



**COURSE OVERVIEW HE1054-4D**  
**Hazardous Materials Specialist**  
**HAZMAT Level IV (OSHA 29 CFR 1910.120 and NFPA 472)**

**Course Title**

Hazardous Materials Specialist: HAZMAT Level IV (OSHA 29 CFR 1910.120 and NFPA 472)

**Course Date/Venue**

Session 1: February 16-20, 2025/Al Khobar Meeting Room, Hilton Garden Inn, Al Khobar, KSA  
Session 2: November 09-13, 2024/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



**Course Reference**

HE1054

**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs



**Course Description**



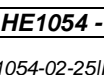
***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using one of our state-of-the-art simulators.***



This course is designed to provide participants with a detailed and up-to-date overview of hazardous materials specialist level IV in accordance with OSHA 29 CFR 1910.120 and NFPA 472. It covers the regulatory overview, incident command system, incident command facilities and incident command system concepts and principles; the roles and responsibilities, HAZMAT site control, HAZMAT site zones, HAZMAT support zones and general health and safety plan guidelines; and the medical surveillance, hazard recognition and respiratory protection.



Further, the course will also discuss the personal protection equipment (PPE), decontamination, placards and labelling, toxicology and hazard recognition; the air monitoring, site emergencies, facility emergency response plan and training and equipping the HAZMAT team; the facility emergency response audit and federal, state and local emergency response requirements; the spill and release reporting under federal regulations; and the applicable laws and regulations including EPA, difference between laws and regulations, major EPA and OSHA laws, recordkeeping, notifying OSHA and OSHA plan states.





During this interactive course, participants will learn the DOT emergency response guidebook (ERG); the availability to recognize and identify hazardous materials; the HAZMAT emergency response strategy and tactics; the HAZMAT emergency response strategic goal for isolation, notification of others, identification of hazards, protection of responsible and public, fire control, spill control, leak control, recovery and termination; the specialized mitigation techniques for non-bulk containers, highway cargo tanks; and the basic chemistry and physical properties terms.

### **Course Objectives**

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

- Get Certified as a “*Certified HAZMAT Level IV Specialist*” in accordance with OSHA 29 CFR 1910.120 and NFPA 472
- Discuss the regulatory overview, incident command system, incident command facilities and incident command system concepts and principles
- Identify the roles and responsibilities, HAZMAT site control, HAZMAT site zones, HAZMAT support zones and general health and safety plan guidelines
- Carryout medical surveillance, hazard recognition and respiratory protection
- Recognize personal protection equipment (PPE), decontamination, placards and labelling, toxicology and hazard recognition
- Illustrate air monitoring, site emergencies, facility emergency response plan and training and equipping the HAZMAT team
- Implement facility emergency response audit and identify the federal, state and local emergency response requirements
- Apply spill and release reporting under federal regulations
- Discuss applicable laws and regulations including EPA, difference between laws and regulations, major EPA and OSHA laws, recordkeeping, notifying OSHA and OSHA plan states
- Review DOT emergency response guidebook (ERG) and discuss the ability to recognize and identify hazardous materials
- Employ HAZMAT emergency response strategy and tactics
- Carryout HAZMAT emergency response strategic goal for isolation, notification of others, identification of hazards, protection of responsible and public, fire control, spill control, leak control, recovery and termination
- Implement specialized mitigation techniques for non-bulk containers, highway cargo tanks and rail tanker cars
- Review and discuss the basic chemistry and define physical properties terms

### **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 hazardous materials specialist for those who are dealing with hazardous materials and chemicals in the workplace such as managers, engineers and other technical staff. This course is also suitable for health, safety and environmental (HSE) personnel.

**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. Successful candidate will be certified as a "Certified HAZMAT Level IV Specialist". 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:** 10-May-18  
**HTME No.:** PAR11356  
**Participant Name:** Amro Al Kader

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE1054	Hazardous Materials Specialist: HAZMAT Level IV (OSHA 29 CFR 1910.120 and NFPA 472)	May 06-10, 2018	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 505, 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:-

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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.

## 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 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. Dimitry Rovas**, CEng, MSc, PMI-PMP, is a **Senior HSE Consultant** with extensive industrial experience in **Oil, Gas, Power and Utilities** industries. His expertise include **Hazardous Materials (HAZMAT), Hazard Communication (HAZCOM), Hazard Recognition & Assessment, Task Risk Management & Managing Risk in Process Plant, Risk Assessment & Hazard Identification, Risk Control, Cryogenics, MSDS, Liquefied Natural Gas, Hazard Monitoring Techniques, Environmental Pollution Prevention, Hazardous Classification, Packaging & Labelling, Chemical Transportation, Waste Management, Chemical Spill Clean Up, Risk Assessments, Safety & Emergency Plans, Working at Heights, Firefighting, Rescue & Operation, Fall Protection, HSSE Emergency Response & Crisis Management Operations, Confined Space Entry, Construction Health & Safety, HSSE Principles & Practices, HSE Quantitative Risk Assessment (QRA), Root Cause Analysis & Techniques, Hazardous Materials & Chemicals Handling, Chemical Spills, Safety Precaution & Response Action Plan, PSM, PHA, HAZOP, HAZID, Hazard & Risk Assessment, Task Risk Assessment (TRA), Incident Command, Accident & Incident Investigation, Emergency Response Procedures, Job Safety Analysis (JSA), Behavioural Based Safety (BBS), Work Permit & First Aid, Emergency Response, H<sub>2</sub>S, ERP Preparation, Project HSE Management System, Health & Hygiene Inspection, PTW Control, Process Modules Fire & Gas Commissioning, Ergonomics, Lockout/Tagout, Fire Safety & Protection and Spill Prevention & Control**. He is currently the **Project Manager** wherein he is managing, directing and controlling all activities and functions associated with the domestic heating/cooling facilities projects.

During his life career, Mr. Rovas has gained his practical and field experience through his various significant positions and dedication as the **EPC Project Manager, Field Engineer, Preventive Maintenance Engineer, Researcher, Instructor/Trainer, Telecom Consultant and Consultant** from various companies such as the Podaras Engineering Studies, Metka and Diadikasia, S.A., **Hellenic Petroleum Oil Refinery** and COSMOTE.

Mr. Rovas is a **Chartered Engineer** of the **Technical Chamber of Greece**. Further, he has **Master** degrees in **Mechanical Engineering** and **Energy Production & Management** from the **National Technical University of Athens**. Moreover, he is a **Certified Instructor/Trainer**, a **Certified Project Management Professional (PMP)** and a **Certified Six Sigma Black Belt**. He is an active member of Project Management Institute (**PMI**), Technical Chamber of Greece and Body of Certified Energy Auditors and has further delivered numerous trainings, seminars, courses, workshops and conferences internationally.



**Course Fee**

Al Khobar	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day
Dubai	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . 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 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	<i>Registration &amp; Coffee</i>
0800 – 0815	<i>Welcome &amp; Introduction</i>
0815 – 0830	<b>PRE-TEST</b>
0830 – 0900	<b>Regulatory Overview</b> <i>EPA • OSHA • Levels of Training</i>
0900 – 0915	<b>Overview of Incident Command System</b> <i>Introduction • Incident Commander Responsibilities • Hazardous Materials Contingency Plan • Organization • Incident Command System</i>
0915 – 0930	<b>Incident Command Facilities</b> <i>Incident Command Facilities &amp; Locations • Command Post • Staging Areas • Bases</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Incident Command System Concepts &amp; Principles</b> <i>Common Terminology • Unity of Command • Designated Incident Facilities</i>
1030 – 1100	<b>Roles &amp; Responsibilities</b> <i>Organizational Structure • Essential Personnel • Health &amp; Safety Plan (HASP) • Optional Personnel • Lines of Authority</i>
1100 – 1130	<b>HAZMAT Site Control</b> <i>Site Map • Site Preparation</i>
1130 – 1200	<b>HAZMAT Site Zones</b> <i>Site Zones • Hot Line • The Buddy System</i>
1200 – 1230	<b>HAZMAT Support Zones</b> <i>Site Security • Communication Systems</i>
1230 – 1245	<i>Break</i>
1245 – 1315	<b>General Health &amp; Safety Plan Guidelines</b> <i>Health &amp; Safety Guidelines • Overview of Health &amp; Safety Plan</i>





1315 - 1345	<b>Medical Surveillance</b> Information for Medical Program • Develop a Site Specific Medical Program • Medical Examination • Periodic Medical Monitoring • Examination After Injury • Termination Exam
1345 - 1420	<b>Hazard Recognition (Overview)</b> Injury Prevention • Boiling Point, Vapor Pressure, Vapor Density, pH, Flashpoint • Oxidizers • Lower/Upper Explosive Limits • Flammability • Fire Triangle • SDS
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day One

**Day 2**

0730 - 0800	<b>Respiratory Protection</b> Respirator Protection Program • Respirator Types • Selection of Respiratory Equipment • Air-purifying Respirators • Combination Canisters & Cartridges • Types of APR Face Pieces • Supplied Air Respirators (SAR) • Self-Contained Breathing Apparatus (SCBA) • Combination SCBA/SAR
0800 - 0845	<b>Respiratory Protection (cont'd)</b> Chemical Concentration • Protection Factors • Calculating Protection Factors • Respirator Fit Test (Quantitative & Qualitative) • Respiratory Maintenance • Types of Respirator Canisters • How Respirators Work • Positive & Negative Pressure Fit Test • Respirator Limits • Cleaning, Maintenance & Storage
0845 - 0930	<b>Personal Protection Equipment (PPE)</b> Clothing & Ensembles • Developing a PPE Program • Training • Program Review & Evaluation • Level A • Level B • Level C • Level D • Selecting the Level of Protection
0930 - 0945	Break
0945 - 1030	<b>Personal Protection Equipment (PPE) (cont'd)</b> Protective Clothing • Inspection & Maintenance of Protective Clothing • Selection of Chemical Protective Clothing • Permeation & Degradation • Work Mission Duration
1030 - 1115	<b>Personal Protection Equipment (PPE) (cont'd)</b> Considerations for Working in PPE • Air Supply Consumption • Coolant Supply • Accessories • Special Considerations • Reasons to Upgrade/Downgrade PPE • PPE Inspection Program • Proper Storage • PPE Before Use Inspection
1115 - 1200	<b>Personal Protection Equipment (PPE) (cont'd)</b> In-use Monitoring • Donning & Doffing • Clothing Reuse • Heat Stress & Monitoring • Heat Rash • Heat Cramps • Heat Stroke • Hand Protection • General Requirements of the OSHA Standard • Eye & Face Protection • Selection of Eye & Face Protection • Head Protection • Foot Protection
1200 - 1230	<b>Decontamination</b> Decon Plan & Procedures • Standard Operating Procedures • Maximizing Worker Protection from Hazardous Wastes • Proper Dress Out Procedures • Levels of Contamination • Personal Decon Station • Extent of Decon Required • Types of Contamination • Amount of Contamination • Levels of Protection
1230 - 1245	Break
1245 - 1315	<b>Decontamination (cont'd)</b> Decon of Personnel & Equipment • Decon During Medical Emergencies • Physical Injury • Heat Stress • Protection for Decon Workers • Decon Procedures • Chemical & Physical Removal of Contamination • Persistent Contamination • What if Decon Procedure has not Worked?







1315 – 1400	<b>Decontamination (cont'd)</b> Lab Testing Articles • Fundamentals that Affect Permeation of Protective Clothing • Substance & Tools for Effective Decontamination • Disposal of Contaminated Equipment & Materials • Decon Tools, Devices & Equipment • Disposal of Contaminated Materials • Health & Safety Hazards of Decontamination • Decon Facility Design
1400 – 1420	<b>Placards &amp; Labelling</b> NFPA Hazardous System Identification • DOT Placards
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Two

**Day 3**

0730 – 0800	<b>Toxicology</b> Chemical Classification • Toxicology • Routes of Exposure & Dose • Interaction with Other Chemicals • Dust, Fumes, Mists & Vapors • Toxicokinetics • Metabolism
0800 – 0845	<b>Toxicology (cont'd)</b> Classes of Chemical Toxins • Dose to Organs • Dose & Response • Storage in the Body • Chronic Response • Toxic • Chemical Interaction • Dose/Response • OSHA Exposure Limits
0845 – 0930	<b>Hazard Recognition</b> NFPA Requirements • Job Hazard Analysis • Defining Risk • Chemical Hazard Identification Systems • NFPA 704 System • DOT Labels & Placards • Ionizing Radiation
0930 – 0945	Break
0945 – 1030	<b>Hazard Recognition (cont'd)</b> Chemical & Physical Hazards • Fires & Explosions • Combustibles • Shock Sensitive • Oxygen Deficiency • Site & Equipment Hazards • Noise • Heat Stress
1030 – 1100	<b>Hazard Recognition (cont'd)</b> Heat Stroke • Cold Stress • Infectious Diseases (Bloodborne Pathogens, HIV, HBV) • Sanitation • Illumination • Lockout/Tagout
1100 – 1130	<b>Air Monitoring</b> Requirements for Air Monitoring Devices • Sampling Methods • Air Monitoring Equipment Characteristics • Types of Direct Reading Instruments • Calibration • Toxic Atmosphere Monitors
1130 – 1200	<b>Air Monitoring (cont'd)</b> Photoionization Detector (PID) • Flame Ionization Detector (FID) • Radiation Monitors • OSHA Action Levels • Active & Passive Sampling Equipment • Personal Monitors • Radiation Dosimeters • Calibration • Personal Sampling Plan
1200 – 1230	<b>Air Monitoring (cont'd)</b> OSHA Exposure Limits • Measuring Particles, Gases & Vapors • Permissible Exposure Limit (PEL) • Time Weighted Averages (TWA) • Calculating TWAs • Site Monitoring • Monitoring for Immediately Dangerous to Life & Health (IDLH) • Perimeter Monitoring • Variables of Hazardous Waste Site Exposures
1230 – 1245	Break
1245 – 1315	<b>Site Emergencies</b> Planning & Personnel • Site Emergencies • How Teams Assist in Emergencies • Roles of Personnel During Emergencies • Communications • Safe Distances & Site Mapping • Safe Refuge • Public Evacuations



1315 – 1400	<b>Site Emergencies (cont'd)</b> Evacuations & Emergency Decontamination • Personal Locator Systems • Evacuation Routes & Procedures • First Aid/Medical Treatment • Emergency Response Procedures • Notification • Size-Up • Rescue/Response Action • Follow Up • Documentation
1400 – 1420	<b>Facility Emergency Response</b> Pre-emergency Planning • Personnel Roles & Communication • Recognition & Prevention • Safe Distances & Refuge • Site Security & Control • Evacuation Routes & Procedures • Emergency Decontamination • Emergency Medical Treatment & First Aid • Emergency Response Procedures & Critique
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4**

0730 – 0800	<b>Training &amp; Equipping Your HAZMAT Team</b> Training Requirements • HAZMAT Levels • Responsibilities • Medical Monitoring • Cost of Training • Protection Levels & Equipment
0830 – 0900	<b>Facility Emergency Response Audit</b> Performing a Process Hazard Analysis • Site Identification • Hazard Qualification • Consequence Analysis • Performing a Workplace Hazard Analysis • Determining Location • Examine Container Condition • Determine the Physical State of Contents • Determine Dispersion Pathways • Exposure Indicators
0900 – 0930	<b>Federal, State &amp; Local Emergency Response Requirements</b> Site Zones Explained • Establishing the Hot Line • The Buddy System
0930 – 0945	Break
0945 – 1030	<b>Spill &amp; Release Reporting Under Federal Regulations</b> Emergency Planning Requirements • Emergency Planning & Notification • Procedures for SARA Title III Compliance • Regional Response Team • National Response Team • DOT Notification Requirements • Leaking Containers
1030 – 1100	<b>Applicable Laws &amp; Regulations</b> EPA • Difference Between Laws & Regulations • Major EPA & OSHA Laws • Recordkeeping & Notifying OSHA • OSHA Plan States
1100 – 1130	<b>Overview of DOT Emergency Response Guidebook (ERG)</b> Introduction • How to Read the ERG • List of DOT Tanks & Containers • Labelling
1130 – 1200	<b>The Ability to Recognize &amp; Identify Hazardous Materials</b> Hazardous Materials Clues • Occupancy/Location • Fixed Sites • Transportation Sources • Highway, Rail & Air • Marine • Pipelines • Tanks & Containers • Container Shape & Size • Types of DOT Highway Transportation Tanks, Tankers, Trailers & Containers • Types of DOT Rail Transportation Tank • Cars • Intermodal Containers
1200 – 1230	<b>The Ability to Recognize &amp; Identify Hazardous Materials (cont'd)</b> Stationary Bulk Tanks & Containers • Cryogenic Liquid Storage Tank • Dome Roof Tank • High Pressure Spherical Storage Tank • High Pressure Horizontal Tank • Cone Roof Tank • Covered Top Floating Roof Tank With Geodesic Dome • Covered Top Floating Roof Tank • Open Top Floating Roof Tank • Petroleum Storage Tanks • Horizontal Tank • Non-Bulk Containers • Drums • Bags or Sacks • Boxes or Crates • Cylinders • Intermediate Bulk Containers
1230 – 1245	Break



1245 – 1315	<b>The Ability to Recognize &amp; Identify Hazardous Materials (cont'd)</b> Radioactive Containers • Type A • Type B • Excepted • Industrial Package I • Industrial Package II • Tanks & Containers Markings & Colors • NFPA 704 System • HMIS Placards & Labels • UN NA Hazard Class System • DOT 9 Classes of Hazardous Materials • Shipping Papers & SDSs
1315 – 1330	<b>HAZMAT Emergency Response Strategy &amp; Tactics</b> Incident Action Plan (IAP) • Strategy & Tactics
1330 – 1400	<b>HAZMAT Emergency Response Strategic Goal – Isolation</b> HAZMAT Zones • Staging Areas • Public Protection • Shelter in Place • Evacuation
1400 – 1420	<b>HAZMAT Emergency Response Strategic Goal – Notification of Others</b> Unity of Command • Emergency Response Plan • Incident Levels
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5**


0730 – 0800	<b>HAZMAT Emergency Response Strategic Goal – Identification of Hazards</b> Surveying the Scene • Rescue Risks Associated with DOT Hazard Classes • Pipelines • Containers • Dispersion Patterns • Environment • Confined Spaces • Storage Areas
0800 – 0845	<b>HAZMAT Emergency Response Strategic Goal – Protection of Responders &amp; Public</b> HAZMAT Technician Personal Protective Equipment • Structural Firefighting Equipment • Proximity & Entry Suits • Chemical Protective Equipment • Limitation of Personal Protective Equipment (PPE) • Responder Rehabilitation • Emergency Decon • Mass Decontamination • Hose line Decontamination • Engine Corridor Decontamination • Ladder Corridor Decontamination • Decontamination Tents & Trailers • Hospital Decon • Contaminated Victim Decontamination • Pets & Animals Decontamination
0845 - 0915	<b>HAZMAT Emergency Response Strategic Goal – Fire Control</b> Ignition Sources • Extinguishing Fires • Remove Fuel Supply • Remove Oxygen Source • Control Burn • Exposure Protection • Preventing Container Failure • Cool Containers • Stress Barriers • Remove Uninvolved Materials • Tactical Withdrawal • Explosion-Resistant Barriers
0915 - 0930	Break
0930 - 1000	<b>HAZMAT Emergency Response Strategic Goal – Spill Control (Confinement)</b> Air Releases • Foams • Ventilation • Releases Onto Land • Absorption • Blanketing • Diversion • Diking • Damming • Retention • Filter Fence • Floating Boom • Chemical Control Methods • Groundwater Contamination
1000 - 1020	<b>HAZMAT Emergency Response Strategic Goal – Leak Control (Containment)</b> Tool Kits • Leaks from Drums • Leaks From Piping • Leaks from Tank Trucks & Assorted Containers • Product Transferring • Specialty Tools • Product Displacement • Crimping
1020 - 1040	<b>HAZMAT Emergency Response Strategic Goal – Recovery &amp; Termination Procedures</b> Incident Transition • Termination • Debriefing • Critiquing • After-Action Procedures • Reporting • Follow Up
1040 - 1100	<b>Specialized Mitigation Techniques</b> Basic Safety Procedures • Overpacking • Patching • Bandages • Sealants • Engineering Methods



1100 - 1120	<b>Specialized Mitigation Techniques – Non-Bulk Containers</b> Control Techniques for Non-Bulk Containers • Mitigation Methods • Plugging/Patching • Bandages • Sealants • Compressed Gas Cylinders • Commercial Kits
1120 - 1140	<b>Specialized Mitigation Techniques – Highway Cargo Tanks</b> Control Techniques for Cargo Tanks • Types of Leaks • Dome Cover Leaks • Tears/Irregular Holes/Punctures • Vents/Relief Valves/Rupture Disk Leaks • Inspecting Damaged Cargo Tanks
1140 - 1200	<b>Specialized Mitigation Techniques – Highway Cargo Tanks (cont'd)</b> Inspecting & Repairing Damaged Cargo Tank Fittings • Handling Damaged Cargo Tanks • Field Product Removal Methods • Transfers • Venting, Flaring, & Venting & Burning • Non-Pressure Cargo Tank • Special Considerations – Fire in MC 306/DOT 406 Cargo Tanks • Vacuum Trucks
1200 - 1215	Break
1215 - 1245	<b>Specialized Mitigation Techniques – Rail Tanker Cars</b> Control Techniques for Tank Cars • Inspecting & Repairing Damaged Fittings • Decision-Making & Mitigation • Offensive Operations Decision-Making • Safety
1245 - 1310	<b>Review &amp; Basic Chemistry Physical Properties Terms</b> Physical Properties Terms
1310 - 1320	<b>Course Conclusion</b>
1320 - 1420	<b>COMPETENCY EXAM</b>
1420 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

**Simulators (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; “Chemical Compatibility 1.1 Simulator”, “Chemical Safety Database Simulator”, “CAMEO Chemicals Suite Simulator” or “ERG 2012 Simulator”.

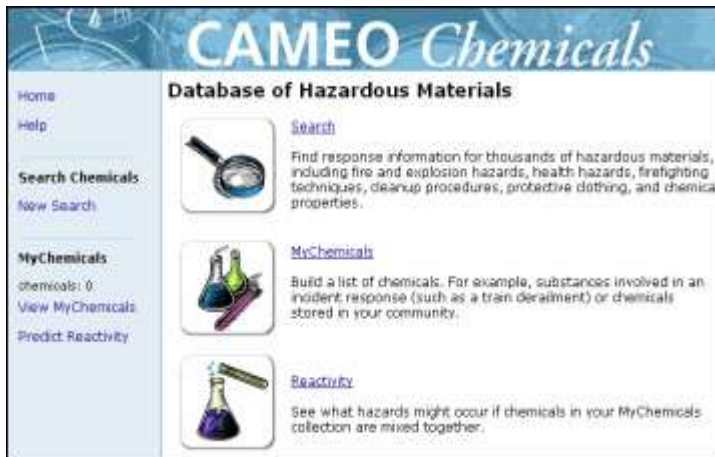


**Chemical Compatibility 1.1 Simulator**





**Chemical Safety Database Simulator**



**CAMEO Chemicals Suite Simulator**



**ERG 2012 Simulator**

**Course Coordinator**

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