COURSE OVERVIEW HE0070
Hazardous Waste Management & Pollution Prevention

Course Title
Hazardous Waste Management & Pollution Prevention

Course Date/Venue
November 11-15, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
HE0070

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.

This course provides an excellent overview of mastering the management of hazardous waste materials as well as preventing contamination of the environment. This knowledge makes participants aware of the regulatory aspects of pollution and the handling of hazardous waste materials within their plants. It also allows them to reduce the amount of hazardous waste produced and save money through preventing personal injury and preventing or limiting the effects of accidental pollution.

At the completion of the course, participants will be able to identify the potential sources of pollution in the workplace; apply systematic techniques for preventing contamination and pollution; operate and employ systematic techniques for handling hazardous waste materials; detect and measure the incidence of contamination; manage hazardous waste materials effectively and efficiently; as well as apply contingency planning and deal with emergencies in a professional manner.

Course Objectives

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

- Manage hazardous waste and prevent contamination of the environment
- Identify the potential sources of pollution in the workplace
- Apply systematic techniques for preventing contamination and pollution
- Operate and employ systematic techniques for handling hazardous waste materials
- Detect and measure the incidence of contamination
- Manage hazardous waste materials effectively and efficiently
- Apply contingency planning and deal with emergencies

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 hazardous waste and materials for the operations, production, maintenance and HSE departments dealing with hazardous waste and materials management and pollution prevention. Governmental & regulatory authorities, water & sewage treatment departments, municipalities and universities and academic professors and researchers will also benefit from the course.

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.

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. 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)

CEU Official Transcript of Records

TOR Issuance Date: 24-Aug-17

HTME No. PAR213887

Participant Name: Tamer Al Hammadi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE070	Hazardous Waste Management & Pollution Prevention	August 20-24, 2017	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), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, 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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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.

- 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. **Nikolas Karnavos**, MSc, BSc, is a **Senior HSE Consultant** with over **35 years** of extensive experience within the **Oil**, **Gas**, **Refinery** and **Petrochemical** industries. His expertise widely covers in the areas of **Fire Fighter Rescue Missions**, **Active** and **Positive Fire Fighting**, **Fire & Gas Detection** Systems, **Fire** Protection, **Oil & Gas Firefighting Tactics**, **Fire & Security** Management, Applied **Fire Risk Assessment**, **Fire Fighting** Equipment Inspection, **Fire Fighting** for Chemical Substances, **Fire Truck** Operation, **Fire Fighting** Systems, **Fire Proofing, Lifting & Rigging** Equipment, **Lifting Tackles** Inspection License/Relicense, Lifting Operations & Lifting Equipment Regulations (**LOLER**), Safe **Rigging & Lifting** Tools, **Scaffolding**, **Rigging & Lifting**, **Slinging**, **Crane/Hoist** Operation, Material Handling, Environmental Management & Technology (EMT), **Environmental** & **Waste** Management, **Environmental Management** & Technology, **Environmental Monitoring** & **Modelling**, Environmental Impact Assessment (**EIA**), **Environmental** Assessment & Planning, **Environmental** Enforcement & Compliance, **Task Risk** Management, **Task Risk** Analysis, **Risk Assessment** Facilitation, **Confined Space Safety**, Basic **First Aid**, **Rescue Operations** in Hazardous Locations, Gas Emergencies & Gas Escape, **Environmental** Awareness, **Chemical Handling Spillages & Crisis**, **Gas Testing**, OSHA General Certificate in Health & Safety, **Respiratory Equipment**, Self-Contained Breathing Apparatus (**SCBA**), Donning & Doffing Maintenance, **H_2S** Awareness and Accident & Incident Investigation. Further, he is also well-versed in Environmental Management System (**ISO 14001**), QMS (**ISO 17025**), **OSHA**, **Oil Spill** Management, **Industrial Hygiene**, Air Quality Management, **Carbon Footprint**, **Environmental Impact** Analysis, **Hazardous Waste Management**, **HAZMAT** & **HAZCOM**, **Environmental Impact** & **Life Cycle Assessments**, Wastewater Treatment, Oilfield Water Treatment, Treating & Handling Oily Water, Industrial Water Treatment in Refineries & Petrochemical Plants, **Water Pollution Control**, Reverse Osmosis Treatment Technology and Chlorination System, Laboratory Control of a Wastewater Treatment Plant, Environmental Online Analyzers (Air & Water), Gas Chromatography and various instrumental methods of analysis such as Water Analysis & Quality Control, Water and Wastewater Chemical Analysis, Statistical Data and Laboratory Analysis, Gas Analysis, Qualitative Fuel Analysis, Environmental Chemical Analysis, Laboratory Environmental Analysis, Process Water and Wastewater Effluents, Oily Sludge Treatment, Atomic Absorption and Spectroscopic Methods in Analytical Chemistry, Analytical Method Development and Methods of Environmental Measurements (Water, Air, Liquid & Solid Wastes). He is further a **Certified Trainer** where-in he is delivering trainings and consultancies for trainers for so many years, a **Verifier & Assessor** and a **Program Designer & Developer**.

Mr. Karnavos was the **Laboratory Manager** of **Exxon** wherein he was responsible for **ISO 17025 certification**, upgrading laboratory equipment in **refinery**, **petrochemical** and **polypropylene** plants, upgrading and extending LIMS, handling the transition plan process of the existing laboratory to a new as well as formulating and executing the plans for applied research and technology transfer. During his career life, he had occupied several significant positions as the **Laboratory Analyst**, **Laboratory Professor**, **Senior Fire Instructor**, **Quality Manager**, **Partner & Managing Director**, **Environmental Engineer**, **Process Engineer**, **Environmental Management Corporate Department Head** and **Quality Control & Plastics Application Head** with different international companies like the **AQUACHEM**, **Hellenic Petroleum** (**EXXON**) and **Technological Institute**.

Mr. Karnavos holds a **Master** degree in **Chemical Engineering** and **Bachelor** degrees in **Mechanical Engineering** and **Petroleum Engineering** from the **Aristotelian University of Thessaloniki**, **Technological Institute** and **KATEE Kavala** respectively. He is an **Accredited Environmental Auditor** from the **IEMA**, an **Accredited Trainer** for the Organization for the Certifications & Vocational Guidance (**EOPPEP**), a **Certified Instructor/Trainer** and a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**). Further, he is the **President** of Greek **Association of Chemical Engineers** and an active member of various professional engineering bodies internationally like the **IEMA**, **Technical Chamber** of Greece and the **CONCAWE**. He also **published numerous books** and **scientific papers** and delivered various trainings and workshops worldwide.

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: ***Monday, 11th November 2024***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0900	***Introduction*** *Course Objectives • Definitions*
0900 – 1000	***Basic Concepts*** *Pollution Control Theory • Cleaner Technologies • Pollution Control Techniques*
1000 – 1015	*Break*
1015 – 1100	***Toxicology*** *Basic Toxicology • Case Studies in Environmental Health • Dose – Response*
1100 – 1130	***Video & Case Study***
1130 – 1215	***Toxicology (cont'd)*** *Risk*
1215 – 1315	***MSDS*** *MSDS Overview • Reading and using MSDS*
1315 – 1330	*Break*
1330 – 1400	***MSDS (cont'd)*** *Handling Storage • Hazardous Ingredients*
1400 – 1420	***Video & Case Study***
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 One*

Day 2: ***Tuesday, 12th November 2024***

0730 – 0830	***MSDS Regulatory Levels*** *Health Based Exposure Levels • Fire and Explosion Labeling*
0830 – 0930	***Hazardous Waste Characterization*** *Hazard Communication Program • Supervisor Duties • Accident Reporting • Waste Handling*
0930 – 0945	*Break*
0945 – 1130	***Hazardous Waste Characterization (cont'd)*** *Chemical Safety Awareness • Gasses •Flammable Substances*
1130 – 1230	***Hazardous Waste Characterization (cont'd)*** *Fly Ash Management • Handling Substances • Storage of flammable materials*
1230 – 1245	*Break*
1245 – 1420	***Video & Case Study***
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: Wednesday, 13th November 2024

0730 – 0930	***Personal Safety*** *Choosing Personal Protective Equipment • Monitoring Hazardous Waste Environments • Levels of Safety*
0930 – 0945	*Break*
0945 – 1100	***Pollution/Contamination Prevention Procedures*** *Pollution Reduction Zones • Decontamination Procedures • Emergency Procedures*
1100 – 1200	***Contingency Planning*** *Planning for Emergencies • Training of Response Teams • Protective Equipment and Clothing*
1200 – 1215	*Break*
1215 – 1330	***Video & Case Study***
1330 – 1420	***Contingency Planning (cont'd)*** *Dealing with Spillage • Dealing with release of Hazardous Substances into the Atmosphere*
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: Thursday, 14th November 2024

0730 – 0830	***Portable Monitoring Equipment*** *Air Displacement Theory • Types of Equipment • PID – How it works*
0830 – 0930	***Hazard Identification*** *Steps • HAZOP Studies • Applications • Examples*
0930 – 0945	*Break*
0945 – 1030	***Video & Case Study***
1030 – 1200	***Waste Minimization*** *Pollution Prevention • Clean Chemistry*
1200 – 1215	*Break*
1215 – 1315	***Process Development*** *Definitions • Examples*
1315 – 1400	***Clean Technology*** *Chemistry • Engineering*
1400 – 1420	***Video & Case Study***
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: Friday, 15th November 2024

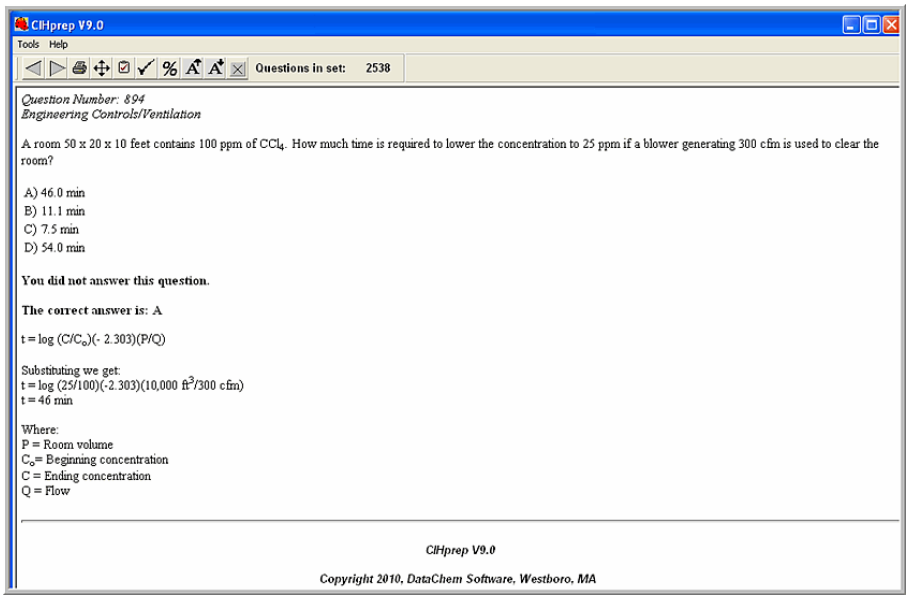
0730 – 0930	***Fly Ash Procedures*** *Management • Minimization*
0930 – 0945	*Break*
0945 – 1130	***Chemical Protective Clothing*** *Definition*

1130 – 1230	***Chemical Protective Clothing (cont'd)*** *Uses*
1230 – 1245	*Break*
1245 – 1345	***COMPETENCY EXAM***
1345 – 1415	***Results, Discussion & Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulator (Hands-on Practical Sessions)

Practical session 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 the simulator "Industrial Hygiene Virtual Laboratory Simulator" and "CIHprep V9.0 Simulator".

Industrial Hygiene Virtual Laboratory Simulator



CIHprep V9.0 Simulator

Course Coordinator

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