COURSE OVERVIEW HE2118-3D
Chemical Safety & Spill Response (NFPA-Compliant)

Course Title
Chemical Safety & Spill Response (NFPA-Compliant)

H-STK© INCLUDED

Course Date/Venue
December 21-23, 2025/Olivine Meeting Room, Fairmont Nile City, Cairo, Egypt

1.8 CEUs (18 PDHs) AWARD

Course Reference
HE2118-3D

Course Duration/Credits
Three days/1.8 CEUs/18 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 Chemical Safety and Spill Response (NFPA-Compliant). It covers the chemical safety and NFPA framework including hazard communication (HazCom) and GHS; the NFPA 704 diamond ratings, health, flammability, instability, and special hazards and application to labeling and storage practices; the chemical exposure pathways and health effects; the safe storage and handling of chemicals and personal protective equipment (PPE) for chemical safety; the spill risk assessment and prevention measures; and the spill response planning and NFPA requirements.

Further, the course will also discuss the spill kits, neutralization agents and compatibility issues, emergency shower and eyewash station requirements and decontamination equipment and procedures; the spill containment and control techniques; avoiding fire and explosion hazards during spills; the emergency communication and evacuation procedures; and the spill response roles and responsibilities.

During this interactive course, participants will learn the step-by-step spill response execution covering initial hazard identification and risk evaluation; the PPE selection and entry procedures, spill containment and mitigation actions and waste handling and disposal protocols; the levels of decontamination and decontamination corridor setup, NFPA and EPA guidelines for hazardous waste handling and disposal of contaminated PPE and absorbents; the incident documentation and investigation procedures, root cause analysis of chemical spills and corrective and preventive actions (CAPA); and the compliance with NFPA and OSHA reporting requirements.

Course Objectives

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

- Apply and gain an in-depth knowledge on chemical safety and spill response (NFPA-compliant)
- Discuss chemical safety and NFPA framework including hazard communication (HazCom) and GHS
- Recognize NFPA 704 diamond ratings, health, flammability, instability, and special hazards and application to labeling and storage practices
- Identify chemical exposure pathways and health effects and apply safe storage and handling of chemicals and personal protective equipment (PPE) for chemical safety
- Carryout spill risk assessment, prevention measures and spill response planning and NFPA requirements
- Identify spill kits, use of neutralization agents and compatibility issues, emergency shower and eyewash station requirements and decontamination equipment and procedures
- Apply spill containment and control techniques and avoid fire and explosion hazards during spills
- Employ emergency communication and evacuation procedures and identify spill response roles and responsibilities
- Illustrate step-by-step spill response execution covering initial hazard identification and risk evaluation, PPE selection and entry procedures, spill containment and mitigation actions and waste handling and disposal protocols
- Discuss levels of decontamination and apply decontamination corridor setup, NFPA and EPA guidelines for hazardous waste handling and disposal of contaminated PPE and absorbents
- Carryout incident documentation and investigation procedures, root cause analysis of chemical spills, corrective and preventive actions (CAPA) and compliance with NFPA and OSHA reporting requirements

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 chemical safety & spill response (NFPA-compliant) for EHS managers and safety officers, supervisors and line managers, emergency response teams, maintenance and utility personnel and other technical staff.

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$ 3,750 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)

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

Haward's certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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.

- 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 **1.8 CEUs** (Continuing Education Units) or **18 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.

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. Saad Bedir, BSc, NEBOSH-IGC, NEBOSH-ENV, is a **Senior Fire**, **Health**, **Safety & Environment** (**HSE**) **Consultant** with over **30 years** of extensive experience in the **Power**, **Petrochemical** and **Oil & Gas** industries. He is a **NEBOSH Approved Instructor** for various certification programs. He is well-versed in the areas of **NEBOSH** International General Certificate, **NEBOSH** Certificate in Environmental Management, Health, **Fire**, Safety, Security & Environmental Codes of Practice, Legislations and Procedures, **Active** and **Positive Fire Fighting**, **Fire & Gas Detection Systems**, **Fire Fighting Systems**, **Fire Proofing**, **ESD**, Escape Routes, Mobile Crane Operation, Heavy Lifting Equipments, Scaffolding, Rigging Slinging, the implementation of **OHSAS 18001**, **ISO 9001**, **ISO 14001**, **QHSE** Management Planning, Crisis & Business Continuity Management Planning, **Emergency Response & Procedures**, Industrial Security Risk Assessment & Management, Environmental Impact Assessment (**EIA**), **Behavioural Safety**, **Occupation Safety**, **Incident & Accident Investigation**, Integrated EHS Aspects, Risk Assessment & Hazard Identification, Environmental Audits, **Chemical Handling**, Hazardous & Non-Hazardous Waste Management, Confined Space Safety, **SHEMS** Principles, Process Safety, Basic & Advanced Construction Safety, **Mobile Crane Operations**, **Rig & Barge Inspection**, **Lifting & Slinging**, **Scaffolding**, Air Quality Management, Safety & Occupational Health Awareness, Loss Control , Marine Pollution Hazards & Control, Ground Contamination & Reclamation Processes, Waste Management & Recycling, Clean Energy & Power Saving, **FMEA**,**PSM, HAZMAT/HAZCOM**, **HAZOP**, **HAZWOPER**, **HAZID**, **HSEIA**, **QRA**, Hazardous Area Classification and **Radiation Protection**. Further, he is also well-verse in **Performance Standards**, **Statistical Report Writing**, Basic **Motivation Management**, **Performance Assessment & Appraisal**, **Manpower Planning**, **Managing & Coordinating Training**, **Strategic Talent Management**, **Developing Others**, **Managing Employees Performance**, **Performance Evaluation** and **Human Resource Management**. Presently, he is the **HSE Director** for one of the largest and renowned companies in the Middle East, wherein he takes charge of all HSE and security operations of the company.

Mr. Saad's vast professional experience in directing and managing health, safety and the environment aspects as per **OSHA framework** and guidelines can be traced back to his stint with a few international companies like **Saudi ARAMCO**, **CONOCO**, **Kuwait Oil Co.** (**KOC**), where he worked as the Field HSE Senior Engineer handling major projects and activities related to the discipline. Through these, Saad gained much experience and knowledge in the implementation and maintenance of international safety standards such as the National Fire Protection Association (**NFPA**), the American Petroleum Institute (**API**), Safety of Life at Sea (**SOLAS**) and Safety for Mobile Offshore Drilling Unit (**MODU**).

Mr. Saad has **NEBOSH** certificate which includes health & safety measures including:

- Fire fighting management system
- Rescue mechanisms (Escaping routes, Rope rescue, and emergency evacuation Plan)
- Machinery Safety requirement
- Occupational health measures & requirement

Mr. Saad has a **Bachelor** degree in **Chemistry**. Further, he is a **Certified Instructor/Trainer**, an **Approved Tutor** in **NEBOSH International General Certificate**, an **Approved Tutor** in **NEBOSH Certificate** in **Environmental Management**, a **Certified Lead Auditor** for **OHSAS 18001**, **ISO 9001**, **ISO 14001** and a **member** of the **Egyptian Syndicate** & **Scientific Professions**. His passion for development and acquiring new skills and knowledge has taken him all over the Middle East to attend and share his expertise in numerous trainings and workshops.

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:	***Sunday, 21st of December 2025***
0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction to Chemical Safety & NFPA Framework*** *Purpose & Objectives of Chemical Safety Training • NFPA's Role in Chemical Hazard Classification • OSHA & NFPA Compliance Requirements • Common Workplace Chemical Hazards*
0930 – 0945	*Break*
0945 – 1030	***Hazard Communication (HazCom) & GHS*** *OSHA Hazard Communication Standard (29 CFR 1910.1200) • Globally Harmonized System (GHS) Labeling Requirements • Safety Data Sheets (SDS) Interpretation • Rights & Responsibilities of Employees*
1030 – 1130	***NFPA 704 Diamond & Hazard Identification*** *Understanding NFPA 704 Diamond Ratings • Health, Flammability, Instability, and Special Hazards • Application to Labeling & Storage Practices • Real-World Case Studies of Mislabeling Incidents*
1130 – 1215	***Chemical Exposure Pathways & Health Effects*** *Routes of Exposure: Inhalation, Ingestion, Skin, Eyes • Acute vs Chronic Health Effects • Recognizing Early Symptoms of Exposure • Case Study: Common Industrial Accidents*
1215 – 1230	*Break*
1230 – 1330	***Safe Storage & Handling of Chemicals*** *NFPA Guidelines for Chemical Storage • Segregation of Incompatible Substances • Ventilation & Temperature Control Requirements • Storage Signage & Secondary Containment*
1330 – 1420	***Personal Protective Equipment (PPE) for Chemical Safety*** *NFPA Standards for PPE Selection • Respiratory Protection Types & Fit-Testing • Chemical-Resistant Clothing & Gloves • Proper Donning, Use & Disposal of PPE*
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:	***Monday, 22nd of December 2025***
0730 – 0830	***Spill Risk Assessment & Prevention Measures*** *Identifying High-Risk Chemicals & Processes • Spill Risk Assessment Tools & Methods • Preventive Engineering & Administrative Controls • Routine Inspections & Maintenance Practices*
0830 – 0930	***Spill Response Planning & NFPA Requirements*** *Elements of an NFPA-Compliant Spill Response Plan • Coordination with OSHA HAZWOPER Standard (29 CFR 1910.120) • Facility-Specific Emergency Action Plans • Communication & Chain of Command*
0930 – 0945	*Break*

0945 – 1100	***Spill Response Equipment & Materials*** *Spill Kits: Absorbents, Neutralizers, Containment Tools • Use of Neutralization Agents & Compatibility Issues • Emergency Shower & Eyewash Station Requirements • Decontamination Equipment & Procedures*
1100 – 1215	***Spill Containment & Control Techniques*** *Immediate Isolation of Spill Area • Establishing Exclusion Zones & Safe Perimeters • Containment Dikes, Booms & Absorbent Socks • Ventilation & Ignition Source Control*
1215 – 1230	*Break*
1230 – 1330	***Fire & Explosion Hazards During Spills*** *NFPA Classifications for Flammable Liquids & Gases • Flash Point, LEL, UEL & Auto-Ignition Temperature • Preventing Static Electricity Build-Up • Case Studies of Fire/Explosion from Chemical Spills*
1330 – 1420	***Emergency Communication & Evacuation Procedures*** *Internal & External Emergency Notification • Evacuation Routes & Assembly Points • Coordination with Fire Brigades & Emergency Responders • Post-Evacuation Accountability Checks*
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*

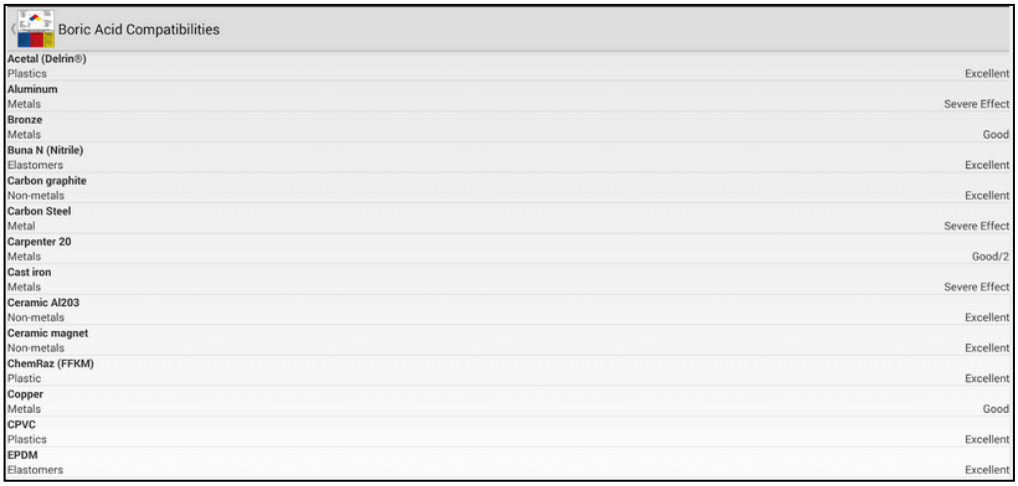
Day 3: ***Tuesday, 23rd of December 2025***

0730 – 0830	***Spill Response Roles & Responsibilities*** *First Responder Duties (Awareness Level) • Operations-Level Responders under NFPA Guidelines • Incident Commander Responsibilities • Coordination with External Emergency Agencies*
0830 – 0930	***Step-by-Step Spill Response Execution*** *Initial Hazard Identification & Risk Evaluation • PPE Selection & Entry Procedures • Spill Containment & Mitigation Actions • Waste Handling & Disposal Protocols*
0930 – 0945	*Break*
0945 – 1100	***Decontamination & Waste Management*** *Levels of Decontamination (Personnel, Equipment, Site) • Decontamination Corridor Setup • NFPA & EPA Guidelines for Hazardous Waste Handling • Disposal of Contaminated PPE & Absorbents*
1100 – 1215	***Post-Incident Analysis & Reporting*** *Incident Documentation & Investigation Procedures • Root Cause Analysis of Chemical Spills • Corrective & Preventive Actions (CAPA) • Compliance with NFPA & OSHA Reporting Requirements*
1215 – 1230	*Break*
1230 – 1300	***Training, Drills & Continuous Improvement*** *NFPA-Required Training & Refresher Frequency • Tabletop Exercises & Live Spill Response Drills • Lessons Learned & Best Practice Sharing • Integration into Safety Culture & Management Systems*

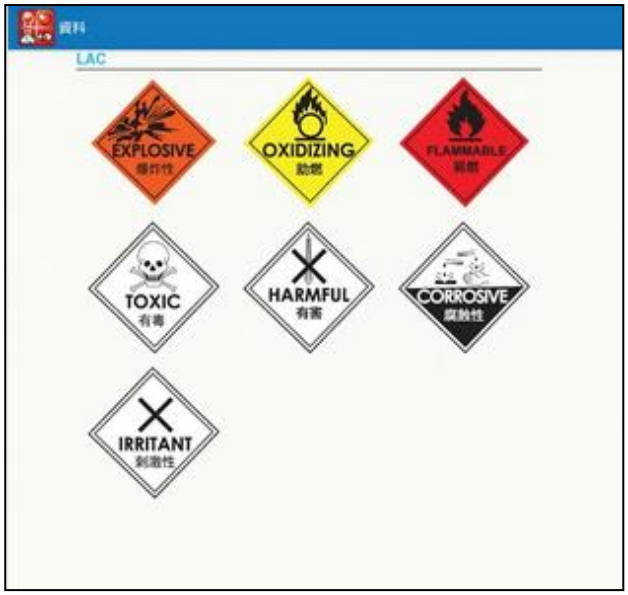
1300 - 1345	***Case Studies & Practical Exercises*** *Analysis of Major Chemical Spill Incidents (e.g., Bhopal, Warehouse Spills) • Spill Simulation Tabletop Exercises • Hands-On Spill Kit Usage & PPE Drills • Team-Based Emergency Response Practice*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulators (Hands-on Practical Sessions)

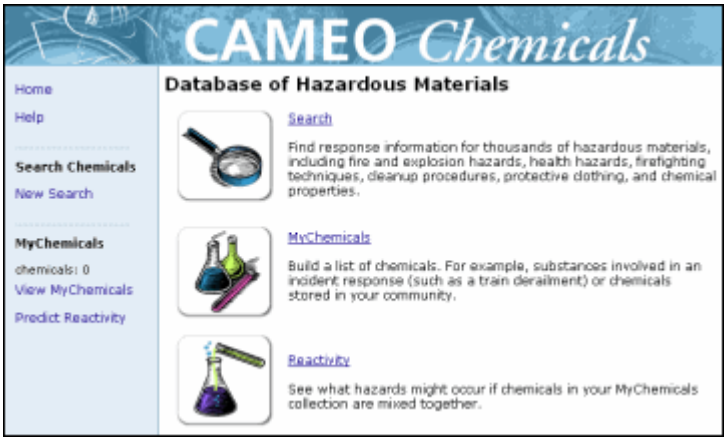
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using one of our state-of-the-art simulators; "Chemical Compatibility 1.1 Simulator", "Chemical Safety Database Simulator", "CAMEO Chemicals Suite Simulator" or "ERG 2020 Simulator".



Chemical Compatibility 1.1 Simulator



Chemical Safety Database Simulator



CAMEO Chemicals Suite Simulator

ERG 2020 Simulator

Course Coordinator

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