

RTCR

- Revised Total Coliform Rule -

Informational presentation on the proposed amendments to
Connecticut regulations

by

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History of the RTCR

SDWA requires EPA to review and revise, as appropriate, each National Primary Drinking Water Regulation no less often than every six years; In 2003, EPA reviewed and decided to revise the TCR.

- Advisory Committee – In July 2007, EPA convened the Total Coliform Rule Distribution System Federal Advisory Committee (TCRDSAC), representing 15 organizations.
- Agreement in Principle – In Sept 2008, TCRDSAC deliberations concluded with a signed Agreement in Principle (AIP) that included consensus recommendations on how to revise the TCR.
- Proposed Rule – In July 2010, EPA proposed the RTCR which had the same substance and effect as the TCRDSAC recommendations.
- Final Rule – On **Feb. 13, 2013**, after considering 134 public comment letters, EPA promulgated the final RTCR.

The Federal Register notice for the Final Rule is available at:

http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm#revisedfinal



RTCR Implementation timeline for Connecticut

- **June 2014**—Comments from other state agencies and utility groups –following this informal presentation
- **July 2014**—Revise Draft RTCR to address informal comments received from other state agencies and utility groups.
- **August 2014**—DPH publishes its intent to adopt the Draft RTCR (Notice of Intent) on the Secretary of State's eRegulation webpage. Opportunity to again formally submit comments.

***Required to submit primacy application to EPA on or before February, 13, 2015.**

Importance of the revisions to the TCR

- Regulated PWSs are required, under the SDWA, to provide water that meets federal standards to their customers. If the water supply becomes contaminated, consumers can become seriously ill.
- Contaminated drinking water with pathogenic microorganisms is one of the oldest known public health concerns. Preventing waterborne disease is one of the primary objectives of any drinking water system. In most cases, the results are diarrhea, cramps, nausea. But in some cases – particularly among the young, the elderly, and persons with weakened immune systems – waterborne diseases can lead to severe illness or death.

Overview

- The RTCR retains the objectives and the basic monitoring requirements of the TCR but offers greater opportunity for public health protection by the addition of new requirements. The main changes include, but are not limited to, the following:
 - The MCL violation for total coliforms in drinking water has been replaced with a *treatment technique* that requires PWSs to conduct an assessment of their system, and to correct for any problems identified during the assessment.
 - Small NC systems need to follow certain criteria to remain on a quarterly monitoring schedule or revert from monthly to quarterly.
 - High risk small NC systems with unacceptable compliance history are required to increase their monitoring - monthly.
 - Seasonal systems, such as campgrounds, youth camps, some state parks, etc. are required to comply with new requirements to minimize the inherent risk in these systems.

Core Elements

1. Requires systems to investigate and correct any sanitary defects found whenever monitoring results show a system may be vulnerable to contamination.
 - ❖ Two levels of assessment depending on the severity and frequency of contamination.
 - ❖ **Sanitary defect:** “a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place” Typically identified by L1 and L2 assessments.

NOTE: A sanitary defect is different than a significant deficiency per GWR, however, in some instances there may be overlapping.

2. Establishes a Treatment Technique in place of MCL / MCLG for TC, with PN only for Treatment Technique violations. (failure to conduct a required assessment or fix an identified sanitary defect). TT refers to a required process intended to reduce the level of a contaminant in drinking water
3. Keeps *E. coli* as the health indicator with an MCLG of zero and MCL similar to current TCR
4. Provides criteria that well-operated GW small systems must meet to stay on quarterly monitoring*
 - * reduced monitoring to annual for NCWS/quarterly for CWS not allowed by CT regulations
 - higher level of public health protection
5. Requires increased monitoring for high-risk small (<1,000 people) NC ground water systems with unacceptable compliance history

6. Monitoring requirements:

Beginning April 1, 2016, the State must perform a special monitoring evaluation during each sanitary survey to review the status of the system, including the distribution system, to determine whether the system is on an appropriate monitoring schedule. The State may modify the system's monitoring schedule as necessary (for NCWS)

7. Defines "seasonal systems"; requires start-up procedures and sampling during high vulnerability. Change in the # of samples based on the population served. Baseline monitoring is monthly.

8. Allows systems to transition at their current monitoring frequency

- ❖ For NC GW systems serving $\leq 1,000$ people, the State will re-evaluate the frequency during each sanitary survey cycle

Sampling Siting Plans

- PWSs are required to establish a written sampling siting plan that is representative of water quality throughout the entire distribution system. Beginning on April 1st, 2016, TC samples must be collected from these locations (and only those) identified in the SSP
- The sample sites should include sites required for regulatory compliance monitoring - i.e. routine and repeat locations as required by the RTCR and the GWR **AND** a collection schedule/frequency
- SSP subject to state review and revision
- Draft reg. proposes to have the SSPs submitted to DWS by July 1, 2015 - review

Seasonal Systems

- Seasonal PWS is defined as a non-community water system that is not operated as a public water system on a year-round basis and starts up at the beginning and shuts down by depressurizing and dewatering the distribution system at the end of each operating season
- Seasonal PWS must demonstrate completion of a State-approved start up procedure before the water is made available to the public
- Seasonal PWS sample site plan must designate the time period for monitoring based on high demand or vulnerability (if the PWS is monitoring less than monthly)

Level 1 Assessment

Triggers :

The monthly TC violation under the TCR becomes an assessment trigger under the RTCR

- For a system collecting at least 40 samples per month, more than 5% of samples collected are TC (+)
- For a system collecting fewer than 40 samples per month, more than one sample is TC (+)
- **NEW:** The PWS fails to take every required repeat sample after any single routine TC (+)

Assessment:

- Conducted by the PWS
- A basic examination of the source water, treatment, distribution system and relevant operational practices

Level 2 Assessment

Triggers:

- Violation of the MCL for E. coli
 - The system has an E. coli (+) repeat sample following a TC (+) routine sample
 - The system has a TC (+) repeat sample following an E. coli (+) routine
 - The system fails to test for E. coli when any repeat sample tests (+) for TC
 - The system fails to take all repeat samples following a routine E. coli positive sample

- Two Level 1 triggers in a 12 month period.
 - The exception to this trigger is if the state has determined a likely reason for the TC+ samples that caused the initial Level 1 TT trigger, and the state establishes that the system has fully corrected the problem.

Level 2 Assessment (continued)

Assessment:

- A more in-depth examination of the system and its monitoring and operational practices
 - Conducted by the State or a party approved by the State*
 - *State certified operator, PE. Education + Experience and approved by the state.
 - The PWS must correct all sanitary defects found during the assessment
 - Sanitary defects and corrective actions must be described in the assessment form the PWS must submit to the State within 30 days of the assessment trigger
- Assessment forms developed by DWS; will be provided to PWSs/web

Corrective Actions

Sanitary defects identified by L1 and L2 assessments => CA

Corrective action - should prevent future incidences of contamination and exposure to fecal contamination and/or waterborne pathogens.

- A timetable for any corrective actions not already completed must also be specified in the form; the State will determine a schedule for implementing the corrective actions after consulting with the PWS
- The form may also indicate that no sanitary defects were found
- The State determines if the assessment is sufficient

EPA developed a RTCR Assessments and Corrective Actions Guidance Manual – available on EPA and DWS website

Monitoring Requirements

Monitoring Requirements

PWS Type	Routine Monitoring	Reduction
All Communities	Monthly	NA
NTNCs & TNCs	Quarterly	NA
Seasonal	Monthly	Quarterly

❖ *Propose removal of the routine monitoring for physical parameters (color, odor, turbidity and pH) in the distribution system*

NC on increased monitoring (monthly) can return to routine monitoring by complying with the following criteria:

- Within the last 12 months, such non-community water system shall have a completed sanitary survey, a site visit by the department or a voluntary level 2 assessment conducted by a level 2 assessor or the department, be free of sanitary defects, and have a source or sources of supply that are protected and that meet the separating distance requirements.
- Such non-community water system shall have a clean compliance history for a minimum of 12 months.

* *“Clean compliance history” means a record of no maximum contaminant level violations under subsection (e)(6) of this section, no monitoring violations, and no coliform treatment technique trigger exceedances or treatment technique violations.*

Number of Repeat Samples

- ALL PWSs of any size now take only 3 repeat samples for each TC+*

TCR – # of Repeats (-1 per Month or quarter)	RTCR – # of Repeats (-1 per Month or quarter)
4 Samples	3 Samples

- Systems must collect a set of repeat samples for EACH routine TC+ sample, even if an MCL exceedance has occurred*

Violations

Four different types of violations:

- **E.Coli MCL violation**
- **Treatment technique violation:**
 - A system fails to conduct a required Level 1 or Level 2 assessment within 30 days of learning of the trigger.
 - A system fails to correct any sanitary defect found through either a Level 1 or 2 assessment within 30 days of learning of the trigger or in accordance with a schedule approved by the state.
 - A seasonal system fails to complete state-approved start-up procedures prior to serving water to the public.



Violations (continued)

- **Monitoring violation**

- PWS has failed to comply with a coliform monitoring requirement:
 - ❖ failure to take all required routine or additional routine samples
 - ❖ failure to analyze for *E. coli* following a TC+ routine sample

- **Reporting violation**

- failure to submit a monitoring report or completed assessment form after a system properly conducts monitoring or an assessment in a timely manner.
- failure to notify the state, in a timely manner, following an EC+ sample as required by 40 CFR 141.858(b)(1).
- failure to submit certification of completion of state-approved start-up procedures by a seasonal system.



Public Notification

Each violation requires a different level of response and public notification.

- Public Notification is no longer required for **total coliform (TC)** - positive results alone because many of the organisms detected by the total coliform methods are not of fecal origin and do not have any direct public health implication.

PN required:

Violation Type	PN Tier
E. coli MCL Violation	Tier 1 (24 hours)
TT Violation	Tier 2 (30 Days)
Monitoring Violation	Tier 3 (365 days)
Reporting Violation	Tier 3 (365 days)



Reminders:

- Please submit comments on the reg. draft by **June 30, 2014.**
- CT's primacy package is due to EPA on or before **February 13, 2015.**

Questions /Comments:

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