

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Commissioners **Date:** July 18, 2008
Thru: LaDonna Castañuela, Chief Clerk
Mark Vickery, Executive Director
From: Dan Eden, Deputy Director
Office of Permitting, Remediation, and Registration
Docket No.: 2007-1883-RUL
Subject: Commission Approval for Rulemaking Adoption
Chapter 217, Design Criteria for Domestic Wastewater Systems
Repeal of Chapter 317 and Proposal of Chapter 217
Rule Project No. 2006-044-217-PR

Scope of the rulemaking:

The rulemaking repeals 30 TAC Chapter 317 and adopts new 30 TAC Chapter 217. Chapter 217 will be divided into subchapters so it will be easier to use and to update.

Reasons for the rule package:

The last major revision of the design criteria was in 1990. Since then, wastewater technologies and engineering practices have advanced beyond the current rules. Staff is updating the design criteria. The new design criteria will give applicants more design options for their wastewater treatment facilities and collection systems.

- **Under what authority are we adopting these changes?** Texas Water Code, §26.034(c) and 40 Code of Federal Regulations, Chapter 503.
- **Is this rulemaking required by federal rule or state statute?** No.
- **Are there any legal deadlines by which these rules must be adopted or effective?** Six-month deadline for adoption is September 15, 2008.
- **What issue(s) or problem(s) are we trying to solve?** Wastewater technologies and engineering practices have advanced beyond the current rules.
- **Why is it important that we do this rule package?** Updating the design criteria would save staff time by having to answer fewer questions, review fewer project plans and specifications (P&S), and grant fewer variances for new technologies. The new design criteria will also give applicants more options for the design of their wastewater treatment facilities and collection systems.
- **Other important background or historical information.** Design criteria for treatment facilities and collection systems were first codified in 1951. Over the past several years, there were several attempts at rulemaking for updated design criteria. None of those efforts resulted in the draft rule being proposed. The current draft rule is a collaborative effort among the agency and over one hundred stakeholders from a diverse group. The regulated community is eager to have updated regulations.

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Statutory authority:

Texas Water Code §26.034(c)
40 Code of Federal Regulations Chapter 503

Potentially controversial matters:

- Increasing the required depth of a clarifier for a new or renovated package plant. This was listed as a controversial issue in the proposal executive summary, but there were no comments received relating to the new required depth of a clarifier.
- Reducing the size of new plants that are required to have multiple basins and clarifiers. This issue was listed as a controversial issue in the proposal executive summary, but there was only one comment that addressed it. That comment did not object to the requirement but wanted it to be effective with later phases of a wastewater treatment facility. Wastewater treatment facilities are often designed to grow in phases with the population they serve. Wastewater permits are often written with different effluent limits and requirements for each planned phase of the facility. Since the ability to perform maintenance and repairs while providing continuity of service is necessary during all phases of a treatment facility, staff declined to recommend changing the requirement.
- Creating design criteria for ultraviolet light disinfection systems. Creating design criteria that are equitable to all different types of UV systems proved difficult. A significant number of comments were received and the subchapter was revised to address the comments. The revised requirements offer more flexibility in the bioassay, design, and operation of UV systems while maintaining the necessary level of disinfection capabilities.

Public Comment:

The proposal was published in the March 14, 2008, issue of the Texas Register (33 TexReg 2126). The commission held a public hearing on this proposal in Austin April 10, 2008 at 10:00 a.m. at the Texas Commission on Environmental Quality Complex located at 12100 Park 35 Circle in Building B, Room 201A. No comments were received at the hearing. The comment period ended April 14, 2008.

The Commission received comments from the City of Garland, Process Engineered Equipment Company, Trojan Technologies, UltraTech Systems, Inc., Water Environment Association of Texas, and seven individuals. The comments received addressed specific technical issues or requested clarification of certain sections of the rule. The greatest number of comments addressed the ultraviolet light disinfection system subchapter.

Significant changes from proposal:

The terms "modify," "substantially modify," "modification," and "substantial modification" were replaced with "materially alter" or "material alteration" because the substituted terms are defined in TWC §26.034(b) and the original terms had not been defined. "Material alteration" is defined as a change to a collection system or treatment facility that changes efficiency of the collection system or treatment facility.

The deadline for submitting wastewater collection system and treatment facility projects where engineering had begun prior to adoption of new Chapter 217 in order to have them reviewed under the Chapter 317 criteria, was changed from "180 days after the effective date of the rule" to March 1, 2009.

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A requirement was added to ensure that all lift stations in a collection system do not start at the same time after a power outage. All lift stations pumping at once can overload the electrical system and inundate the wastewater treatment facility.

A requirement was added to include the dechlorination system in the systems covered by emergency power. Since chlorination systems have always been required to be covered by emergency power supplies, dechlorination was added. Dechlorination was added to prevent fish kills at the request of Texas Parks and Wildlife Department.

The design basis for sludge thickeners was changed from peak flow to the maximum monthly sludge production.

Subchapter L, Ultraviolet Light Disinfection was revised based on comments. The requirement for spare light units was changed to be performance based. Rather than prescribing a minimum number of spare light units, the requirement states that a sufficient supply of spare parts must be maintained to sustain disinfection to permitted limits. The bioassay test requirements for ultraviolet light disinfection systems underwent some extensive editing. The minimum number of bulbs for the bioassay was dropped from 80 to 4, but the maximum scale-up factor remains at 10. This change was based on the National Water Research Institute's bioassay standards. Two added requirements are that all operating conditions used in the UV unit must have been proved effective by the bioassay and that the bioassay must be signed and sealed by a licensed professional engineer.

The warning signs around a wastewater treatment facility now have the added requirement to be in both English and Spanish.

Key points in adoption rulemaking schedule:

- **Anticipated adoption date:** August 6, 2008
- **Six-month Texas Register filing deadline:** September 15, 2008
- **Anticipated Texas Register publication date:** August 22, 2008
- **Anticipated effective date:** August 28, 2008
- **Deadline to request a project be considered under Ch 317 criteria** March 1, 2009

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