

COURSE OVERVIEW TE0005K1
Waste Water Effluent Treating Facilities

Course Title

Waste Water Effluent Treating Facilities

Course Date/Venue

Session 1: October 06-10, 2024/Boardroom, Warwick Hotel Doha, Doha, Qatar

Session 2; December 08-12, 2024/Club B Meeting Room, Ramada Plaza by Wyndham Istanbul City Center, Istanbul, Turkey



Course Reference

TE0005K1



Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

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: -


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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.

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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.

Course Fee

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.
Istanbul	US\$ 6,000 per Delegate + VAT . This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

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. Salameh Al-Mahasneh, MSc, BSc, PMP, is a **Senior Water Engineer** with over **25 years** of practical and extensive experience within the **Oil & Gas, Power & Water Utilities** and other **Energy** sectors. His expertise lies extensively in the areas of **Water Balance & Managing (NRW)**, **Water Leak Detection**, **Leakage Verification**, **Leakage Prevention**, **Leakage Detection Methods**, **Leak Noise Identification**, **Leak Repairs**, **Structural & Pinpoint Leaks**, **Pipe Materials & Failure**, **Sound Transmission & Sounding Techniques**, Using **Listening Devices**, **Water Fittings Regulation & Standards**, **Water System Design & Installation**, **Surface Water Hydrology**, **Water & Wastewater Projects**, **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**, **Water Fittings Regulations & Standards**, **Fittings & Valves**, **Couplings & Pressure Testing**, **Water Distribution Systems**, **Water Networking**, **Hydraulic Modelling Systems**, **Pumping Stations**, **Water Reservoirs**, **Water Storage Tanks**, **Water Treatment**, **Extended Activated Sludge Treatment**, **Water Analysis**, **Water Treatment Technology**, **Water Loss Reduction**, **Leaking Pipelines & Installation**, **Pipes & Fittings Supply**, **Excavation**, **Domestic Water Meters Supply & Installation**, **Wells & Water Networks Rehabilitation**, **MBBR**, **Hydraulic Design**, **Hydraulic Network System**, **Water Pipeline System**, **Water Distribution System**, **Watershed Management**, **Water Quality Analysis**, **Steam Boiler**, **Hydro-Treating Technology**, **Waste Water Effluent Treating Facilities**, **Waste Water Treatment**, **Best Practice in Sewage & Industrial Waste Water Treatment & Environmental Protection**, **Advanced Waste Water Treatment Operation & Process**, **Water Storage Tanks**, **Water Harvesting & Artificial Recharge**, **Environmental Impact Assessment (EIA)**, **Dams & Geotechnical Engineering**, **Surface Water Hydrology**, **Water Systems Operation**, **Water Supply Management**, **Reservoir Management**, **Dam Safety**, **Wastewater Treatment Plant Process**, **MyWAS + WEAP Water Allocation & Management Systems** and **Asset Management for Water Utilities**.

During his career life, Mr. Salameh occupied several significant positions as the **Water (Hydrological) Engineer/Hydrologic Expert**, **Water & Wastewater Infrastructure Master Plan Team Leader**, **Water Expert**, **Water & Training Expert**, **Content Writing & Water Expert**, **Senior Planning Engineer**, **Contact Engineer**, **Site Engineer**, **Project Manager**, **Deputy Project Manager**, **Procurement Expert**, **Procurement & Contract Manager**, **Team Leader**, **Infrastructure Expert**, **O&M Contracts & Cost Analysis Expert**, **Local Expert**, **Strategic Advisor**, **Technical Advisor**, **Consultant**, **Project Coordinator**, **Senior Instructor/Trainer** and **Teaching Assistant (Course Instructor)** for various companies such as the **Water Authority of Jordan**, **Yarmouk Water Company**, **Saudi National Water Company**, **Ministry of Water and Irrigation**, **Veolia Water**, **Arabtech Jardaneh**, **Jordan Valley Authority**, **GIZ**, **Sabra Contracting**, **The International Committee of the Red Cross**, **Swiss Development Agency**, **USAID**, **The Embassy of the Kingdom of Netherlands (in Amman)**, **European Investment Bank**, **Lilongwe City Council**, **Japan International Cooperation Agency (JICA)**, **UNICEF**, **World Bank**, **AlBaha Consultant**, **Real Estate Development Company** and **Jordan University of Science and Technology**.

Mr. Salameh has a **Master's degree in Civil Engineering/Water & Environmental Engineering** and a **Bachelor's degree in Civil Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management (ILM)**, a **PMI Certified Project Management Professional** and a member of **Project Management Institute (PMI)** and **The Jordanian Engineers Association**. Moreover, he is classified as the **Chief Project Management Engineer** based on the **Jordanian Engineers Association Classification** 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 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

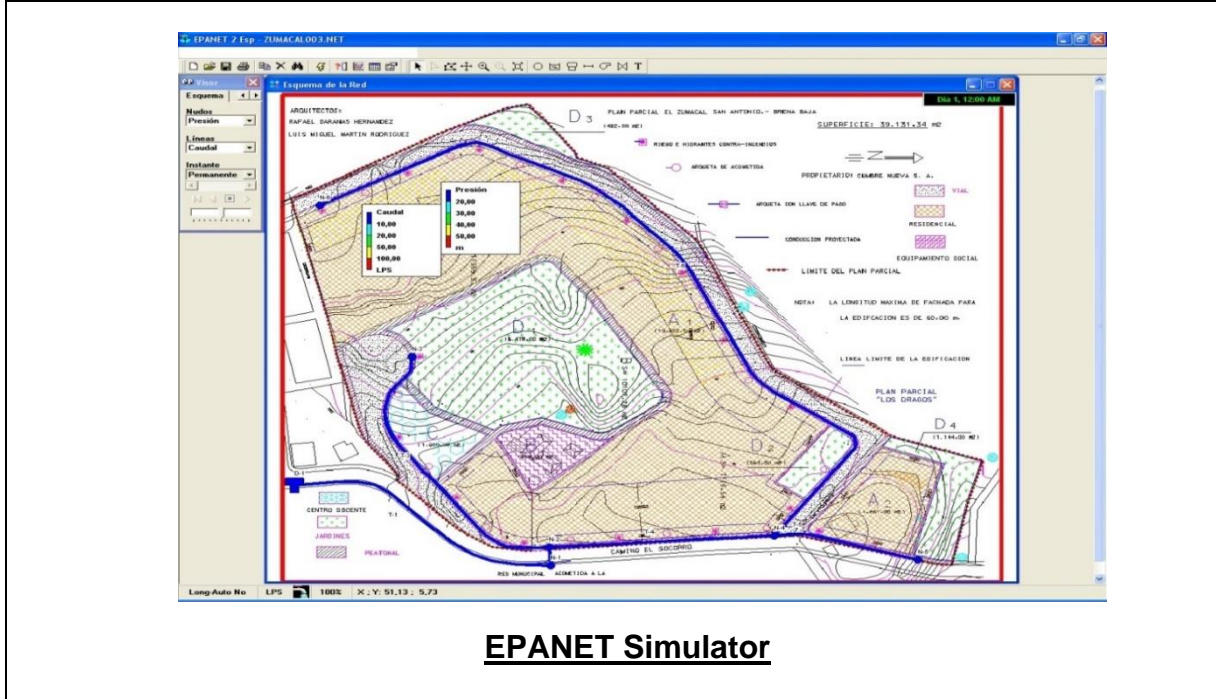
0730 – 0930	Management of Industrial Waste Water Systems Regular Monitoring
0930 – 0945	Break
0945 – 1045	Management of Industrial Waste Water Systems (cont'd) Long Term Satisfactory Performance
1045 – 1230	Financial & Legal Issues Funding Sources • Approval Process • Regulatory Compliance • Municipal 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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