



WE037: Advanced Management of Industrial Wastewater

Training Description:

This course deals with advanced wastewater treatment and water reuse.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Apply and obtain an advanced knowledge on industrial wastewater
- ✓ Understand and apply principles of waste treatment which will conserve wastewater and produce a high-quality water which is enable to reuse
- ✓ Discuss the type of wastewater plant, limits and problems as well as water budget and water use profile
- ✓ Collect accurate data and apply flow measurement and chemical test
- ✓ Recognize the modeling of wastewater treatment process and the industrial processes
- ✓ Determine and interpret the modeling data and application in plants

Training Designed for:

This course is intended for all Engineers, Technicians, Operators, Regulators, Managers and anyone dealing with industrial wastes. Attendees are requested to bring questions, information and challenges and be prepared to discuss their specific goals and problems.

Training Program:

DAY ONE:

- ❖ Introduction
- ❖ What type of wastewater plant do you have now? What are its limits and problems?
- ❖ What is your water budget & water use profile? Does that include Rainwater?
- ❖ What Contaminants are in the wastewater?
- ❖ What do you want to do with your wastewater? Can you reuse it?
- ❖ Collecting Accurate Data, flow measurement, chemical tests and accuracy
 - Reuse? If so and how?
- ❖ Industrial Water Quality Requirements and uses
- ❖ What is advanced wastewater treatment? Overview on how it is achieved
- ❖ Plant types and flow patterns
- ❖ Which one is best for you?
- ❖ Conversion between types of wastewater processes?
- ❖ Using the microscope and the lab data to fine tune your operations

DAY TWO:

- ❖ In Plant controls and modifications
- ❖ Additions to the basic WWT Processes
- ❖ Tertiary Clarification
- ❖ Chemical Treatment
- ❖ Tertiary Filtration
- ❖ Chemical Addition for N&P Removals
- ❖ In Plant and natural Modifications for N&P removals

❖ Membrane Processes

DAY THREE:

- ❖ Other water quality aspects
- ❖ Removal of specific industrial compounds
- ❖ Neutralization
- ❖ Oil Removals
- ❖ Chemical Precipitation
- ❖ Chemical Softening
- ❖ Flotation
- ❖ Aeration
- ❖ Disinfection and its mechanisms
- ❖ Ion Exchange
- ❖ Carbon Adsorption and Activated Alumina Treatment

DAY FOUR:

- ❖ Data Requirements for plant modeling
- ❖ Modeling the wastewater treatment process and the industrial processes
- ❖ Process Models
- ❖ Other component models
- ❖ Introduction to modeling for your processes
- ❖ Free vs. paid models; Static and Dynamic Models
- ❖ Selecting the right models for your applications
- ❖ Data Requirements
- ❖ Results and output
- ❖ How to model your plant for improvements and new designs

DAY FIVE:

- ❖ Adjusting the models
- ❖ Interpreting the modeling data
- ❖ Applying the model data to your plant
- ❖ Pilot plants for verification
- ❖ Student Exercises
- ❖ Course Conclusion
- ❖ POST- ASSESSMENT and EVALUATION

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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