COURSE OVERVIEW HE1148(NA3)
Certificate in Process Safety Management

Course Title
Certificate in Process Safety Management

Course Date/Venue
Session 1: August 25-29, 2024/TBA Meeting Room, Crowne Plaza Kuwait Al Thuraya City, Kuwait
Session 2: January 19-23, 2025/TBA Meeting Room, Crowne Plaza Kuwait Al Thuraya City, Kuwait

Course Reference
HE1148(NA3)

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

Are you staying up to speed with your Process Safety Management (PSM) program? The Occupational Safety and Health Administration (OSHA) created the first PSM requirements in 1992 in response to a series of catastrophic incidents related to highly hazardous chemicals (HHC). These requirements have been updated and expanded several times in the last two decades, and all HHC-related companies should keep a lookout as they operate and expand. To make sure your company is compliant, keep in mind the following 14 elements that OSHA inspectors will look for when they review your PSM program.

This course is designed to provide participant with a fundamental overview of process safety management. It covers the various analysis and techniques used in process safety management; the pre-startup safety review procedures, PSSR procedures and mechanical integrity; the process safety information, technical data regarding the HHC-related risks, process hazard analysis and consequences of safety failures; and the operating procedures and the potential chemical hazards.

Further, the course will also discuss the technical data regarding the HHC-related risks, process hazard analysis and consequences of safety failures; the operating procedures and the potential chemical hazards; the proper training and using training management software; the hazards, potential fire, explosion or toxic release hazards; the safety procedures, pre-startup safety reviews and mechanical integrity; and the periodic, documented inspections for pressure vessels, storage tanks, piping systems and ventilation systems.

During this highly interactive course, participants will learn the testing procedures must follow "recognized and generally accepted good engineering practices," according to OSHA; the hot work permit and issue permits to employees and contractors; the standard procedures for managing changes to process chemicals, technology, equipment and procedures; the proper incident investigation, emergency planning and response and emergency plans for handling smaller HHC releases; and the compliance audit, enhancing worker safety and managing PSM in a professional manner.

Course Objectives

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

- Apply and gain a fundamental knowledge in process safety management (PSM)
- Discuss the overview of the various analysis and techniques used in process safety management
- Carryout pre-startup safety review safety procedures every time a worksite starts back up and planning and implementation of PSSR procedures
- Discuss mechanical integrity including periodic and documented inspections required for several systems
- Discuss process safety information as well as complete a compilation of written process safety information before conducting any process safety hazard analysis required by the standard
- Access the technical data regarding the HHC-related risks they face on the job
- Carryout process hazard analysis and analyze the consequences of safety failures
- Employ operating procedures and identify the potential chemical hazards following turnarounds and emergency shutdowns
- Apply hot work permit and issue permits to employees and contractors who weld or perform other high-temperature work near covered processes
- Train personnel to post and file permits when necessary
- Perform proper incident investigation, apply emergency planning and response and create emergency plans for handling smaller HHC releases
- Perform employee participation and training especially for those who are carrying out processes involving highly hazardous chemicals and their training shall have been accomplished through a competent source, first-party or otherwise
- Inform employees and contractors regarding hazards in the workplace including the known potential fire, explosion or toxic release hazards related to the contractor's work and the process

- Carryout standard procedures for managing changes to process chemicals, technology, equipment and procedures
- Consider the technical basis for the change, the impact of the change on worker safety and health, necessary modifications to operating procedures, necessary time period for the change and authorization requirements for the proposed change
- Implement compliance audits, evaluate compliance with the provisions at least every three years to verify that the procedures and practices developed under the standard are adequate and are being followed and retain at least two most recent audit reports
- Enhance worker safety by giving employees the right to know processes that may affect their health and safety
- Manage PSM in a professional manner

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 the fundamentals of process safety management (PSM) for corporate executives, directors, process and operation managers, shift controllers and assistant shift controllers, maintenance and engineering managers, all section heads, HSE managers, supervisors, engineers and 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 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.

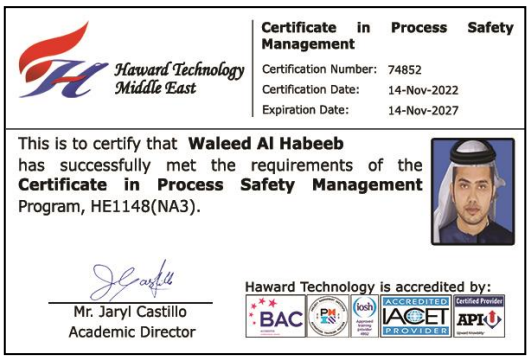
Course Certificate(s)

(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 Middle East

Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-22

HTME No. 74852

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE1148(NA3)	Certificate in Process Safety Management	November 10-14, 2022	30	3.0

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

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

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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 Process Safety Management (**PSM**), **Rigging** Safety Rules, **Pre-Start-up Safety** Reviews, , Safety Precaution & Response Action Plan, Job Safety Analysis (**JSA**), Behavioural Based Safety (**BBS**), 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 Hazard Analysis (**PHA**), Techniques, **HAZOP**, **HSE** Risk, **HSE Risk** Identification, Assessments & Audit, **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**Hazard & Risk** Assessment, Task Risk Assessment (**TRA**), **Incident Command**, **Accident & Incident Investigation**, **Emergency Response Procedures**, **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	***PRE-TEST***
0830 – 1000	***Introduction to PSM*** *What is PSM ● OSHA PSM Requirements ● Highly Hazardous Chemicals (HHC) ● The 14 Elements of PSM*
1000 – 1015	*Break*

1015 – 1130	***Pre-startup Safety Review (PSSR)*** *Reviewing Safety Procedures Every Time a Worksite Starts Back Up ● Pre-Startup Safety Reviews for Both New & Modified Facilities*
1130 – 1230	***Pre-startup Safety Review (PSSR) (cont'd)*** *Identify the Planning & Implementation of PSSR Procedures ● Determine the PSSR Requirements & Tools Used for Hazardous Sites, Plants & Other Facilities within the O&G Industry*
1230 – 1245	*Break*
1245 – 1420	***Pre-startup Safety Review (PSSR) (cont'd)*** *Analyze Incident/Change Scenarios, Linkages of PSSR Elements, PSSR Requirements, Checklists, Measures/KPIs & Diagnose Problems or Results Using Case Studies*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 1000	***Mechanical Integrity*** *Periodic, Documented Inspections are Required for Several Systems, including Pressure Vessels, Storage Tanks, Piping Systems, Ventilation Systems*
1000 – 1015	*Break*
1015 – 1130	***Process Safety Information*** *Completing a Compilation of Written Process Safety Information before Conducting Any Process Safety Hazard Analysis Required by the Standard*
1130 – 1230	***Process Safety Information (cont'd)*** *Accessing & Understanding the Technical Data Regarding the HHC-related Risks*
1230 – 1245	*Break*
1245 – 1420	***Process Hazard Analysis*** *Analyzing the Consequences of Safety Failures*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 1000	***Operating Procedures*** *Potential Chemical Hazards Following Turnarounds & Emergency Shutdowns*
1000 – 1015	*Break*
1015 - 1130	***Hot Work Permit*** *Issuing Permits to Employees & Contractors Who Weld or Perform Other High-Temperature Work Near Covered Processes*
1130 – 1230	***Hot Work Permit (cont'd)*** *Train Personnel to Post & File these Permits When Necessary*
1230 – 1245	*Break*
1245 – 1420	***Incident Investigation*** *Investigations for All Incidents that Result in – or could have Resulted in – a Catastrophic Highly Hazardous Chemical Release ● Potential HHC-Related Scenario*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

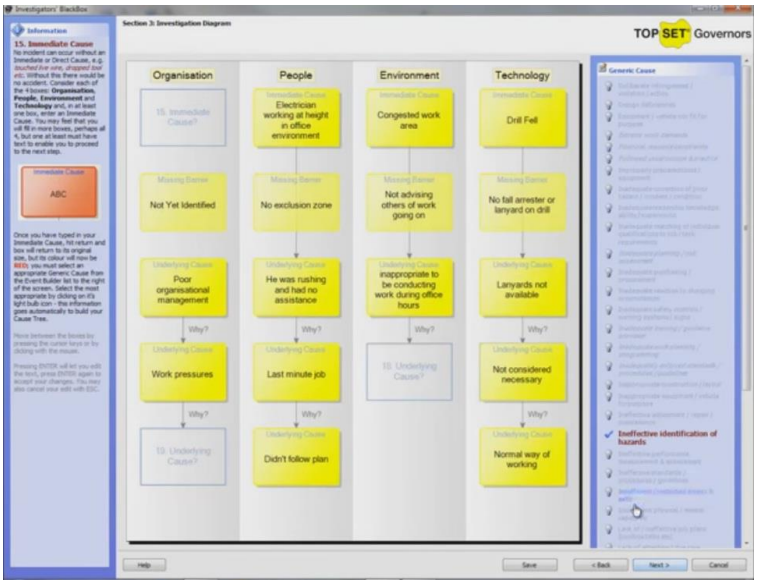
0730 – 1000	***Emergency Planning & Response*** *Minor Chemical Releases can Lead to Major Incidents ● Create Emergency Plans for Handling Smaller HHC Releases*
1000 – 1015	*Break*
1015 – 1130	***Employee Participation & Training*** *Involvement of Employees in Every Aspect of the PSM Programs at their Respective Worksites ● PSM-related Issues*
1130 – 1230	***Employee Participation & Training (cont'd)*** *Creating Formal Plans ● Workers Who Carry Out Processes Involving Highly Hazardous Chemicals Need to be Well-Trained, and their Training should have been Accomplished Through a Competent Source, First-Party or Otherwise*
1230 – 1245	*Break*
1245 – 1420	***Contractors*** *Hazards in the Workplace ● Potential Fire, Explosion or Toxic Release Hazards Related to the Contractor's Work and the Process*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

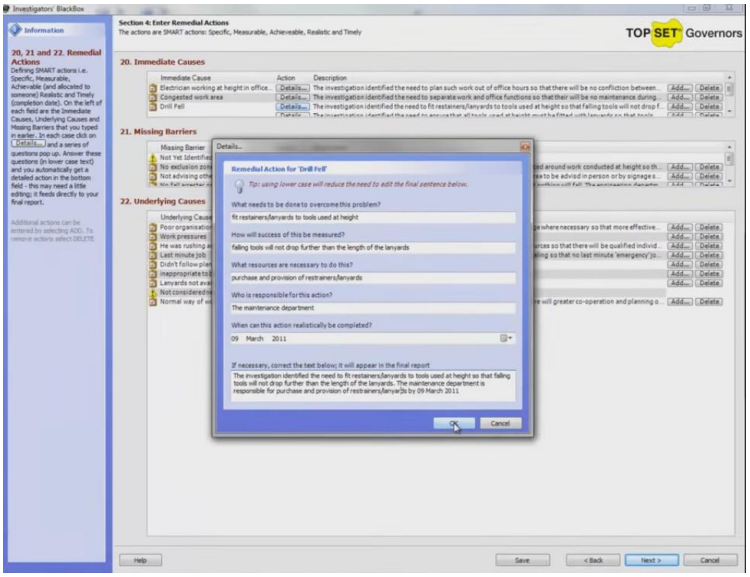
Day 5

0730 – 1000	***Management of Change*** *Standard Procedures for Managing Changes to Process Chemicals, Technology, Equipment & Procedures*
1000 – 1015	*Break*
1015 – 1200	***Management of Change (cont'd)*** *Each Change Requires the Following Considerations: The Technical Basis for the Change, The Impact of the Change on Worker Safety and Health, Necessary Modifications to Operating Procedures, The Necessary Time Period for the Change, Authorization Requirements for the Proposed Change*
1200 - 1215	*Break*
1215 – 1230	***Compliance Audits*** *Employers Shall Certify that they have Evaluated Compliance with the Provisions of this Section at least Every Three Years to Verify that the Procedures and Practices Developed Under the Standard are Adequate & are being Followed ● Retain at least Two Most Recent Audit Reports*
1230 - 1300	***Trade Secrets*** *The Right to Know Processes that may Affect Employees Health and Safety ● Manage PSM*
1300 – 1315	***Course Conclusion***
1315 – 1415	***COMPETENCY EXAM***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

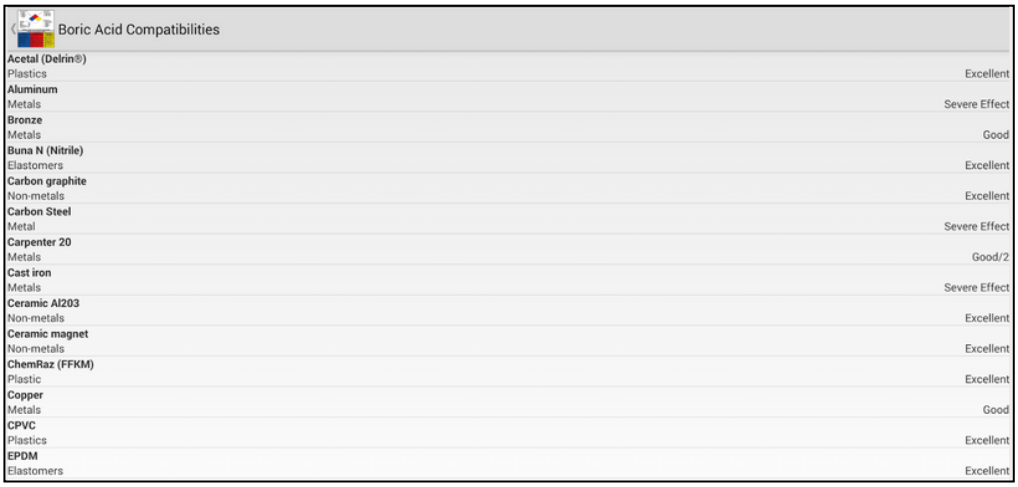
Simulators (Hands-on Practical Sessions)

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 "BlackBox Simulator"; "Chemical Compatibility 1.1 Simulator", "Chemical Safety Database Simulator", and "CAMEO Chemicals Suite Simulator".



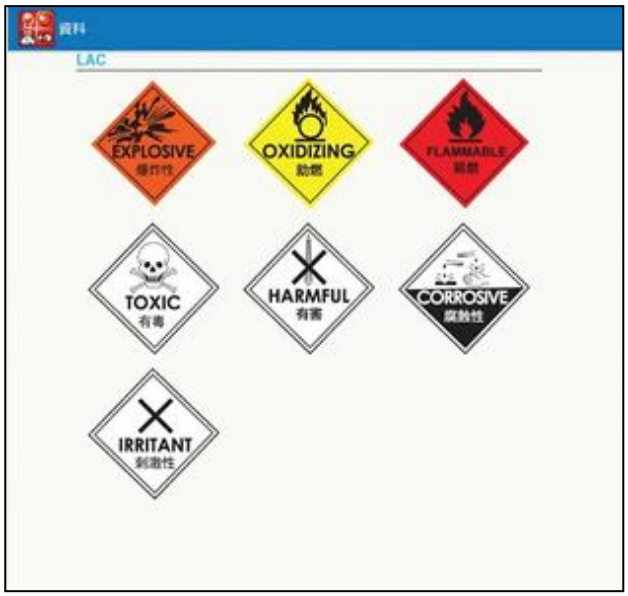


BlackBox Software Tool

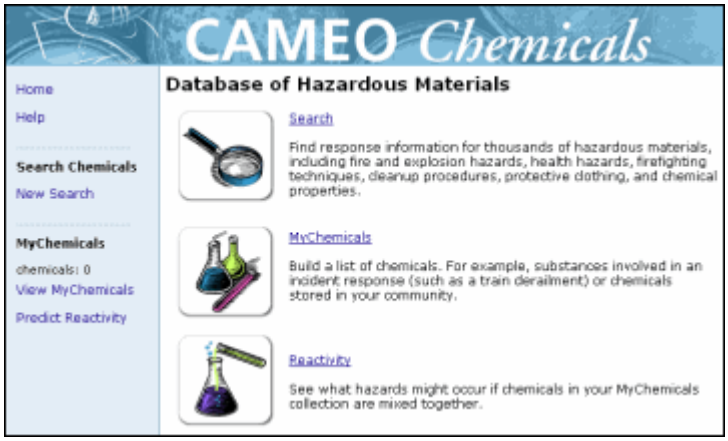


Boric Acid Compatibilities	
Acetal (Delrin®)	
Plastics	Excellent
Aluminum	
Metals	Severe Effect
Bronze	
Metals	Good
Buna N (Nitrile)	
Elastomers	Excellent
Carbon graphite	
Non-metals	Excellent
Carbon Steel	
Metal	Severe Effect
Carpenter 20	
Metals	Good/2
Cast iron	
Metals	Severe Effect
Ceramic Al203	
Non-metals	Excellent
Ceramic magnet	
Non-metals	Excellent
ChemRaz (FFKM)	
Plastic	Excellent
Copper	
Metals	Good
CPVC	
Plastics	Excellent
EPDM	
Elastomers	Excellent

Chemical Compatibility 1.1 Simulator



Chemical Safety Database Simulator



CAMEO Chemicals Suite Simulator

Course Coordinator

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