

COURSE OVERVIEW HE1130

NEBOSH HSE Certificate in Process Safety Management (PSM)

Course Title

NEBOSH HSE Certificate in Process Safety Management (PSM)

Course Date/Venue

December 09-13, 2024/Al Reem 2 Meeting Room, Grand Millenium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference

HE1130

Course Duration/Credits

Training: Five days/2.8 CEUs/28 PDHs

Exam: As per NEBOSH Exam schedules



Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

The NEBOSH HSE Certificate in Process Safety Management qualification is designed to provide a sound breadth of knowledge and understanding that enables qualification holders to contribute to the management of process safety risks. This qualification builds on the understanding already gained by studying the NEBOSH National or International General Certificate in Occupational Health and Safety.



This qualification aims to provide holders with the knowledge and understanding of Process Safety Management to ensure that they can contribute to the effective management of process safety risks. When things go wrong in the process industry the results can be catastrophic. This has been evidenced by incidents in the past which have led to loss of life and many billions of US dollars' worth of damages. The Deepwater Horizon incident which tragically led to 11 people losing their lives and the total cost to BP was in the region of \$62 billion.



The process safety industry is high hazard so having qualified people to manage activities within the industry will lead to safer workplaces. This will help to prevent loss of life but will also help to protect valuable assets and helps organizations avoid prosecution and ultimately loss of reputation.

This course is designed to provide participants with a detailed and up-to-date overview of NEBOSH process safety management. It covers the meaning of process safety and how it differs from personal safety; the role of leadership in process safety management, the purpose of organizational learning; the benefits, limitations, types of worker participation and engagement; the purpose and importance of establishing a process safety management system and its key elements; the common risk management techniques used in process industries; asset management and maintenance strategies for process plant; and the role, purpose and features of a permit-to-work, the key principles of safe shift handover and the principles of selecting, assessing and managing contractors.

Further, the course will also discuss the purpose and requirements of standard operating procedures; the controls that shall be adopted to control the safe start-up and shutdown of process plant including the necessity for performance standards for safety critical systems, equipment and the concept of 'FARSI'; the hazards and controls associated with the use of steam and water as well as electricity/static electricity within the process industries; the physical forms of dangerous substances and how these can determine process risk; and the hazards presented by chemical reactions and the protective measures used to mitigate the consequences of a thermal runaway reaction including the hazards and controls available for the bulk storage of dangerous substances.

During this interactive course, participants will learn the fire and explosion hazards relating to process industries; the appropriate control measures to minimize the effects of fire and explosion in the process industries; how dusts have the potential to explode; the commonly used control measures adopted to prevent and minimize explosion; and the purpose and features of an emergency plan and the requirements for the implementation.

The syllabus consists of one unit (Unit PSM1) that is divided into four elements. The Unit is a taught unit assessed by 90 minutes written examination. The examination consists of 40 multiple-choice questions. All questions are compulsory. Candidate scripts are marked by external examiners appointed by NEBOSH.

Course Objectives

Upon the successful completion of this course and passing the required exams, each participant will be able to:-

- Achieve the NEBOSH HSE Certificate in Process Safety Management
- Define the meaning of process safety and how it differs from personal safety
- Explain the role of leadership in process safety management, the purpose of organizational learning, the sharing of lessons learnt and sources of information and how 'change' shall be managed to effectively reduce risks to people and plant
- Identify the benefits, limitations, types of worker participation and engagement and what is meant by competence and its importance to process safety
- Discuss the purpose and importance of establishing a process safety management system and its key elements
- Recognize the common risk management techniques used in process industries

- Carryout asset management and maintenance strategies for process plant
- Explain the role, purpose and features of a permit-to-work, the key principles of safe shift handover and the principles of selecting, assessing and managing contractors
- Identify the purpose and requirements of standard operating procedures
- Implement the controls that shall be adopted to control the safe start-up and shutdown of process plant including the necessity for performance standards for safety critical systems, equipment and the concept of 'FARSI'
- Recognize the hazards and controls associated with the use of steam and water within the process industries as well as the hazards and controls associated with electricity/static electricity within the process industries
- Discuss the physical forms of dangerous substances and how these can determine process risk
- Illustrate the hazards presented by chemical reactions and the protective measures used to mitigate the consequences of a thermal runaway reaction including the hazards and controls available for the bulk storage of dangerous substances
- Explain fire and explosion hazards relating to process industries and employ the appropriate control measures to minimize the effects of fire and explosion in the process industries
- Recognize how dusts have the potential to explode and commonly used control measures adopted to prevent and minimize explosion
- Identify the purpose and features of an emergency plan and the requirements for the implementation

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, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides a wide understanding and deeper appreciation of process safety management for supervisors, newly appointed managers, junior managers, safety representatives and newly qualified health and safety advisors within the process industries.

Examination Schedule

NEBOSH requires minimum 30 working days to schedule an exam. Participants must submit their complete applications minimum 15 working days prior to the scheduled exam date. We recommend that participants submit their applications one or two weeks earlier than the above NEBOSH deadline.

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) NEBOSH HSE Certificate in Process Safety Management will be issued to participants who have successfully passed the written examination.




- (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.




Certificate Accreditations

Haward Technology is accredited by the following international accreditation:-

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NEBOSH: The National Examination Board in Occupational Safety and Health

Haward Technology is an **Accredited Course Provider** and **Learning Partner** of The National Examination Board in Occupational Safety and Health (**NEBOSH**) with **Learning Partner Number 931 Bronze**. NEBOSH is the awarding body approved by Scottish Qualifications Authority (SQA). Haward Technology is authorized to offer NEBOSH's comprehensive range of globally-recognized qualifications designed to meet the health, safety, environmental and risk management needs of all places of work.


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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 **2.8 CEUs** (Continuing Education Units) or **28 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.

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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.

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. Shehab Kamel, NEBOSH, IOSH, OSHA, NFPA, IADC is a **Senior HSE Engineer** with extensive years of experience within the **Oil & Gas, Refinery** and **Petrochemical** industries. He is a **NEBOSH Approved Instructor** for various certification programs. His expertise lies extensively in the areas of **NEBOSH Certificate in Fire Safety, NEBOSH International Technical Certificate in Oil and Gas Operational Safety, NEBOSH International General Certificate in Occupational Health & Safety, NEBOSH HSE Certificate in Process Safety Management, Health & Safety in the Workplace, IOSH Leading Safely, IOSH Managing Safely, Hazardous Area Classification, Control of Hazardous Substances, HAZOP & HAZID, HAZMAT & HAZCOM Storage & Disposal, As Low as Reasonably Practicable (ALARP), Process Hazard Analysis (PHA), Process Safety Management (PSM), Hazardous Materials & Chemicals Handling, Pollution Control, Environment, Health & Safety Management, Process Risk Analysis, Effective Tool Box Talks, Construction Sites Safety, HSSE Management System, HSSE Audit & Inspection, HSEQ Procedures, Authorized Gas Testing, Confined Space Entry & Rescue, Risk Management, Quantitative & Qualitative Risk Assessment, Working at Height, Incident & Accident Investigation, Emergency Planning, Emergency Response & Crisis Management Operations, Waste Management Monitoring, Root Cause Analysis, Hazard & Risk Assessment, Task Risk Assessment (TRA), Job Safety Analysis (JSA), Risk Assessment, Fire Fighting, Fire Prevention & Safety, Fire Risk Assessment, Active & Positive Fire Fighting, Fire & Gas Detection Systems, Fire Fighting & Rescue Operations, Gas Testing Equipment, Scaffolding Inspection & Fall Prevention, Safe Rigging & Lifting Tools, Advanced Rigging & Slings, Working at Heights, Confined Space Entry & Rescue** and various international codes and standards such as the ISO 9001, ISO 45001 and ISO 14001.

During his career life, Mr. Shehab has gained his practical and field experience through his various significant positions and dedication as the **HSE Department Head, HSE Section Head, Senior HSE Engineer, HSE Engineer** and **HSE Trainer & Consultant** from various international companies Kalda Petroleum Company, Qarun Petroleum Company, Almansoori Specialize Engineering and Sinotharwa Drilling Company.

Mr. Shehab has a **Master's degree in Occupational Health, Safety and Environment**, a **Bachelor's degree in Chemistry** and a **Post Graduate Diploma in Health & Safety and Environment**. Further, he is an **Approved Tutor** for **NEBOSH International Technical Certificate in Oil and Gas Operational Safety, NEBOSH in Fire Safety, NEBOSH General Certificate in Occupational Health & Safety** and **NEBOSH HSE Certificate in Process Safety Management**, an **OSHA Authorized Trainer**, a **Certified Trainer for IOSH Leading Safely**, and an **NFPA Certified Fire Protection Specialist**. He has further delivered numerous trainings, courses, seminars, conferences and workshops internationally.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

US\$ 5,500 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**

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: Monday, 09th of December 2024

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|-------------|---|
| 0730 – 0800 | Registration & Coffee |
| 0800 – 0845 | Welcome & Introduction |
| 0845 – 0930 | Unit PSM 1: Process Safety Management: Element 1: Process Safety Leadership Process Safety Management Meaning • Process Safety Leadership |
| 0930 – 0945 | Break |
| 0915 – 1100 | Unit PSM 1: Process Safety Management: Element 1: Process Safety Leadership (cont'd) Organizational Learning • Management of Change |
| 1100 – 1230 | Unit PSM 1: Process Safety Management: Element 1: Process Safety Leadership (cont'd) Worker Engagement • Competence |
| 1230 – 1245 | Break |
| 1245 – 1420 | Unit PSM 1: Process Safety Management: Element 2: Management of Process Risk Establishing a Process Safety Management System |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day One |

Day 2: Tuesday, 10th of December 2024

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| 0730 – 0900 | Unit PSM 1: Process Safety Management: Element 2: Management of Process Risk (cont'd) Risk Management Techniques Used Within the Process Industries |
| 0900 – 0915 | Break |

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| 0915 – 1100 | Unit PSM 1: Process Safety Management: Element 2: Management of Process Risk (cont'd) <i>Asset Management & Maintenance Strategies</i> |
| 1100 – 1200 | Unit PSM 1: Process Safety Management: Element 2: Management of Process Risk (cont'd) <i>Role & Purpose & Features of a Permit-to-Work System</i> |
| 1200 – 1215 | <i>Break</i> |
| 1215 – 1420 | Unit PSM 1: Process Safety Management: Element 2: Management of Process Risk (cont'd) <i>Safe Shift Handover</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day Two</i> |

Day 3: Wednesday, 11th of December 2024

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|-------------|---|
| 0730 – 0835 | Unit PSM 1: Process Safety Management: Element 2: Management of Process Risk (cont'd) <i>Contractor Management</i> |
| 0835 – 0930 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control <i>Operating Procedures</i> |
| 0930 – 0945 | <i>Break</i> |
| 0945 – 1100 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control (cont'd) <i>Safe Start-Up & Shut-Down</i> |
| 1100 – 1200 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control (cont'd) <i>Safety Critical Performance Standards</i> |
| 1200 – 1215 | <i>Break</i> |
| 1215 – 1420 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control (cont'd) <i>Utilities</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day Three</i> |

Day 4: Wednesday, 12th of December 2024

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| 0730 – 0900 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control (cont'd) <i>Electricity/Static Electricity</i> |
| 0900 – 0915 | <i>Break</i> |
| 0915 – 1100 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control (cont'd) <i>Dangerous Substances</i> |
| 1100 – 1230 | Unit PSM 1: Process Safety Management: Element 3: Process Safety Hazard Control (cont'd) <i>Reaction Hazards • Bulk Storage Operations</i> |
| 1230 – 1245 | <i>Break</i> |
| 1245 – 1420 | Unit PSM 1: Process Safety Management: Element 4: Fire & Explosion Protection <i>Fire & Explosion Hazards</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day Four</i> |

Day 5: Thursday, 13th of December 2024

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| 0730 – 0830 | <i>Unit PSM 1: Process Safety Management: Element 4: Fire & Explosion Protection (cont'd) Fire & Explosion Control</i> |
| 0830 – 0845 | <i>Break</i> |
| 0845 – 1045 | <i>Unit PSM 1: Process Safety Management: Element 4: Fire & Explosion Protection (cont'd) Dust Explosions</i> |
| 1045 – 1100 | <i>Break</i> |
| 1100 – 1345 | <i>Unit PSM 1: Process Safety Management: Element 4: Fire & Explosion Protection (cont'd) Emergency Preparedness</i> |
| 1345 – 1400 | <i>Course Conclusion</i> |
| 1400 – 1415 | <i>POST-TEST</i> |
| 1415 – 1430 | <i>Presentation of Course Certificates</i> |
| 1430 | <i>Lunch & End of Course</i> |

Day 6: As per NEBOSH Exam Schedule

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| 0730 – 0800 | <i>NEBOSH Exam Registration/Briefing</i> |
| 0800 – 1300 | <i>Unit PSM1 Examination</i> |
| 1300 | <i>End of Exam</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 30 days following the course completion. Each participant has only one trial for the MOCK exam within this 30-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.

NEBOSH Examination

Once Haward Technology has registered you to an examination, they will send you an Examination Entry Confirmation that includes your learner number, and important information relating to your examination and results process. Please ensure that you check your name is spelt correctly and report this to your learning partner and NEBOSH if any changes are required.

The Examination Entry Confirmation is essential to gain entry to the examination room, you will need to show a form of photographic identification to the invigilator and then sign the Examination Entry Confirmation. Please contact your learning partner if you have not received your Examination Entry Confirmation.

| Assessment Date | Result Notification Date |
|-----------------------------|----------------------------|
| Wednesday 24 July 2024 | Wednesday 14 August 2024 |
| Wednesday 21 August 2024 | Thursday 12 September 2024 |
| Wednesday 25 September 2024 | Wednesday 16 October 2024 |
| Wednesday 23 October 2024 | Wednesday 13 November 2024 |

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| Wednesday 20 November 2024 | Wednesday 11 December 2024 |
| Wednesday 11 December 2024 | Friday 10 January 2025 |
| Wednesday 22 January 2025 | Wednesday 12 February 2025 |
| Wednesday 26 February 2025 | Wednesday 19 March 2025 |
| Wednesday 26 March 2025 | Wednesday 16 April 2025 |
| Wednesday 23 April 2025 | Thursday 15 May 2025 |
| Wednesday 28 May 2025 | Wednesday 18 June 2025 |
| Wednesday 25 June 2025 | Wednesday 16 July 2025 |
| Wednesday 23 July 2025 | Wednesday 13 August 2025 |
| Wednesday 27 August 2025 | Wednesday 17 September 2025 |
| Wednesday 24 September 2025 | Wednesday 15 October 2025 |
| Wednesday 29 October 2025 | Wednesday 19 November 2025 |
| Wednesday 26 November 2025 | Wednesday 17 December 2025 |
| Wednesday 17 December 2025 | Monday 19 January 2026 |

Practical Sessions

This practical and highly-interactive course includes the following real-life case studies:-



Course Coordinator

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