

Course Title: **Formation and Control of Disinfection By-Products**

Contact Hours: 7.0

CEU Value: 0.7

Course Description:

This interactive course has been prepared for the operators of drinking water systems and will improve knowledge of the formation and control of existing and emerging DBPs. The main focus is on a practical understanding of how DBPs form and methods for reducing DBPs in many different types of drinking water plants.

Attendees will gain an appreciation for the challenges and public health concerns created by mandatory disinfection and the subsequent production of disinfection by-products. Participants will also develop a general understanding of chemical substances, chemical equations and disinfection chemistry, and how the levels of disinfection by-products in treated drinking water can be removed or reduced to acceptable levels.

Areas of study include:

- New health information and development of health-based standards
- Basic chemistry of DBP formation – What are DBPs and how do they form?
- Balancing DBP formation with disinfection
- Current and proposed standards in Ontario, Canada and the United States
- Disinfectants and associated by-products:
 - Chlorine
 - Chloramines
 - Chlorine dioxide
 - Ozone
 - Ultraviolet
 - Other oxidants
- Control strategies – practical methods of controlling DBP formation