COURSE OVERVIEW OE0409(AD4)
Liquefied Gas Tankers & Jetty Operations

Course Title
Liquefied Gas Tankers & Jetty Operations

Course Date/Venue
Session 1: May 17-21, 2026/Meeting Plus 9, City Centre Rotana Doha Hotel, Doha, Qatar
Session 2: November 01-05, 2026/Meeting Plus 9, City Centre Rotana Doha Hotel, Doha, Qatar

Course Reference
OE0409(AD4)

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.

Safety in all types of operations is the key factor in ensuring that a company always maintains its position about the profit line, both efficiently and ethically. It is critical to the well-being and reputation of the tanker and terminal industry. In today's global oil and gas markets, terminal, offshore, tank and transport operators are faced with increasing risk constraints and challenges stemming from complex cargo and terminal operations coupled with tighter safety, security and environmental regulations.

This course is required to provide sufficient competence for regulatory HID inspectors involved in carrying out inspections at jetties associated with ship-to-shore transfer of hazardous substances, whilst ensuring their personal health and safety within a hazardous environment. Those parts of the course covering issues of regulation policy and practice will be presented by HSE staff. The participants to the course will consist of gas & pipeline specialist regulators and chemical industry regulatory inspectors who deal with refinery/fuel storage facilities linked to tanker jetties, plus small number of specialists in the fields of process safety, human factors, etc.

The course will provide the technical fundamentals of liquefied gas and its safe carriage on marine tank vessels. It will describe the parties involved, equipment, procedures and documentation applicable across the entire process of tanker berthing, loading and unloading as well as the health, safety and environmental aspects, and their applicability to the different products handled.

Participants of the course will have the technical knowledge required to serve on a tanker and be assigned specific duties and responsibilities related to cargo or cargo equipment. Further, participants will be able to gain sufficient knowledge of the practical application of the basic principles and concepts of safe tanker operations in order to carry out these duties.

Course Objectives

This course will provide the technical fundamentals of liquefied gas and its safe carriage on marine tank vessels. Upon the successful completion of this course, each participant will be able to:-

- Apply and gain a good working knowledge on liquefaction gas tankers and jetty operations
- Discuss the technical fundamentals of liquefied gas and its safe carriage on marine tank vessels
- Define and discuss terminology, regulations and codes of practice
- Explain the design and equipment of LNG tankers, ship/shore emergency shutdown system, power emergency release system (PERC system) and ship maneuvering system
- Recognize loading arms and demonstrate proper arrangements for handling, care and carriage of equipments and tank ventilation
- Discuss pumps and pump theory, tank gauging systems, level arms, environmental protection systems and pollution prevention
- Carryout tanker operations through calculations, loading and discharge plans, loading arms and discharge procedures, tank cleaning, purging and gas freeing
- Identify toxicity and health hazards associated with oil and flammability hazards as well as control the hazard
- Employ safety equipment and protection of personnel and use emergency procedures

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 marine terminal managers, superintendents, supervisors and engineers, facility managers and facility training coordinators, safety & environmental managers, engineers and officers, spill management team members, transfer supervisors, marine shipping coordinators and dock maintenance planners.

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. Luis Manuel is a **Senior Offshore & Inspection Engineer** with over **30 years** of extensive and practical experience within the **Oil**, **Gas**, **Petrochemical** and **Petroleum** industries. His expertise includes **Oil & Gas Marine Terminals**, **Vessel Hull & Machinery Survey**, Oil & Gas Fields **Terminal** Operations, **Seamanship**, **Shipping** Overview, **Marine Fire Fighting** Equipment, **Hull Damage** Control, **Vessel Rescue**, **Life Saving**, **Safety Process**, **Offshore Marine** Operation Management, **Offshore** Survey, Oil & Gas Terminals Loading & Discharging, Performance Monitoring of Offshore Structures, **Offshore** Pipeline Global Buckling, **Offshore** Modular Units, **Offshore** Structure Design & Construction, **Offshore** Project Management, **Tanker Vetting** for Terminals, **Loading Master** Certification for Oil & Gas Terminals, **Port Terminals** Crisis Management & Major Emergency Response. Further he is also well versed in **ASME Post Construction Code**, **Inspection Planning**, **Fitness-for-Service** (**FFS**) (**API 579**), **Design**, **Inspection**, **Repair**, **Maintenance**, **Alteration** and **Reconstruction** of **Steel Storage Tanks** (**API-653**), **Positive Material Identification** (**API RP 578**), **Pressure Equipments** and **Pressure Vessels** (**ASME VIII & API-510**); **Tanker & Marine Terminals**, **Offshore Rig Inspection**, **Pipelines** & **Piping** Design, Inspection & Maintenance (**ASME B31**, **API 579** & **API 580**), **Pipelines & Manifolds System**, **Offshore Structure** Engineering, Single Buoy Mooring (**SBM**), **Underwater Inspection by ROV**, **Subsea Pipeline Engineering**, Integrity Assessment, Forensic Analysis, Structural Analysis, Design & Engineering, Naval Architecture, Regulatory Compliance Inspections, **Stress & Fatigue Analysis** using **SACS**, **StruCad**, **Caesar II** and **Finite Element Analysis** simulators. He was the **Technical Advisor** and **Engineering Manager** of a leading international engineering firm where he led all Inspections, Structural Engineering and Pipeline Projects for **Total-ELF**, **Shell** and **Mobil**.

During his career life, Mr. Manuel has gained his thorough practical experience in **multiple engineering disciplines** that includes pipeline/piping inspection and engineering, naval engineering, container cargo lashing, aerospace engineering and offshore structural engineering (oil and gas exploration platforms) through several challenging positions such as the **Senior Pipelines Engineer**, **Senior Piping Engineer**, **Senior & Lead Structural Engineer**, **Staff Engineer**, **Offshore Project Manager**, **Naval Architect** and **Applications Engineer** for various international companies including **Chevron**, **ExxonMobil**, **Addax Petroleum**, **ZAGOC**, **NASSCO**, DWC, Point Engineering, **US ARMY**, W.S. & Atkins, Atlas Engineering, **Heerema Offshore**, Casbarian Engineering Associates (CEA), Textron Marine, Ingalls Shipbuilding and Peck & Hale. Further, he has been heavily involved in the development of fabrication and erection drawings for offshore structures including installation and rigging as well as in the instruction materials as authorized by EDI (**Engineering Dynamic Incorporated**) for the training of engineers on the Structural Analysis Computer System (**SACS**) software.

Mr. Manuel has a **Bachelor's** degree in **Structural & Marine Engineering** from the **State University of New York**. Further, he is a **Certified Internal Verifier/Trainer/Assessor** by the **Institute of Leadership & Management** (**ILM**), a **Certified Instructor/Trainer** and the **author** of the book "**Offshore Platforms Design**" and the "**SACS Software Training Module**".

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$ 8,500 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day

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	***Definitions & Terminology***
0930 – 0945	*Break*
0945 – 1030	***Regulations & Codes of Practice***
1030 – 1230	***Design & Equipment of LNG Tankers***
1230 – 1245	*Break*
1245 – 1420	***Ship/Shore Emergency Shutdown System***
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 – 0930	***Power Emergency Release System (PERC System)***
0930 – 0945	*Break*
0945 – 1100	***Ship Maneuvering System***
1100 – 1230	***Loading Arms***
1230 – 1245	*Break*
1245 – 1420	***Arrangements for Handling, Care & Carriage of Equipments***
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 – 0930	***Tank Ventilation Arrangements***
0930 – 0945	*Break*
0945 – 1100	***Pumps & Pump Theory***
1100 – 1230	***Tank Gauging Systems & Level Alarms***
1230 – 1245	*Break*
1245 – 1420	***Environmental Protection Systems & Pollution Prevention***
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 – 0930	***Tanker Operations*** *Calculations ● Loading and Discharge Plans ● Loading Arms and Discharge Procedures ● Tank Cleaning ● Purging and Gas Freeing*
0930 – 0945	*Break*
0945 – 1100	***Safe Working Practices Specific to Maintenance & Repair Work***
1100 – 1230	***Toxicity & Health Hazards Associated with Oil***
1230 – 1245	*Break*
1245 – 1420	***Flammability Hazards***
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	***Hazard Control***
0930 – 0945	*Break*
0945 – 1100	***Safety Equipment & Protection of Personnel***
1100 – 1230	***Emergency Procedures***
1230 – 1245	*Break*
1245 – 1345	***Emergency Procedures (cont'd)***
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

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