

COURSE OVERVIEW HE0171 Certified Process Safety Professional (CPSP)

(CCPS Exam Preparation Training)

Course Title

Certified Process Safety Professional (CPSP) (CCPS Exam Preparation Training)

Course Date/Venue

Session 1: October 06-10, 2024/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Session 2: December 15-19, 2024/Club B Meeting Room, Ramada Plaza by Wyndham Istanbul City Center, Istanbul, Turkey



Course Duration/Credits Five days/3.0 CEUs/30 PDHs

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.

This course is designed to provide participants with a detailed and up-to-date overview of Certified Process Safety Professional (CPSP) (CCPS Exam Preparation Training). It covers the four pillars and 20 elements of riskbased process safety (RBPS) and the importance of process safety; the process safety culture, leadership commitment, employee engagement and empowerment and safetyoriented culture; gathering and maintaining process safety information; and the key components of Process Safety Information (PSI).



Further, the course will also discuss the Process Hazard Analysis (PHA) fundamentals as well as HAZOP, What-If, FMEA techniques and risk management; the advanced PHA techniques, human factors in process safety and adherence to safety protocols and procedures; the Safety Instrumented Systems (SIS), potential consequences of process failures and consequence analysis in risk assessment; building and maintaining process safety competency organization; the management of change (MoC), emergency management and response; and the incident investigation, root cause analysis and operational readiness and prestartup safety reviews (PSSR).





















During this interactive course, participants will learn the asset integrity and reliability, safe work practices, permit-to-work systems and contractor management; the key process safety metrics, metrics for continuous improvement and process safety audits; the management reviews, continuous improvement processes and integrating process safety into corporate governance; the stakeholder engagement and communication, sustainability and process safety; the emerging trends and technologies in process safety.

Course Objectives

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

- Get prepared for the next CCPS-CPSP exam and have enough knowledge and skills to pass such exam in order to get the Certified Process Safety Professional (CPSP) certification from the Center for Chemical Process Safety (CCPS)
- Discuss the four pillars and 20 elements of risk-based process safety (RBPS) and the importance of process safety
- Develop a process safety culture, leadership commitment, employee engagement and empowerment and safety-oriented culture
- Gather and maintain process safety information and identify the key components of Process Safety Information (PSI)
- Discuss Process Hazard Analysis (PHA) fundamentals as well as HAZOP, What-If, FMEA techniques and risk management
- Carryout advanced PHA techniques, identify the human factors in process safety and ensure adherence to safety protocols and procedures
- Design and implement Safety Instrumented Systems (SIS), analyze potential consequences of process failures and use consequence analysis in risk assessment
- Build and maintain process safety competency within the organization and implement management of change (MoC), emergency management and response
- Apply incident investigation, root cause analysis and operational readiness and prestartup safety reviews (PSSR)
- Employ asset integrity and reliability, safe work practices, permit-to-work systems and contractor management
- Identify and track key process safety metrics, use metrics for continuous improvement and conduct process safety audits
- Conduct management reviews, implement continuous improvement processes and integrate process safety into corporate governance
- Apply stakeholder engagement and communication, sustainability and process safety as well as discuss the emerging trends and technologies in process safety





















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 an overview of all significant aspects and considerations of riskbased process safety for employees from operations, maintenance and technical services.

Exam Eligibility & Structure

Exam candidates shall have the following minimum prerequisites:-

- 5 years industrial experience with a degree (4 year / bachelor's or equivalent) from an accredited college or university in science, technology, engineering, or math (STEM), or
- 10 years experience for a degree in a non-STEM field or no degree

Training Methodology

All our Courses are including Hands-on Practical Sessions using equipment, Stateof-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.

Training 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.
US\$ 6,000 per Delegate + VAT . This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Exam Fee

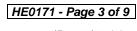
US\$ 535 per Delegate + **VAT**.

















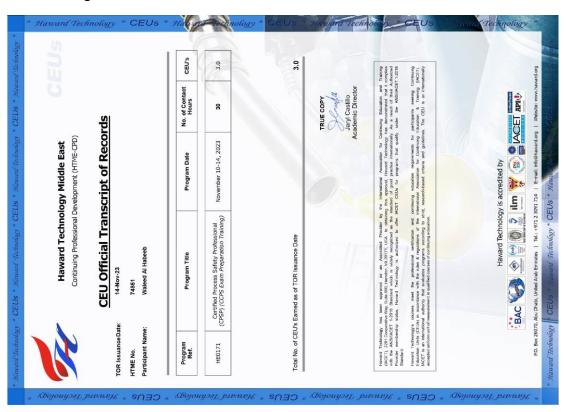


CCPS-CPSP Certificate(s)

CCPS-CPSP certificates will be issued to participants who have successfully passed the CCPS-CPSP 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.





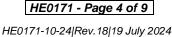






















<u>s</u> Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

• 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.



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.

Accommodation

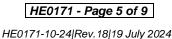
Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.



















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. Raymond Tegman is a Senior HSE Consultant with extensive experience within the Oil & Gas, Petrochemical and **Refinery** industries. His broad expertise widely covers in the areas of Rigging Safety Rules, Machinery & Hydraulic Lifting Equipment, Handling Hazardous Chemicals, Spill Containment, Fire Protection, Fire Precautions, Incidents & Accidents Reporting, HSEQ Audits & Inspection, HSEQ Procedures. **Environmental** Awareness, **Waste** Management Monitoring,

Emergency Planning, Emergency Management, Working at Heights, Root Cause Analysis, HSE Rules & Regulations, Process Safety Management (PSM), Process Hazard Analysis (PHA), Techniques, HAZOP, HSE Risk, Pre-Start-up Safety Reviews, HSE Risk Identification, Assessments & Audit, Occupational Hygiene and Safety, Associate Safety Professional (ASP), Safety Professional, Process Safety Professional, Fire Protection Specialist, HSE Risk Assessment & Management Concepts, HSE Management Policy & Standards, HSSE Emergency Response & Crisis Management Operations, Confined Space Entry, Quantitative Risk Assessment (QRA), Hazardous Materials & Chemicals Handling, Safety Precaution & Response Action Plan, Hazard & Risk Assessment, Task Risk Assessment (TRA), Incident Command, Accident & Incident Investigation, Emergency Response Procedures, Job Safety Analysis (JSA), Behavioural Based Safety (BBS), Fall Protection, Work Permit & First Aid, Lock-out/Tag-out (LOTO), Emergency Response, Construction Supervision, Scaffolding Inspection, HAZCHEM, Manual Material Handling, Road Traffic Supervision, ISO 9001 and OHSAS 18001.

During his career life, Mr. Tegman has gained his practical and field experience through his various significant positions and dedication as the Operations Manager, Safety & Manager, Manager, Road/Traffic Supervisor, Maintenance Safety Assessor/Moderator, Safety Consultant, Safety Advisor, Safety Officer and Liaison Officer from Zero Harm, SHRA Training & Services (Health & Safety), Road Crete, Balwin Property Development, DEME International, Gladstone Australia, Godavari Gas Pipeline and New Castle NCIG.

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

zu, .	
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0930	Overview of RBPS Framework Introduction to the Four Pillars and 20 Elements of RBPS • Importance of Process Safety and Historical Context
0930 - 0945	Break

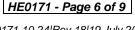






















	Developing a Process Safety Culture
0945 - 1030	Leadership Commitment • Employee Engagement and Empowerment • Building
	and Maintaining a Safety-Oriented Culture
	Understanding Process Safety Information (PSI)
10303 - 1130	Gathering and Maintaining Process Safety Information • Key Components of PSI
	(e.g., Material Safety Data Sheets, Process Flow Diagrams)
1130 - 1230	Process Hazard Analysis (PHA) Fundamentals
1130 - 1230	Overview of PHA Methodologies • HAZOP, What-If, and FMEA Techniques
1230 – 1245	Break
1245 - 1330	Risk Management
1243 - 1330	Identifying and Assessing Risks • Implementing Risk Management Strategies
1330 - 1420	Case Studies & Group Discussions
1330 - 1420	Review of Major Industrial Incidents • Lessons Learned and Best Practices
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2

Advanced PHA Techniques In-Depth Look at PHA Methodologies ■ Conducting Effective PHAs
Human Factors in Process Safety
Understanding Human Error and its Impact on Safety • Strategies to Mitigate
Human Error
Break
Operational Discipline & Compliance
Ensuring Adherence to Safety Protocols and Procedures • Role of Operational
Discipline in Preventing Incidents
Safety Instrumented Systems (SIS)
Overview of SIS and their Role in Process Safety • Design and Implementation of
SIS
Break
Consequence Analysis
Techniques for Analyzing Potential Consequences of Process Failures • Use of
Consequence Analysis in Risk Assessment
Group Exercises & PHA Workshops
Practical Application of PHA Techniques • Group Exercises to Reinforce Learning
Recap
Lunch & End of Day Two

Day 3

Duy 0	
0720 0020	Process Safety Competency
0730 – 0830	Building and Maintaining Process Safety Competency within the Organization
0830 - 0930	Management of Change (MOC)
0030 - 0930	Principles of Effective MOC ● Implementation and Tracking of Changes
0930 - 0945	Break
	Emergency Management & Response
0945 - 1100	Developing and Implementing Emergency Response Plans • Coordination with
	Local Emergency Services





















1100 - 1230	Incident Investigation & Root Cause Analysis Techniques for Investigating Process Safety Incidents • Conducting Root Cause Analysis
1230 - 1245	Break
1245 – 1420	Operational Readiness & Pre-Startup Safety Reviews (PSSR) Ensuring Systems are Safe to Start ● PSSR Methodologies and Best Practices
1420 - 1430	Recap
1430	Lunch & End of Day Three

Dav 4

Day 4	
	Asset Integrity & Reliability
0730 - 0830	Ensuring the Integrity and Reliability of Process Equipment • Maintenance
	Strategies and Programs
	Safe Work Practices
0830 - 0930	Development and Implementation of Safe Work Practices • Permit-to-Work Systems
	and Contractor Management
0930 - 0945	Break
	Process Safety Metrics & Performance Indicators
0945 - 1100	Identifying and Tracking Key Process Safety Metrics • Using Metrics for
	Continuous Improvement
	Auditing & Compliance
1100 - 1230	Conducting Process Safety Audits • Ensuring Compliance with Regulations and
	Standards
1230 - 1245	Break
	Management Review & Continuous Improvement
1245 - 1330	Conducting Management Reviews • Implementing Continuous Improvement
	Processes
	Group Discussions & Continuous Improvement Workshops
1330 - 1420	Sharing Best Practices and Lessons Learned • Developing Action Plans for
	Continuous Improvement
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

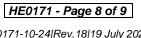
	Integrating Process Safety into Corporate Governance
0730 - 0930	Role of Process Safety in Corporate Governance • Aligning Process Safety with
	Business Objectives
0930 - 0945	Break
	Stakeholder Engagement & Communication
0945 - 1100	Engaging with Stakeholders on Process Safety Issues • Effective Communication
	Strategies
	Sustainability & Process Safety
1100 - 1230	Role of Process Safety in Sustainability Initiatives • Environmental and Social
	Aspects of Process Safety
1230 - 1245	Break



















	Future Trends in Process Safety
1245 - 1345	Emerging Trends and Technologies in Process Safety • Preparing for Future
	Challenges
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

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 7 days following the course completion. Each participant has only one trial for the MOCK exam within this 7-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.

Exam Periods

- July 08-15, 2024
- November 04-11, 2024
- March 10-17, 2025

The deadline to sign up is at noon Eastern Time on Friday, prior to the exam. Applications take up to one month to review, after receipt of references. Please plan accordingly.

Practical Sessions

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



Course Coordinator

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









