

The Texas Commission on Environmental Quality (commission) proposes amendments to §309.3 and §309.4.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED RULES

House Bill (HB) 2651, 79th Legislature, 2005, amended the Texas Water Code (TWC) by adding Chapter 32, Subsurface Area Drip Dispersal Systems.

The commission proposes to amend §309.3 and §309.4 to add effluent limitations for domestic wastewater treatment facilities that supply effluent for disposal through subsurface area drip dispersal systems. Effluent limits are necessary to ensure proper operation of the subsurface area drip dispersal system, prevent pollution, and protect human health. Two effluent limit sets are proposed in this rulemaking. One proposed set is for effluent disposed of through subsurface area drip dispersal systems on land that has the potential for public contact with the soil. The other proposed set is for effluent disposed of through subsurface area drip dispersal systems on land that has no potential for public contact with the soil.

Disinfection of the effluent is proposed to be required only when there is significant public contact with the soil into which the effluent will be applied. Examples of those types of areas are school and park playgrounds and soccer and football fields. These are areas where the public is likely to have significant skin-to-soil contact. Areas that would not require disinfection of the effluent would be areas like greenbelts and golf courses. These areas, although public, are less likely to have significant skin-

to-soil contact. And because of emerging technologies, e.g., ultraviolet light, the applicant will have the option to choose traditional chlorination or disinfection criteria that is performance based, i.e., fecal coliform sampling.

The commission also proposes additional rulemaking to 30 TAC Chapter 30, Occupational Licenses and Registrations; Chapter 55, Requests for Reconsideration and Contested Case Hearings; Public Comment; Chapter 222, Subsurface Area Dispersal System; Chapter 281, Applications Processing; Chapter 305, Consolidated Permits; and Chapter 331, Underground Injection Control, in this issue of the *Texas Register* to implement HB 2651.

SECTION BY SECTION DISCUSSION

The commission proposes administrative changes throughout these sections to be consistent with Texas Register requirements and other agency rules and guidelines and to conform to the drafting standards in the *Texas Legislative Council Drafting Manual*, November 2004.

Section 309.3, Application of Effluent Sets

The proposed amendment to §309.3(f) would add paragraphs (4) - (7) to specify the effluent limitations for domestic wastewater that is disposed of through subsurface area drip dispersal systems. Proposed §309.4(f)(4) - (7) specifies the pH range, disinfection requirements, primary treatment methods, and the requirement to comply with Chapter 309, Subchapters B and C, Location Standards and Land Disposal of Sewage Effluent, respectively.

The proposed amendment to §309.3(g)(4) would specify that disinfection of effluent disposed of through a subsurface area drip dispersal system would be evaluated by fecal coliform sampling. Effluent would be considered disinfected if a grab sample of fecal coliform contained no more than 200 colony forming units (cfu) per 100 milliliters (ml) of water. The 200 cfu/100 ml standard is the standard for contact recreation in surface water. The rationale is that if 200 cfu/100 ml is safe to contact in water, it would be safe to contact in soil. There is a wide variation in the amount of ambient bacteria in the soil. This proposed limitation would prevent the treated effluent from adding an appreciable amount of bacteria to the soil.

Section 309.4, Table 1, Effluent Limitations for Domestic Wastewater Treatment Plants

Proposed §309.4 is amended to correct a numbering error in Table 1 and the references to those numbers throughout the table.

The proposed amendment would add requirements for subsurface area drip dispersal systems to Table 1. The limitations for five-day biochemical oxygen demand and total suspended solids in domestic effluent disposed of through a subsurface area drip dispersal system on land where there is no potential for public contact are the same as the prior limitations for irrigation on land where there is no potential for public exposure. The limitations for five-day biochemical oxygen demand and total suspended solids in domestic effluent disposed of through a subsurface area drip dispersal system on land where there is potential for public contact are the same as the prior limitations for irrigation on land where there is potential for public exposure, with the exception of the added fecal coliform limitation.

The amendment would also add a note following Table 1 to differentiate between “public exposure” and “public contact.” Public exposure is the term associated with irrigation systems. With spray irrigation, as well as other surface irrigation practices, the public would have the potential to be exposed to treated effluent. With subsurface area drip dispersal systems, the public would have the potential to come into contact with the soil that might be wet with treated effluent, so the term “public contact” is proposed.

FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENT

Nina Chamness, Analyst, Strategic Planning and Grants Management Section, determined that for the first five-year period the proposed rules are in effect, no fiscal implications are anticipated for the agency or other units of state or local governments as a result of administration or enforcement of the proposed rules.

HB 2651 amended the TWC by adding Chapter 32. The commission proposes to amend Chapter 309 to clarify that rules for effluent limitations apply to subsurface area drip dispersal systems, as defined by TWC, Chapter 32. Currently, subsurface area drip dispersal systems are subject to the requirements of Chapter 309 because they are considered land application systems. The proposed rulemaking states effluent limitations specifically for subsurface area drip dispersal systems that were previously applied under requirements for land application systems. Owners or operators of subsurface area drip dispersal systems will not experience any fiscal implications as a result of the proposed rulemaking.

As with current requirements for land application systems, the proposed rulemaking will limit effluent dispersal for two effluent limit sets: those with subsurface area drip dispersal systems where there is potential for public contact with soil and those with little or no potential for public contact with soil. The effluent limitations for these sets will be the same as the effluent limits set for irrigation on land with potential for public contact and land without potential for public contact. The proposed rulemaking sets a standard for disinfection in each case, but owners or operators of subsurface area drip dispersal systems are given flexibility in the method of disinfection they choose to use.

PUBLIC BENEFITS AND COSTS

Ms. Chamness also determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated from the changes seen in the proposed rules will be greater clarity in the requirements for subsurface area drip dispersal systems and thus, more efficient administration of commission rules regulating the permitting and operation of subsurface area drip dispersal systems.

Currently, subsurface area drip dispersal systems are subject to the requirements of Chapter 309, and no substantive changes regarding those requirements are part of the proposed rulemaking. The proposed rulemaking explicitly states that the requirements of Chapter 309 will apply to subsurface area drip dispersal systems. Owners or operators of subsurface area drip dispersal systems will not experience any fiscal implications as a result of the proposed rulemaking.

SMALL BUSINESS AND MICRO-BUSINESS ASSESSMENT

No adverse fiscal implications are anticipated for small or micro-businesses that own or operate subsurface area drip dispersal systems. Currently, subsurface area drip dispersal systems are subject to the requirements of Chapter 309, and no substantive changes regarding those requirements are part of the proposed rulemaking. The proposed rulemaking explicitly states that the requirements of Chapter 309 will apply to subsurface area drip dispersal systems.

LOCAL EMPLOYMENT IMPACT STATEMENT

The commission reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rules do not adversely affect a local economy in a material way for the first five years that the proposed rules are in effect.

DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rules do not meet the definition of a “major environmental rule.” Under Texas Government Code, §2001.0225, “major environmental rule” means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure, and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The proposed rules would implement HB 2651, relating to the regulation of subsurface area drip dispersal systems. The specific intent of this rulemaking is to amend Chapter 309 to add effluent limitations for treatment facilities that supply effluent for disposal through

subsurface area drip dispersal systems. Although the intent of the proposed rulemaking is to protect the environment or reduce the risks to human health from environmental exposure, it is not a major environmental rule because it does not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or public health and safety of the state or a sector of the state. Therefore, the proposed rules do not meet the definition of a major environmental rule as defined by the Texas Government Code.

Furthermore, the proposed rulemaking action does not meet any of the four applicable requirements listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225(a) only applies to a major environmental rule adopted by an agency, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

In this case, the proposed rules do not meet any of these applicability requirements. First, the proposed rules are specifically required to implement state law in HB 2651. Second, the proposed rules do not exceed a requirement of state law, because they are consistent with the express requirements of TWC, Chapter 32, and are proposed to implement HB 2651. Third, the proposed rules do not exceed an express requirement of a delegation agreement or contract between the state and

an agency or representative of the federal government to implement a state and federal program.

Fourth, the commission does not propose these rules solely under the general powers of the agency, but rather under the authority of HB 2651, which directs the commission to implement rules under TWC, Chapter 32. These proposed rules do not meet the criteria for a major environmental rule as defined by Texas Government Code, §2001.0225.

The commission invites public comment regarding this draft regulatory impact analysis determination.

TAKING IMPACT ASSESSMENT

The commission evaluated this proposed rulemaking action and performed a preliminary analysis of whether this action would constitute a takings under Texas Government Code, Chapter 2007. The proposed rules add effluent limitations for treatment facilities that supply effluent for disposal through subsurface area drip dispersal systems. The promulgation and enforcement of the proposed rules will not affect private real property in a manner that would require compensation to private real property owners under the United States Constitution or the Texas Constitution. The proposed rules also will not affect private real property in a manner that restricts or limits an owner's right to the property that would otherwise exist in the absence of the governmental action. Consequently, this proposal does not meet the definition of a takings under Texas Government Code, §2007.002(5). Therefore, the proposed rules will not constitute a taking under Texas Government Code, Chapter 2007. The commission invites public comment on this preliminary takings impact assessment.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the proposed rulemaking and found the proposal is a rulemaking identified in the Coastal Coordination Act Implementation Rules, 30 TAC §505.11(b)(4), relating to rules subject to the Texas Coastal Management Program (CMP), and will therefore, require that goals and policies of the CMP be considered during the rulemaking process.

The commission reviewed this action for consistency and determined that the proposed amendments do not impact any CMP goals or policies because there are no substantive changes to the protection of human health and the environment. Subsurface area drip dispersal systems are currently subject to the requirements of this chapter. The only change in the requirements is the method by which the commission measures disinfection. Because technology is offering options beyond traditional chlorination, the requirement to meet disinfection levels is stated as a performance measure rather than a performance method. The number of fecal coliform colony forming units per 100 milliliter of water is a standard method of determining the contamination level, and it was used as the measurement tool for this performance measure. This requirement will result in the same level of protection of human health and the environment as the previous requirement.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed in the SUBMITTAL OF COMMENTS section of this preamble.

ANNOUNCEMENT OF HEARING

A public hearing on this proposal will be held in Austin on March 14, 2006, at 2:00 p.m. at the Texas Commission on Environmental Quality in Building F, Room 2210, located at 12100 Park 35 Circle.

The hearing will be structured for the receipt of oral or written comments by interested persons.

Individuals may present oral statements when called upon in order of registration. There will be no open discussion during the hearing; however, an agency staff member will be available to discuss the proposal 30 minutes prior to the hearing and will answer questions before and after the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Patricia Durón, Office of Legal Services, at (512) 239-6087. Requests should be made as far in advance as possible.

SUBMITTAL OF COMMENTS

Comments may be submitted to Patricia Durón, MC 205, Texas Register Team, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas, 78711-3087, or faxed to (512) 239-4808. All comments should reference Rule Project Number 2005-050-222-PR. Comments must be received no later than 5:00 p.m., March 20, 2006. For further information, please contact Sherry Smith, Water Quality Division, at (512) 239-0571 or Louis C. Herrin, III, P.E., Water Quality Division, at (512) 239-4552.

SUBCHAPTER A: EFFLUENT LIMITATIONS

§309.3, §309.4

STATUTORY AUTHORITY

The amendments are proposed under TWC, §5.013, which establishes the general jurisdiction of the commission over other areas of responsibility as assigned to the commission under the TWC and other laws of the state; §5.102, which establishes the commission's general authority necessary to carry out its jurisdiction; §5.103 and §5.105, which authorize the commission to adopt rules and policies necessary to carry out its responsibilities and duties under TWC, §5.013; §26.011, which provides the commission with the authority to adopt any rules necessary to carry out its powers, duties, and policies and to protect water quality in the state; §26.013, which authorizes the executive director to conduct or have conducted any research and investigations it considers advisable and necessary for the discharge of the duties under this chapter; §27.019, which requires the commission to adopt rules reasonably required for the regulation of injection wells; §32.054, which authorizes the executive director to inspect the dispersion area; and §32.151, which authorizes the commission, authorized agent, or employee of local government the power to enter property. Rulemaking authority is expressly granted to the commission to adopt rules under TWC, Chapter 32, enacted by HB 2651, §2.

The proposed amendments implement HB 2651, which added Chapter 32 to the TWC. HB 2651, §2, expressly requires the commission to adopt rules to set standards and requirements for application

permits and actions by the commission to carry out the responsibilities for management of beneficial reuse of treated wastewater.

§309.3. Application of Effluent Sets.

(a) - (b) (No change.)

(c) Discharges into certain reservoirs. Any discharge made within five miles upstream of a reservoir or lake which is subject to on-site/private sewage facility regulation adopted under Texas Water Code, Chapter 26 [pursuant to Chapter 26 of the Texas Water Code] or Texas Civil Statutes, Article 4477-7e [Article 4477-7e of the Texas Revised Civil Statutes], or which may be used as a source for public drinking water supply shall achieve, at a minimum, Effluent Set 2 in §309.4 of this title (relating to Table 1, Effluent Limitations for Domestic Wastewater Treatment Plants). Five miles shall be measured in stream miles from the normal conservation pool elevation. The commission may grant exceptions to this requirement where it can be demonstrated that the exception would not adversely impact water quality.

(d) (No change.)

(e) Discharge to an evaporation pond. Effluent discharged to evaporation ponds must receive, at a minimum, primary treatment, be within the pH limits of 6.0 - 9.0 standard units, and have a

quality of 100 milligrams per liter five-day biochemical oxygen demand or less on a grab sample. For the purpose of this subsection, primary treatment means solids separation which is typically accomplished by primary clarifiers, Imhoff tanks, facultative lagoons, septic tanks, and other such units.

(f) Land disposal of treated effluent. The commission may authorize land disposal of treated effluent when the applicant demonstrates that the quality of ground or surface waters in the state will not be adversely affected. Each project must be consistent with laws relating to water rights. The primary purpose of such a project must be to dispose of treated effluent and/or to further enhance the quality of effluent prior to discharge.

(1) When irrigation systems ultimately dispose of effluent on land to which the public has access, Effluent Set 4 [6], at a minimum, shall apply. The pH shall be within the limits of 6.0 - 9.0 standard units unless a specific variance is provided in the permit based upon site-specific conditions. When lands to which the public does not have access are to be used for ultimate disposal of effluent, the effluent must, at a minimum, receive primary treatment. Effluent Set 5 [7] shall apply and the pH shall be within the limits of 6.0 - 9.0 standard units unless a specific variance is provided in the permit based upon site-specific conditions. For irrigation systems, primary treatment is the same as described in subsection (e) of this section. Effluent may be used for irrigation only when consistent with Subchapters B and C of this chapter (relating to Location Standards and Land Disposal of Sewage Effluent).

(2) When overland flow systems are utilized for effluent treatment, the public shall not have access to the treatment area. Primary treated effluent meeting Effluent Set 6 [8], within the pH limits of 6.0 - 9.0 standard units may be used consistent with environmental safeguards and protection of ground and surface waters. For overland flow systems, primary treatment is the same as described in subsection (e) of this section. At a minimum, Effluent Set 1 shall apply to discharges from overland flow facilities except where more stringent treatment levels are required to meet water quality standards.

(3) When evapotranspiration beds, low pressure dosing, [drip irrigation,] or similar soil absorption systems are utilized for on-site land disposal, the effluent shall, at a minimum, receive primary treatment and meet Effluent Set 7 [9]. Use of these on-site systems shall be consistent with environmental safeguards and the protection of ground and surface waters. Primary treatment is the same as described in subsection (e) of this section.

(4) When subsurface area drip dispersal systems, or similar soil absorption systems ultimately dispose of effluent on land where there is the significant potential for public contact, as defined in §222.5 of this title (relating to Definitions), Effluent Set 8, at a minimum, shall apply. The pH shall be within the limits of 6.0 - 9.0 standard units unless a specific variance is provided in the permit based upon site-specific conditions.

(5) When subsurface area drip dispersal systems, or similar soil absorption systems ultimately dispose of effluent on land where there is the minimal potential for public contact, as defined in §222.5 of this title, Effluent Set 9, at a minimum, shall apply. The pH shall be within the limits of 6.0 - 9.0 standard units unless a specific variance is provided in the permit based upon site-specific conditions.

(6) Treated effluent may be land applied only when consistent with Subchapters B and C of this chapter. Use of subsurface area drip dispersal systems shall be consistent with environmental safeguards and the protection of ground and surface waters.

(7) For the purpose of this subsection, primary treatment means solids separation which is typically accomplished by primary clarifiers, Imhoff tanks, facultative lagoons, septic tanks, and other such units.

(g) Disinfection.

(1) - (3) (No change.)

(4) Except as provided herein, disinfection of domestic wastewater which is discharged by means of land disposal or evaporation pond shall be reviewed on a case-by-case basis to determine the need for disinfection. All effluent discharged to land to which the public has access must

be disinfected and if the effluent is to be transferred to a holding pond or tank, the effluent shall be rechlorinated to a trace chlorine residual at the point of irrigation application. All effluent discharged to land via a subsurface area drip dispersal system to which there is a potential for public contact shall be disinfected and shall comply with a fecal coliform effluent limitation of 200 colony forming units per 100 milliliters water, per grab sample, with §309.3(g)(1) of this title (relating to Application of Effluent Sets).

(5) (No change.)

(h) (No change.)

§309.4. Table 1, Effluent Limitations for Domestic Wastewater Treatment Plants.

This table contains the sets of effluent criteria for waste discharge permits.

Figure: 30 TAC §309.4

[Figure: 30 TAC §309.4]

| | | | | | | | | | | | | |
|-----------------|---|----|----|----|----|----|----|----|----|-----|----|----|
| <u>5</u> [7] | Irrigation (no public exposure) <u>Subsurface area drip dispersal system (no public contact)</u> | -- | -- | -- | -- | -- | -- | -- | -- | 100 | -- | -- |
| <u>6</u> [8] | Overland flow (applied effluent) | -- | -- | -- | -- | -- | -- | -- | -- | 100 | -- | -- |
| <u>7</u> [9] | Evapotranspiration beds <u>and</u> low pressure dosing [, and drip irrigation] | -- | -- | -- | -- | -- | -- | -- | -- | 100 | -- | -- |

| | | 30-Day Average | | | 7-Day Average | | | Daily Maximum | | | Single Grab | | | |
|--|--|-----------------------|-----|------------------------|-----------------------|-----|--------------------|-----------------------|-----|------------------------|-----------------------|-----|------------------------|---------------|
| | | CBO D ₅ | TSS | NH ₃ - N | CBO D ₅ | TSS | NH ₃ -N | CBO D ₅ | TSS | NH ₃ - N | CBO D ₅ | TSS | NH ₃ - N | DO MI N |

| | | | | | | | | | | | | | | |
|----------|------------------------------|----|----|---|----|----|---|----|----|----|----|----|----|-----|
| Enhanced | | | | | | | | | | | | | | |
| 2N | Secondary with Nitrification | 10 | 15 | 3 | 15 | 25 | 6 | 25 | 40 | 10 | 35 | 60 | 15 | 4.0 |
| 2N1 | Secondary with Nitrification | 10 | 15 | 2 | 15 | 25 | 5 | 25 | 40 | 10 | 35 | 60 | 15 | 4.0 |

Note: * - Public Exposure: The potential for the public to come into direct contact with treated effluent.

** - Public Contact: The potential for the public to come into contact with the soil over a dispersal zone, as defined in 30

TAC §222.5.