

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Commissioners **Date:** May 1, 2009
Thru: LaDonna Castañuela, Chief Clerk
Mark R. Vickery, P.G., Executive Director
From: Dan Eden, Deputy Director
Office of Permitting and Registration
Docket No.: 2009-0337-RUL
Subject: Commission Approval for Proposed Rulemaking
Chapter 210, Use of Reclaimed Water
Chapter 309, Domestic Wastewater Effluent Limitation and Plant Siting
Chapter 319, General Regulations Incorporated into Permits
Bacteria Effluent Limitations and Monitoring in Domestic Water Quality Permits
Rule Project No. 2009-005-309-PR

Reasons for the rule package:

The Executive Director and the United States Environmental Protection Agency (EPA) reached an agreement in July 2008 regarding bacterial effluent limitations and monitoring requirements in Texas Pollutant Discharge Elimination System (TPDES) domestic wastewater permits to resolve a disagreement, which delayed the issuance of approximately one-hundred permits. The agreement included an interim approach to require bacteria limitations and/or monitoring for selected facilities that met certain criteria for discharges to bacteria listed impaired water bodies. The agreement also included a long term approach in which TCEQ would propose rulemaking to establish requirements for bacteria limitations in all TPDES domestic wastewater permits. Any adopted rule must be effective by December 31, 2009, and all TPDES domestic wastewater draft permits for which Notice of Application and Preliminary Decision is provided on or after January 1, 2010 will have the new requirements as part of the permit language. The purpose of this rulemaking is to satisfy the agreement with EPA.

Under what authority are we proposing these changes?

Texas Water Code (TWC), §§5.013; 5.102; 5.103; 5.104; 5.120; 26.011; 26.013; 26.027

Is this rulemaking required by federal rule or state statute? Which ones?

This rulemaking is not required by federal rule or state statute. It is required under the Memorandum of Agreement (MOA) with EPA outlining the state's responsibilities regarding TPDES delegation. EPA has argued that the TPDES program needs to be modified to meet the Clean Water Act requirements related to bacteria controls.

Are there any legal deadlines by which these rules must be proposed, adopted, or effective?

The agreement with EPA requires that rules are effective December 31, 2009.

What issue(s) or problem(s) are we trying to solve?

To fulfill our obligation in the agreement with EPA.

Re: Docket No. 2009-0337-RUL

Why is it important that we do this rule package?

It is important that we do this rule package to maintain compliance with the EPA MOA, retain delegation of the TPDES program, and prevent future EPA objections to TPDES permits.

Other important background or historical information.

TCEQ typically includes chlorine exposure time and residual concentration requirements as the bacteria control mechanism for disinfection by chlorination in TPDES domestic discharge permits. Starting in February 2007, EPA took a new position that bacteria limits are required. This resulted in EPA objecting to TCEQ's permits. As a result TCEQ could not issue approximately 100 permits between February 2007 and July 2008. The Executive Director and EPA reached an agreement in July 2008 regarding bacterial effluent limitations and monitoring requirements in TPDES domestic wastewater permits. The agreement included an interim approach to require bacteria limitations and/or monitoring for selected facilities that met certain criteria for discharges to bacteria listed impaired water bodies.

Scope of the rulemaking:

The rulemaking adds bacteria limits for either *Escherichia coli* (*E. coli*) for fresh water discharges or *Enterococci* for saltwater discharges to TPDES domestic permits in Chapter 309, sets the frequency of testing for bacteria in Chapter 319, and amends Chapter 210 to allow reuse water providers to choose *E. coli* or fecal coliform bacteria testing to verify disinfection.

Changes required by federal rule:

None.

Changes required by state statute:

None.

Staff recommendations that are not expressly required by federal rule or state statute:

Remove an outdated statement that applies to renewals of domestic wastewater facilities built prior to 1990. There are no active facilities built prior to 1990 that have not had a permit renewal since that time.

Allow an applicant that is disposing of domestic wastewater effluent by means of a subsurface area drip dispersal system on land to which there is a potential for public contact to choose either the currently required fecal coliform or *E. coli* to demonstrate disinfection. Flexibility in the rule allows the facility owner to choose the more convenient, more cost-effective method of demonstrating disinfection of the effluent.

Set the frequency at which domestic wastewater facility operators must test for bacteria levels in their effluent. The frequency is based both on the size of the flow through the facility and the disinfection method, the greater the flow the greater the frequency of testing. Mechanical systems must test more frequently than natural systems because they are subject to mechanical failure that can quickly affect the quality of the effluent. Ultraviolet light disinfection systems and chemical disinfection systems other than chlorine must test more frequently than chlorine disinfection systems because chlorine systems have the chlorine contact time and residual chlorine measurement as a redundant indicator of disinfection.

Re: Docket No. 2009-0337-RUL

Remove a requirement in Chapter 319 that states that the commission may impose disinfection in accordance with Chapter 309. The requirement also refers to fecal coliform, which this rulemaking will change.

Allow reclaimed water providers to choose *E. coli* or fecal coliform to demonstrate disinfection of reclaimed water. To be issued a reclaimed water use authorization, a provider must have a domestic wastewater permit. This flexibility allows the provider to choose the more convenient, more cost-effective indicator bacteria to measure.

Impact on the regulated community:

Who will be affected?

All TPDES domestic wastewater permit holders. This includes cities, counties, state agencies, utility districts, investor-owned utilities, mobile home parks, recreational vehicle parks, hotels, motels, camps, campgrounds, or any other business with a domestic wastewater treatment facility.

Does it create a group of affected persons who were not affected previously? How?

No.

Will there be a fiscal impact? If so, estimate.

Yes, there will be a fiscal impact. The laboratory analysis of *E. coli* averages approximately \$51 per sample if using a contract laboratory. The annual contract laboratory cost for *E. coli* monitoring varies from just over \$200 for the smallest wastewater facility to about \$13,400 for the largest facilities. If doing in-house analyses of bacteria, set up costs for facilities that are not currently doing fecal coliform testing are approximately \$1,500. Facilities that are doing fecal coliform testing will not need any additional equipment. Supply costs are approximately \$6 per test, making the most required for annual testing approximately \$2,200. There will also be costs associated with training, sampling, transporting samples, recordkeeping, and sampling supplies.

Impact on the public:

Who will be affected?

Those who evaluate TPDES domestic wastewater permits or applications will have a more direct measurement to use in evaluating the disinfection level achieved by or expected from a wastewater treatment facility.

Does it create a group of affected persons who were not affected previously? How?

No.

Will there be a fiscal impact? If so, estimate.

The increase in operating expenses could be enough to require a fee increase for customers of small sewer systems.

Re: Docket No. 2009-0337-RUL

Impact on agency programs:

Water Quality Division (OPR) will be required to add the bacteria limit to each TPDES domestic permit submitted for a permit action during the five years. Staff will process approximately 400 permits each of the five years. This division will also be required to modify each permittee's data set by adding the bacteria parameter. The division will have about 400 (20% of the approximately 2000 facilities) to change each of the first five years the rule is in effect.

Enforcement Compliance Monitoring Section (OCE) will collect and evaluate data on the bacteria parameter on a monthly basis. Permittees report effluent parameters on Discharge Monitoring Reports on a monthly basis. About half of the permittees submit data electronically, while the other half still submits paper reports. Although the actual number of reports received will not increase, the number that contains bacteria limits will increase by approximately 400 each of the first five years the rule is in effect.

Field Operations Division (OCE) investigators may experience difficulties when sampling at facilities located in remote locations due to the short hold times for bacteria samples.

The Occupational Licensing Division (OCE) will need to revise training requirements for wastewater operators to include instructions on collecting, preserving, and transporting bacteria samples. Most changes to this program will happen near the rule adoption date.

The Small Business and Local Government Assistance Division (SBLGA) will assist with outreach to inform and educate small treatment facilities of the new requirement and locating laboratories capable of performing the tests. Most efforts by SBLGA will happen within the first two to three years after adoption.

Stakeholder meetings:

Have any stakeholder meetings been held?

A stakeholder meeting was held at the TCEQ complex in Austin on January 23, 2009.

Other outreach efforts have included presentations to:

- TCEQ's Water Quality Advisory Work Group,
- Independent Water and Sewer Companies of Texas, and
- Texas Water Utilities Association.

With whom?

Written notice of the stakeholder meeting was sent to the Water Quality Advisory Stakeholder Group, which is a balanced group of regulated entity, public, consumer, and professional organization representatives. An open invitation was also published on the TCEQ home page with a link under "Hot Topics".

Approximately 60 people attended the meeting.

Re: Docket No. 2009-0337-RUL

What were the general sentiments?

Stakeholders generally accepted the inevitability of bacteria limits. The biggest issue was the lack of a compliance period for facilities to make the transition to bacteria limits. There were also concerns about the numeric limits, testing frequency, costs, availability of qualified laboratories, and treatment of industrial wastewater facilities.

Were any changes made in response to stakeholder concerns?

Because of stakeholder input, the rule now includes a mechanism for a consistently compliant facility to be granted a less frequent measurement schedule.

Policy issues:

What policy issues are affected?

Inclusion of bacteria limits in TPDES domestic permits.

Are any policies that are not currently based on rule being made into a rule?

The inclusion of bacteria limits in certain TPDES domestic permits has been occurring since July 2008, based on the agreement with EPA. This rule package will codify that policy.

What are the consequences if this rulemaking is not approved to go forward?

Not going forward with this rule package may impact TPDES delegation.

Are there alternatives?

Renegotiating the agreement with EPA.

Potentially controversial matters:

- Lack of a compliance period. Staff explored a compliance period with EPA and they did not agree to a compliance period.
- Cost of training, sampling, and laboratory analysis
- Availability of qualified laboratories

Key points in proposed rulemaking schedule:

Anticipated proposal date:	5/21/09
Anticipated Texas Register publication date:	6/6/09
Public hearing date:	6/30/09
Public comment period:	6/6/09 – 7/6/09
Anticipated adoption date:	11/4/09

Commissioners

Page 6

May 1, 2009

Re: Docket No. 2009-0337-RUL

Agency contacts:

Sherry Smith, Rule Project Manager, 239-0571, Water Quality Division

Michael Parr, Staff Attorney, 239-0611

Michael Parrish, Texas Register Coordinator, 239-2548

Attachments

Chapter 309 Preamble and Rule

Chapter 319 Preamble and Rule

Chapter 210 Preamble and Rule

Agreement Letter

cc: Chief Clerk, 5 copies
Executive Director's Office
David C. Schanbacher, P.E.
Daniel Womack
Kevin Patteson
Betsy Bird
Todd Burkey, Office of General Counsel
Sherry Smith
Michael Parrish