COURSE OVERVIEW PE0870-3D
Hydrocarbon Production Operation

Course Title
Hydrocarbon Production Operation

Course Reference
PE0870-3D

Course Duration/Credits
Three days/1.8 CEUs/18 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	May 18-20, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
2	June 21-23, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
3	October 19-21, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
4	December 21-23, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

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 complete and up-to-date overview of hydrocarbon production operation. It covers the complete process from well-headed to export of oil and gas; the overall flow diagram and main plant equipment; the operating principles applicable to all equipment; the pressure, temperature and the part to play in PTW system; the various parts of production operations in the whole oil & gas supply chain; the safety aspects of operation and the isolation methods and procedures; the methods of purging, draining, venting and vessel entry and their importance in hydrocarbon production operations; and the testing procedures for passing valves.

The course will further discuss the basic water treatment and the various good and bad operating practices to avoid practical aspects of production operations; the various parts and functions of the ESD and F&G systems as well as the features of a control system; the types of valves and the principles of operation; and the oil/water/gas separation, gas scrubbing and their process operations.

At the completion of the course, participants will be able to illustrate the concept of hydrate formation and identify the ways on how to avoid and clear it; recognize the corrosion aspects of oil/gas operations and improve guideline procedures on pigging operations; apply first line maintenance for greasing valves, fitter changing, etc.; identify the principles of gas sweetening; and recognize the nitrogen production, sour water de-oiling, H2S stripping and oil stabilization including their practical application on hydrocarbon production operations.

Course Objectives

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

- Apply and gain an in-depth knowledge on hydrocarbon production operations
- Develop a good level of understanding of the complete process from well-headed to export of oil and gas
- Describe the overall flow diagram and main plant equipment
- Identify the basic operating principles applicable to all equipment
- Define what is pressure and temperature and recognize what part to play in PTW system
- Identify the various parts of production operations in the whole oil and gas supply chain
- Determine the safety aspects of operation and apply the isolation methods and procedures
- Carryout methods of purging, draining, venting and vessel entry and recognize their importance in hydrocarbon production operations
- Review the testing procedures for passing valves especially whether it is acceptable or not
- Recognize the basic water treatment and describe the various good and bad operating practices to avoid practical aspects of production operations
- Explain the various parts and functions of the ESD and F&G systems as well as the features of a control system
- Identify the types of valves and the principles of operation
- Acquire knowledge on oil/water/gas separation and gas scrubbing and analyze their process operations
- Illustrate the concept of hydrate formation and identify the ways on how to avoid and clear it
- Determine the corrosion aspects of oil/gas operations and improve guideline procedures on pigging operations
- Discuss first line maintenance covering greasing valves, fitter changing, etc. and the principles of gas sweetening
- Recognize nitrogen production, sour water de-oiling, H2S stripping and oil stabilization including their practical application on hydrocarbon production operations

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 hydrocarbon production operations for process operators, instrument technicians, mechanical technicians and process supervisors.

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$ 3,750 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 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 **1.8 CEUs** (Continuing Education Units) or **18 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.

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, SMRP-CMRP is a **Senior Mechanical & Maintenance Engineer** with extensive industrial experience in **Oil**, **Gas**, **Power** and **Utilities** industries. His expertise includes **CAESAR**, **Pipe Stress Analysis**, **Pipeline** System Design, Construction, Maintenance and Repair, Facilities & **Pipeline** Integrity Assessment, **Pipeline** Welding Practices, Internal **Corrosion of Pipelines, Pipeline Integrity Management & Risk Assessment**, **Thermal Insulation**, **Insulation** Standards & Regulations, **Insulation** Materials & Selection, **Piping System Insulation**, **Insulation Installation** Techniques, **Insulation** Inspection & Quality Control, **Insulation** Thickness Calculation, **Insulation** & Corrosion Protection, **Heat Exchanger & Boiler Insulation**, **Tanks & Vessels Insulation**, **Pipeline & Piping Insulation**, **Insulation** Testing & Quality Assurance, **Insulation** Maintenance & Repair, **Insulation** Retrofitting, **Impulse Tube** Installation & Inspection, **Parker Compression Fittings**, **Pipes & Fittings**, **PSV Inspection**, **Boiler** Operation, Maintenance & Inspection, **Root Cause Failure Analysis**, **Tank** Design & Engineering, **Tank Shell**, **Tanks & Tank Farms**, **Vacuum Tanks**, **Gas Turbine** Operating & Maintenance, **Diesel Engine**, **Engine Cycles**, **Governors & Maintenance**, **Crankshafts** & Maintenance, **Lubrication** System Troubleshooting & Maintenance, **Engines/Drivers**, **Motor** Failure Analysis & Testing, **Motor** Predictive Maintenance, **Engine** Construction & Maintenance, **HP Fuel Pumps & Maintenance**, **Fired Equipment** Maintenance, Combustion **Techniques**, **Process Heaters**, Glass Reinforced Epoxy (**GRE**), Glass Reinforced Pipes (**GRP**), Glass Reinforced Vent (**GRV**), **Mechanical Pipe Fittings**, **Flange Joint Assembly**, Adhesive Bond Lamination, **Butt Jointing**, **Joint & Spool Production**, **Isometric Drawings**, **Flange Assembly** Method, **Fabrication & Jointing**, Jointing & Spool Fabrication, **Pipe Cuttings**, **Flange Bolt Tightening** Sequence, **Hydro Testing**, **Pump** Technology, Fundamentals of **Pumps**, **Pump** Selection & Installation, **Centrifugal Pumps & Troubleshooting**, **Reciprocating & Centrifugal Compressors**, **Screw Compressor**, **Compressor** Control & Protection, **Gas & Steam Turbines**, **Turbine** Operations, **Gas Turbine** Technology, **Valves**, **Process Control Valves**, **Bearings & Lubrication**, Advanced **Machinery Dynamics**, **Rubber Compounding**, **Elastomers**, **Thermoplastic**, **Industrial Rubber Products**, **Rubber** Manufacturing Systems, **Heat Transfer**, **Vulcanization Methods**, **Process Plant Shutdown & Turnaround**, **Professional Maintenance Planner**, Advanced **Maintenance Management**, **Maintenance Optimization & Best Practices**, **Maintenance Auditing & Benchmarking**, **Material Cataloguing**, **Reliability** Management, **Rotating Equipment**, **Energy Conservation**, **Energy Loss Management** in Electricity Distribution Systems, **Energy Saving**, **Thermal Power Plant** Management, **Thermal Power Plant** Operation & Maintenance, **Heat Transfer**, **Machine Design**, **Fluid Mechanics**, **Heating & Cooling Systems**, **Heat Insulation Systems**, **Heat Exchanger & Cooling Towers**, **Mechanical Erection**, **Heavy Rotating Equipment**, Material Unloading & Storage, Commissioning & Start-Up. Further, he is also well-versed in MS project & AutoCAD, EPC Power Plant, Power Generation, Combined Cycle Powerplant, Leadership & Mentoring, Project Management, Strategic Planning/Analysis, Construction Management, Team Formation, Relationship Building, Communication, Reporting and Six Sigma. 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**, **Thermal Insulation Engineer**, **Mechanical Engineer**, **Preventive Maintenance Engineer**, **Senior Thermal Insulation Technician**, **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 has a **Master's** degree in **Energy Production & Management** and **Mechanical Engineering** from the **National Technical University of Athens** (**NTUA**), **Greece**. Further, he is a **Certified Instructor/Trainer**, a **Certified Maintenance and Reliability Professional** (**CMRP**) from the Society of Maintenance & Reliability Professionals (**SMRP**), **Certified Project Management Professional** (**PMI-PMP**), **Certified Six Sigma Black Belt**, **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**), **Certified Construction Projects Contractor**, **Certified Energy Auditor** and a **Chartered Engineer**. Moreover, he is an active member of **American Society for Quality**, Project Management Institute (**PMI**), **Body of Certified Energy Auditors** and **Technical Chamber of Greece**. He has further received various recognition and awards and delivered numerous trainings, seminars, courses, workshops and conferences internationally.

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 – 0900	***What is Pressure & Temperature?***
0900 – 0930	***Part to Play in PTW System***
0930 – 0945	*Break*
0945 – 1030	***Part of Production Operations in the Whole Oil & Gas Supply Chain (Well to Tank)***
1030 – 1130	***Safety Aspects of Operations***
1130 – 1230	***Isolation Methods & Procedures***
1230 – 1245	*Break*
1245 – 1330	***Purging Draining, Venting & Vessel Entry Methods***
1330 – 1420	***Testing for Passing Valves, When It is Acceptable & Not***
1420 – 1430	***Recap***
1430	*End of Day One*

Day 2

0730 – 0830	***Basic Water Treatment***
0830 – 0930	***Good & Bad Operating Practices to Avoid Practical Aspects of Production Operations***
0930 – 0945	*Break*
0945 – 1030	***ESD & F&G Systems***
1030 – 1130	***Control Systems***
1130 – 1230	***Valve Types & Principles of Operation***
1230 – 1245	*Break*
1245 – 1330	***Oil/ Water/ Gas Separation & Gas Scrubbing***
1330 – 1420	***Touch on Hydrate Formation & How to Avoid & Clear It***
1420 – 1430	***Recap***
1430	*End of Day Two*

Day 3

0730 – 0830	***Corrosion Aspects of Oil Gas Operation***
0830 – 0930	***Pigging Operations***
0930 – 0945	*Break*
0945 – 1030	***First Line Maintenance such as Greasing Valves, Fitter Changing etc.***
1030 – 1130	***Gas Sweetening***
1130 – 1230	***Nitrogen Production***
1230 – 1245	*Break*
1245 – 1330	***Sour Water De-oiling***
1330 – 1345	***H_2S Stripping & Oil Stabilization***
1345 -1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*End of Course*

Practical Sessions

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

Course Coordinator

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