



COURSE OVERVIEW ME0922(KP4) **Storage Tank, Design Construction & Maintenance**

Course Title

Storage Tank, Design Construction & Maintenance

Course Date/Venue

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Course Reference

ME0922(KP4)

Course Duration/Credits

Five days/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.



Aboveground atmospheric storage tanks store a diverse variety of liquids used in the hydrocarbon processing industry at oil/gas fields, refineries, petrochemical plants, marine terminals, bulk storage, oil depots and marketing terminals. They are also part of the support facilities in other industries, such as fuel storage tanks at power plants. These tanks have gained importance and visibility in recent years due to failures that have resulted in hydrocarbon spills and environmental impact. Following these incidents, there has been a marked increase in governmental regulation and industry attention to tanks. Therefore, establishing a programme for evaluating the structural integrity of aboveground atmospheric storage tanks has become an important priority.



During this interactive course, participants will learn the storage tank types and features; the materials selection, mechanical design requirements, tank component and evaluation; the proper inspection and testing requirements; the fabrication details, tank repair, alteration, dismantling and reconstruction; and the vent and fire protection system.

Course Objectives

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

- Apply and gain an in-depth knowledge on storage tank design, construction and maintenance
- Identify the storage tank types and features and carryout materials selection
- Recognize the mechanical design requirements, tank component and evaluation
- Carryout inspection and testing requirements as well as discuss fabrication details
- Employ tank repair, alteration, dismantling and reconstruction
- Discuss vent and fire protection system

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 is intended for inspection engineers, mechanical design engineers and mechanical maintenance engineers.

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 Date/Venue


Session(s)	Date	Venue
1	September 07-11, 2025	Crowne Meeting Room, Crowne Plaza Al Khobar, an IHG Hotel, Al Khobar, KSA
2	October 19-23, 2025	Meeting Plus 9, City Centre Rotana, Doha Qatar
3	November 03-07, 2025	Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
4	December 14-18, 2025	BoardRoom, Sheraton Dubai Creek Hotel & Towers, Dubai, UAE

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course.

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.

Course Fee

Doha	US\$ 6,000 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar Duba/Abu Dhabi	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 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. Rod Larmour, PEng, MSc, BSc, is a **Senior Mechanical Engineer** with over **30 years** of **Onshore & Offshore** practical experience within the **Power, Petrochemical, Oil & Gas** industries. His expertise greatly covers the application of **Boiler Operation, Control, Maintenance & Troubleshooting, Boiler & Steam System Management, Waste Heat Recovery, Rotating Machinery, Mechanical Alignment, Stress Analysis, Thermodynamics, Fluid Mechanics, Heat & Mass Transfer Engineering, Air Conditioning & Refrigeration Technology, Cooling Towers, Gas & Steam Turbines, Centrifugal Compressor & Pumps** and the **design, failure investigation, and maintenance of Atmospheric Storage Tanks & Tank Farms and Bolted Flanges & Joints**.

Currently, Mr. Larmour is working with Transnet overseeing the performance and safety of several **fuel pipelines** including **pumping stations** and **inland tank farms** locally. He also takes lead in the **planning** of detailed design of a **fuel gas supply system** from a site to the **proposed new power station**, the **management** of an **EPC booster gas compressor station** including an **overland piping**, and **spearheads** the **commercial & contractual management** within the **Ilitha Process Group**.

Throughout Mr. Larmour's lengthy career, he has worked with **several international companies** like **Mobil, Mossgas, Stewarts & Lloyds** and **Ilitha** with prime positions such as **Operations Manager, Principal Project Manager, Senior Mechanical Engineer, Offshore Projects Manager, Design Manager, Quality Assurance Manager** and **Project Engineer**.

Mr. Larmour's experience was not only confined to the industry alone. He was also able to largely contribute his expertise and impart his knowledge in the academe. He has engaged himself with **researches** and **lectures** in for several **universities** and **companies** and has held numerous **training courses** on **Thermomechanics & Fluid mechanics, Engineering Design, Refrigeration & Air Conditioning** and **Heat Transfer**.

Mr. Larmour is **Registered Professional Engineer** and has **Master & Bachelor** degrees in **Mechanical Engineering** and has a **Diploma** in **Nuclear Science**. Further, he is a **Certified Instructor/Trainer**.

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 & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	<i>Storage Tank Types & Features</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Storage Tank Types & Features (cont'd)</i>
1100 – 1230	<i>Materials Selection</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>Materials Selection (cont'd)</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0930	<i>Mechanical Design Requirements</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Mechanical Design Requirements (cont'd)</i>
1100 – 1230	<i>Tank Component & Evaluation</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>Tank Component & Evaluation (cont'd)</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0930	<i>Inspection & Testing Requirements</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Inspection & Testing Requirements (cont'd)</i>
1100 – 1230	<i>Fabrication Details</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>Fabrication Details (cont'd)</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4

0730 – 0930	<i>Tank Repair & Alteration</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Tank Repair & Alteration (cont'd)</i>
1100 – 1230	<i>Dismantling & Reconstruction</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>Dismantling & Reconstruction (cont'd)</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 – 0930	<i>Vent & Fire Protection System</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Vent & Fire Protection System (cont'd)</i>
1100 – 1230	<i>Vent & Fire Protection System (cont'd)</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Vent & Fire Protection System (cont'd)</i>
1345 – 1400	<i>Course Conclusion</i>
1400 – 1415	<i>POST-TEST</i>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

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