

COURSE OVERVIEW HE0097

Certified Process Safety Management (PSM)

Auditing & Implementation

Course Title

Certified Process Safety Management (PSM):
Auditing & Implementation

Course Reference

HE0097

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Date/Venue

Session(s)	Date	Venue
1	October 06-10, 2024	Al Aziziya Hall, The Proud Hotel Al Khobar, Al Khobar, KSA
2	December 16-20, 2024	Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Introduction



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.



Unexpected releases of toxic, reactive, or flammable liquids and gases in processes involving highly hazardous chemicals have been reported for many years in various industries that use chemicals with such properties. Regardless of the industry that uses these highly hazardous chemicals, there is a potential for an accidental release any time they are not properly controlled, creating the possibility of disaster.



To help ensure safe and healthful workplaces, OSHA has issued the Process Safety Management of Highly Hazardous Chemical standards (29 CFR 1910.119), which contains requirements for the management of hazards associated with processes using highly hazardous chemicals.

Process safety management (PSM) is addressed in specific standards for the general and construction industries. OSHA's standard emphasizes the management of hazards associated with highly hazardous chemicals and establishes a comprehensive management program that integrates technologies, procedures and management practices.

This is a foundation course for Process Safety Management as applicable to process industry. The course provides an in-depth study of each PSM element of HSEMS PSM program and how the overall architecture applies to each. The course introduces each PSM element and the specific guidelines for integrating PSM element requirements into their corporate program (such as quality and reliability programs) and evaluating program compliance throughout the implementation phase. This course also covers how to expand PSM program to include RBPS (Risk Based Process Safety) elements as proposed by the CCPS (center for Chemical Process Safety), Aiche, PSM program.

PSM System auditing is an independent appraisal function undertaken by an organization to examine and evaluate its activities. The objective of PSM auditing is to provide information to those in management in support of decision making and to assist members of the organization in the effective discharge of their responsibilities. To this end, PSM auditing may furnish the organization with analyses, appraisals, recommendations, counsel, or information concerning the activities reviewed the adequacy and effectiveness of the organization's system of PSM control, and the quality of performance. The information furnished to different members of the organization may vary in format and detail, depending upon the requirements and requests of those commissioning the audit(s).

Throughout the world PSM auditing is performed in diverse environments and within organizations which vary in purpose, size, and structure. In addition, the laws and customs within various countries differ from one another. These differences may affect the practice of PSM auditing in each environment. The implementation of these Standards, therefore, will be governed by the environment in which the auditing function carries out its assigned responsibilities. Conformance with the concepts enunciated by the Standards is essential before the responsibilities of PSM auditors can be met.

Course Objectives

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

- Get certified as a “*Certified PSM Auditor*”
- Apply and gain an in-depth knowledge on process safety management (PSM) auditing and implementation
- Recognize OSHA Process Safety Management (PSM) Standard 29 CFR 1910.119
- Interpret the performance-based requirements of the US OSHA PSM and EPA risk management standards mentioned above and discuss about related industry standards
- Discuss the elements of process safety that are missing from typical PSM systems including human factors elements (communication, human system interface, work environment, staffing and fitness for duty), facility siting element, project risk management, senior leadership and accountability
- Review the Risk-Based Process Safety (RSPS) guide (2007) from CCPS/AIChE in order to recognize how to close critical gaps
- Implement multiple options and an effective need-specific program
- Identify the jargon for communicating PSM requirements to others throughout the organization

- Employ process risk management methodology which includes hazard identification, risk assessment of operations, risk reduction activities and residual risk management
- Use a system approach on the incident investigation procedures including reporting mechanism, dissemination of findings, incident analysis and recommendation implementation
- Identify the auditor's ethics and standards of conduct and recognize their importance in safety auditing, hazard identification and site inspection
- Design a professional audit program taking into consideration the protocols, checklists and guidelines needed for planning and implementation
- Conduct audit engagement by performing the pre-audit activities, on-site-activities and post-audit activities
- Implement the audit control systems including the process of preparing, coordinating, directing and obtaining feedback as well as the audit of regulatory aspects and requirements as well as recognize the audit of process operations, environmental impacts and the related control technology
- Adapt the auditor personal qualities and communication including the attitude, adaptability, determination and leadership

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 process safety management auditing and implementation for environmental, health, safety and quality management system specialists who need to gain the knowledge and skills necessary to plan, conduct, report, and lead audits of PSM, environmental, health and safety management systems. Further, the course is intended for site inspectors and safety officers.

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 Certificate(s)

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "Certified PSM Auditor". Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants: -



- (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.

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Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEUs

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-21

HTME No. 3558-6717-5364-9527

Participant Name: Abdulsatar Al Otaibi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0097	Certified Process Safety Management (PSM): Auditing & Implementation	10 Nov-14 Nov, 2021	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date **3.0**

TRUE COPY



Maricel De Guzman
Academic Director

Haward Technology has been approved as an Authorized 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 1-2013 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 1-2013 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










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Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course.


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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 **3.0 CEUs** (Continuing Education Units) or **30 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. Saad Bedir, BSc, NEBOSH-IGC, NEBOSH-ENV, is a **Senior Fire, Health, Safety & Environment (HSE) Consultant** with over **35 years** of extensive experience in the **Power, Petrochemical and Oil & Gas** industries. He is a **NEBOSH Approved Instructor** for various certification programs. He is well-versed in the areas of **NEBOSH International General Certificate, NEBOSH Certificate in Environmental Management, Health, Fire, Safety, Security & Environmental Codes of Practice, Legislations and Procedures, Active and Positive Fire Fighting, Fire & Gas Detection Systems, Fire Fighting Systems, Fire Proofing, ESD, Escape Routes, Mobile Crane Operation, Heavy Lifting Equipments, Scaffolding, Rigging Slings, the implementation of OHSAS 18001, ISO 9001, ISO 14001, QHSE Management Planning, Crisis & Business Continuity Management Planning, Emergency Response & Procedures, Industrial Security Risk Assessment & Management, Environmental Impact Assessment (EIA), Behavioural Safety, Occupation Safety, Incident & Accident Investigation, Integrated EHS Aspects, Risk Assessment & Hazard Identification, Environmental Audits, Chemical Handling, Hazardous & Non-Hazardous Waste Management, Confined Space Safety, SHEMS Principles, Process Safety, Basic & Advanced Construction Safety, Mobile Crane Operations, Rig & Barge Inspection, Lifting & Slings, Scaffolding, Air Quality Management, Safety & Occupational Health Awareness, Loss Control, Marine Pollution Hazards & Control, Ground Contamination & Reclamation Processes, Waste Management & Recycling, Clean Energy & Power Saving, FMEA, HAZMAT/HAZCOM, HAZOP, HAZWOPER, HAZID, HSEIA, QRA, Hazardous Area Classification and Radiation Protection.** Further, he is also well-verse in **Performance Standards, Statistical Report Writing, Basic Motivation Management, Performance Assessment & Appraisal, Manpower Planning, Managing & Coordinating Training, Strategic Talent Management, Developing Others, Managing Employees Performance, Performance Evaluation and Human Resource Management.** Presently, he is the **HSE Director** for one of the largest and renowned companies in the Middle East, wherein he takes charge of all HSE and security operations of the company.

Mr. Saad's vast professional experience in directing and managing health, safety and the environment aspects as per **OSHA framework** and guidelines can be traced back to his stint with a few international companies like **Saudi ARAMCO, CONOCO, Kuwait Oil Co. (KOC)**, where he worked as the Field HSE Senior Engineer handling major projects and activities related to the discipline. Through these, Saad gained much experience and knowledge in the implementation and maintenance of international safety standards such as the National Fire Protection Association (**NFPA**), the American Petroleum Institute (**API**), Safety of Life at Sea (**SOLAS**) and Safety for Mobile Offshore Drilling Unit (**MODU**).

Mr. Saad has **NEBOSH** certificate which includes health & safety measures including:

- Firefighting management system
- Rescue mechanisms (Escaping routes, Rope rescue, and emergency evacuation Plan)
- Machinery Safety requirement
- Occupational health measures & requirement

Mr. Saad has a **Bachelor** degree in **Chemistry**. Further, he is a **Certified Instructor/Trainer**, an **Approved Tutor** in **NEBOSH International General Certificate**, an **Approved Tutor** in **NEBOSH Certificate in Environmental Management**, a **Certified Lead Auditor** for **OHSAS 18001, ISO 9001, ISO 14001** and a **member** of the **Egyptian Syndicate & Scientific Professions**. His passion for development and acquiring new skills and knowledge has taken him all over the Middle East to attend and share his expertise in numerous trainings and workshops.

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.

Accommodation

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

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

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Introduction <i>OSHA PSM Standard 29 CFR 1910.119</i>
0930 – 0945	<i>Break</i>
0945 – 1115	Performance-Based Requirements of the US OSHA PSM & EPA Risk Management Standards
1115 – 1215	The Elements of Process Safety that are Missing from Typical PSM System <i>Human Factor Element (Communication, Human System Interface, Work Environment, Staffing and Fitness for Duty) • Facility Siting Element • Project Risk Management • Senior Leadership & Accountability</i>
1215 – 1230	<i>Break</i>
1230 – 1420	The Risk-Based Process Safety (RBPS) Guide (2007) from CCPS/ AIChE to Understand How to Close Critical Gaps
1420 – 1430	Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0930	Multiple Options for Implementing an Effective Need-Specific Program
0930 – 0945	<i>Break</i>
0945 – 1030	Jargon for Communicating PSM Requirements to others throughout the Organization <i>Develop Written Programs to Meet PSM Requirements • Incorporate and Integrate the PSM Element Requirements into other Corporate Programs and other Corporate Management Systems • Key Performance Indicators</i>
1030 – 1115	Jargon for Communicating PSM Requirements to others throughout the Organization (cont'd) <i>How to Evaluate Program Compliance throughout the Implementation • How to Begin Implementation at the Company • Additional Training Necessary for Implementation of Specific Elements</i>



1115 - 1215	Process Risk Management Hazard Identification • Risk Assessment of Operations • Risk Reduction Activities Residual • Risk Management • Customer/Supplier Facilities and Practices • New Businesses
1215 - 1230	Break
1230 - 1420	Incident Investigation Incident Investigation System • Reporting Mechanism • Investigation • Investigation Reporting
1420 - 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3

0730 - 0900	Incident Investigation (cont'd) Dissemination of Findings • Recommendation Implementation/Closure • Incident Analysis
0900 - 0915	Break
0915 - 1100	Auditor's Ethics & Standards of Conduct Conflict of Interest • Independence • Proficiency • Material Facts and Disclosure • Due Professional Care • Confidentiality
1100 - 1215	Audit Program Design and Management Audit Program Objectives and Scope • Audit Program Organization • Protocols, Checklists and Guides • Frequency of Audits and Selection of Sites
1215 - 1230	Break
1230 - 1420	Audit Program Design and Management (cont'd) Quality Assurance Provisions • Auditor Staffing and Training • Document Management
1420 - 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4

0730 - 0900	Conducting Audit Engagements: (1) Pre-Audit Activities Establishment of Audit Scope and Objectives and their Communication to Interested Persons • Assembly and Review of Available Information Pertinent to the Audit • Preparation of the Audit Plan Directed at Efficient and Effective Use of Resources to Achieve Audit Objectives
0900 - 0915	Break
0915 - 1100	Conducting Audit Engagements: (1) Pre-Audit Activities (cont'd) Contact with the Auditee to Exchange Information and Begin to Lay the Groundwork for a Cordial and Productive Working Relationship • Team Selection and Coordination to Assure that all Members are Capable and Prepared to Carry out their Assigned Role • Determination of Final Report Scope, Format and Distribution
1100 - 1215	Conducting Audit Engagements: (2) On-Site Activities Opening Meeting • Collecting Audit Evidence • Development and Review of Findings • Closing Meeting



1215 – 1230	Break
1230 – 1420	Conducting Audit Engagements: (3) Post-Audit Activities Reporting • Documentation • Corrective Action
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Four

Day 5

0730 – 0930	Audit of Internal Control Systems Preparing • Coordinating • Directing • Obtaining Feedback • Continuous Improvement
0930 – 0945	Break
0945 – 1100	Audit of Regulatory Aspects Process of Development of Environmental Health and Safety Regulations • Governmental, Mother Company and Local Bodies in Environmental Health and Safety Regulations • Regulatory Requirements • Enforcement Policy and Procedures
1100 – 1215	Audit of Process Operations, Environmental Impacts and Related Control Technology Typical Environmental Health or Safety Impacts • Monitoring of Environmental Health and Safety Impacts • Control Techniques and Devices • Operation and Maintenance of Control Devices and Techniques
1215 – 1230	Break
1230 – 1300	Auditor Personal Qualities and Communication Attitude • Teamwork • Adaptability • Determination • Communications • Leadership
1300 – 1315	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1315 – 1415	COMPETENCY EXAM
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Practical Sessions

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



Course Coordinator

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