COURSE OVERVIEW TE0005K1
Waste Water Effluent Treating Facilities

Course Title
Waste Water Effluent Treating Facilities

Course Reference
TE0005K1

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	April 20-24, 2025	Safir Meeting Room, Divan Istanbul, Turkey
2	July 20-24, 2025	Meeting Plus 9, City Centre Rotana, Doha Qatar
3	September 21-25, 2025	Olivine Meeting Room, Fairmont Nile City, Cairo, Egypt
4	November 09-13, 2025	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
5	January 05-09, 2026	Hampstead Meeting Room, Marriott London Regents Park, London, United Kingdom

Course Date/Venue

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

The quality of groundwater used cannot be compromised any longer and the servicing requirements of on-site sewage disposal systems cannot be ignored. With limited funds available, the task of on-site sewage treatment and disposal is becoming very difficult.

Industrial wastewater dischargers face a variety of enforcement actions if they are not in compliance with the national and the international rules and regulations. This is the case if the discharger is a direct industrial discharger or is an indirect discharger into a Publicly Owned Treatment Works (POTW). This course covers the regulations that affect the management of industrial wastewater permitting, effluent guidelines, and associated issues.

This course will cover all aspects of sewage and industrial waste treatment process. It will cover planning, design, construction, operations and maintenance of the modern sewage and effluent treatment plants. Further, this course will cover all aspects of Environmental Protection in Industrial Plants. Participants will learn numerous tips and tricks throughout the course to make it very practical and relevant to your applications.

Course Objectives

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

- Apply best practices of waste water treatment for Industrial applications
- Maintain and troubleshoot industrial waste water treatment systems
- Identify the different waste water treatment systems available
- Implement the rules and regulations that affect the management of industrial waste water permitting, effluent guidelines, and associated issues
- Interpret the environmental protection standards and applications

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 best practices in sewage and industrial waste water treatment and environmental protection for those who are involved in making decisions about the discharge of any industrial pollutants into the environment. This includes industrial waste water compliance managers, supervisors, engineers, inspectors, plant managers and HSE staff. Further, the course is suitable for operations, inspection, maintenance and design engineers and technical staff including laboratories.

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.

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 **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

Istanbul	**US$ 6,000** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Doha	**US$ 6,000** per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	**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.
Dubai	**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.
London	**US$ 8,800** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

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. 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 be always met:

Day 1

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	**PRE-TEST**
0830 – 0930	**Planning Considerations** Economic, Social and Environmental Goals of Planning ● Environmental Assessment ● Need for Health and Safety ● Factors in Preparing Municipal Plans
0930 – 0945	Break
0945 – 1100	**Waste Water Fundamentals** Basic Terminology ● Contaminant Considerations ● Biological, Phosphorous, Ammonia ● Pathogens ● Effluent and Oily Waste Water Objectives ● Alternate Discharge Options
1100 – 1230	**Waste Water Fundamentals (cont'd)** Receiving Water Capacity-Provincial Water Quality Objectives ● Surface Discharge ● Subsurface Discharge
1230 – 1245	Break
1245 – 1420	**Design Considerations** Collection of Sewage ● Aerobic and Anaerobic Treatments ● Critical Design Parameters for Communal Sewage ● Industrial Waste Water Treatment Systems
1420 – 1430	**Recap**
1430	Lunch & End of Day One

Day 2

0730 – 0930	**Treatment Technologies** Suspended Solids Removal ● BOD Removal ● Nitrification and Denitrification ● Phosphorous Reduction ● Fat Oils & Grease Removal
0930 – 0945	Break
0945 – 1045	**Treatment Systems** Conventional Septic Tank as the Treatment System ● Enhanced Septic Tanks as a Primary for Other Bioreactors ● Bioreactors ● Fixed Film ● Rotating
1045 – 1230	**Treatment Systems (cont'd)** Suspended ● Batch ● Filters-Sand, Peat, Stone, Synthetics ● New Technologies Targeting Specific Contaminants
1230 – 1245	Break
1245 – 1420	**Re-Circulating Sand Filters Year-Round Treatment** History Experimental Design ● Construction ● Operation
1420 – 1430	**Recap**
1430	Lunch & End of Day Two

Day 3

0730 – 0930	**Subsurface Discharge** Filter Bed ● Shallow Trench ● Leaching Bed ● "Constructed Wetland" ● Recycle, Reuse
0930 – 0945	Break
0945 – 1045	**Direct Discharge** Stream Assimilative Capacity ● Mixing Zone ● Disinfection
1045 – 1230	**Biosolids Disposal** Hauled Waste ● Compost
1230 – 1245	Break

1245 – 1420	***Biosolids Disposal (cont'd)*** *Lime Stabilization*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

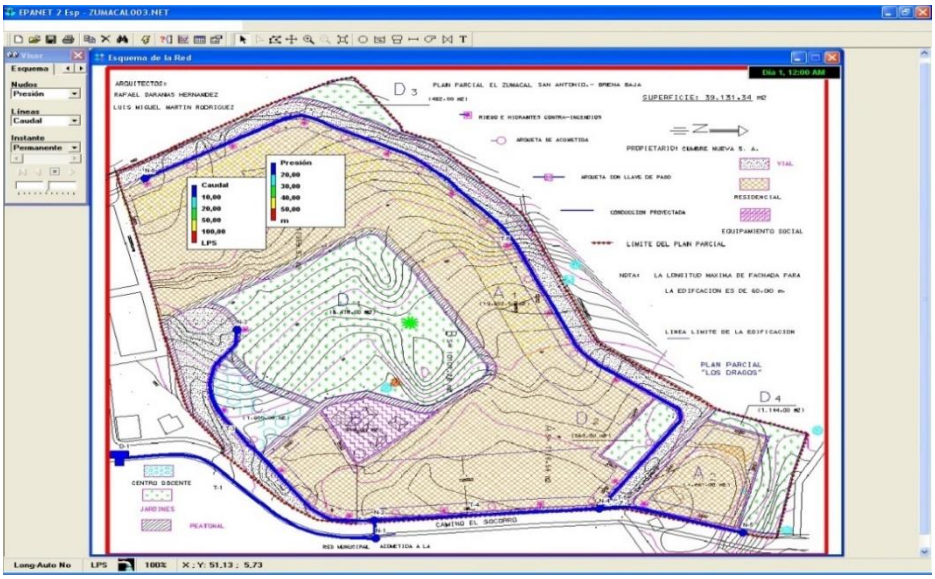
0730 – 0930	***Management of Industrial Waste Water Systems*** *Regular Monitoring*
0930 – 0945	*Break*
0945 – 1045	***Management of Industrial Waste Water Systems (cont'd)*** *Long Term Satisfactory Performance*
1045 – 1230	***Financial & Legal Issues*** *Funding Sources ● Approval Process ● Regulatory Compliance ● Municipal and Owner Liability*
1230 – 1245	*Break*
1245 – 1420	***Industrial Water Standards & Regulations*** *Overview of The USA Clean Water Act ● Water Quality Standards ● Effluent Guidelines and Standards ● National Pollutant Discharge Elimination System – NPDES Permitting ● Spill Prevention Control and Countermeasure Plans (SPCC Plans)*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Environmental Protection***
0930 – 0945	*Break*
0945 – 1045	***Design & Installation of Your Own System*** *Simple Design Rules ● Implementation of Your System ● Tips and Tricks ● The Thirteen Golden Rules of Working with Waste Water Systems*
1045 – 1230	***Case Studies*** *Municipality ● Private Rondavel in a Pristine Inaccessible Area ● In the Middle of Suburbia*
1230 – 1245	*Break*
1245 – 1345	***Summary, Open Forum & Closing***
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
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 Simulators.



EPANET Simulator

Course Coordinator

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