorough Examination, Maintenance, Examination & Testing. • Air Cleaners -Types (Gravity & Centrifugal Collectors, Dry Fabric, Electrostatic, Wet Methods, Absorption Types) & Their Performance
1500 – 1515	Break



1515 - 1620	Ventilation Systems: General Ventilation Systems Use as a Means of Controlling Airborne Exposures • Principles of Natural Ventilation & Infiltration • Mechanical Ventilation, Dilution or Displacement including Methods of Delivery & Distribution
1620 - 1630	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1630	End of Day Three

Day 4: Wednesday, 09th of December 2026

0730 - 0930	Ventilation Systems: General Ventilation Systems (cont'd) Determination & Calculation of Ventilation Requirements • Application & Limitations of General Ventilation
0930 - 0945	Break
0945 - 1230	Ventilation Systems: Local Exhaust Ventilation (LEV) Design Features • Lev Hoods; Enclosing Hoods, Receiving Hoods & Capturing Hoods. • Capture Velocities, Face Velocity, Transport Velocities • Fletcher & Garrison Methods of Predicting Air Flows, Velocity Contours & Effects of Flanges • Application of Hoods of All Types & Use of Partial & Total Enclosures in Industrial Situations • Limitations of Lev • Supply Air, (Importance of Location & Direction) Use of Treated Recycled Air • Safe Discharge Arrangements. (Treatment Before Discharge & Location of Discharge)
1230 - 1330	Lunch
1330 - 1500	Ventilation Systems: Measurement & Testing of LEV Systems Measurement of Performance & Relation to Attainment of Control of Exposure • Calculations for Volume Flows from Pressure & Velocity Measurements
1500 - 1515	Break
1515 - 1600	Ventilation Systems: Measurement & Testing of LEV Systems (cont'd) Maintenance Examination & Test; Periodic Checks & Inspections Thorough Examinations & Testing • Continued Satisfactory Performance Indication
1600 - 1620	Personal Protective Equipment: General Types of Personal Protective Equipment (PPE) including Respiratory Protective Equipment (RPE) Protective Gloves & Chemical Protective Clothing • Limitations of Use • Definition of Suitability • Importance of Selection, Training, Maintenance & Proper Use in the Development of a PPE Programme
1620 - 1630	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1630	End of Day Three

Day 5: Thursday, 10th of December 2026

0730 - 0930	Personal Protective Equipment: Respiratory Protective Equipment Types of RPE & Their Limitations E.G. Dust Respirators; High Efficiency, Powered, Ventilated Visors, Disposables, Ori-Nasal, Breathing Apparatus
0930 - 0945	Break
0945 - 1100	Personal Protective Equipment: Respiratory Protective Equipment (cont'd) Respirators for Organic Vapours & Inorganic Gases. • Selection, Use & Maintenance of RPE. Face Fit Testing
1100 - 1230	Personal Protective Equipment: Chemical Protective Clothing (CPC) Types of CPC • Performance Criteria • Testing Effectiveness • Application, Limitations • Storage Arrangements, Laundering Arrangements, Role in Prevention of Spread of Contamination • Suitability for Use & Integrity



1230 - 1330	Lunch
1330 - 1415	Personal Protective Equipment: Gloves & Dermal Care <i>Basic Dermal Exposure Assessment Techniques & Principles of Dermal Exposure Risk Management • Types of Gloves & Their Performance Data • Permeation & Breakthrough • Glove Selection, Maintenance & Training in Use</i>
1415 - 1430	Break
1430 - 1545	Administrative Elements <i>Reducing Periods of Exposure • Exclusion of Non-Essential Personnel, Personal Hygiene Arrangements • Co-Ordinated Approach to Control, Training, Supervision • Control of Access to Hazardous Areas • the Role of Assessment, Measurement, Monitoring & Health Surveillance in Initiating Control Measures • Role of Written Operating Procedures, Permits to Work etc. • Role of Occupational Hygiene Programmes in Continuing Control</i>
1545 - 1600	POST-TEST
1600 - 1615	Course Conclusion
1615 - 1630	<i>Presentation of Course Certificates</i>
1630	<i>End of Course</i>

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each participant will be given a username and password to log in Haward's Portal for the MOCK exam during the 60 days following the course completion. Each participant has only one trial for the MOCK exam within this 60-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.

Examinations & Assessment

Candidates are required to pass all of the following parts (A and B below) to be awarded this qualification.

(A) Practical Assessment

The practical assessment will be conducted by the Tutor during relevant parts of the course for all candidates. This is to ensure that every candidate can demonstrate their individual ability and correct method.

The practical exercises will involve:

- Visualisation of air flows as a means to test control (smoke tubes, smoke generators and dust lamps) on at least two typical ventilation systems
- Measurements in relation to a selection of extract points (e.g. face velocity or capture velocity) using thermal and vane anemometers and show a basic understanding of requirements for a selection of tasks.

Full details of the practical requirements and individual candidate reporting can be found in the Practical Evaluation Report which is available from www.bohs.org

(B) Written Examination

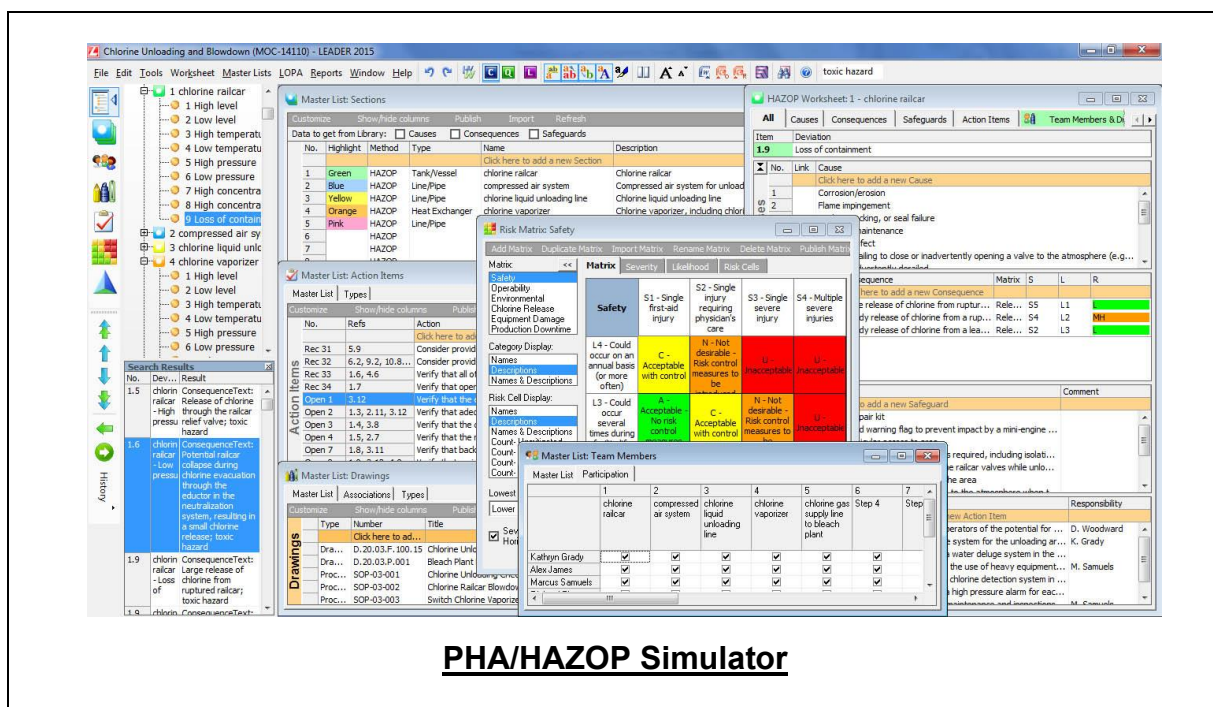
This is an open-book examination comprising of 40 (160 marks) short-answer questions illustrated by photographs and diagrams as appropriate to be answered in 2 hours. Each question is worth 4 marks

The examination covers all sections of the syllabus and is overseen by an invigilator.

The pass mark for this examination is 50 %

Simulator (Hands-on Practical Sessions)

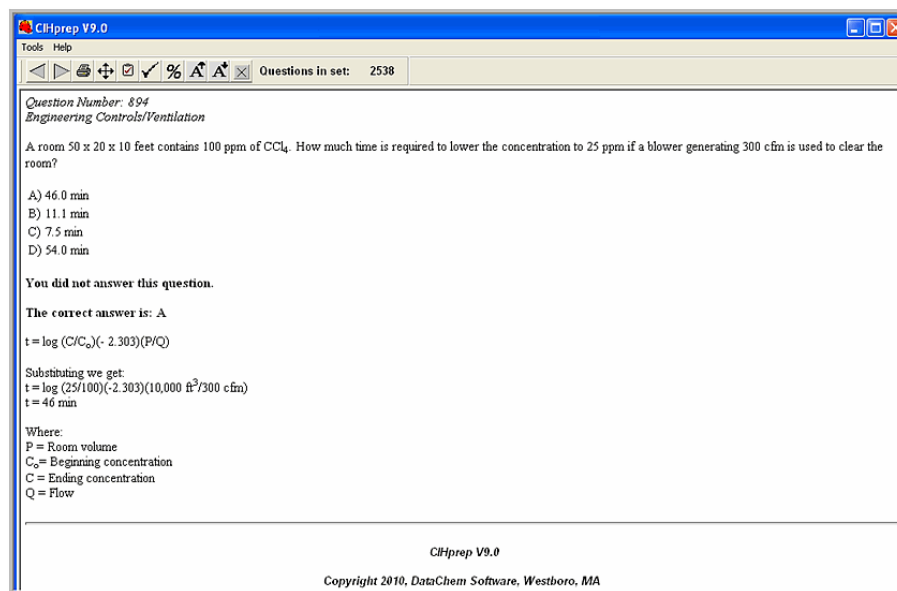
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art “PHA/HAZOP”, “Industrial Hygiene Virtual Laboratory” and “Haward CIHprep V9.0 ” simulators.



PHA/HAZOP Simulator



Industrial Hygiene Virtual Laboratory Simulator



CIHprep V9.0 Simulator

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org