



REVISED TOTAL COLIFORM RULE

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Keep Your Drinking Water Safe



✓Protect Your Source

✓Take Your Samples

✓Maintain Your Treatment

✓Inspect Your Pipes and Tanks



Overview

- Total Coliform Rule (TCR)
- Revised Total Coliform Rule (RTCR)
- New Violations & Sampling
- Timeline, Guidance, Input

Current TCR

- Published in 1989 Effective in 1990
- Applies to all PWS
- Rule Objectives
 - Determine integrity of system
 - Evaluate effectiveness of treatment
 - Signal possible presence of fecal contamination
- Regular monitoring determines success



Current TCR

- Sampling applicable to system type and population
- Sample throughout the distribution system at representative sites
- Repeat / Additional Routine samples required based on water quality results.
- All Routine and Repeat samples count toward compliance.

Current TCR: Monitoring Requirements

Public Water System ROUTINE Monitoring Frequencies					
Population	Minimum Samples/ Month	Population	Minimum Samples/ Month	Population	Minimum Samples/ Month
25-1,000*	1	21,501-25,000	25	450,001-600,000	210
1,001-2,500	2	25,001-33,000	30	600,001-780,000	240
2,501-3,300	3	33,001-41,000	40	780,001-970,000	270
3,301-4,100	4	41,001-50,000	50	970,001-1,230,000	300
4,101-4,900	5	50,001-59,000	60	1,230,001-1,520,000	330
4,901-5,800	6	59,001-70,000	70	1,520,001-1,850,000	360
5,801-6,700	7	70,001-83,000	80	1,850,001-2,270,000	390
6,701-7,600	8	83,001-96,000	90	2,270,001-3,020,000	420
7,601-8,500	9	96,001-130,000	100	3,020,001-3,960,000	450
8,501-12,900	10	130,001-220,000	120	≥ 3,960,001	480
12,901-17,200	15	220,001-320,000	150		
17,201-21,500	20	320,001-450,000	180		

*Includes PWSs which have at least 15 service connections, but serve <25 people.

Current TCR: MCL Violations

Non-Acute Violation	Acute Violation
Pop \leq 33,000: 2 or more TC+ samples in a month	TC+ routine and EC+ or Fecal+ repeat
Pop $>$ 33,000: $>$ 5% of samples TC+	EC+ or Fecal+ routine with a TC+ repeat
	Fail to test for EC or Fecal when sample test is TC+
Resolved by:	
Public notification w/in 30 days	Public notification w/in 24 hours



Revised Total Coliform Rule



RTCR Background:

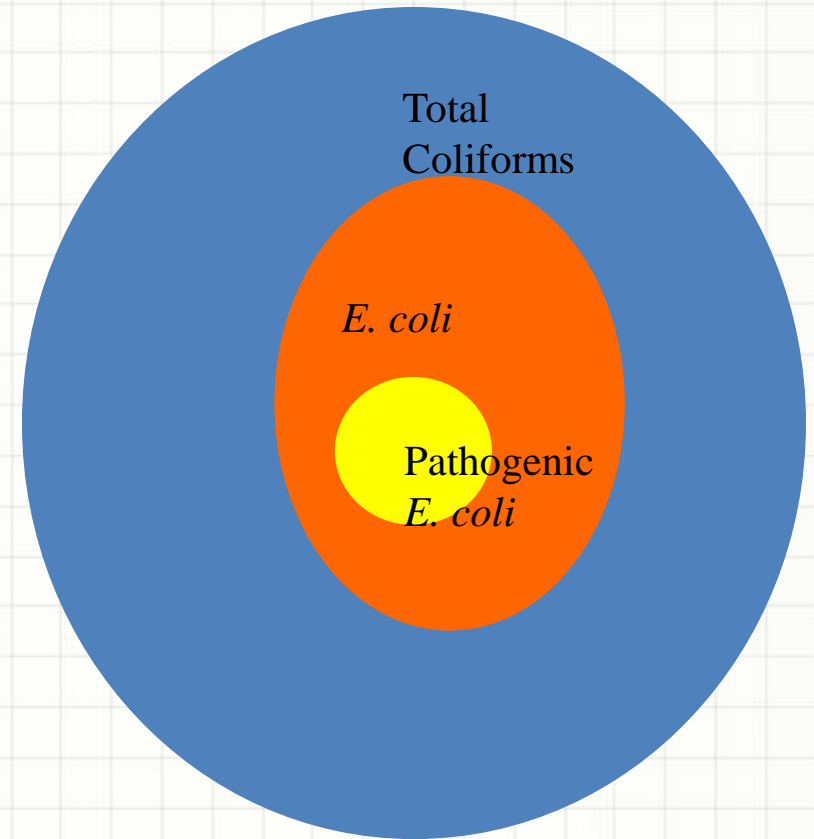
Every 6 years – SDWA rules are reviewed by advisory committees

Feb. 2013 – RTCR Advisory Committee finalized changes with an effective date of:

APRIL 1, 2016

Committee Deliberation Issues:

- How to improve public health protection
- How to optimize the value of TC
- System accountability
 - Do PNs have expected value?





RTCR Committee Results:

1. Monitoring

- Maintain routine sampling structure
- Reduce repeat & additional routine samples for small systems
- Allow GW systems <1000 to have reduced monitoring
- Stringent criteria on reduced monitoring
- Increase monitoring for systems with problems



RTCR Committee Results:

2. Assessments & Corrective Action

- Require PWS to investigate and correct ANY sanitary defects if monitoring shows a contamination vulnerability
 - Level 1 or Level 2 Assessment
- Failure to conduct an assessment or correct the identified defects is a Treatment Technique Violation



RTCR Committee Results:

3. Seasonal Systems

- Startup/Shutdown requires startup Procedures
- Sampling at most vulnerable period when on reduced monitoring

4. Public Notification

- 24 hours for acute MCL violations
- 30 days for Treatment Technique Violation

RTCR: Violations

Treatment Technique Violation	Acute Violation
Failure to complete Assessment on time	TC+ routine and EC+ repeat
Failure to correct sanitary defect	EC+ or routine with a TC+ repeat
Failure to complete startup procedures (seasonals)	Fail to test for EC or when sample test is TC+
	Failure to collect all required repeat samples following TC+ routine
Resolved by:	
Complete assessment or corrective action & 30 day PN	Corrective action monitoring, fix identified defects, & 24hr PN



Routine and Repeat Sampling Requirements

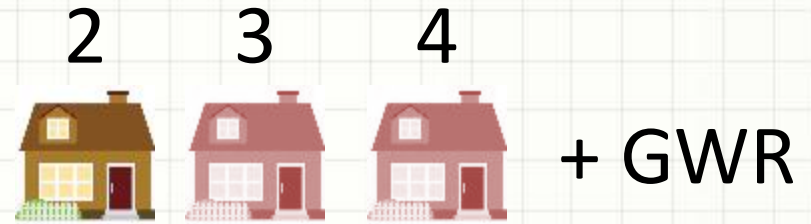
- Every positive routine or repeat sample is required to have 3 repeat or additional repeat samples
(1 from original location, 1 within 5 upstream, 1 within 5 downstream)
- If your regular samples come back positive, even if you've surpassed your MCL trigger, you **STILL** have to collect all your repeats.
- Every routine positive triggers a GWR sample on each active well

Repeat Sampling

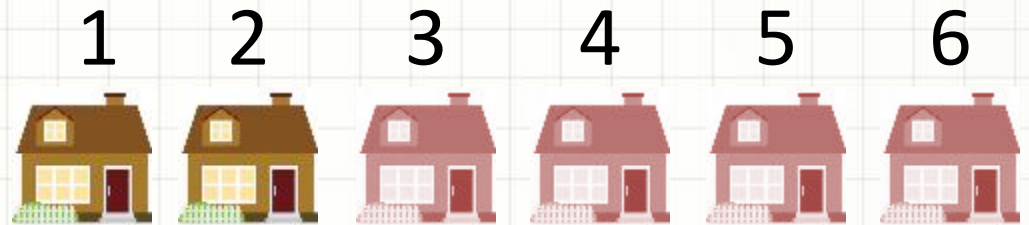
Routine Sample



Repeat Samples



Additional Repeat Samples





Sample Site Plan

- Systems must develop a written sample site plan that identifies specific sample sites and a collection schedule that is representative of water throughout the distribution systems

(monitoring req'ts, routine sites, repeat sites, additional repeat sites, GWR sites, collection schedule)

- >1000 – submit for review 12-31-2015
- ≤1000 – develop plan by 3-31-16 will be reviewed at sanitary survey or sooner if required

RTCR Monitoring Defaults

Type & Population	Default Schedule
Community >1000 Population	Monthly
Community ≤1000 Population	Monthly (Eligible for reduced)
Noncommunity/Nonseasonal	Quarterly
Seasonal	Monthly (Eligible for reduced)

TRANSITION TO RTCR

- GW systems 1000 and less
 - Continue monitoring schedule in effect 3-31-16
 - Systems on quarterly remain unless
 - Clean Compliance History is lost
 - DWP determines needed change
 - At first sanitary survey on or after 4-1-16 DWP will determine if sampling schedule is appropriate
 - Each subsequent sanitary survey will also have an evaluation
- All other systems default to monthly as determined by their population

Reduced Monitoring Requirements

Community <1000 Population

- Clean 12 month Compliance History
- Free of Sanitary Defects
- Protected Source
- Properly Licensed Operator
- Meet Approved Construction Standards
- 1 or more of:
 - Annual Site Visit
 - Cross Connection Control Plan
 - Continuous Disinfection
 - 4-log virus removal or inactivation

If yes to all of the above, eligible for quarterly monitoring



Clean Compliance History

- 12 month history with:
 - No MCL violation either TCR or RTCR
 - No Monitoring violations TCR or RTCR
 - No treatment technique trigger exceedances
 - 2 TC+ in same month or failure to take repeat



Protected Source

- No contamination hazards in protection zones
- Wellhead protection plan
- Other requirements under discussion



1

- April 1, 2016 effective date – monitoring transitions with sanitary survey

2

- Review and Update Sample Siting Plan

3

- Remember your sampling procedures!
Your sampling TODAY will effect your eligibility for reduced monitoring.

4

- Watch for more training on assessments and the rule

Resources

- EPA
- http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm
- Maine Drinking Water Program
- www.MEDWP.com



QUESTIONS?