Haward Technology Middle East

Course Title
Hazard & Effects Management Process (HEMP)

Course Date/Venue
December 16-19, 2023/ Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Reference
HE1865

Course Duration/Credits
Four days/2.4 CEUs/24 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.

This course is designed to provide participants with a detailed and up-to-date overview of Hazard and Effects Management Process (HEMP). It covers the foundation, origins, importance and industry applications of HEMP; the basic terminology and safety management systems (SMS); the hierarchy of controls from elimination to personal protective equipment; the principles of HAZID, best practices and risk ranking using matrices and scoring systems; and the components of risk and the methods and applications of quantitative and qualitative assessment.
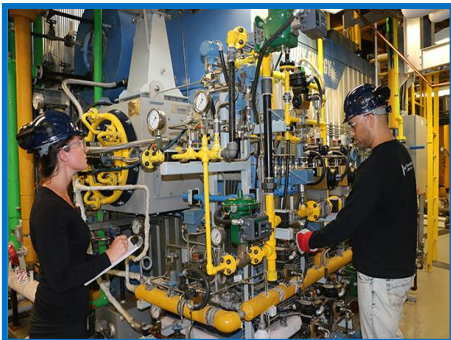
During this interactive course, participants will learn the frequency, consequence determination and ALARP principle; the strategies and techniques of risk reduction measures and risk assessment; the safety control design based on identified risks; the prevention and mitigation of proactive versus reactive controls; the emergency response, recovery and preparation for the worst-case scenarios; monitoring, reviewing of control and ensuring continued efficacy; the best practices and tools for documentation and record keeping; auditing, reviewing and checking the effectiveness of HEMP; the continuous improvement in HEMP and identifying the common pitfalls and obstacles.

Course Objectives

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

- Apply and gain an in-depth knowledge on hazard and effects management process (HEMP)

- Discuss the foundation, origins, importance and industry applications of HEMP

- Identify the basic terminology and apply safety management systems (SMS)

- Explain the hierarchy of controls from elimination to personal protective equipment

- Recognize the principles of HAZID, as well as the tools and techniques covering checklists, brainstorming, SWIFT and HAZOP

- Record and report best practices and apply risk ranking by using matrices and scoring systems

- Identify the components of risk and differentiate the methods and applications of quantitative and qualitative assessment

- Discuss frequency and consequence determination and ALARP principle

- Employ strategies and techniques of risk reduction measures and conduct risk assessment

- Design safety controls based on identified risks and illustrate the prevention and mitigation of proactive versus reactive controls

- Carryout emergency response and recovery and prepare for the worst-case scenarios

- Monitor and review controls and ensure continued efficacy

- Implement the best practices and tools for documentation and record keeping

- Apply audit and review to check the effectiveness of HEMP, carryout continuous improvement in HEMP and identify the common pitfalls and obstacles

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 hazard and effects management process (HEMP) for HSE managers, practitioners, managers and executives involved in operations, safety management staff, team leaders, engineers, supervisory roles, middle management.

Course Fee

US$ 4,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

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 **2.4 CEUs** (Continuing Education Units) or **24 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.

- 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.

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 **HSE Risk** Assessment & Management Concepts, **HSE Management** Policy & Standards, **HSSE Emergency Response & Crisis Management** Operations, Hazard and Effects Management Process **(HEMP)**, **Confined Space Entry**, **Quantitative Risk Assessment** (**QRA**), Hazardous Materials & Chemicals Handling, Safety Precaution & Response Action Plan, **Hazard & Risk** Assessment, **Risk Analysis & Inherently Safer Design Fundamentals**, **Internal auditing**, 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**), **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, **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.

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 Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1:   **Monday 16ᵗʰ of December 2024**

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	**PRE-TEST**
0830 – 0930	**Understanding Safety Culture:** *The foundation of HEMP*
0930 – 0945	*Break*
0945 – 1030	**Introduction to HEMP:** *Origins, Importance & Industry Applications*
1030 – 1130	**Basic Terminology:** *Familiarizing Participants with Key Terms*
1130 – 1215	**Safety Management Systems (SMS) & HEMP:** *How they Interrelate*
1215 – 1230	*Break*
1230 – 1330	**The Hierarchy of Controls:** *From Elimination to Personal Protective Equipment*
1330 – 1420	**Case Study Discussion:** *Real-World Incident Without Effective HEMP*
1420 – 1430	**Recap**
1430	*Lunch & End of Day One*

Day 2:   **Tuesday 17ᵗʰ of December 2024**

0730 – 0830	**Principles of HAZID:** *What, Why & How*
0830 – 0930	**Tools & Techniques:** *Checklists, Brainstorming, SWIFT, HAZOP*
0930 – 0945	*Break*
0945 – 1100	**Recording & Reporting:** *Documentation Best Practices*
1100 – 1215	**Risk Ranking:** *Using Matrices & Scoring Systems*
1215 – 1230	*Break*
1230 – 1330	**Workshop:** *Conducting a Mock HAZID Session*
1330 – 1420	**Discussion:** *Reviewing the Workshop's Findings*
1420 – 1430	**Recap**
1430	*Lunch & End of Day Two*

Day 3:   ***Wednesday 18th of December 2024***
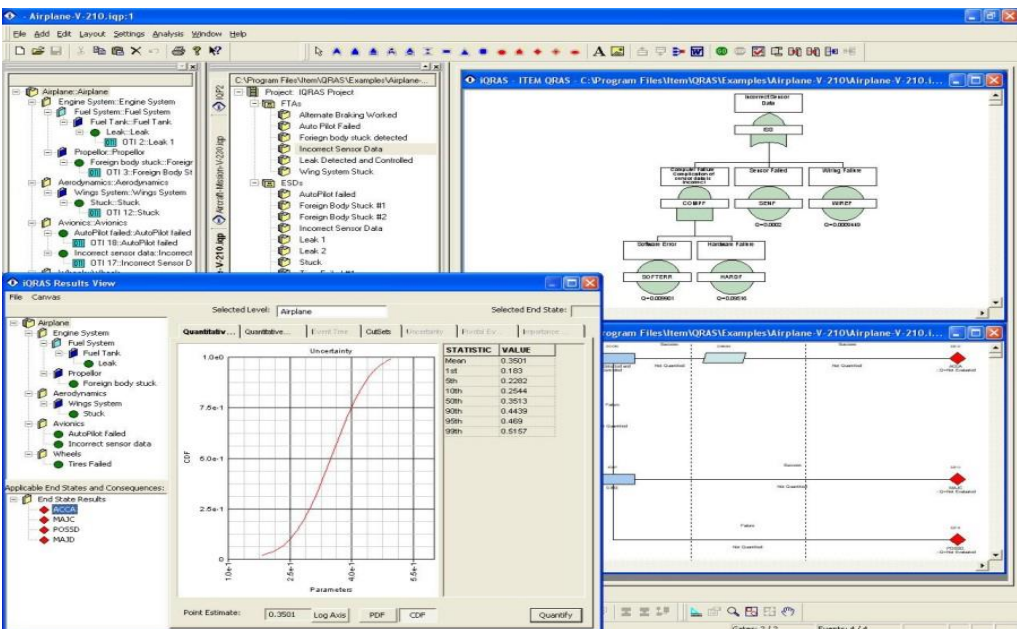
0730 – 0830	***Understanding Risk:*** *Definitions & Components*
0830 – 0930	***Quantitative versus Qualitative Assessment:*** *Methods & Applications*
0930 – 0945	*Break*
0945 – 1100	***Frequency & Consequence Determination:*** *Predicting & Measuring Impacts*
1100 – 1215	***ALARP Principle:*** *"As Low as Reasonably Practicable" Explained*
1215 – 1230	*Break*
1230 – 1330	***Risk Reduction Measures:*** *Strategies & Techniques*
1330 – 1420	***Hands-On Exercise:*** *Conducting a Risk Assessment for a Given Scenario*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4:   ***Thursday 19th of December 2024***
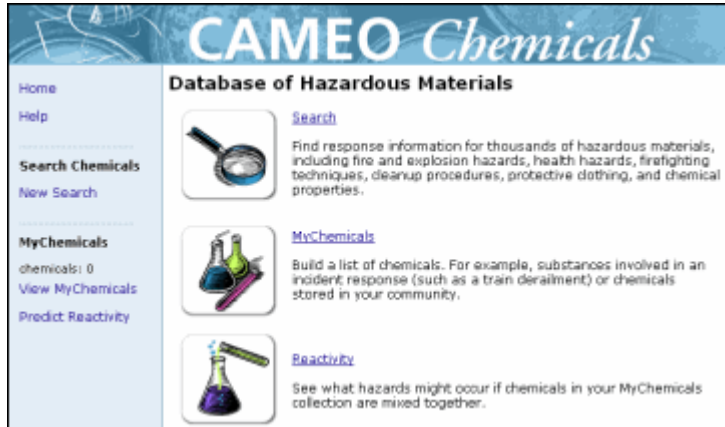
0730 – 0830	***Designing Safety Controls:*** *Based on Identified Risks*
0830 – 0930	***Proactive versus Reactive Controls:*** *Prevention & Mitigation*
0930 – 0945	*Break*
0945 – 1100	***Emergency Response & Recovery:*** *Preparing for Worst-Case Scenarios*
1100 – 1215	***Monitoring & Reviewing Controls:*** *Ensuring Continued Efficacy*
1215 – 1230	*Break*
1230 – 1330	***Documentation & Record Keeping:*** *Best Practices & Tools*
1330 – 1420	***Workshop:*** *Designing Controls for a Previously Assessed Hazard*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Simulator (Hands-on Practical Sessions)
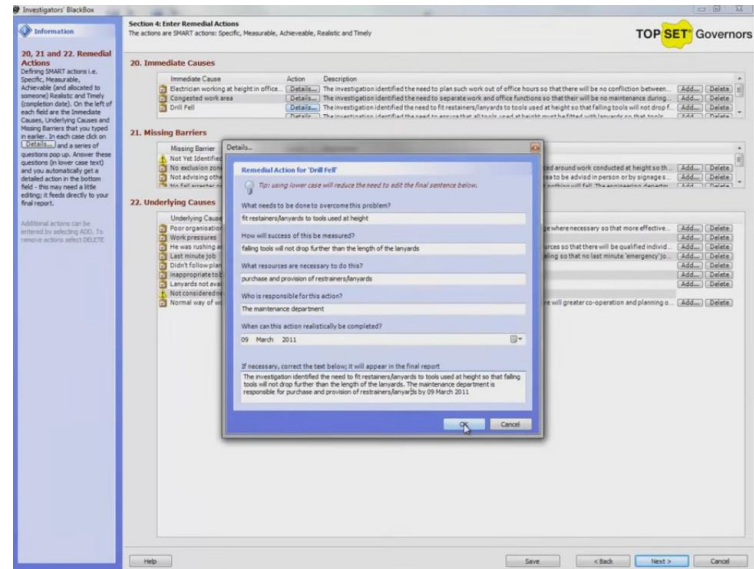
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art "QRA", "CAMEO", "BlackBox" and "Workplace Risk Assessment" simulators.

QRA System Simulator

CAMEO Chemicals Suite Simulator

BlackBox Software Tool

Workplace Risk Assessment

Course Coordinator
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