COURSE OVERVIEW HE0523
Chemical Inventory Management

Course Title
Chemical Inventory Management

Course Date/Venue
Session 1: April 07-11, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
Session 2: September 28-October 02, 2025/ Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Reference
HE0523

Course Duration/Credits
Five day/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of Chemical Inventory Management. It covers the significance of chemical inventory management and the role of inventory management in petroleum operations; the classification of chemicals in the petroleum industry; the regulatory and safety considerations in chemical inventory; the chemical procurement and supplier management; the chemical storage and handling best practices; the chemical inventory tracking systems and inventory optimization techniques; and the Employ stock reconciliation and auditing, hazardous chemical waste management inventory control for emergency preparedness.

During this interactive course, participants will learn the chemical lifecycle management, logistics and supply chain management for chemicals and labeling and documentation in chemical inventory; the digital transformation in chemical inventory management; the performance metrics for inventory management; the risk assessment in chemical inventory management and cost control strategies for chemical inventory; complying with international standards; the sustainable chemical inventory management; the incident management and emergency response; and troubleshooting common inventory issues.

Course Objectives

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

- Apply and gain an in-depth on chemical inventory management
- Discuss the significance of chemical inventory management and the role of inventory management in petroleum operations
- Classify chemicals in the petroleum industry and explain the regulatory and safety considerations in chemical inventory
- Carryout chemical procurement and supplier management as well as chemical storage and handling best practices
- Recognize chemical inventory tracking systems and apply inventory optimization techniques
- Employ stock reconciliation and auditing, hazardous chemical waste management and inventory control for emergency preparedness
- Apply chemical lifecycle management, logistics and supply chain management for chemicals and labeling and documentation in chemical inventory
- Carryout digital transformation in chemical inventory management as well as performance metrics for inventory management
- Implement risk assessment in chemical inventory management and cost control strategies for chemical inventory
- Comply with international standards and apply sustainable chemical inventory management
- Employ incident management and emergency response and troubleshoot common inventory issues

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 inventory management for facility managers, environmental, health, and safety (EHS) managers, warehouse and stockroom personnel, health and safety officers, shipping/receiving personnel, laboratory technicians, procurement/purchasing staff, quality control/assurance personnel and regulatory compliance officers.

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.

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: -

- 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.

- 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.

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. Francis Almeida, PgDip, BSc, NEBOSH-ENV, NEBOSH-IGC, NEBOSH-IFC, NEBOSH-IOGC, NEBOSH-PSM, is a **Senior Health, Safety & Environmental** (**HSE**) **Consultant** with over **30 years** of practical experience within the **Oil** and **Gas** industry. He is a **NEBOSH Approved Instructor** for various certification programs. His expertise lies extensively in the areas of **NEBOSH** Environmental Management, **NEBOSH** International General Certificate, **NEBOSH** Fire Safety & Risk Management International Certificate, **NEBOSH** International Oil & Gas Certificate, **NEBOSH** Process Safety Management, **HAZOP & HAZID**, **HAZMAT & HAZCOM** Storage & Disposal, As Low as Reasonably Practicable (**ALARP**), Process Hazard Analysis (**PHA**), Process Safety Management (**PSM**), **Hazardous Materials & Chemicals** Handling, **Pollution Control**, **Environment, Health & Safety** Management, **Process Risk** Analysis, Effective Tool Box Talks, Construction Sites Safety, **HSSE Management** System, **HSSE Audit & Inspection**, **HSEQ Procedures**, **Authorized Gas** Testing, **Confined Space Entry & Rescue**, **Risk** Management, **Quantitative & Qualitative Risk** Assessment, **Working at Height**, **Firefighting** Techniques, **Fire** & **Gas** Detection System, **Fire Fighter & Fire** Rescue, **Fire Risk** Assessment, **HSE Industrial Practices**, **Manual Handling**, **Rigging Safety Rules**, **Machinery & Hydraulic Lifting Equipment**, **Warehouse Incidents & Accidents Reporting**, **Incident & Accident Investigation**, **Emergency Planning**, **Emergency Response & Crisis** Management Operations, **Waste Management** Monitoring, **Root Cause Analysis**, Hazard & Risk Assessment, Task Risk Assessment (**TRA**), **Incident Command**, Job Safety Analysis (**JSA**), Behavioral Based Safety (**BBS**), **Fall Protection**, **Work Permit & First Aid** and various international codes and standards such as the ISO 9001, OHSAS 18001, ISO 14001, SA8000, ISO 9001-2000 and ISO 9002. He was the **Offshore Safety Specialist** of **Chevron** wherein he was in-charged in HSE inspections, hazard analysis, incident investigation and implementing corrective actions.

During his career life, Mr. Almeida has gained his practical and field experience through his various significant positions and dedication as the **Quality Manager**, **HSE Specialist/Acting On-Scene Commander**, **Quality Auditor**, **Quality Supervisor**, **QHSE Engineer**, **Metallurgical Engineer**, **HSE Coordinator**, **Suppliers Auditor**, **Senior Instructor/Consultant**, **Oil & Gas Construction Specialist**, **Business Administration Specialist** and **Oil & Gas Management Technology Specialist** for various international companies and institutions such as the IBEC, Lopes & Almeida, IMA, EXPRO Group, UNESA, Vetco Aibel, ABB Oil & Gas, Brazilian Aluminum Foundry, DNV and ABIFA.

Mr. Almeida has a **Bachelor** degree in **Metallurgical Engineering** and a **Post Graduate Diplomas** in **Safety Engineering** and **Industrial Administration**. Further, he is a **Certified Instructor/Trainer**, an **Approved Lead Tutor** in **NEBOSH Environmental Management Certificate**, **NEBOSH International General Certificate**, **NEBOSH International Oil & Gas Certificate** and **NEBOSH Process Safety Management Certificate** and an **Approved Practical Assessor/Lead Tutor** in **NEBOSH Fire Safety & Risk Management**. Moreover, he is a **Certified ISO 9001:2000 Lead Auditor**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management** (**ILM**) and has further delivered numerous trainings, courses, seminars, conferences and workshops globally.

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 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 – 0930	***Introduction to Chemical Inventory Management*** *Definition and Significance of Chemical Inventory Management • Role of Inventory Management in Petroleum Operations • Key Challenges in Handling Chemicals • Best Practices for Chemical Inventory Management*
0930 – 0945	*Break*
0945 – 1030	***Classification of Chemicals in the Petroleum Industry*** *Production Chemicals (Corrosion Inhibitors, Demulsifiers, Scale Inhibitors) • Refinery Chemicals (Catalysts, Cracking Agents, Anti-Fouling Agents) • Water Treatment Chemicals (Biocides, Oxygen Scavengers, Flocculants) • Categorization of Essential Chemicals*
1030 – 1130	***Regulatory & Safety Considerations in Chemical Inventory*** *Chemical Safety Guidelines and Compliance Requirements • International Regulations (OSHA, REACH, GHS, ISO 45001) • Safe Storage, Handling, and Transportation of Hazardous Chemicals • Emergency Response Planning for Chemical Spills and Leaks*
1130 – 1230	***Chemical Procurement & Supplier Management*** *Selecting Reliable Chemical Suppliers • Chemical Quality Assurance and Specifications Compliance • Contract Management for Long-Term Chemical Supply • Vendor Qualification Process for Chemicals*
1230 – 1245	*Break*
1245 – 1330	***Chemical Storage & Handling Best Practices*** *Chemical Compatibility and Segregation Principles • Proper Storage Conditions (Temperature, Ventilation, Humidity Control) • Labeling and Material Safety Data Sheets (MSDS) Management • Storage Guidelines for Hazardous Chemicals*
1330 – 1420	***Case Studies on Effective Chemical Inventory Management*** *Success Stories of Optimized Chemical Inventory • Lessons Learned from Chemical Supply Chain Failures • Strategies to Improve Chemical Inventory Control • Initiatives for Inventory Optimization*
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

0730 – 0830	***Chemical Inventory Tracking Systems*** *Barcode and RFID-Based Tracking Solutions • Cloud-Based Inventory Management Software • Digital Chemical Inventory Tracking System • Benefits of Automated Inventory Tracking*
0830 – 0930	***Inventory Optimization Techniques*** *Just-in-Time (JIT) Inventory Management • ABC Analysis for Prioritizing Chemicals • Demand Forecasting for Chemical Usage • Strategies for Inventory Cost Reduction*
0930 – 0945	*Break*
0945 – 1100	***Stock Reconciliation & Auditing*** *Importance of Regular Inventory Audits • Reconciliation Techniques for Detecting Discrepancies • Reporting and Documentation Best Practices • Periodic Chemical Audit Procedures*
1100 – 1230	***Hazardous Chemical Waste Management*** *Identifying Expired and Obsolete Chemicals • Disposal Regulations for Hazardous Waste • Waste Minimization and Recycling Strategies • Hazardous Waste Management Policies*
1230 – 1245	*Break*
1245 – 1330	***Inventory Control for Emergency Preparedness*** *Ensuring Sufficient Stock for Critical Chemicals • Emergency Response Stockpiling Strategies • Chemical Contingency Planning • Case Studies on Inventory Failures in Emergencies*
1330 – 1420	***Case Studies on Inventory Optimization*** *Success Stories in Reducing Chemical Waste • Implementation of Automated Tracking Systems • Lessons from Inefficient Inventory Management Cases • Future Trends in Digital Inventory Control*
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

0730 – 0830	***Chemical Lifecycle Management*** *Phases of Chemical Lifecycle (Procurement to Disposal) • Inventory Control through Lifecycle Analysis • Guidelines for Lifecycle-Based Inventory Tracking • Best Practices for Extending Chemical Shelf Life*
0830 – 0930	***Logistics & Supply Chain Management for Chemicals*** *Transportation of Hazardous Chemicals (DOT, ADR, ADNOC Standards) • Best Practices for Reducing Lead Time in Chemical Deliveries • Optimizing Logistics Costs in Chemical Inventory • Chemical Supply Chain Management Policies*
0930 – 0945	*Break*
0945 – 1100	***Labeling & Documentation in Chemical Inventory*** *Importance of Proper Labeling (GHS, NFPA, HMIS) • Chemical Documentation Requirements (MSDS, TDS, CoAs) • Chemical Labeling Standards • Ensuring Compliance with International Documentation Regulations*
1100 – 1230	***Digital Transformation in Chemical Inventory Management*** *AI and IoT Applications for Real-Time Inventory Tracking • Predictive Analytics for Chemical Usage Trends • Digital Initiatives in Inventory Management • Future Trends in Smart Inventory Control Systems*
1230 – 1245	*Break*

1245 – 1330	***Performance Metrics for Inventory Management*** *Key Performance Indicators (KPIs) for Chemical Inventory Control • Measuring Inventory Turnover and Stock Accuracy • Performance Benchmarks for Chemical Management • Strategies for Improving Chemical Inventory Efficiency*
1330 – 1420	***Case Studies on Chemical Logistics & Lifecycle Management*** *Optimizing Chemical Supply Chains • Lessons from Inventory Bottlenecks in Offshore Operations • Best Practices in Real-Time Tracking and Lifecycle Analysis • Future Improvements in Chemical Logistics Strategy*
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

0730 – 0830	***Risk Assessment in Chemical Inventory Management*** *Identifying Risks in Chemical Storage and Handling • Risk Assessment Methodologies • Mitigating Risks through Inventory Control Measures • Case Studies on Risk Management in Chemical Inventory*
0830 – 0930	***Cost Control Strategies for Chemical Inventory*** *Reducing Overstocking and Understocking Risks • Cost-Benefit Analysis of Bulk Purchasing vs. JIT Inventory • Strategies for Optimizing Inventory Costs • Case Studies on Cost Reduction in Chemical nventory*
0930 – 0945	*Break*
0945 – 1100	***Compliance & International Standards*** *Internal Guidelines for Chemical Inventory Control • International Standards and Regulatory Frameworks (API, ISO, REACH) • Ensuring Compliance through Audits and Reporting • Approach to Meeting Environmental Regulations*
1100 – 1230	***Sustainable Chemical Inventory Management*** *Strategies for Reducing Chemical Waste • Green Chemistry Initiatives • Implementing Circular Economy Principles in Chemical Usage • Case Studies on Sustainability in Chemical Management*
1230 – 1245	*Break*
1245 – 1420	***Incident Management & Emergency Response*** *Emergency Response Framework for Chemical Incidents • Fire, Explosion, and Leak Prevention Strategies • Role of HAZMAT Teams in Inventory Safety • Case Studies on Emergency Response in Operations*
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

0730 – 0930	***Case Studies on Compliance, Risk, & Cost Control*** *Lessons Learned from Chemical Safety Incidents • Best Practices for Ensuring Compliance in Inventory Control • Successful Cost-Saving Initiatives in Chemical Procurement • Future Trends in Sustainable and Cost-Efficient Inventory Management*

0930 – 0945	*Break*
0945 – 1100	***Chemical Inventory Management Systems*** *Demonstration of RFID and Barcode Tracking Systems • Data Entry and Reporting for Chemical Inventory Control • Optimizing Stock Levels Using Digital Tools • Chemical Management Software Training*
1100 – 1230	***Practical Session: Inventory Auditing & Reconciliation*** *Conducting a Sample Inventory Audit • Identifying Discrepancies and Corrective Actions • Implementing Reconciliation Best Practices • Auditing Procedures and Compliance Requirements*
1230 – 1245	*Break*
1245 – 1345	***Troubleshooting Common Inventory Issues*** *Addressing Discrepancies in Stock Records • Managing Stockouts and Overstocking Issues • Handling Chemical Storage and Labeling Errors • Approach to Resolving Inventory Challenges*
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*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org