

RTCR Preparation/Implementation

OTCO Class III/IV Workshop
August 2015

Overview

- Laboratory Manual Status
- Revised Total Coliform Rule – Reporting
- Revised Total Coliform Rule – Laboratory Perspective

Ohio EPA Laboratory Manuals for Chemical and Microbiological Analysis of Public Drinking Water - 2014

**EFFECTIVE DATE:
MAY 4, 2015**

The Revised Total Coliform Rule (R-TCR) Effective April 1, 2016

BACKGROUND

- Why Change It?
- U.S. EPA issued RTCR in Feb. 2013
 - April 1, 2016 – Effective Date
 - Goal: Improve public health protection by reducing fecal pathogens to minimal levels by controlling TC bacteria, especially E. coli

Major Features

- Applies to ALL public water systems
- Reduces emphasis on TC+ as health risk
- Uses a “Find and Fix Approach”
- No integration with the GW Rule

Major Features

- Small Changes for Big Systems
- Big Changes for Small and Seasonal Systems
- MCL for Monthly Total Coliform Eliminated
- New MCL for *E. coli*
- Treatment Technique - Level 1 or Level 2 Assessments

Components

1. Sample Siting Plan – greater emphasis
2. Analytical Methods – E. coli is only fecal indicator
3. Monitoring
 - Routine changes mostly affect small systems
 - Repeat changes affect all
4. Treatment Techniques
 - Assessments
 - Corrective actions
5. Violations -

Sample Siting Plans

- SSP must be updated to meet RTCR by **3/31/16**
- Must specify locations and numbers for routine and repeat locations
- May identify dedicated repeat sampling stations or locations according to SOP
- Ohio EPA must review and approve plans for small systems



Analytical Methods

- Minor changes & updates
- Keep samples at 10⁰ C –
Recommended
- *E. coli* is the only fecal indicator



Routine Monitoring

- Large **Community** PWS
 - Routine monitoring is unchanged
- Small **Community** PWS (pop <1001)
 - One sample per month - also unchanged



Routine Monitoring

Small **Noncommunity** PWS Using Ground Water (pop <1001)

- Baseline will remain 1 sample per quarter
- Temporary increase in month following TC+: **3 instead of 5**
- Triggered monthly monitoring

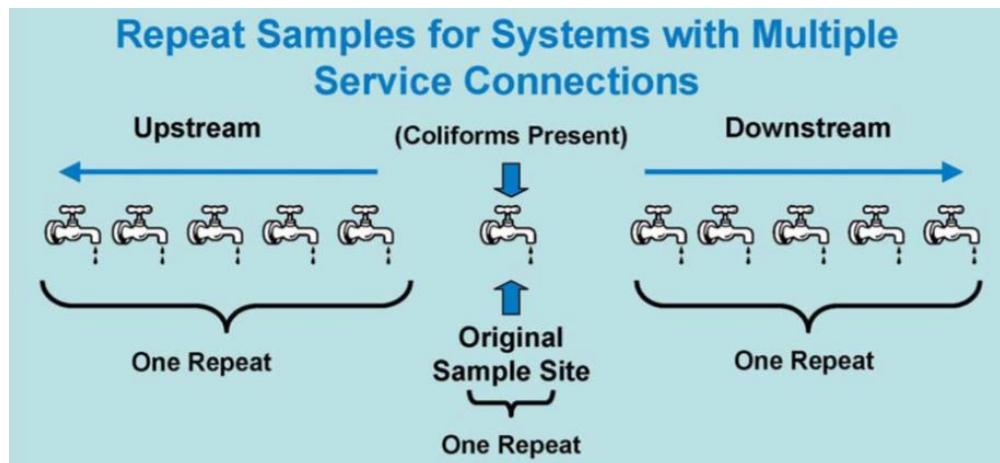
Routine Monitoring

Small Noncommunity PWS (continued)

- Returning to Quarterly monitoring
 - ✓ 12 months of clean compliance history
 - ✓ Inspection w/in past 12 months
 - ✓ no significant deficiencies
 - ✓ protected water source
 - ✓ valid LTO
 - ✓ no other acute health risk violations

Repeat Monitoring

- **3 instead of 4**
- Additional sets of repeats
- *E. coli* is sole fecal indicator
- Failure to take all is NOT a monitoring viol. BUT does trigger action
- Consecutive GW Systems must notify supplier



Level 1 Assessments

- Treatment Technique Triggers
 - > 5.0% TC+ for PWS taking 40 or more samples/mo
 - 2 or more TC+ for PWS taking <40 samples/mo
 - Failure to take all repeat samples
- It is NOT a violation - no Public Notice
- Goal – ID problems w/ sampling and cause of TC+

Level 1 Assessments

Requirements

- Done by the PWS – Ohio EPA will assist by phone
- 30 day turnaround
- Failure to complete is TT violation

Level 1 Assessments

- Scope
 - Primarily a desk top review
- Required elements
 - Inadequacies in sampling sites, protocol or processing
 - Review of unusual events that may have affected water distributed
 - For seasonal PWS were there any issues during start-up?
 - Changes in distribution system O&M
 - Source and treatment issues

Level 2 Assessments

- Triggers
 - An E. coli MCL, or
 - A second L1 Assess within 12 months
- Goal – ID significant deficiencies and cause of EC+
- Requirements
 - By a state approved person – Ohio EPA expects to do them
 - Required elements – same as L1 but more detailed
 - 30 day turnaround
 - Failure to complete is TT violation

Corrective Action

- L1 and L2 Assessment reports, if possible, are to identify cause of TC+ or EC+ samples
- Eliminate causes of TC+ or EC+ samples
- Must be completed within 30 days or an agreed-upon schedule
- Not completing report or corrective action is a TT violation

Violations

- *E. coli* MCL violation

| ROUTINE | REPEAT |
|---------|--------------------------------------|
| EC+ | TC+ |
| EC+ | Any missing sample |
| TC+ | EC+ |
| TC+ | TC+ - <u>but no E. coli analysis</u> |



- Treatment technique violations

- Not submitting L1 or L2 Assess Form on time
- Not completing corrective actions on time
- Seasonal system not doing start-up procedure

Violations

- Monitoring violations - only 2
 - Failure to take routine total coliform sample
 - Failure to analyze for E. coli following a TC+ routine sample
- Reporting violations - new ones
 - Failing to submit an Assessment form on time
 - Failure by a seasonal PWS to submit documentation that required start-up procedure was completed

Wrap-Up

- New approach moves away from “sampling until it goes away” to finding the cause of TC+ and E. coli+ samples.
- Prepare to respond promptly to TC+
 - make sure sample bottles are available and collection can be done quickly after notification
- Follow through on any TT requirements
- Communicate!

RTCR Workgroup Implementation Team:

- **CDO:** Bridgette Marchio 614-728-3870
- **NWDO:** Linda Benham 419-373-4117
- **NEDO:** Pam Korenewych 330-963-1237
- **SEDO:** Russ Flagg 740-380-5229
- **SWDO:** Mark Verbsky 937-285-6417

What Does The RTCR Mean For Your Lab's Micro Certification?

Your Lab is currently certified by the Ohio
EPA for MMO-MUG (SM 9223-B):
Colilert/Colisure

What you must do to comply with the RTCR:

1. Nothing
 - MMO-MUG analyzes for Total Coliform and E. coli
 - Method complies with R-TCR reporting requirements

Your Lab is currently certified by the Ohio EPA for Membrane Filtration (SM 9222-B)

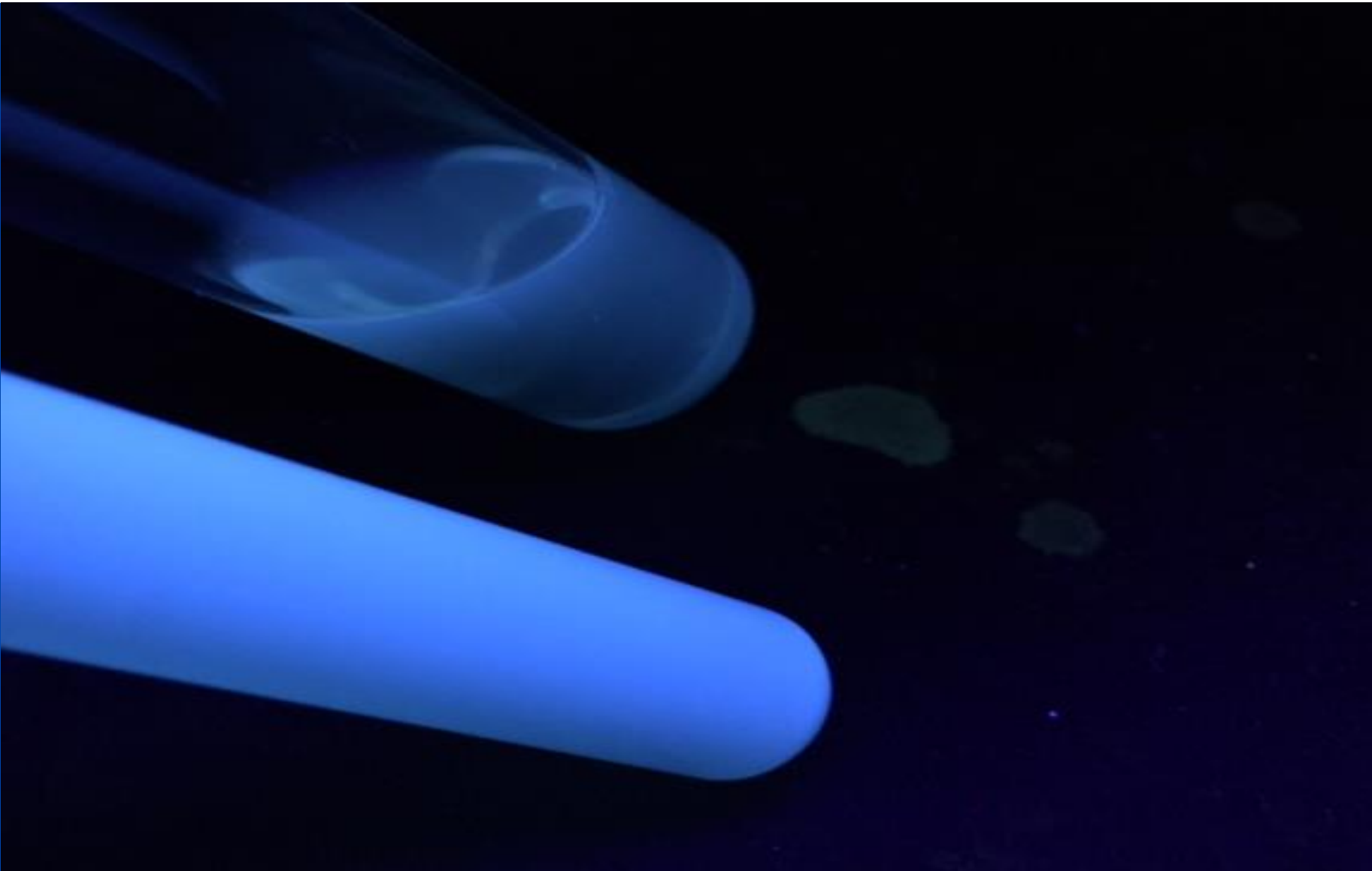
What you must do to comply with the RTCR:

1. Become certified for Membrane Filtration (SM 9222-B & G) by April 1, 2016
2. Become certified for MMO-MUG (SM 9223-B) by April 1, 2016

Your Lab is currently certified by the Ohio EPA for Membrane Filtration (SM 9222-B) and MMO-MUG (SM 9223-B)

What you must do to comply with the RTCR:

1. Report E .coli results by MMO-MUG (SM 9223-B) only, beginning April 1, 2016
2. Or become certified for Membrane Filtration (SM 9222-B & G) by April 1, 2016.



The Ohio EPA Lab Certification Section Plan for the RTCR Transition

1. Laboratories Changing Certification from MF (SM 9222-B) to MMO-MUG (SM 9223-B): Colilert/Colisure
 - There will be no additional fees for Certification by MMO-MUG (SM 9223-B) unless the three year expiration cycle is renewed
 - Pass a PT sample for MMO-MUG (SM 9223-B)
 - Undergo a survey for MMO-MUG (SM 9223-B)
 - Complete these by April 1, 2016

The Ohio EPA Lab Certification Section Plan for the RTCR Transition

2. Laboratories Changing Certification from MF (SM 9222-B) to MF (SM 9222-B & G)
 - There will be no additional fees for Certification by MF (SM 9222-B & G) unless the three year expiration cycle is renewed
 - Pass a PT sample for MF (SM 9222-B & G)
 - Undergo a survey for MF (SM 9222-B & G)
 - Complete these by April 1, 2016

Technical Assistance: Ohio EPA Lab Cert 2015

- Nik Dzamov: Nikola.Dzamov@epa.ohio.gov (614) 644-4068
- Jen Alexander: Jen.Alexander@epa.ohio.gov (614) 644-4222
- Mark Tomasi: Mark.Tomasi@epa.ohio.gov (614) 644-4067
- Charles Vasulka: Charles.Vasulka@epa.ohio.gov (614) 644-4266