Revised Total Coliform Rule Plus (RTCR Plus)

Texas Commission On Environmental Quality

Federal & State Rule Overview

Public Drinking Water Section

Drinking Water Advisory Work Group Meeting (DWAWG)

Oct 25, 2016
The TCEQ is developing a new rule package (RTCR Plus) in order to adopt the federal Revised Total Coliform Rule (RTCR) into Title 30 Title Texas Administrative Code (TAC), Chapter 290.

The federal RTCR affects ALL Public Water Systems (PWSs) and was effective on April 1, 2016.
1.1 - Rulemaking Background

In addition, this rulemaking proposes to amend existing state rules in Title 30 TAC, Chapter 290 to:

- address the EPA's comments on the federal Ground Water Rule (GWR);
- align current state rules with federal regulations; and
- clarify and streamline additional existing state rules.

The RTCR Plus rule project affects ALL PWSs and is scheduled to be effective on March 30, 2017.
Align Chapter 290 rules to provide consistency and updates for other Federal Provisions including:

- Lead and Copper Rule (LCR);
- Total Organic Carbon (TOC) Rule;
- Public Notice (PN) Rule requirements;
- disinfection and analytical requirements for chlorine dioxide and chlorite; and
- other federal monitoring and reporting requirements concerning TOC and submission of laboratory analyses and reports to the executive director.
Amend Chapter 290 to provide clarification and streamline existing State Rules including:

- disinfection treatment and monitoring requirements for PWSs that utilize a groundwater source;
- PWS ownership reporting requirements;
- Boil Water Notice (BWN) reporting and requirements;
- special investigation requirements for elevated turbidity levels and for failure to provide compliance data;
- nitrite monitoring requirements;
- disinfection operating reports;
- continuous turbidity monitoring and reporting requirements; and
- well recordkeeping requirements.

1.3 - Rulemaking Scope Summary
The **RTCR establishes**: 
- a maximum contaminant level (MCL) for *E. coli*  
- a “find and fix” approach (assessments) to address fecal contamination that could enter into the distribution system  
- *treatment technique violations* for certain conditions

The **RTCR requires** PWSs to: 
- develop a **Sample Siting Plan** that lists all routine/repeat and groundwater microbial sample sites and a sample schedule  
- perform **assessments**, identify **sanitary defects (find)**, and take **corrective action** for any identified **sanitary defects (fix)**  
- complete and certify **state-approved start-up procedures** for **seasonal** public water systems
Sample Siting Plan Map Requirements

The Sample Siting Plan map must contain the following applicable location information:

• “Routine” (OR) RTCR Sample Sites (Repeat sites not required);

• Distribution water mains and sizes;

• Entry Point Source Locations (e.g., well source and/or surface water or groundwater under the influence (GUI) water treatment entry points into the distribution system, interconnection with other systems);

• *Water Storage Facilities;

• *Pressure Plane Boundaries.

*If a system has only one pressure plane or does not have any water storage facilities, please indicate this information on the map.
3.0 - RTCR Scope - Federal

The following provisions are being proposed to be consistent with the RTCR.

• Add definitions in accordance with 40 CFR §141.2.

• Specify requirements concerning the maximum contaminant level (MCL) for Escherichia coli (E. coli) and identify the best technology, treatment techniques, or other means available for achieving compliance with the MCL for E. coli in accordance with 40 CFR §141.63.
• Update **monitoring, reporting, and recordkeeping requirements** concerning the *E. coli* MCL and **treatment technique violations**, approved seasonal system start-up procedures, microbial sampling, and **assessments** in accordance with **40 CFR §141.405(b)(4) and §141.861(b)**.

• Establish that the **executive director cannot grant variances and exemptions from the MCL for *E. coli and treatment technique*** requirements in accordance with **40 CFR §141.4**.
• Specify the coliform sampling requirements and clarify the MCL goals (E. coli) for microbiological contaminants in accordance with 40 CFR §141.52 and §141.853.

• Update the PN requirements to include the form, manner, and frequency of notice in accordance with 40 CFR Part 141, Subpart Q.

• Establish and clarify that all PWSs will be required to measure residual disinfectant concentrations within their distribution system in accordance with existing residual disinfectant monitoring requirements in addition to measuring residual disinfectant concentrations at the same time and place that their monthly total coliform samples are collected in accordance with 40 CFR §141.74(c)(3)(i) and §141.132.
3.3 - RTCR Scope - Federal

• Establish treatment technique violations, associated corrective actions, compliance determinations, and that PWSs are required to ensure that Level 1 and 2 assessments are conducted to identify the possible presence of sanitary defects and defects in distribution system coliform monitoring practices in accordance with 40 CFR §141.859.

• Clarify and include the updated federal analytical methods which specify that PWSs are required to conduct total coliform and *E. coli* analyses in accordance with the analytical methods or alternative methods in accordance with 40 CFR §141.21 and §141.852.
3.4 - RTCR Scope - Federal

• Specify that PWSs are required to include repeat in addition to routine microbial monitoring locations in a Sample Siting Plan which shall be included with the PWS's overall monitoring plan.

• Require PWSs to identify a monthly microbial monitoring schedule and all groundwater sources in the Sample Siting Plan and if these sources are planned for use as repeat microbial monitoring locations in accordance with 40 CFR §141.853.
Revise the **Consumer Confidence Report (CCR)** requirements and update the appendices to include new definitions, violations, health effects language, *E. coli* analytical data, and assessment criteria in accordance with **40 CFR Part 141, Subpart O.**
The following provisions are being proposed to be consistent with the federal Ground Water Rule (GWR).

- **Add and update definitions** in accordance with 40 CFR §§141.2, 141.400, and 141.402.

- **Include the phrase "or other fecal indicator"** when referring to *E. coli* to address virus removal required for 4-log treatment in accordance with 40 CFR §141.402 and §141.403.
• Establish and clarify the raw source sampling requirements in the event of an E. coli detection at the groundwater source which allows the executive director to either require PWSs to collect an additional five source samples in the event of an E. coli detection at the source or to conduct corrective action activities to address the E. coli detection in accordance with 40 CFR §141.402 and §141.403.

• Establish that the executive director may approve alternative raw sampling locations at a groundwater source if the sampling location is representative of the water quality of that well source in accordance with 40 CFR §141.402.
• Establish the PN requirements associated with assessment source monitoring for microbial contaminants in accordance with 40 CFR §141.402.

• Clarify the GWR applicability for PWSs in accordance with 40 CFR §141.400. *(Refer to Rule)*
4.3 - GWR Scope - Federal

• Establish and clarify the required corrective actions in the event of an *E. coli*-positive source sample or the identification of a significant deficiency;

• Clarify additional corrective actions required by the executive director;

• Clarify that corrective action is required for triggered source monitoring, assessment source monitoring, and significant deficiencies, but not for portions of a distribution system which is served by a surface water source;
Clarify corrective action applicability and PN requirements concerning corrective action to address contamination at groundwater sources when significant deficiencies are identified;

Clarify and address the utilization of membrane filtration for virus removal;

Clarify that the discontinuation of 4-log treatment must be made by written request to the executive director; and

Clarify the notification process in the event a significant deficiency is identified in accordance with 40 CFR §141.403.
5.0 - Updates to State Regulations For Consistency with Federal Regulations

Lead and Copper Rule (LCR)

• **Establish and clarify the sampling frequency requirements** for water quality parameters (WQPs); and **clarify** that PWSs are required to **collect two tap samples** for applicable WQPs during each monitoring period from each required number of monitoring sites in accordance with 40 CFR §141.87.

• **Clarify the requirements for public education materials** and corrects a typographical error in §290.117(i)(4)(B)(i) - (iii) concerning reduced nine-year tap sampling requirements to provide consistency with 40 CFR §141.85.

• **Establish the sampling frequency** for WQPs in §290.117(e) to provide consistency with 40 CFR §141.87.
5.1 - Updates to State Regulations For Consistency with Federal Regulations

Lead and Copper Rule (LCR)

- Establish and provide clarification for PWSs with pre-existing state-approved waivers establishing that the waivers are no longer valid to provide consistency with 40 CFR §141.86 under the Lead and Copper Rule Minor Revisions (LCRMR).

- The amendment specifies that the PWSs that were granted pre-existing waivers are eligible for the reduced nine-year tap water waiver if the system meets the criteria outlined in the LCRMR, and that PWSs are required to re-apply for the waiver every nine years.
5.2 - Updates to State Regulations For Consistency with Federal Regulations

Lead and Copper Rule (LCR)

• **Include additional WQPs parameters** in §290.117(e) which are based on EPA's March 2016 *Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems* guidance document.

• **Requires PWSs to sample for WQPs more frequently** on a quarterly basis; and

• **Requires PWSs to sample for additional WQPs from raw sources** in addition to entry point and distribution system locations to assist PWSs in further assessing the corrosivity of the water within their distribution system.
5.3 - Updates to State Regulations For Consistency with Federal Regulations

Total Organic Carbon (TOC) Rule

- Clarifies how the TOC running annual average is calculated for quarterly drinking water compliance calculations to provide consistency with 40 CFR §141.135(c)(1)(i) - (v).
• **Revises the current analytical requirements** to add the EPA approved methods for the **analysis of chlorine dioxide and chlorite** to provide consistency with **40 CFR §141.131**.
Public Notice (PN) Requirements

- **Clarifies and characterizes** the three PN Tiers which take into account the seriousness of the violation or situation and any potential adverse health effects that may be involved; and

- **Provides the definition of each Tier (Tier 1, 2, and 3)** and specific PN requirements for each of the three tiers for which the violation or situation applies to provide consistency with [40 CFR §141.201 and §141.202](#).
5.6 - Updates to State Regulations For Consistency with Federal Regulations

Sample Analyses Reporting

- **Revises and adds language** in §§290.102, 290.106 - 290.109, and 290.113 - 290.115 to **clarify the reporting requirements** for PWSs concerning the submission of laboratory analyses and reports to the executive director to provide consistency with **40 CFR §141.31**.
6.0 - Updates to State Regulations

- Disinfection
- Change of Ownership
- Boil Water Notice (BWN)
- Nitrate/Nitrite Monitoring
- Disinfection Level Quarterly Operating Report (DLQOR)
- Continuous Turbidity Monitoring
- Well Recordkeeping
Clarifies the association between Chapter 290, Subchapters D and F disinfection treatment and monitoring requirements for PWSs that use a groundwater source.

§290.42. Water Treatment.
(b) Groundwater.
(1) Disinfection facilities shall be provided for all groundwater supplies for the purpose of microbiological control and distribution protection and shall be in conformity with applicable disinfection requirements in subsection (e) of this section and in a manner consistent with the requirements of §290.110 of this title (relating to Disinfectant Residuals).
§290.42. Water Treatment.

(e) Disinfection.

(1) All water obtained from surface sources or groundwater sources that are under the direct influence of surface water must be disinfected in a manner consistent with the requirements of §290.110 of this title [(relating to Disinfectant Residuals)].

(2) All groundwater must be disinfected prior to distribution and in a manner consistent with the requirements of §290.110 of this title. The point of application must be ahead of the water storage tank(s) if storage is provided prior to distribution. Permission to use alternate disinfectant application points must be obtained in writing from the executive director.
6.3 - Updates to State Regulations

Change of Ownership

• Clarifies the reporting requirements for PWSs which require the new owner of a PWS to provide notification to the executive director when a change in ownership occurs. Additionally, the reference to Chapter 291 has been removed which relates to the notification requirements by utilities.

• Specifically, §290.46(p)(1) - Requires the new owner or grantee of a public water system to notify the executive director of the change in ownership within 30 days after the effective date of the change in ownership and include any other information necessary to identify the transaction.

• Adds the definitions of "Grantee" and "Grantor".

• Removes the reference to 30 TAC Chapter 291 (Utility Regulations).
6.4 - Updates to State Regulations

Boil Water Notice (BWN) - 1

- Clarifies the BWN delivery requirements to cross-reference Chapter 290's Subchapters D and F methods regarding PNs;
- Establishes requirements to rescind a BWN, revises mandatory BWN language;
- Adds mandatory language to rescind a BWN;
- Establishes and specifies discretionary actions required by the executive director concerning special precautions, protective measures, and BWNs;
6.5 - Updates to State Regulations

Boil Water Notice (BWN) - 2

- Establishes requirements by the executive director concerning special precautions, protective measures, BWNs; and
- Special investigations regarding elevated turbidity levels at surface water and groundwater under the influence of surface water treatment systems and for failure by a PWS to submit compliance data for these treatment systems to the executive director.
Nitrate/Nitrite Monitoring

- **Corrects a typographical error** in §290.106(c)(3) regarding the initial monitoring frequency for inorganic compounds except asbestos.
- **Clarifies the monitoring requirements** for nitrite in accordance with the term "compliance cycle" as described in §290.103(3) and §290.106(c)(7)(A).
- **Requires all PWSs to monitor for inorganic chemicals at the time designated by the executive director** during each compliance period during each nine-year compliance cycle.
Disinfection Level Quarterly Operating Report (DLQOR)

• Clarifies the PN requirements for PWSs that use groundwater or purchased water sources and that violate the treatment technique requirements for residual disinfectant levels.

• Clarifies that PWSs that use groundwater sources are required to issue a PN for failing to maintain minimum residual disinfectant levels.
Continuous Turbidity Monitoring

- Clarifies the required span of data that the turbidity equipment is required to capture for continuous turbidity monitoring and clarifies that capping the turbidity equipment is a violation.

- Establishes conditions when the executive director requires PWSs to conduct special precautions, protective measures, BWNs, and special investigations regarding:
  - elevated turbidity levels at surface water and groundwater under the influence of surface water treatment systems; and
  - for failure by a PWS to submit compliance data to the executive director for these treatment systems.
Amends §290.46(n)(3) to **clarify the record keeping requirements for PWSs concerning well completion data** as required by §290.41(c)(3)(A).
7.0 - TCEQ Draft Rulemaking Timeline

TCEQ Primacy Extension until February 13, 2017

- Proposal Agenda: September 21, 2016
- Rule Filed/Published/SOS: Oct 7, 2016
- Public Comment Period-Start: October 7, 2016
- Public Hearing Date/Time: November 7, 2016
- Public Comment Period-End: November 22, 2016
- Adoption Agenda: March 8, 2017
- Rule Effective Date: March 30, 2017
8.0 - RTCR Assistance

TCEQ’s RTCR Website

http://www.tceq.texas.gov/goto/RTCR

Or

Search: TCEQ RTCR
9.0 - RTCR Assistance

EPA’s RTCR Guidance can be found at:

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