

COURSE OVERVIEW TE0152(VW1)
Water Treatment in Steel Making

Course Title

Water Treatment in Steel Making

Course Date/Venue

Session 1: May 11-15, 2025/Boardroom 1,
 Elite Byblos Hotel Al Barsha,
 Sheikh Zayed Road, Dubai, UAE
 Session 2: August 24-28, 2025/Crowne
 Meeting Room, Crowne Plaza Al
 Khobar, KSA



Course Reference

TE0152(VW1)



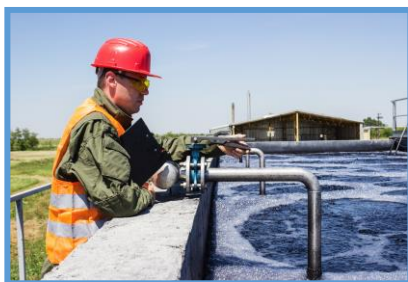
Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

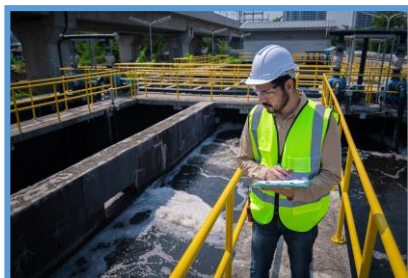
Course Objectives



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 detailed and up-to-date overview of water treatment in steel making. It covers the detailed information of steel making process covering DRI, RM and steel mill; why and where we need water in steel making process; the various problems resulted from bad water quality; and the sequence of problems that are related to low water quality.



During this interactive course, participants will learn the main norms or standards of water quality related to each process; the water treatment solutions for the mentioned processes; and the DRI, RM, steel mill and utilities areas.

Course Objectives

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

- Apply and gain an in-depth knowledge on water treatment in steel making
- Discuss detailed information of steel making process covering DRI, RM and steel mill
- Explain why and where we need water in steel making process
- Determine various problems resulted from bad water quality and identify the sequence of problems that are related to low water quality
- Describe the main norms or standards of water quality related to each process
- Carryout water treatment solutions for the mentioned processes including DRI, RM, steel mill and utilities areas

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 water treatment in steel making for chemical engineers.

Course Fee

US\$ 10,000 per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), 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.

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 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. Kyle Bester is a **Senior Maintenance & Water Engineer** with extensive years of practical experience within the **Oil & Gas, Power & Water Utilities** and other **Energy** sectors. His expertise includes **Condition Monitoring System, Maintenance Planning & Scheduling, Maintenance Planning Process, Maintenance Shutdown & Turnaround, Maintenance Audit Best Practices, Maintenance & Reliability Management, Reliability Engineering, Maintenance & Reliability Best Practices, Reliability, Availability & Maintainability (RAM), Root Cause Analysis, Reliability-Centered Maintenance (RCM),**

Reliability Engineering Analysis (RE), Root Cause Analysis (RCA), Asset Integrity Management (AIM), Reactive & Proactive Maintenance, Mechanical & Rotating Equipment Troubleshooting & Maintenance, Maintenance Management & Cost Control, Preventive & Predictive Maintenance, Pumps & Troubleshooting, Compressors, Gas & Steam Turbines, Valves, Bearings & Lubrication and Boiler Inspection & Maintenance. Further, he is also well-versed in **Water Reservoir, Water Tanks, Water Pumping Station, Water Distribution System, Water Network System, Water Pipes & Fittings, Water Hydraulic Modelling, Water Storage Reservoir, Reservoirs & Pumping Stations Design & Operation, Pumping Systems, Interconnecting Pipelines, Water Network Hydraulic Simulation Modelling, Water Supply Design, Water Balance Modelling, Water Distribution Network, Water Network System Analysis, Water Forecasts Demand, Water Pipelines Materials & Fittings, Water Network System Design, Pump Houses & Booster Pumping Stations, Potable Water Transmission, Water Distribution Network, Districts Meters Areas (DMAs), Water Supply & Desalination Plants Rehabilitation, Water Reservoirs & Pumping Stations, Water Network System Extension, Water Network System Replacement & Upgrade, Water Networks Optimization, Water Supply & Distribution Systems Efficiency & Effectiveness, Pipe Materials & Fittings, Service Reservoir Design & Operation, Pipes & Fittings, Water Network System Design & Operation, Supply Water Network Rehabilitation, Water Loss Reduction, Main Water System Construction, Main Water Line Construction, Transmission & Distribution Pipelines, Water Distribution Design & Modelling, Water Supply System, Oilfield Water Treatment, Best Practice in Sewage & Industrial Wastewater Treatment & Environmental Protection, Water Distribution Design & Modelling, Desilting, Treating & Handling Oily Water, Water Chemistry for Power Plant, Water Sector Orientation, Environmental Impact Assessment (EIA).** He is currently the **Part Owner & Manager** of Extreme Water SA wherein he manages, re-designed and commissioned a water and wastewater treatment plants.

During his career life, Mr. Bester has gained his practical and field experience through his various significant positions and dedication as the **Project Manager, Asset Manager, Water Engineer, Maintenance Engineer, Mechanical Engineer, Supervisor, Team Leader, Analyst, Process Technician, Landscape Designer** and **Senior Instructor/Trainer** for various international companies, infrastructures, water and wastewater treatment plants from New Zealand, UK, Samoa, Zimbabwe and South Africa, just to name a few.

Mr. Bester holds a **Diploma in Wastewater Treatment** and a **National Certificate in Wastewater & Water Treatment**. Further, he is a **Certified Instructor/Trainer, an Approved Chemical Handler** and has delivered numerous courses, trainings, conferences, seminars and workshops 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 be always met:

Day 1

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Steel Making Process DRI
0930 – 0945	Break
0945 – 1100	Steel Making Process (cont'd) RM
1100 – 1230	Steel Making Process (cont'd) Steel Mill
1230 – 1245	Break
1245 – 1330	Steel Making Process (cont'd) Steel Mill (cont'd)
1330 – 1420	Video
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 – 0900	Why & Where We Need Water Steel Making Process?
0900 – 0915	Break
0915 – 1045	Why & Where We Need Water Steel Making Process? (cont'd)
1045 – 1230	Why & Where We Need Water Steel Making Process? (cont'd)
1230 – 1245	Break
1245 – 1420	Why & Where We Need Water Steel Making Process? (cont'd)
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0900	Problem Resulted from Bad Water Quality
0900 – 0915	Break
0915 – 1045	Problem Resulted from Bad Water Quality (cont'd)
1045 – 1230	Sequence of Problems that are Related to Low Water Quality
1230 – 1245	Break
1245 – 1420	Sequence of Problems that are Related to Low Water Quality (cont'd)
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0900	Main Norms or Standards of Water Quality Related to Each Process
0900 – 0915	Break
0915 – 1045	Main Norms or Standards of Water Quality Related to Each Process (cont'd)
1045 – 1230	Main Norms or Standards of Water Quality Related to Each Process (cont'd)



1230 – 1245	<i>Break</i>
1245 – 1420	<i>Main Norms or Standards of Water Quality Related to Each Process (cont'd)</i>
1420 - 1430	<i>Recap</i>
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 – 0900	<i>Water Treatment Solutions for the Mentioned Processes DRI</i>
0900 – 0915	<i>Break</i>
0915 – 1045	<i>Water Treatment Solutions for the Mentioned Processes (cont'd) RM</i>
1045 – 1230	<i>Water Treatment Solutions for the Mentioned Processes (cont'd) Steel Making</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Water Treatment Solutions for the Mentioned Processes (cont'd) Utilities Areas</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

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