

**COURSE OVERVIEW TE0066(AD6)**  
**Water Treatment Technology**

**Course Title**

Water Treatment Technology

**Course Date/Venue**

Session 1: April 13-17, 2025/Boardroom 1,  
 Elite Byblos Hotel Al Barsha, Sheikh  
 Zayed Road, Dubai, UAE  
 Session 2: September 15-19, 2025/Fujairah  
 Meeting Room, Grand Millennium Al  
 Wahda Hotel, Abu Dhabi, UAE



**Course Reference**

TE0066(AD6)



**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs

**Course Description**



***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***



This course is designed to provide participants with a detailed and an up-to-date overview of Water Treatment Technology. It covers the different methods of producing desalinated water and the necessary water treatment for steam boiler feed water; closing the gaps identified in the SGEP and enhancing the PDPs; the water desalination plant process, components and operating principles; and the vapour compression desalination plants, reverse osmosis system and DM plant operation.



During this interactive course, participants will learn the boiler feed water specification, methods of control and type of injected chemicals consisting chlorine injection in potable water; the boiler water deaerators, scaling mechanism and types of corrosion in boiler tubes; and the boilers feed water system, operation controls and potable water specification.

### Course Objectives

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

- Apply and gain an in-depth knowledge on water desalination (RO units) and water treatment technology
- Explain the different methods of producing desalinated water and the necessary water treatment for steam boiler feed water
- Close the gaps identified in the SGEP and enhance your PDPs
- Discuss water desalination plant process, components and operating principles
- Recognize vapour compression desalination plants, reverse osmosis system and DM plant operation
- Determine boiler feed water specification, methods of control and type of injected chemicals consisting chlorine injection in potable water
- Explain boiler water dearators, scaling mechanism and types of corrosion in boiler tubes
- Distinguish boilers feed water system, operation controls and potable water specification

### 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 technology for control maintenance staff, process engineers and utilities operation staff including supervisors and senior operators.

### 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 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 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 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 Water Engineer** with extensive years of practical experience within the **Oil & Gas, Power & Water Utilities** and other **Energy** sectors. His expertise includes **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), Potable Water, Reverse Osmosis Treatment Technology and Chlorination System, Well Inventory, Monitoring & Conservation, Qualitative Analysis of Soil & Ground Water, Water Networking, Hydraulic Modelling Systems, Pumping Stations, Centrifugal Pumps, Pipelines & Pumping, Water Reservoirs, Water Storage Tanks, Extended Activated Sludge Treatment, Sewage & Industrial Wastewater Treatment & Environmental Protection, Supervising & Monitoring Sewage Works, Water Desalination Technologies, Water Distribution & Pump Station, Best Water Equipment Selection & Inspection, Hydraulic Modelling for Water Network Design, Water Utility Industry, Water Desalination Technologies & New Development, Water Hydrology, Water Conveyors, Water Networks Rehabilitation. 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, Manager, Water 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 always be met:

**Day 1**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>Water Desalination Plant Process</b> Main Components
0930 – 0945	Break
0945 – 1100	<b>Water Desalination Plant Process (cont'd)</b> Main Components (cont'd)
1100 – 1230	<b>Water Desalination Plant Process (cont'd)</b> Operating Principles
1230 – 1245	Break
1245 – 1430	<b>Water Desalination Plant Process (cont'd)</b> Operating Principles (cont'd)
1430	Lunch & End of Day One

**Day 2**

0730 – 0900	<b>Vapour Compression Desalination Plants</b>
0900 – 0915	Break
0915 – 1100	<b>Vapour Compression Desalination Plants (cont'd)</b>
1100 – 1230	<b>Reverse Osmosis System &amp; DM Plant Operation</b>
1230 – 1245	Break
1245 – 1430	<b>Reverse Osmosis System &amp; DM Plant Operation (cont'd)</b>
1430	Lunch & End of Day Two

**Day 3**

0730 – 0930	<b>Boiler Feed Water Specification</b> Methods of Control
0930 – 0945	Break
0945 – 1100	<b>Boiler Feed Water Specification (cont'd)</b> Methods of Control (cont'd)
1100 – 1215	<b>Boiler Feed Water Specification (cont'd)</b> Type of Injected Chemicals: Chlorine Injection in Portable Water
1215 – 1230	Break
1230 – 1430	<b>Boiler Feed Water Specification (cont'd)</b> Type of Injected Chemicals: Chlorine Injection in Portable Water (cont'd)
1430	Lunch & End of Day Three

**Day 4**

0730 – 0930	<b>Boiler Feed Water Dearators</b> Scaling Mechanism
0930 – 0945	Break
0945 – 1100	<b>Boiler Feed Water Dearators (cont'd)</b> Scaling Mechanism (cont'd)

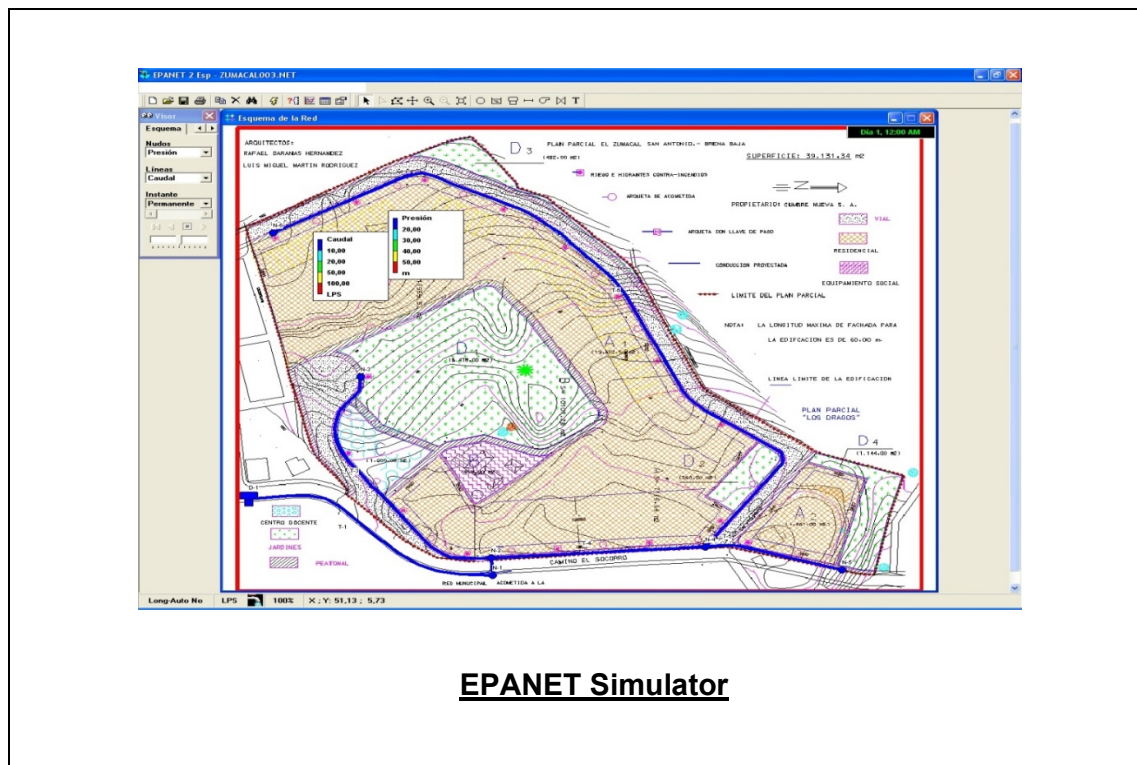
1100 – 1215	<b>Boiler Feed Water Dearators (cont'd)</b> Types of Corrosion in Boiler Tubes
1215 – 1230	Break
1230 – 1430	<b>Boiler Feed Water Dearators (cont'd)</b> Types of Corrosion in Boiler Tubes (cont'd)
1430	Lunch & End of Day Four

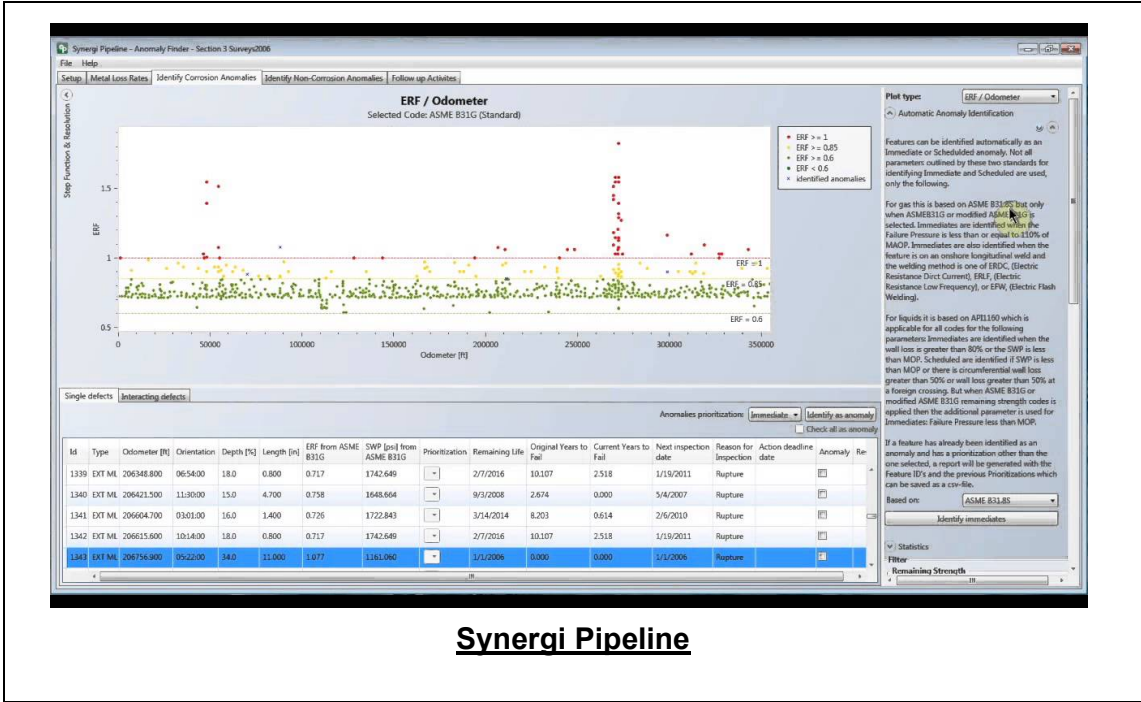
**Day 5**

0730 – 0930	<b>Boilers Feed Water Systems and Operation Controls</b>
0930 – 0945	Break
0945 – 1100	<b>Boilers Feed Water Systems and Operation Controls (cont'd)</b>
1100 – 1215	<b>Potable Water Specification</b>
1215 – 1230	Break
1230 – 1400	<b>Potable Water Specification (cont'd)</b>
1400 – 1415	<b>POST-TEST</b>
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

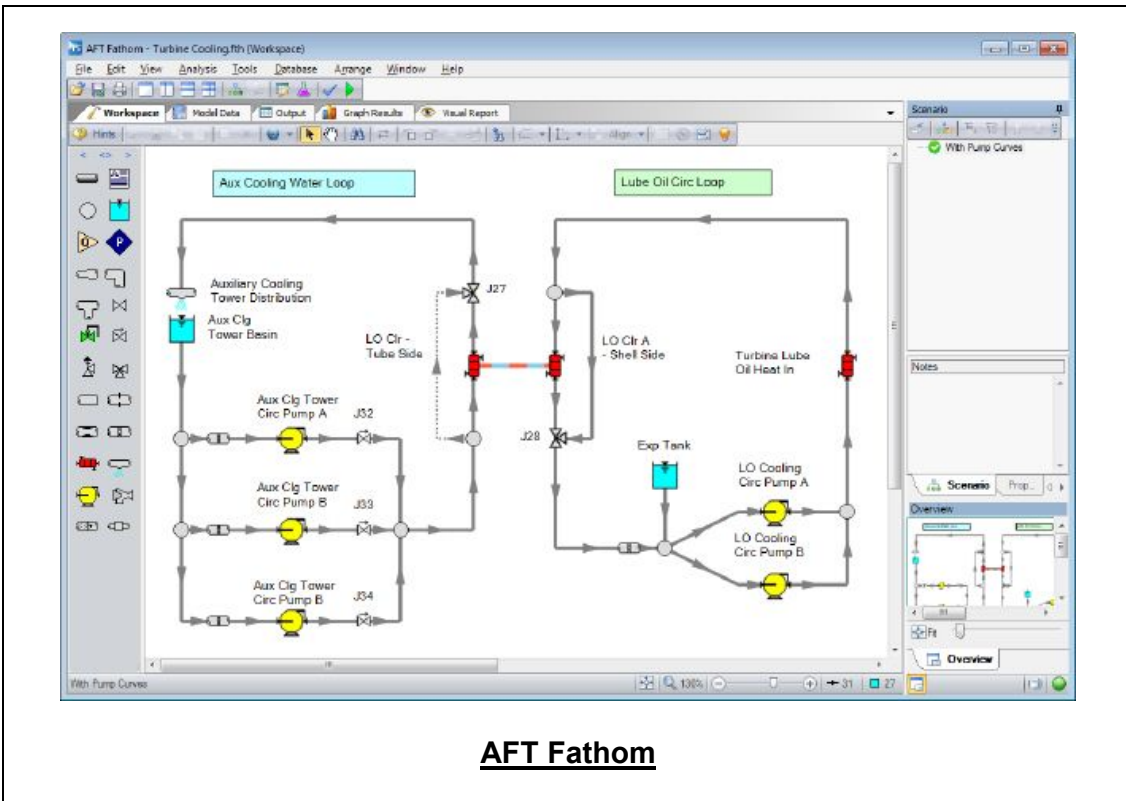
**Simulator (Hands-on Practical Sessions)**

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the latest revision of “EPANET”, “Synergi Pipeline”, “AFT Fathom” and “WaterGEMS” simulators.

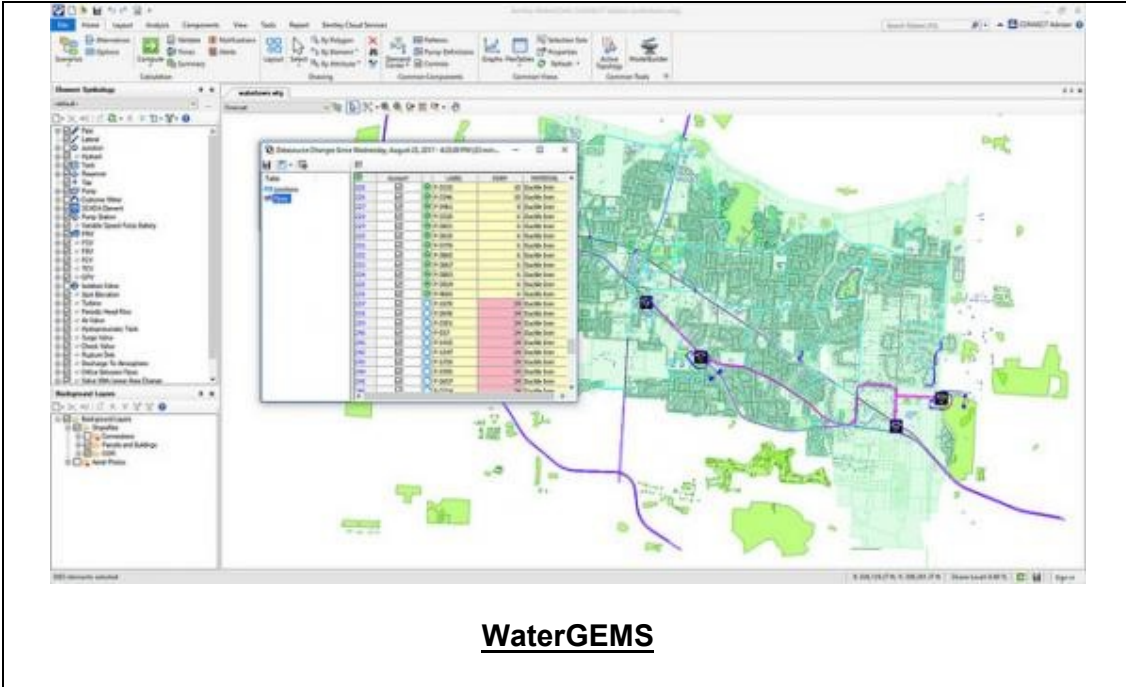




**Synergi Pipeline**



**AFT Fathom**



**WaterGEMS**

**Course Coordinator**

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