



WE082: Analysis of Samples for Wastewater Treatment Plants

Training Description:

This intensive training focuses on analytical techniques for wastewater analyses. It will review analytical techniques, their significance, and how they can be used to help manage and troubleshoot the wastewater treatment plant operations.

Training Objectives:

Upon successful completion of this course, participants will be able to perform analyses correctly and use and implement analyses in the laboratory to help understand and control wastewater treatment plant operations. The testing discussion will include practical considerations, laboratory implementation, and field techniques for analysis and control, including GC/MS and other analyses.

Training Designed for:

This course is intended for Operators and Laboratory Technicians, and Microbiologists to help them learn the value of timely feedback from the laboratory and microbiology lab for better operations and control of the plant. Attendees are invited to bring plant and lab details with them to help understand the criticality of feedback and solve problems.

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 Program:

DAY ONE:

- ❖ What type of plant do you have?
- ❖ What are the significant parameters?
- ❖ Physical Parameters including Temperature, pH, color
- ❖ Solids Measurement, and Particle sizing
- ❖ COD and BOD
- ❖ Nitrogen Compounds
- ❖ Phosphorous Compounds
- ❖ Field measurement & rapid techniques

DAY TWO:

- ❖ Understanding your wastewater treatment plant and its parts
- ❖ Sampling Protocols for various chemicals and materials
- ❖ Making sure that your sample is representative
- ❖ Detailed considerations for analyses
- ❖ Preparing and storing the sample
- ❖ Labeling the sample for feedback

- ❖ Managing the paperwork blizzard of a modern laboratory
- ❖ The value of duplicate and replicate analyses
- ❖ Analysis of Metals, sensitivity, conditioning and sample preparation
 - AA Techniques and Sensitivity
 - Colormetric Techniques
 - ICP Techniques
- ❖ Field Techniques and their reliability and accuracy

DAY THREE:

- ❖ Organic Analyses
- ❖ Sample Cleanup and Prep
- ❖ Equipment and its accuracy
 - Analysis by GC
 - Analysis by GC/MS
 - Analysis by colormetric techniques

DAY FOUR:

- ❖ Ranges for Recovery
- ❖ Duplicates & Spikes
- ❖ Monitoring instrumentation
- ❖ Calibration
- ❖ Laboratory Management
- ❖ Laboratory Auditing

DAY FIVE:

- ❖ Laboratory Safety & Training
- ❖ Personnel Protective Equipment
- ❖ Nuclear Materials
 - Handling
 - Licensing
 - Analyses
 - Safety
- ❖ Waste Chemicals and Lab Supplies and Wastes Disposals
- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

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:

Aisha Relativo - Training & Career Development Manager

aisha@cmc-me.com / training@cmc-me.com

Tel.: +971 2 665 3945 or +971 2 643 6653 | Mob.: +971 52 2954615