

COURSE OVERVIEW PE0364 Tank Farm Operations

Course Title

Tank Farm Operations

Course Date/ Venue

Session 1: June 03-07, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: July 15-19, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference

PE0364

Course Duration

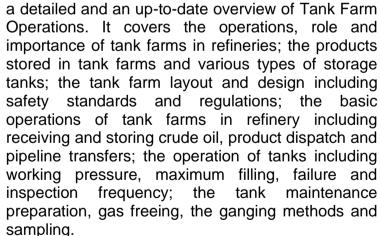
Five days/3.0 CEUs/30 PDHs

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.

This course is designed to provide participants with







Further, the course will also discuss the LPG handling, bulk storage, filing limits and safety rules, refrigeration of propane and vapor recovery system; the production specification, blending and tank mixing, flow meters, positive displacement, turbine and ultrasonic meter; the meter proving and meter factor; cleaning of crude tank, taking a tank out of service and putting back in service; and the static electricity in tank farm and oil spills.



















During this interactive course, participants will learn the examples of hazards in tank farm; the quality assurance in tank farm and work permit system; the fired heaters and centrifugal, reciprocating and positive displacement pumps; the types of valves and filters; and the pressure, flow, temperature and level instrumentation.

Course Objectives

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

- Apply and gain an-depth knowledge on tank farm operations
- Discuss the operations, the role and importance of tank farms in refineries
- Identify the products stored in tank farms and the various types of storage tanks
- Illustrate tank farm layout and design as well as implement safety standards and regulations
- Carryout the basic operations of tank farms in refinery including receiving and storing crude oil, product dispatch and pipeline transfers
- Apply several operation of tanks including working pressure, maximum filling failure and inspection frequency
- Carryout tank maintenance preparation, gas freeing, ganging methods and sampling
- Employ LPG handling, bulk storage, filing limits and safety rules, refrigeration of propane and vapor recovery system
- Review production specification and increase knowledge in blending and tank mixing
- Determine the concepts of flow meters, positive displacement, turbine and ultrasonic meter, meter proving and meter factor
- Employ the procedures of cleaning of crude tank, taking a tank out of service and putting back in service
- Recognize static electricity in tank farm and oil spills, examples of hazards in tank farm, pigging of crude and product and gas pipelines
- Implement quality assurance in tank farm and work permit system
- Identify fired heaters, centrifugal, reciprocating and positive displacement pumps, valves, filters and pressure, flow, temperature and level in instrumentation

Exclusive Smart Training Kit - H-STK®



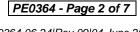
Participants of this course will receive the exclusive "Haward Smart Training Kit" (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes electronic version of the course materials, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a Tablet PC.



















Who Should Attend

This course provides an overview of all significant aspects and considerations of tank farm operations for oil storage and export managers, tank farm managers, process engineers, operators, senior operators, plant operators, superintendents, supervisors, section heads and shift supervisors, foremen and other technical staff.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-



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.



British Accreditation Council (BAC)

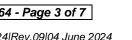
Haward Technology is accredited by the British Accreditation Council for Independent Further and Higher Education as an International Centre. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

















Course Instructor

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. Henry Beer is a Senior Process Engineer with over 35 years of indepth industrial experience within the **Petrochemical**, Oil & Gas industries specializing in Hydrocarbon Process DOX Unit Operation Troubleshooting. Equipment. Polyethylene & Polypropylene Processing, Oil Movement Storage & Troubleshooting, Power Plant Chemistry, Fuel Quality Monitoring System Fundamentals, Liquid Bulk Cargo Handling, Oil Refinery Cost Management, Flare & Blowdown

Operation, Pressure Relief Systems Maintenance & Troubleshooting, Refinery SRU, Tail Gas Treating, Sour Water & Amine Recovery Units, Propylene Compressor and Turbine, Tank Farm Operations, Tank Farm Layout & Design, Tank Farm Management, Clean Fuel Technology & Standards, Principles of Operations Planning, Heat Exchangers & Fired Heaters Operation & Troubleshooting, Plastic Extrusion Technology Operation & Troubleshooting, Chemical Engineering for Non-Chemical Engineers, Process Plant Troubleshooting, Process Plant Technology, Engineering Problem Solving, **Optimization Process Plant** Performance & Efficiency, Process Plant Start-up & Shutdown, Process Plant Commissioning, Process Plant Turn-around & Shutdown, Pumps & Compressors Troubleshooting, Fired Heaters & Air Coolers Maintenance, Pressure Vessels & Valves Repair, Polymers, Plastics, Polyolefin & Catalysts, Polymerization, Thermal Analysis Techniques, Rheology, Thermoplastics, Thermosets, Coating Systems and Fibre Reinforced Polymer Matrix Composites. Further, he is also well-versed in Water Hydraulic Modelling, Efficient Shutdowns, Turnaround & Outages, Pump Selection and Installation, Operation and Maintenance of Pumps, Demand & Supply Management, Catalyst Manufacturing Techniques, Fuel Systems Management, Aviation Fuel, Diesel, Jet Fuel, Petrol and IP Octane. Cetane Control and related Logistics, Road, Rail and Pipeline Distribution, Process Design and Optimisation, Boiler Feed Water Preparation, Flocculation Sedimentation, Hot Lime Water Softening Processes, Desalination Processes, Reverse Osmosis, Molecular Sieves, activated Sludge Aerobic/Anaerobic, Sludge Removal and Incineration Process Control, Domestic Sewage Plants Optimisation, Process Cooling Water System, High Pressure and Low Pressure Hydrocarbon and Chemical products and GTL (Gas to Liquids).

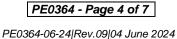
During his career life, Mr. Beer holds significant key positions such as the Director, Global Commissioning Manager, Process Engineering Manager, Senior Business Analyst, Process Engineer, Chemical Engineer, Senior Technician, Technical Sales Engineer, Entrepreneur, Financial Consultant, Business Analyst, Business Financial Planner and Independent Financial Planner to various international companies such as the Sasol, SASOLChem, TAG Solvents, Virgin Solvent Products, SARS & SAPIA (South African Petroleum Industry Association) and RFS Financial Services (Pty) Ltd.



















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\$ 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.

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:

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0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0930	Introduction to Tank Farm Operations in Refinery
0930 - 0945	Break
0945 - 1030	Role & Importance of Tank Farms in Refineries
1030 - 1130	Overview of Products Stored in Tank Farms
1130 - 1230	Types of Storage Tanks
1230 – 1245	Break
1245 - 1330	Tank Farm Layout & Design
1330 - 1420	Safety Standards & Regulations
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 - 0830	Basic Operations of Tank Farms in Refinery
0830 - 0930	Receiving & Storing Crude Oil
0930 -0945	Break
0945 - 1100	Product Dispatch & Pipeline Transfers
1100 - 1230	Operation of Tanks
1230 – 1245	Break



















1245 - 1330	Working Pressure & Maximum Filling
1330 - 1420	Failure & Inspection Frequency
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

	
0730 - 0830	Corrosion & Cathodic Protection
0830 - 0930	Preparing a Tank for Maintenance
0930 -0945	Break
0945 - 1100	Gas Freeing of Tanks
1100 - 1230	Methods of Ganging Tanks, Sampling, Water & BSW
1230 - 1245	Break
1245 – 1330	LPG Handling, Bulk Storage, Filling Limits & Safety Rules,
	Refrigeration of Propane & Vapor Recovery System
1330 - 1420	Production Specification
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 - 0830	Blending & Tank Mixing
0830 - 0930	Flow Meters, P. Displacement, Turbine, Ultrasonic Meter
0930 -0945	Break
0945 - 1100	Meter Proving & Meter Factor
1100 – 1230	Cleaning of Crude Tank, Taking a Tank Out of Service & Putting Back
	in Service
1230 - 1245	Break
1245 - 1330	Static Electricity in Tank Farm, Oil Spills
1330 - 1420	Examples of Hazards in Tank Farm (Explosion & Fire)
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 - 0830	Pigging of Crude, Product & Gas Pipelines
0830 - 0930	Quality Assurance in Tank Farm & Work Permit System
0930 - 0945	Break
0945 - 1030	Fired Heaters: Heating Value, Air Requirements
1030 - 1130	Pumps, Centrifugal, Reciprocating, Positive Displacement
1130 - 1230	Valves & Filters
1230 - 1245	Break
1245 - 1345	Instrumentation (Pressure, Flow, Temperature & Level)
1345 - 1400	Course Conclusion
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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