Management and Treatment of Municipal Waste Water and Sewage

Focus on: The Manager ☑ The Specialist ☐ Spotlight Programme ☑ Hands-on Skills ☑

Course Overview

Diminishing global water supplies and the need to implement sustainable water conservation policies, have both been strongly related to the management of municipal wastewater. Treatment and re-use of domestic sewage is regarded as an important contributor to the efforts towards improving water conservation. This course will focus on the management of municipal wastewater, including treatment techniques and important applications. Specific reference will also be made to sewage sludge and its applications in the agricultural industry.

Course Objectives		This Course is Ideal For:	
1	Develop a good understanding of the water sustainability concept	✓	Operators and process engineers working in Wastewater Treatment Plants (WWTP)
2	Get to know the different types and applications of wastewater	✓	Environmental consultants
3	Understand the basic quality indicator parameters of municipal wastewater	✓	Regulators and legislators from local and National Authorities
4	Learn to handle the risks associated with wastewater		
5	Design and implement wastewater quality monitoring programmes		

Course Content

Day	Theme	Coverage
1	Wastewater definition	• Types of wastewaters • Municipal wastewater • Blackwater, greywater and yellow water • Typical characteristics and properties • The water cycle and the role of wastewater
2	Municipal Wastewater collection and treatment	• Sewage collection and transportation • Pumping stations and odour control • Sewage Treatment Plant (STP) • Primary and secondary treatment • Tertiary treatment and disinfection
3	Monitoring the use and quality of treated wastewater	• Treated wastewater specifications • Domestic, industrial and agricultural applications • Disposal of treated wastewater • Health and Safety concerns – Contamination and pollution • Wet-weather and Stormwater management • Regulations and compliance

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4	Sewage sludge - applications and emerging trends	• The composition and properties of sewage sludge • Treatment of sewage sludge • Use as a fertiliser and soil improver • Biogas production • Restrictions in the use of sludge • Environmental considerations and regulatory documents
5	Novel technologies in wastewater treatment	• Enhanced Biological Phosphorus Removal (EBPR) • Production of potable water from treated wastewater • Advanced Oxidation processes (AOPs) • The role of wastewater during the COVID 19 pandemic

Course Assessment

Participants will be assessed on:

- Participation in sessions
- Completion of exercises & case studies
- Performance in assessments

Certification

Upon successful completion of the course, participants will receive a **Certificate of Successful Completion**, along with a **Transcript of Marks** showing the performance by grade in each element of assessment and overall.

Course Instructor

This speaker holds a B.Eng. (Hons) degree in Chemical with Biochemical Engineering and an MBA degree, both from the UK.
He has 35-years of experience as director of an ISO17025 accredited laboratory, and he is a water quality consultant to various organizations, including Water Boards, Healthcare facilities, the Hospitality industry, water treatment companies and desalination plants, food manufacturing premises and petrochemical storage terminals.
He is one of the leading experts on the control and prevention of Legionnaires' disease.