



**COURSE OVERVIEW PE0345**  
**Hot Oil Operations**

**Course Title**

Hot Oil Operations

**Course Date/Venue**

Session 1: February 17-21, 2025/Fujairah  
Meeting Room, Grand Millennium  
Al Wahda Hotel, Abu Dhabi, UAE  
Session 2: August 31-September 04, 2025/  
Boardroom 1, Elite Byblos Hotel Al  
Barsha, Sheikh Zayed Road,  
Dubai, UAE



**Course Reference**

PE0345



**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.***



This course provides participants with a comprehensive understanding of hot oil systems, their operation, maintenance, and troubleshooting. It covers the principles of heat transfer, fluid dynamics, and the role of hot oil in industrial applications such as refining, petrochemicals, and manufacturing. Participants will learn about system components, safety protocols, temperature control, and efficiency optimization. The course also emphasizes preventive maintenance strategies and best practices for ensuring system reliability and longevity.



By the end of this course, participants will be equipped with the knowledge and skills to operate, monitor, and maintain hot oil systems safely and efficiently.



**Course Objectives**

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

- Apply and gain an in-depth knowledge on the operation and troubleshooting of hot oil heaters
- Identify the safety operational guidelines and the necessary instruments for fuel gas supply, pilot gas lines, air supply, furnace and process related safety
- Illustrate the operation and maintenance of the heat recovery hot oil heater
- Demonstrate of the operation of the hot oil heater equipment
- Recognize logic description and control philosophy

**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 covers systematic techniques and methodologies on the operation and maintenance of hot oil heaters for engineers and other technical staff.

**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 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: -

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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.

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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.

**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. Saad Bedir**, MSc, BSc, is a **Senior Chemical Engineer** with over **30 years** of extensive experience in the **Power, Petrochemical, Oil & Gas** and **Cement** industries. He is well-versed in the areas of Introduction to **Process Troubleshooting, Polyethylene Manufacturing & Process Troubleshooting, Polyethylene Flexible Packaging, Polyethylene Wire & Cable, Polymers, Polymers & Composites, Distillation Column Operation & Control, Polymers & Polymerization, Oil Movement Storage & Troubleshooting, Process Equipment Design, Applied Process Engineering Elements, Polymer & Materials Engineering, Polyethylene Processing Techniques, Advanced Polymer Chemistry, Plastics Technology, LLDPE Productions & Utilization, Process Plant Optimization, Heat & Power Consumption, Heat Transfer, Clean Energy & Power Saving, Fuel Handling System, Oil Movement & Operation, Oil Production, Gas Conditioning & Processing, Plastic Additives, Process Plant Performance & Efficiency, Plant Optimization and Process Operations.** His expertise also includes the implementation of Environmental Impact Assessment (**EIA**), **OHSAS 18001, ISO 9001, ISO 14001, QHSE** Management Planning, Air Quality Management, Health, Fire, Safety, Security & Environmental Codes of Practice, Legislations and Procedures. Crisis & Business Continuity Management Planning, Emergency Response & Procedures, Industrial Security Risk Assessment & Management, , Behavioural Safety, Incident & Accident Investigation, Integrated EHS Aspects, Risk Assessment & Hazard Identification, Environmental Audits, Hazardous & Non-Hazardous Waste Management, Confined Space Safety, **SHEMS** Principles, Process Safety, Basic & Advanced Construction Safety, Rig & Barge Inspection, , Safety & Occupational Health Awareness, Loss Control, Lifting & Slings, Marine Pollution Hazards & Control, Ground Contamination & Reclamation Processes, Waste Management & Recycling, **HAZOP, HAZID, HSEIA, QRA,** Hazardous Area Classification, Radiation Protection, Active and Positive Fire Fighting, Fire & Gas Detection Systems, Fire Fighting Systems, Fire Proofing, ESD, Escape Routes. Presently, he is the **HSE Director** for one of the largest and renowned companies in the Middle East, wherein he takes charge of all HSE and security operations of the company.

Mr. Saad's vast professional experience in directing & managing process operations and health, safety and the environment aspects as per OSHA framework and guidelines can be traced back to his stint with a few international companies like **Saudi ARAMCO, CONOCO, Kuwait Oil Co. (KOC)**, etc, where he worked as the **Field Senior Process Consultant** handling major projects and activities related to the discipline. Through these, he gained much experience and knowledge in the implementation and maintenance of **internationally accepted principles** of process operations. Through this, he has also gained knowledge regarding international safety standards for the National Fire Protection Association (**NFPA**), the American Petroleum Institute (**API**), Safety of Life at Sea (**SOLAS**), and Safety for Mobile Offshore Drilling Unit (**MODU**).

Mr. Saad has a **Bachelor's** degree in **Chemistry** from the **Ain Shams University** and a **NEBOSH** certificate holder. Further, he is a **Certified Instructor/Trainer**, a **Certified Lead Auditor** for **OHSAS 18001, ISO 9001, ISO 14001** and a **member** of the **Egyptian Syndicate & Scientific Professions**. His passion for development and acquiring new skills and knowledge has taken him all over the Middle East to attend and share his expertise in numerous trainings and workshops.





**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	<b>PRE-TEST</b>
0830 – 0930	<b>General Introduction; General Heater Operation</b>
0930 – 0945	Break
0945 – 1100	<b>Safety</b>
1100 – 1215	<b>Fuel Gas Supply Instruments</b>
1215 – 1230	Break
1230 – 1420	<b>Fuel Gas Supply Instruments (cont'd)</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day One

**Day 2**

0730 – 0930	<b>Pilot Gas Line Instruments</b>
0930 – 0945	Break
0945 – 1100	<b>Pilot Gas Line Instruments (cont'd)</b>
1100 – 1215	<b>Air Supply Instruments</b>
1215 – 1230	Break
1230 – 1420	<b>Air Supply Instruments (cont'd)</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Two

**Day 3**

0730 – 0930	<b>Furnace Instruments</b>
0930 – 0945	Break
0945 – 1100	<b>Furnace Instruments (cont'd)</b>
1100 – 1215	<b>Process Related Safety Instruments</b>
1215 – 1230	Break
1230 – 1420	<b>Process Related Safety Instruments (cont'd)</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4**

0730 – 0930	<b>Heat Recovery Hot Oil Heater Operation &amp; Maintenance Manual</b> Description of Heat Recovery Hot Oil Heater HRHOH • Operating Modes – TEG Mode, Fan Mode
0930 – 0945	Break
0945 – 1100	<b>Heat Recovery Hot Oil Heater Operation &amp; Maintenance Manual (cont'd)</b> Start-up Procedure • Control System • Safeguarding System
1100 – 1215	<b>Equipment Operation</b> Duct Burners



1215 – 1230	<i>Break</i>
1230 – 1420	<b><i>Equipment Operation (cont'd)</i></b> <i>Dampers &amp; Guillotine Operation, Seal Air System</i>
1420 – 1430	<b><i>Recap</i></b>
1430	<i>Lunch &amp; End of Day Four</i>

**Day 5**

0730 – 0930	<b><i>Equipment Operation (cont'd)</i></b> <i>Forced Draft Fans</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<b><i>Equipment Operation (cont'd)</i></b> <i>Silencer, Filters &amp; Perforated Plates</i>
1100 – 1215	<b><i>Logic Description and Control Philosophy</i></b> <i>Cause and Effect Diagrams • P&amp;ID Diagrams for HRHOH and Skids</i>
1215 – 1230	<i>Break</i>
1230 – 1345	<b><i>Logic Description and Control Philosophy (cont'd)</i></b> <i>BMS Operation • Troubleshooting</i>
1345 – 1400	<b><i>Course Conclusion</i></b>
1400 – 1415	<b><i>POST-TEST</i></b>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch &amp; End of Course</i>

**Practical Sessions**

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



**Course Coordinator**

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