

## **Water Quality Sampling and SDWA Compliance**

Drinking water operators need a baseline understanding of all the requirements of the SDWA, TCR, and the RTCR. This course will provide that base level understanding and has opportunities for hands-on practice creating sample plans and pulling samples for specific constituents.

### **Water Quality Sampling and SDWA Compliance (6-hour block)**

#### **Training Objectives and Learning Outcome:**

This 6-hour course will cover drinking water treatment history, Safe Drinking Water Act (SDWA) requirements, sampling protocols, and primary vs. secondary standards. The sources, health concerns and proper sampling methods for coliform, nitrate/nitrite, IOC, VOC, SOC, radionuclides, lead and copper, asbestos and DBPs will be discussed along with information about emerging contaminants. The essential components of effective site sampling plans will be covered. We will also review and compare the Total Coliform Rule (TCR) and the Revised Total Coliform Rule (RTCR).

Attendees will learn:

- Review of the SDWA and RTCR
- How to develop and conduct a sampling program
- How to identify appropriate sampling sites
- How to fill out a chain of custody form
- To identify what conditions trigger Level 1/Level 2 Assessments
- To identify when to post Public Notices
- About emerging contaminants
- Proper sampling techniques with hands-on practice
- How to calculate the 90th percentile
- About indicator organisms

#### **Agenda:**

- 08:30-08:45: Introduction and agenda
- 08:45-09:00: Pre-test
- 09:00-10:00: Highlights of historical drinking water treatment
  - Government/regulations oversight
- 10:00-10:15: Break
- 10:15-11:15: SDWA Review
  - Historical overview
  - Primary and secondary contaminants (Activity)
- 11:15-11:30: Break
- 11:30-12:30: General microbiology/chemical contaminants
  - Indicator organisms/chemicals
  - Sources
  - Health concerns
  - Drinking Water Tests
  - Monitoring and Compliance Schedules (Activity)
  - TCR vs. RTCR

## Water Quality Sampling and SDWA Compliance

- RTCR requirements
- Components of Site Sampling Plans/WQMPs (Activity)
- Other Documents
  - Sanitary Surveys
  - WFI
  - ERP
- 12:30-13:30: Lunch
- 13:30-14:30: Sampling protocols (Activities)
  - Total coliform
  - Nitrate/nitrite
  - IOC
  - SOC,
  - VOC
  - Lead and copper
  - Radionuclides
  - Asbestos
  - DBPs
- 14:30-14:45: Break
- 14:45-15:30: Record keeping and public notice protocols
  - Chain of custody (Activity)
  - Violations and reporting (Activity)
  - Level 1 /Level 2 Assessments (Activity)
  - Required record keeping
  - Required public notices
- 15:30-15:45: Break
- 15:45-16:15: Emerging contaminants
  - PFAs (Activity)
  - Microplastics
  - Cyanotoxins
- 16:15-16:30: Posttest, session wrap-up, evaluations
- 16:30: Adjourn, 6 hours of content excluding breaks and lunch