

**COURSE OVERVIEW HE1822**

**Professional Process Safety Inspector (PPSI)  
Module 3: Human Factors & Cultural Aspects**

**Course Title**

Professional Process Safety Inspector (PPSI):  
Module 3: Human Factors & Cultural Aspects

**Course Reference**

HE1822

**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs

**Course Date/Venue**

Session(s)	Date	Venue
1	July 21-25, 2024	Al Aziziya Hall, The Proud Hotel Al Khobar, Al Khobar, KSA
2	October 13-17, 2024	Oryx Meeting Room, Double Tree by Hilton Al Saad, Doha, Qatar
3	December 16-20, 2024	Abu Dhabi Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE



**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 certification program is designed to train delegates on Process Safety Inspection and certify them as Professional Process Safety Inspectors. The program comprises of 4 modules that shall be taken in order:-



- Module 1: Fundamentals of Process Safety
- Module 2: Process Safety Management (PSM) & Regulatory Framework
- Module 3: Human Factors & Cultural Aspects
- Module 4: Process Safety Auditing & Site Inspection



Module 3 of this program is designed to provide participants with a detailed and up-to-date overview of Human Factors & Cultural Aspects. It covers the human factors and ergonomics in process safety including the cognitive and physical human limitations; the human error and systems design, work environment and safety culture and task analysis; the significance of organizational culture, dimensions of safety culture and behavioral-based safety; and the leadership's role in fostering safety culture and safety culture assessment tools.

During this interactive course, participants will learn the importance of training in process safety and developing the effective training programs; the competency assessment and management; the training methodologies and tools including refresher training and its significance; the human reliability analysis (HRA) techniques and the use of HRA in conjunction with other tools; predicting and reducing human error; the feedback and iteration in HRA; the role of communication in safety and tools for effective safety communication; collaborating between departments and teams; handling near-misses and feedback loops; and using technology in safety communication.

### **Course Objectives**

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

- Complete Module 3 of the “*Professional Process Safety Inspector*” program is your successful road for this prestigious professional certification
- Discuss the human factors and ergonomics in process safety including the cognitive and physical human limitations
- Apply human error and systems design, work environment and safety culture and task analysis
- Explain the significance of organizational culture, dimensions of safety culture and behavioral-based safety
- Recognize the leadership’s role in fostering safety culture and safety culture assessment tools
- Discuss the importance of training in process safety, develop effective training programs and apply competency assessment and management
- Identify training methodologies and tools including refresher training and its significance
- Carryout human reliability analysis (HRA) techniques and use HRA in conjunction with other tools
- Predict and reduce human error and identify the feedback and iteration in HRA
- Recognize the role of communication in safety and tools for effective safety communication
- Collaborate between departments and teams, handle near-misses and feedback loops and use technology in safety communication

### **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 human factors and cultural aspects for site inspectors, safety engineers, supervisors, newly appointed managers, junior managers, safety representatives and newly qualified health and safety advisors within the process industries.

**Course Prerequisite**

This course has the following minimum prerequisites:-

- Certificate or proof of attendance/completion of the following Howard’s courses:-
  - ❖ HE1820: Professional Process Safety Inspector (PPSI): Module 1: Fundamentals of Process Safety
  - ❖ HE1821: Professional Process Safety Inspector (PPSI): Module 2: Process Safety Management (PSM) & Regulatory Framework

**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**

Al Khobar	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Howard Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day
Doha	<b>US\$ 6,000</b> per Delegate This rate includes H-STK® (Howard Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Abu Dhabi	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Howard 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 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. 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.

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



**Haward Technology Middle East**

Continuing Professional Development (HTME-CPD)



### CEU Official Transcript of Records

**TOR Issuance Date:** 14-Nov-22

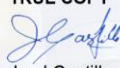
**HTME No.** 74851

**Participant Name:** Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE1820	Professional Process Safety Inspector: Module 1: Fundamentals of Process Safety	October 02-06, 2022	30	3.0
HE1821	Professional Process Safety Inspector: Module 2: Process Safety Management (PSM) & Regulatory Framework	October 23-27, 2022	30	3.0
HE1822	Professional Process Safety Inspector: Module 3: Human Factors & Cultural Aspects	November 13-17, 2022	30	3.0

**Total No. of CEU's Earned as of TOR Issuance Date** **9.0**

**TRUE COPY**




Jaryl Castillo  
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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\* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \*

### 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.

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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. Raymond Tegman** is a **Senior HSE and Management 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, HSE Risk Assessment & Management Concepts, HSE Management Policy & Standards, Managing Performance for Improvement, Performance Monitoring, Employee Relations for First-Line Supervisors, HSE 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 & Maintenance Manager, Safety Manager, Road/Traffic Supervisor, 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**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0815 – 0930	<b>Human Factors &amp; Ergonomics in Process Safety</b>
0930 – 0945	Break
0945 – 1030	<b>Cognitive &amp; Physical Human Limitations</b>
1030 – 1130	<b>Human Error &amp; Systems Design</b>



1130 – 1230	<b>Work Environment &amp; Safety Culture</b>
1230 – 1245	<i>Break</i>
1245 – 1315	<b>Task Analysis</b>
1315 – 1420	<b>Case Study: Chernobyl Disaster</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day One</i>

**Day 2**

0730 – 0930	<b>Significance of Organizational Culture</b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Dimensions of Safety Culture</b>
1030 – 1130	<b>Behavioral-Based Safety</b>
1130 – 1230	<b>Leadership’s Role in Fostering Safety Culture</b>
1230 – 1245	<i>Break</i>
1245 – 1315	<b>Safety Culture Assessment Tools</b>
1315 – 1420	<b>Workshop: Safety Culture Survey</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 3**

0730 – 0930	<b>Importance of Training in Process Safety</b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Developing Effective Training Programs</b>
1030 – 1130	<b>Competency Assessment &amp; Management</b>
1130 – 1230	<b>Training Methodologies &amp; Tools</b>
1230 – 1245	<i>Break</i>
1245 – 1315	<b>Refresher Training &amp; Its Significance</b>
1315 – 1420	<b>Role-Playing: Mock Training Session</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Three</i>

**Day 4:**

0730 – 0930	<b>Basics of Human Reliability Analysis (HRA)</b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Techniques of HRA: THERP, SHERPA, etc.</b>
1030 – 1130	<b>Using HRA in Conjunction with Other Tools</b>
1130 – 1230	<b>Predicting &amp; Reducing Human Error</b>
1230 – 1245	<i>Break</i>
1245 – 1315	<b>Workshop: Performing a Basic HRA</b>
1315 – 1420	<b>Feedback &amp; Iteration in HRA</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Four</i>





**Day 5:**

0730 – 0830	<i>Role of Communication in Safety</i>
0830 – 0930	<i>Tools for Effective Safety Communication</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<i>Collaboration Between Departments &amp; Teams</i>
1030 – 1115	<i>Handling of Near-Misses &amp; Feedback Loops</i>
1115 – 1200	<i>Use of Technology in Safety Communication</i>
1200 – 1215	<i>Break</i>
1215 – 1300	<i>Group Activity: Developing a Safety Communication Plan</i>
1300 – 1315	<i>Course Conclusion</i>
1315 – 1415	<b>COMPETENCY EXAM - Module 3</b>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch &amp; End of Course</i>

**Simulators (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 one of our state-of-the-art “CAMEO Chemicals Suite Simulator”, “Chemical Compatibility 1.1 Simulator” and “Chemical Safety Database Simulator”.





Boric Acid Compatibilities	
Acetal (Delrin®)	Excellent
Plastics	Excellent
Aluminum	Severe Effect
Metals	Severe Effect
Bronze	Good
Metals	Good
Buna N (Nitrile)	Excellent
Elastomers	Excellent
Carbon graphite	Excellent
Non-metals	Excellent
Carbon Steel	Severe Effect
Metal	Severe Effect
Carpenter 20	Good/2
Metals	Good/2
Cast iron	Severe Effect
Metals	Severe Effect
Ceramic Al2O3	Excellent
Non-metals	Excellent
Ceramic magnet	Excellent
Non-metals	Excellent
ChemRaz (FFKM)	Excellent
Plastic	Excellent
Copper	Good
Metals	Good
CPVC	Excellent
Plastics	Excellent
EPDM	Excellent
Elastomers	Excellent

**Chemical Compatibility 1.1 Simulator**



**Chemical Safety Database Simulator**

**Course Coordinator**

Mari Nakintu, Tel: +971 2 30 91 714, Email: [mari1@haward.org](mailto:mari1@haward.org)