

TCEQ
Office of Water

Water Supply
Division

Public Drinking
Water Section

Drinking Water
Advisory Work
Group Meeting
(DWA WG)

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Texas Commission On Environmental Quality

Revised Total Coliform Rule Plus (RTCR Plus)

Rule Project No. 2015-035-290-OW

Federal & State Rule Overview





1.0 - Rulemaking Background

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**





1.2 - Rulemaking Scope Summary

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.





1.3 - Rulemaking Scope Summary

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.





2.0 - RTCR Introduction - Federal

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





2.1 - RTCR Introduction - State

STATE REQUIREMENT

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**.





3.1 - RTCR Scope - Federal

- 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**.





3.2 - RTCR Scope - Federal

- **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**.





3.5 - RTCR Scope - Federal

- 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**.





4.0 - GWR Scope - Federal

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.**





4.1 - GWR Scope - Federal

- **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.**





4.2 - GWR Scope - Federal

- **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;





4.4 - GWR Scope - Federal

- **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)**.





5.4 - Updates to State Regulations For Consistency with Federal Regulations

Chlorine Dioxide and Chlorite Analytical Requirement

- **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**.





5.5 - Updates to State Regulations For Consistency with Federal Regulations

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





6.1 - Updates to State Regulations

Disinfection - 1

- **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).**





6.2 - Updates to State Regulations

Disinfection - 2

§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.





6.6 - Updates to State Regulations

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.





6.7 - Updates to State Regulations

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.





6.8 - Updates to State Regulations

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.





6.9 - Updates to State Regulations

Well Recordkeeping

- 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/rulesre gs/sdwa/tcr/regulation_revisions.cfm





10.0 - TCEQ Public Drinking Water Section Plan & Technical Review Section

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