AZ TECH

"Excellent Service – Excellent Delivery"

WATER TREATMENT

Safeguarding the Quality of your Water Supplies

11 - 15 Jul 2021, Doha

03 - 07 Oct 2021, Dubai

12 - 16 Dec 2021, Dubai

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31-MAR-21

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WHY CHOOSE THIS TRAINING COURSE?

Water treatment in our everyday lives and in industry costs billions every year. This AZTech training course in Dubai will focus on the optimization of water treatment in different applications. Choosing the right water treatment technique or simply choosing no water treatment at all, requires good knowledge of the process and the ability to find the right balance between health & safety and financial considerations. Only under these circumstances can sustainability of any water treatment project be achieved. From a different perspective, water treatment is compulsory when regulatory compliance is required, whereas voluntary water treatment can result in process optimization with ultimate reduction in costs and improvement in our quality of life.

This AZTech training course will feature:

- Review of the basic definitions of water quality in the domestic and industrial sectors
- Detailed explanation of key parameters in water chemistry and their interpretation
- Introduction to water microbiology
- Description of water treatment techniques for different processes
- Reference to combination of water treatment techniques

WHO IS THIS TRAINING COURSE FOR?

This AZTech training course is suitable to a wide range of water treatment professionals but will greatly benefit:

- Project managers
- Water treatment engineers/Plant engineers
- Maintenance personnel in the process industries
- Regulatory authorities (hygiene and health & safety inspectors)
- Facility management companies personnel
- Maintenance personnel in the hotel and catering industry

HOW WILL THIS TRAINING COURSE BE **PRESENTED?**

This AZTech training course will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. This includes trainer-guided discussions between participants involving their personal experience. In addition, case studies and group exercises will further assist towards comprehending the core principles of water treatment.

WHAT ARE THE **GOALS?**

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

- Assess their needs and water resources available
- Select appropriate water treatment techniques based on above data
- Develop relevant monitoring regimes to ensure effectiveness of treatment
- Apply selected water treatment techniques and optimize their application
- Be aware of technical restrictions in the application of water treatment techniques

THE **CERTIFICATE**

AZTech Certificate of Completion for delegates who attend and complete the training course

THE COURSE **CONTENT**

Day One: Water Quality – Water Chemistry & Microbiology and Physical Properties

- Definition of chemical & microbiological indicators
- Water chemistry - Basic parameters (pH, Electrical conductivity, Total hardness)
- Main chemistry constituents of water & differentiation between cations and anions, heavy metals, organics etc.
- Implications of water composition on proposed uses
- Water microbiology – Indicator organisms and concept of water-borne bacteria – Classification into pathogens & non-pathogenic bacteria
- Factors affecting bacterial growth in water systems – Biofilm formation and its significance
- Physical properties of water

Day Two: Introduction to Water Treatment

- Why treat water/Do nothing approach/What does water treatment attain
- Effect of treatment techniques on chemical composition (Water softening, Ion exchange, Nanofiltration, Reverse Osmosis)
- Effect of treatment techniques on microbiological quality (Membrane filtration, chlorination/ bromination, Copper/Silver ions, Thermal treatment/disinfection, Chlorine dioxide, UV sterilization)
- Biochemical water treatment - Biological oxidation/Aeration, biofilters
- Physical treatment techniques (sedimentation, filtration etc.)
- Hot & Cold water systems – Basic considerations for corrosion and scale inhibition

Day Three: Wastewater Treatment

- Domestic wastewater/sewage/industrial wastewater treatment
- Primary treatment - Settlement, flocculation/coagulation, filtration
- Secondary treatment - Biological oxidation
- Tertiary treatment - Disinfection
- Applications of treated wastewater & sewage sludge - Restrictions & Regulations
- Special types of wastewater (e.g. landfill leachates) requiring more complex treatment

Day Four: Boiler Water Treatment and Steam Generation

- Basic feedwater requirements – Chemistry
- Need for pre-treatment or not
- Boiler efficiency – Implications of water quality
- Continuous monitoring of water quality & Process optimisation
- Typical treatment techniques applied in boiler feedwater
- Case studies/Examples of boiler failures

Day Five: Cooling Water Treatment and Evaporative Cooling Systems

- Different forms of evaporative cooling systems
- Feedwater treatment regimes – Softening and/or blending
- Performance/Operation criteria for evaporative cooling systems
- Concentration factor – Calcium balance – Temperature difference operation regime
- Health & Safety considerations for evaporative cooling systems
- Legionellosis – Prevention & Control – Case studies

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DATE	TIME	FEES(USD)
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03 - 07 Oct 2021	Dubai	$ 4,950
12 - 16 Dec 2021	Dubai	$ 4,950

REGISTER NOW

**This fee is inclusive of Documentation, Lunch and Refreshments and exclusive of 5% UAE VAT*

Complete & send by fax/mail to address given below.
PLEASE USE BLOCK CAPITALS.

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HOTEL ACCOMMODATION

Hotel accommodation is not included in the Registration Fee. A reduced corporate rate and a limited number of rooms are available for attendees wishing to stay at the hotel venue. Please make your request for accommodation at least 3 weeks prior to the commencement of the course.

EVENT DISCLAIMER

We reserve the right to cancel or postpone a seminar or related event, change venue, substitution of the Instructor and alter the course content at our sole discretion. If this occurs, our responsibility is limited to a refund of any registration fee(s) already paid. We are not responsible for airline tickets, hotels costs, other tickets or payments, or any similar fee penalties or related or unrelated losses, costs and/or expenses registrant may incur or have incurred as a result of any trip cancellations or changes.

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4 WAYS TO REGISTER

Telephone: **+971 4 427 5400**
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