

**FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT
TXG530000**

Issuing Office: Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711

Prepared by: Laurie Fleet
Wastewater Permitting Section
Water Quality Division
(512) 239-4671

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Permit Action: Renewal and Amendment of General Permit TXG530000

I. Summary

The Texas Commission on Environmental Quality (TCEQ) is proposing to renew and amend a TPDES General Permit authorizing discharges from on-site wastewater treatment systems serving single family residences located within the San Jacinto River Basin in Harris County in the State of Texas.

II. Executive Director's Recommendation

The Executive Director has made a preliminary decision that this permit, if reissued, meets all statutory and regulatory requirements. It is proposed that the permit be issued to expire five years from the effective date in accordance with the requirements of 30 Texas Administrative Code (TAC) §205.5(a).

III. Permit Applicability

This general permit authorizes discharges from single family on-site sewage facilities (OSSFs) located within the following segments of the San Jacinto River Basin in Harris County: 1001 (San Jacinto River Tidal); 1002 (Lake Houston); 1003 (East Fork San Jacinto River); 1004 (West Fork San Jacinto River); 1005 (Houston Ship Channel/San Jacinto River Tidal); 1006 (Houston Ship Channel Tidal); 1007 (Houston Ship Channel/Buffalo Bayou Tidal); 1008 (Spring Creek); 1009 (Cypress Creek); 1010 (Caney Creek); 1013 (Buffalo Bayou Tidal); and 1014 (Buffalo Bayou above Tidal). The property must have been subdivided, and developed, before January 1, 1979 and the property size must be insufficient to accommodate on-site disposal of a wastewater under Chapter 366 of the Texas Health and Safety Code and 30 TAC Chapter 285. Additionally, the residence must be unable to obtain service from a regional or area wide waste collection/treatment system to be eligible for coverage under this general permit.

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IV. Permit Limitations

1. As proposed, facilities regulated under this general permit are authorized to discharge wastewater that meets the following effluent limitations. Monitoring shall be conducted at the prescribed frequencies when discharge occurs:

Parameter	Daily Average Limitations	Single Grab Limitations	Sample Type	Monitoring Frequency
Carbonaceous Biochemical Oxygen Demand (5-day)	10 mg/L	35 mg/L	Grab	Once per six months
Total Suspended Solids	15 mg/L	60 mg/L	Grab	Once per six months
Ammonia Nitrogen	3 mg/L	15 mg/L	Grab	Once per six months
Bacteria (colonies per 100 ml)				
<i>E. coli</i> (*1)	63 (*2)	197	Grab	Once per six months
Enterococci (*3)	23 (*2)	57	Grab	Once per six months
Dissolved Oxygen	4.0 mg/L	4.0 mg/L	Grab	Once per six months
Chlorine Residual	1.0 – 4.0 mg/L	1.0 – 4.0 mg/L	Grab	Once per six months
pH (Standard Units)	6.0 – 9.0 SU	6.0 – 9.0 SU	Grab	Once per six months

(*1) When discharging into freshwater.

(*2) The daily average is a geometric mean of the values for all effluent samples collected in a 24 month reporting period.

(*3) When discharging into saltwater.

2. The monthly average discharge (flow) of effluent shall not exceed 500 gallons per day (gpd). Flow shall be measured once per six months by estimate.
3. There shall be no discharge of floating solids or visible foam other than in trace amounts, and no discharge of visible oil.

V. Changes from the Existing General Permit

1. Removed effluent limits and definition for fecal bacteria since current regulations require *E. coli* and Enterococci effluent limits.
2. Reduced the *E. coli* and Enterococci daily average and single grab effluent limits to be consistent with approved TMDL I-Plans for segments covered by this general permit.

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3. Added effluent limits for dissolved oxygen and chlorine residual as required by 30 TAC § 311 Subchapter D, *Water Quality Management Within Lake Houston Watershed*.
4. Added a requirement to monitor flow at a frequency of once per six months. These measurements can be used to determine compliance with the effluent flow limit which exists in the current general permit.
5. Revised the sampling and reporting requirements and standard permit conditions to be consistent with 30 TAC § 305.125(9), *Standard Permit Conditions*.
6. Added additional limitations on coverage related to compliance history rating of "unsatisfactory performer." Pursuant to the October 23, 2013 Commissioner's Order on the Livestock Manure Composting General Permit, WQG200000, the draft permit was similarly revised to clarify that an applicant who owns or operates a facility classified as an "unsatisfactory performer" is entitled to a hearing before the commission prior to denial or suspension of authorization.
7. Added a requirement that wastewater samples must be analyzed by a NELAC certified laboratory, according to TWC § 5.134.

VI. Addresses

Questions concerning this draft general permit must be directed to:

Ms. Laurie Fleet
Wastewater Permitting Section (MC-148)
TCEQ
P.O. Box 13087
Austin, TX 78711-3087
(512) 239- 4671

Comments regarding this general permit must be sent to:

Chief Clerk's Office (MC-105)
TCEQ
P.O. Box 13087
Austin, TX 78711-3087

Supplementary information on this Fact Sheet is organized as follows:

- VII. Legal Basis
- VIII. Regulatory Background
- IX. Permit Coverage
- X. Technology-Based Requirements
- XI. Water Quality-based Requirements
- XII. Procedures for Final Decision
- XIII. Administrative Record

VII. Legal Basis

Section 26.121 of the Texas Water Code (TWC) makes it unlawful to discharge pollutants into or adjacent to water in the state except as authorized by a rule, permit, or order issued by the commission. TWC §26.027 authorizes the commission to issue permits and amendments to permits, for the discharge of waste or pollutants into or adjacent to water in the state, and §26.040 provides the Commission with authority to develop and issue general permits.

The TCEQ developed regulations in 30 TAC Chapter 205, which form the basis for development of general permits. Chapter 205 describes when it is permissible to issue a general permit, the procedural requirements for the involvement of the public in the permitting process, how qualified dischargers can obtain authorization under a general permit, the manner in which permit terms are developed, how general permits are amended or renewed, and the fees that are assessed on dischargers authorized under the permit.

VIII. Regulatory Background

TWC §26.0405 requires the commission to adopt a general permit to regulate discharges from on-site wastewater treatment facilities (OSSF) from single family residences that are located in counties with a population greater than 2.8 million and are located on property that was subdivided and developed prior to January 1, 1979. TWC §26.0405 also requires that the property size must be insufficient to accommodate on-site disposal of all wastewater as required by Chapter 366 of the Texas Health and Safety Code and 30 TAC Chapter 285.

IX. Permit Coverage

1. To obtain coverage under this general permit, the discharger must submit a Notice of Intent (NOI) on a form approved by the Executive Director. The NOI shall include, at a minimum, the legal name and address of the owner and operator, the location of the discharge (as described by latitude and longitude), description of the effluent discharge route from the facility for a minimum distance of three miles, and the date the proposed discharge will commence. The discharger shall submit the NOI at least 30 days before discharging into or adjacent to water in the state.
2. The NOI must be submitted to the Executive Director or authorized agent by certified mail, return receipt requested. The applicant must also submit with the NOI, copies of the maintenance agreement and the county deed record for the property. The NOI shall be signed according to 30 TAC § 305.44 (relating to Signatories to Application).
3. The authorized agent or the Executive Director shall either confirm coverage by providing a notification and an authorization number to the applicant or notify the applicant that coverage under this general permit is denied.
4. The Executive Director or authorized may deny a NOI and may require the discharger to apply for and obtain an individual TPDES permit. Denial of an NOI or suspension of a discharger's authorization under this general permit shall also be conducted according to 30 TAC §205.4.

X. Technology-Based Requirements

The limitations and conditions of the general permit have been developed to comply with the technology-based standards of the Clean Water Act. The permit limitations included in the general permit are more stringent than the secondary treatment limits for CBOD₅ (25 mg/L) and suspended solids (ss) (30 mg/L) located in Code of Federal Regulations (CFR) 40, Part 133.102. The pH limitation of within 6.0 to 9.0 standard units is continued from the existing permit and is consistent with 40 CFR Part 133.102(c).

The required wastewater treatment facility design for this permit must meet effluent limits for enhanced secondary treatment levels with nitrification and the treatment must include primary settling, aerobic treatment, addition of chlorine, settling, and discharge to a subsurface rock filter trench. The design requirements are included in Appendix B of the general permit. The effluent limitations for enhanced secondary treatment with nitrification located in 30 TAC Chapter 309, Subchapter A (*Domestic Wastewater Effluent Limitations*) and 30 TAC Chapter 311, Subchapter D (*Water Quality Management Within Lake Houston Watershed*) are included in the draft permit and are as follows:

<u>Parameter</u>	<u>Daily Average</u>	<u>Single Grab</u>
TSS	15 mg/L	60 mg/L
CBOD ₅	10 mg/L	35 mg/L
Ammonia Nitrogen	3 mg/L	15 mg/L
pH	6 – 9 S.U.	6 - 9 S.U.
Chlorine Residual	1.0 – 4.0 mg/L	1.0 – 4.0 mg/L
Dissolved Oxygen	4.0 mg/L	4.0 mg/L

XI. Water Quality-Based Requirements

The Texas Surface Water Quality Standards found at 30 TAC Chapter 307 state that “surface waters will not be toxic to man, or to terrestrial or aquatic life.” The methodology outlined in the “Procedures to Implement the Texas Surface Water Quality Standards” is designed to insure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to insure that no source will be allowed to discharge any wastewater which: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity data bases to determine the adequacy of technology-based permit limits and the need for additional water-quality based controls.

Part I, Section B1, of the general permit does not cover any single-family residences which are able to obtain service from a regional or area wide waste collection/treatment system. Part I, Section B2 states that the Executive Director may deny an application if it is determined that the

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discharge will not maintain existing uses of the receiving waters. Part I, Section B3 states that new sources or new discharges of constituents of concern to impaired waters (Clean Water Act 303(d) listed water bodies) are not authorized by this permit unless otherwise allowable under applicable state and federal law. Part I, Section B4 addresses discharges to impaired water bodies where there is a Total Maximum Daily Load Implementation Plan. Part I, Section B5 prohibits discharges that would adversely affect a listed endangered or threatened species or its critical habitat, and site-specific controls may be required to ensure protection of threatened and endangered species.

Part II, Section A of the general permit establishes limits in accordance with 30 TAC Chapter 311, Subchapter D (*Water Quality Management Within Lake Houston Watershed*), and requires that the effluent be monitored once every six months.

In accordance with 30 TAC § 307.5, and the TCEQ Implementation Procedures (January 2003) for the Texas Surface Water Quality Standards, an antidegradation review of the general permit was performed. It has been preliminarily determined that if permit requirements are properly implemented, no significant degradation is expected and existing uses will be maintained and protected.

A 4.0 mg/L dissolved oxygen (DO) limit is included in the permit as both a Daily Average and as a Single Grab limit. The 10 mg/L CBOD₅, 3 mg/L NH₃-N, and 4 mg/L DO effluent set is commensurate with the minimum requirements of the Houston Ship Channel Waste Load Evaluations (both WLE-1 and WLE-1R).

XII. Procedures for Final Decision

The memorandum of agreement between the EPA and TCEQ provides that EPA has no more than 90 days to comment, object, or make recommendations to the draft general permit before it is published in the *Texas Register*. According to 30 TAC Chapter 205, *General Permits for Waste Discharges*, when the draft general permit is proposed, notice must be published, at a minimum, in at least one newspaper of statewide or regional circulation. The commission may also publish notice in additional newspapers of statewide or regional circulation. Mailed notice must also be provided to the following:

- A. the county judge of the county or counties in which the discharges under the general permit could be located;
- B. if applicable, state and federal agencies for which notice is required in 40 CFR, §124.10(c);
- C. persons on a relevant mailing list kept under 30 TAC, §39.407, relating to Mailing Lists; and
- D. any other person the Executive Director or chief clerk may elect to include.

After notice of the general permit is published in the *Texas Register* and the newspaper, the public will have 30 days to provide public comment on the proposed permit. Any person, agency, or association may make a request for a public meeting on the proposed general permit to the Executive Director of the TCEQ before the end of the public comment period. A public meeting will be granted when the Executive Director or commission determines that a significant degree of public interest in the draft general permit exists. A public meeting is intended for the taking of public comment, and is not a contested case proceeding under the Administrative Procedure Act.

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If the Executive Director calls a public meeting, the commission will give notice of the date, time, and place of the meeting, as required by commission rule. The Executive Director shall prepare a response to all significant public comments on the draft general permit raised during the public comment period. The Executive Director shall make the response available to the public. The general permit will then be filed with the commission to consider final authorization of the permit. The Executive Director's response to public comment shall be made available to the public and filed with the chief clerk at least ten days before the commission acts on the general permit.

XIII Administrative Record

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. 40 CFR

40 CFR § 123.25, 122.41-122.50, and 133.102

B. Texas Water Code

Chapter § 5.134, 26.027, 26.0405, and 26.121

C. TCEQ Regulations

30 TAC Chapters 305, 205, 307, 309, and 311

D. Miscellaneous

Texas Surface Water Quality Standards, 30 TAC § 307.1 - 307.10 (35 TexReg 6294, 7/22/10).

Procedures to Implement the Texas Surface Water Quality Standards, Texas Commission on Environmental Quality, January 2003.

TNRCC Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TNRCC Document No. 98-001.000-OWR-WQ, May 1998.

Existing General Permit: TPDES General Permit No. TXG530000 issued January 30, 2009.

Memo from the TCEQ Water Quality Standards Team dated May 21, 2013.

Memo from the TCEQ Water Quality Assessment Team dated May 21, 2013.