



Developer and Owner – WWOTC

Online Course - Instructor Led

Emerging Issues in Water Treatment

August 9-10, 2021 (8:30 – 12:300 AST)

Course Objective / Description

This one-day course explores a wide variety of recently discovered potential contaminants that face many water suppliers, and examines how various treatment options affect their removal or destruction. Many of these contaminants have recently received substantial press and have piqued public interest and concern. This course will be of interest to water treatment and distribution operators, and will also be of value to supervisory and managerial personnel, including those involved with Public Relations as well as Water Treatment.

What will be covered:

- Disinfectants used in Ontario, the disinfection byproducts (DBP's) that they form and how they
 various treatment technologies, including biologically active filtration, perform on their removal
 or destruction
- The current regulatory situation regarding these contaminates
- Newly emerging pathogens such as enteric viruses, cyanobacteria, protozoa, gionella, mycobacterium avium complex, naegleria fowleri and others
 Pharmaceuticals and Personal Care Products (PPCP's) and other endocrine disruptors

| Lesson | Description | Contact Hours |
|----------|----------------------------------|----------------------|
| Lesson 1 | Introduction and Overview | 0.5 |
| Lesson 2 | Microbiological Issues: Bacteria | 0.75 |
| Lesson 3 | Microbiological Issues: Viruses | 0.75 |
| | Break | 0.25 |
| Lesson 4 | Disinfection Byproducts | 1.0 |
| Lesson 5 | Chemical Contaminants | 0.5 |
| Lesson 6 | Pharmaceuticals and Endocrine | 0.75 |
| | Disruptors | |
| Lesson 7 | Hydraulic Fracturing | 0.5 |
| Lesson 8 | Nanomaterials | 0.5 |
| | Break | 0.25 |
| Lesson 9 | Regulation Changes | 1.25 |
| | Exam | 0.5 |
| | Total Instruction Time: | 7.0 |

Emerging Issues in Water Treatment

August 9-10, 2021 (8:30-12:30 AST)

| Name: | |
|---|---|
| Company: | |
| Company Mailing Address_ | |
| City, Province: | Postal Code: |
| Phone: | Email: |
| ACWWA Membership #: _ If no membership number is | WEF Membership #:s listed, you will be invoiced as a non-member. See pricing below. |
| Fee fo | or ACWWA or WEF Members & Employees of UTILITY Members Course: $$345.00 + $51.75 \text{ HST } (15\%) = 396.75 |
| | Fee for Non – Members Course: $\frac{$370.00 + $55.50 \text{ HST } (15\%) = $425.50}{}$ |
| Invoices will be sent to the | e address listed above. |
| PO number to be included | d on the invoice |
| | Visa, Master Card or cheque. |
| Card Holder's Name | |
| Credit Card Number | Expiry |
| Signature | |
| Email address for credit car | rd receipt |
| | Cheques should be made payable to: |
| | ACWWA PO Box 28141 · Dartmouth, NS · B2W 6E2 Phone 902 434 6002 Fox 902 435 7796 |