

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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For proposed Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXG670000 to discharge hydrostatic test water into or adjacent to water in the state.

Issuing Office: Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, TX 78711-3087

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Water Quality Division

Date: May 13, 2024

Permit Action: Renewal

### I. Summary

The Texas Commission on Environmental Quality (TCEQ or commission) is proposing to renew a Texas Pollutant Discharge Elimination System (TPDES) general permit authorizing discharges resulting from the hydrostatic testing of vessels (pipelines, tanks, and other containers). The general permit authorizes discharges of hydrostatic test waters from: new vessels; existing vessels that only contained or transferred raw or potable water; existing vessels that previously contained only elemental gases (e.g., hydrogen, oxygen, nitrogen); and existing vessels that previously contained petroleum substances, or natural gas substances or waste related to petroleum substances or natural gas substances.

### II. Executive Director's Recommendation

The Executive Director has made a preliminary decision that this general permit, if issued, meets all statutory and regulatory requirements. It is proposed that the general permit will expire at midnight on April 5, 2030.

### III. Permit Applicability

1. This general permit authorizes the discharge of hydrostatic test water. The general permit specifies which facilities may be authorized under this general permit and those that must be authorized by individual permit or another general permit.
2. The following discharges are not eligible for general permit coverage:
  - a. Discharges prohibited by 30 Texas Administrative Code (TAC) Chapter 311, *Watershed Protection* or 30 TAC Chapter 213, *Edwards Aquifer*.
  - b. Discharges adjacent to water in the state (e.g., land application) from facilities that are regulated by the RRC, including crude oil and natural gas facilities. Discharges from these facilities into water in the state are authorized under this general permit.

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- c. New sources or new discharges of the constituent(s) of concern to impaired waters are not authorized by this general permit unless otherwise allowable under 30 TAC Chapter 305, *Consolidated Permits*, and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed as category 4 or 5 in the current version of the Texas Integrated Report of Surface Water Quality, and waterbodies on the Clean Water Act (CWA), § 303(d) list. Constituents of concern are those for which the water body is listed as impaired.
- d. Discharges of the constituent(s) of concern to impaired water bodies for which there is a total maximum daily load (TMDL) implementation plan are not eligible for this general permit unless they are consistent with the approved TMDL and the implementation plan. The Executive Director may amend this general permit or develop a separate general permit for discharges to these water bodies. For discharges not eligible for coverage under this general permit, the discharger must apply for and receive an individual permit or other applicable general permit prior to discharging.
- e. Discharges that would adversely affect a listed endangered or threatened species or its critical habitat are not authorized by this general permit. Federal requirements related to endangered species apply to all TPDES permitted activities, and site-specific controls may be required to ensure the protection of endangered or threatened species is achieved.
- f. This general permit does not authorize the use of domestic wastewater, reclaimed water, or wastewater generated by other industrial operations (including produced water and gas plant effluent generated from crude oil and natural gas exploration, development, and production operations) for hydrostatic testing and discharge under this general permit.
- g. This general permit does not authorize the discharge of polychlorinated biphenyls compounds (PCBs). Documentation that PCBs are not present in pipelines is required for all pipelines which have been in use for transmission of natural gas. Such documentation shall consist of a certification that either the pipeline has been tested for, and found to be free of PCBs, or that compressors or other equipment that contained PCBs were never used on the pipeline. Applicants seeking to discharge hydrostatic test waters from natural gas pipelines must certify in the NOI that the pipeline has been tested and certified free of PCBs, or compressors and other equipment that contained PCBs were never used on the pipeline.
- h. Discharge of cleaning/rinsing wastewater generated prior to filling a vessel with water for hydrostatic testing; and any materials generated from pigging, utilizing compressed air, pressure washing, or other cleaning technique are not authorized for discharge under this general permit.

3. Facilities that dispose of hydrostatic test water by any of the following practices are not required to obtain coverage under this general permit nor an individual wastewater permit:
- recycling of the hydrostatic test water with no resulting discharge into or adjacent to water in the state, including reuse of the hydrostatic test water in industrial processes, hydraulic fracturing, etc.;
  - pumping and hauling of the hydrostatic test water to an authorized disposal facility;
  - discharge of hydrostatic test water to a publicly owned treatment works (POTW);
  - underground injection of hydrostatic test water in accordance with 30 TAC Chapter 331, *Underground Injection Control*; or
  - discharge of hydrostatic test water to above ground storage tanks with no resulting discharge into or adjacent to water in the state.

#### IV. Permit Effluent Limitations

1. Discharges of hydrostatic test water into water in the state from new vessels, existing vessels that contain or previously contained or transferred raw or potable water, or existing vessels that previously contained only elemental gases are subject to the following effluent limitation if the hydrostatic test water has been hyperchlorinated:

Parameter	Daily Maximum Limitations	Daily Average Limitations	Sample Type	Monitoring Frequency
Total Residual Chlorine	0.10 mg/L	Report	Grab	Two/Discharge <sup>1</sup>

<sup>1</sup> Samples shall be taken during the first hour of discharge. For discharges that extend beyond an hour in duration, a second sample shall be taken of the last 10% of the effluent. Samples must be collected at a point immediately following discharge from the vessel (or following treatment) and prior to commingling with stormwater, wastewater, or other flows.

2. Discharges of hydrostatic test water into water in the state from existing vessels that previously contained petroleum substances, natural gas substances, or waste related to petroleum substances or natural gas substances are subject to the following effluent limitations:

Parameter	Daily Maximum Limitations	Daily Average Limitations	Sample Type	Monitoring Frequency
Total Petroleum Hydrocarbons <sup>1</sup>	15 mg/L	Report	Grab	Two/discharge <sup>2</sup>
Benzene	0.05 mg/L	Report	Grab	Two/discharge <sup>2</sup>

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Parameter	Daily Maximum Limitations	Daily Average Limitations	Sample Type	Monitoring Frequency
Total BTEX <sup>3</sup>	0.50 mg/L	Report	Grab	Two/discharge <sup>2</sup>
Total Lead <sup>4</sup>	0.10 mg/L <sup>5</sup>	Report	Grab	Two/discharge <sup>2</sup>
Total Lead <sup>4</sup>	0.02 mg/L <sup>5</sup>	Report	Grab	Two/discharge <sup>2</sup>
pH	Between a minimum of 6.0 and a maximum of 9.0 Standard Units		Grab	Two/discharge <sup>2</sup>

- <sup>1</sup> Total petroleum hydrocarbons must be analyzed using TCEQ Method 1005.
  - <sup>2</sup> Samples shall be taken during the first hour of discharge. For discharges that extend beyond an hour in duration, a second sample shall be taken of the last 10% of the effluent. Samples must be collected at a point immediately following discharge from the vessel (or following treatment) and prior to commingling with stormwater, wastewater, or any other flows.
  - <sup>3</sup> Total BTEX shall be measured as the sum of benzene, toluene, ethylbenzene, and total xylenes.
  - <sup>4</sup> If the vessel containing the wastewater to be discharged has never contained lead or lead additives, there is no requirement to sample and analyze for total lead.
  - <sup>5</sup> The daily maximum limitation for total lead is 0.02 mg/L for discharges located in the following counties: Anderson, Angelina, Camp, Cass, Cherokee, Collin, Franklin, Gregg, Hardin, Harrison, Henderson, Hopkins, Houston, Hunt, Jasper, Jefferson, Kaufman, Liberty, Marion, Morris, Nacogdoches, Newton, Orange, Panola, Polk, Rains, Rockwall, Rusk, Sabine, San Augustine, Shelby, Smith, Titus, Trinity, Tyler, Upshur, Van Zandt, or Wood. For all other counties in the state, the daily maximum limitation is 0.10 mg/L.
3. Discharges adjacent to water in the state, such as land application, are authorized under state authority in Texas Water Code Chapter 26. Land application of hydrostatic test water shall comply with the following requirements and are not subject to numerical effluent limitations.
    - a. Land application shall not occur when the ground is frozen, the ground has standing water, the ground is saturated, during rainfall events, or within 24 hours of a rainfall event of 0.5 inch or greater during a 24-hour period.
    - b. Land application shall not result in runoff, ponding of effluent, contamination of ground and surface waters, or occurrence of nuisance conditions in the area.
    - c. Hydrostatic test water shall not be land applied within 500 feet of any water well and shall be conducted to minimize the potential of contamination to all public and private wells.
    - d. The permittee shall maintain vegetation in the land application area.

- e. There shall be no land application of hydrostatic test water containing floating solids or visible oil sheen. The hydrostatic test water shall not exhibit foaming of a persistent nature as required by 30 TAC § 307.4(b)(6), *Aesthetic Parameters*.
- f. Solid wastes shall be disposed of following the requirements of the 30 TAC Chapter 330, *Municipal Solid Waste*.
- g. The permittee shall take all steps necessary to prevent any adverse effect to human health or safety, or to the environment. The permittee shall immediately cease land application whenever it is discovered that land application activities may endanger human health or safety, or the environment. The problem shall be reported following the requirements in Part III, Section B.12 of this general permit.

## **V. Changes From Existing General Permit**

- 1. Modify the definition of Land Application to specify, "...that uses the hydrostatic test water to [either condition the soil or fertilize crops or] beneficially irrigate actively growing vegetation...", because the hydrostatic test water authorized for land application under this draft general permit would not contain organic materials or nutrients that would condition soil or fertilize crops.
- 2. Revise Part II, Section A.4 to remove footnote 2. On January 15, 2021, TCEQ received delegation from EPA to regulate discharges of hydrostatic test water into water in the state from crude oil and natural gas exploration, development, and production operations, and the provision is no longer necessary. The subsequent footnote has been renumbered.
- 3. Revise Part II, Section B.6 to specify home-rule municipality as established in 'Texas statute' instead of the specific rule to ensure flexibility to accommodate future rule and citation changes.
- 4. Remove the option for FAX notification under Part III, Section B.9.a for consistency with 30 TAC § 305.125(9), Standard Permit Conditions.
- 5. Update to Part III, Section B.9 and Part III, Section C.7 to reference 30 TAC Chapter 330, Municipal Solid Waste and 30 TAC Chapter 335, Industrial Solid Waste and Municipal Hazardous Waste, in lieu of Texas Health and Safety Code Chapter 361, Solid Waste Disposal.
- 6. Revise Part III, Section C to include new item 4 regarding prohibitions for land application of hydrostatic test water from existing vessels that previously contained petroleum substances or natural gas substances. These prohibitions are necessary because the hydrostatic test water from vessels that previously contained petroleum substances, natural gas substances, or waste related to those substances may contain constituents that could cause groundwater contamination, issues to surface water from excess runoff, or human health concerns, and include the following:
  - a. Land application shall only occur on non-public access land;
  - b. Land application shall not occur on food crops for human consumption;
  - c. Land application shall not occur on fallow land;

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- d. Hydrostatic test water shall not be land applied within 100 feet of any surface water in the state; and
- e. Hydrostatic test water shall not be land applied to soils when groundwater is within 4 feet of the ground surface.

Subsequent requirements have been renumbered.

- 7. Revise Part IV.7.f to clarify reporting and signature requirements for annual tests.
- 8. Revise Part IV.8 to clarify signature requirements for reports.

## **VI. Addresses**

Comments on this draft general permit should be sent to:

Office of the Chief Clerk (MC-105)  
TCEQ  
P.O. Box 13087  
Austin, TX 78711-3087  
(512) 239-3300

Questions concerning this draft general permit should be directed to:

Shannon Gibson  
TCEQ, Water Quality Division  
Wastewater Permitting Section (MC-148)  
P.O. Box 13087  
Austin, TX 78711-3087  
(512) 239-4284

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. Monitoring
- XIII. Procedures for Final Decision
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## **VII. Legal Basis**

Texas Water Code (TWC), § 26.121 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. TWC, § 26.040 provides the Commission with the authority to amend or adopt, as necessary to implement this section, rules adopted under TWC, § 26.040, and to authorize waste discharges by general permit. On September 14, 1998, TCEQ received authority from the EPA to administer the TPDES program. TCEQ and the

EPA signed a Memorandum of Agreement which authorizes the administration of the National Pollutant Discharge Elimination System (NPDES) program to TCEQ as it applies to the State of Texas. TWC § 26.131 transfers permitting authority for discharges into water in the state of certain waste streams (including hydrostatic test water) associated with crude oil and natural gas operations from the RRC to TCEQ upon delegation of NPDES authority for these discharges. On January 15, 2021, TCEQ received authority from EPA to administer these discharges under the TPDES program.

CWA, §§ 301, 304, and 401 (33 United States Code (USC), §§ 1331, 1314, and 1341) include provisions which state that NPDES permits must include effluent limitations requiring authorized discharges to: (1) meet standards reflecting levels of technological capability; (2) comply with EPA-approved state water quality standards; and (3) comply with other state requirements adopted under authority retained by states under CWA, § 510, 33 USC § 1370.

Two types of technology-based effluent limitations must be included in the general permit. With regard to conventional pollutants, i.e., pH, biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and fecal coliform bacteria, CWA, § 301(b)(2)(E) requires effluent limitations based on “best conventional pollutant control technology” (BCT). With regard to nonconventional and toxic pollutants, CWA, § 301(b)(2)(A), (C), and (D) requires effluent limitations based on “best available technology economically achievable” (BAT), a standard that generally represents the best performing existing technology in an industrial category or subcategory. BAT and BCT effluent limitations may never be less stringent than corresponding effluent limitations based on best practicable control technology (BPT), a standard applicable to similar discharges before March 31, 1989 under CWA, § 301(b)(1)(A).

Frequently, EPA adopts nationally applicable guidelines identifying the BPT, BCT, and BAT standards to which specific industrial categories and subcategories are subject. Until such guidelines are published, however, CWA, § 402(a)(1) requires that appropriate BCT and BAT effluent limitations be included in permitting actions based on best professional judgment (BPJ).

## **VIII. Regulatory Background**

The regulation of hydrostatic test water dischargers in Texas under the jurisdiction of TCEQ was initially authorized by rule, 30 TAC Chapter 321, Subchapter G, *Hydrostatic Test Discharges*, with an effective date of May 9, 1989. The permit by rule was replaced by TPDES General Permit TXG670000 in April 2005 and 30 TAC Chapter 321, Subchapter G was repealed in September 2007. The Commission was given authority to issue general permits in place of authorizations by rule through legislation, House Bill (HB) 1542, passed during the 75th legislative session (1997). Further clarification of this general permit authority was provided in subsequent legislation, HB 1283, passed during the 76th legislative session (1999). Prior to the amendments of TWC § 26.131 via House Bill 2771 in the 86<sup>th</sup> Legislative Session, hydrostatic test discharges into or adjacent to water in the state from crude oil and natural gas exploration, development, and production activities were under authority of the RRC. Separate authorization to discharge into waters of the U.S. was required from EPA as the RRC did not have NPDES authority to regulate these discharges. HB 2771 transfers the authority to regulate these discharges to TCEQ upon obtaining NPDES authority from EPA.

## IX. Permit Coverage

The purpose of this general permit is to regulate the discharge of water resulting from the hydrostatic testing of new or used pipelines, tanks, and other vessels used in pipeline transportation, storage, or other containment of certain raw materials or petroleum substances and natural gas substances. Fill water used in hydrostatic testing may be raw water, groundwater, or from public water supplies.

Hydrostatic testing is performed by sealing the vessel or, in the case of pipelines, the segment to be tested, and filling it with water. The pressure is increased to the desired level using a high-pressure pump system. The pressure is usually held for a designated length of time in order to check the integrity of the vessel. Following the test, the pressure is released and the vessel is dewatered. Hydrostatic testing can also be accomplished without pressurizing the vessel. After dewatering, the disinfection of the vessel may be required and hyperchlorinated water is flushed through the supply line or tank. The general permit also authorizes discharges resulting from this flushing for only water supply lines or tanks for disinfection purposes.

To obtain authorization to discharge under the draft general permit, an applicant will need to use the following guidelines.

1. Unless specifically exempted from notification requirements under Part II.C.4. of the general permit, applicants seeking authorization to discharge under authority of this general permit must submit a Notice of Intent (NOI). The NOI shall, at a minimum, include the legal name and address of the owner and operator, the facility name and address, specific description of its location, type of facility or discharges (including materials contained in the vessel being hydrostatically tested), and the name of the receiving waters. Permittees authorized under the previous general permit effective April 5, 2020 and amended on October 21, 2020, are required to submit a new NOI. Permittees shall maintain a copy of the general permit and authorization issued (if applicable) under the general permit at the facility.
2. Submission of an NOI is an acknowledgment that the conditions of this general permit are applicable to the proposed discharge, and that the applicant agrees to comply with the conditions of this general permit. Provisional authorization to discharge under the terms and conditions of this general permit begins immediately after TCEQ confirms receipt of an electronic NOI, and 48 hours after a paper NOI is postmarked for delivery to TCEQ. Following review of the NOI, the Executive Director shall either coverage by providing an authorization number to the applicant or notify the applicant that coverage under this general permit is denied. Applicants seeking authorization to discharge to a municipal separate storm sewer system (MS4) must provide a copy of the NOI, or electronic equivalent, to the operator of the system at the same time an NOI is submitted to TCEQ.
3. For discharges located in areas regulated by 30 TAC Chapter 213, *Edwards Aquifer*, this authorization to discharge is separate from the requirements of the applicant's responsibilities under that rule. Discharge may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that chapter are met. For discharges located on or within ten stream miles



upstream of the Edwards Aquifer recharge zone, applicants must also submit a copy of the NOI to the appropriate TCEQ regional office.

Counties: Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, and Williamson  
Contact: TCEQ Edwards Aquifer Protection Program Manager  
Austin Regional Office  
P.O. Box 13087  
Austin, TX 78711-3087  
(512) 339-2929

4. Authorization under this general permit is not transferable. If either the owner or operator of the regulated entity changes, then both the present owner and operator must submit a Notice of Termination (NOT) and the new owner and operator must submit an NOI. The NOT and NOI must be submitted no later than 10 days before the change. Permittees discharging to a MS4 must submit a copy of the NOT, or electronic equivalent, to the operator of the system at the same time the NOT is submitted to TCEQ.
5. If the owner or operator becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in an NOI, the correct information must be provided to the Executive Director in a Notice of Change (NOC) within 14 days after discovery. If relevant information provided in the NOI changes (for example, phone number, address, outfall information, type of facility or discharges, or the receiving waters) an NOC must be submitted within 14 days of the change. Permittees discharging to a MS4 must submit a copy of any NOC, or electronic equivalent, to the operator of the system at the same time the NOC is submitted to TCEQ.

## **X. Technology-Based Requirements**

The limitations and conditions of the draft general permit have been developed to comply with the technology-based standards of the CWA. There are currently no nationally applicable guidelines identifying the BPT, BCT, or BAT standards for discharges authorized by this general permit, therefore, the technology-based effluent limitations are based on BPJ. The parameters selected for BCT/BAT limits are the primary pollutants of concern for discharges authorized in the draft general permit and are provided for discharges under two categories: 1) discharges from new vessels or used vessels that contain raw or potable water or elemental gases and 2) vessels that previously contained petroleum substances or natural gas substances, or waste related to petroleum substances or natural gas substances.

The first category of discharges has a very low potential to contain pollutants, however, some hydrostatic tests could include the hyperchlorination of the vessel for disinfection purposes. In these instances, the general permit contains a requirement that the discharge must be dechlorinated to less than 0.1 mg/L total residual chlorine prior to discharge.

The second category of discharges, vessels that previously contained petroleum substances or natural gas substances, or waste related to petroleum substances or natural gas substances, are required to analyze the following parameters which were selected for BCT/BAT limitations:

Parameter	Daily Maximum mg/L	Daily Average mg/L
Total Petroleum Hydrocarbons	15	Report
Benzene	0.05	Report
Total BTEX <sup>1</sup>	0.5	Report
pH	Between 6.0 and 9.0 Standard Units	

<sup>1</sup> Sum of benzene, toluene, ethyl benzene, and total xylene.

These effluent limitations are economically achievable and were established in the existing general permit. Crude oil is the feedstock to petroleum refineries which manufacture gasoline, diesel fuel, jet fuel, and other products, thus the pollutants that are expected to be present in hydrostatic tests of crude oil vessels would also be expected in products refined from crude oil which is currently authorized by the existing hydrostatic general permit. Discharges from hydrostatic testing of natural gas vessels to a significantly lesser extent have the potential to contain pollutants proposed for regulation in the draft general permit, where methane constitutes the vast majority of hydrocarbons in natural gas transported and stored in natural gas vessels. No requirements for dechlorination are included in the general permit for this category of discharges, as the use of chlorine disinfection in such vessels is not a standard practice.

## **XI. Water Quality-Based Requirements**

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 TPDES 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.

In accordance with 30 TAC §307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (TSWQS) (2010), an antidegradation review of this TPDES general permit was performed in order to ensure that no significant degradation of any water in the state will occur and that existing uses will be maintained and protected.

The 2022 TSWQS specify instream criteria for benzene of 0.005 mg/L for public drinking water sources, 0.581 mg/L to protect freshwater fisheries, and 0.0708 mg/L to protect saltwater fisheries. The existing benzene general permit limit of 0.05 mg/L is expected to meet water quality standards, including standards for drinking water sources, when typical dilutions are assumed near the point of discharge (human health mixing zone of 8% effluent, i.e., >12:1 rapid dilution, using the horizontal jet plume model for discharges less than 10 MGD). The existing BTEX general permit limit of 0.5 mg/L remains protective of all BTEX constituents except for benzene which is addressed with a separate general permit limit. The criteria for each constituent which comprises total BTEX, expressed as mg/L, are as follows:

**All values are in mg/L.**

Chemical	Water and Fish Consumption	Freshwater Aquatic Life Chronic	Freshwater Fisheries Sustainable	Saltwater Aquatic Life Chronic	Saltwater Fisheries Sustainable
Benzene	0.005 ††	0.530 #	0.581 †	0.510 #	0.0708 †
Ethylbenzene	0.700 ††	1.090 §	7.143 †	0.249 §	29 ¶
Toluene	1.000 ††	1.450 §	28.952 ¶	0.475 §	19.301 ¶
Xylene	10.000 ††	1.340 §	No Human Health data	0.850 §	No Human Health data

† 30 TAC § 307.6(d)(1), Table 2.

§ Derived by TCEQ staff from available data, in accordance with procedures in the TSWQS, 30 TAC §§307.6(c)(7) and 307.6(d)(8).

# Calculated using an acute-to-chronic ratio of 10.

¶ Derived from EPA, National Recommended Water Quality Criteria: 2002, EPA-822-R-02-047, November 2002; in accordance with procedures in the TSWQS, 30 TAC § 307.6(d)(8).

†† MCL.

The 2022 TSWQS were used to calculate aquatic life criteria for dissolved lead which were converted to total lead using procedures described in the Procedures to Implement the TSWQS and dissolved lead concentrations for Segment No. 0513 found in Textox (Texas Toxicity Modeling Program):

Freshwater aquatic-life protection (using the 15<sup>th</sup> percentile value of 44 mg/L hardness and 2 mg/L TSS for all water of the state):

Acute: 0.0635 mg/L  
Chronic: 0.0033 mg/L

Saltwater aquatic-life protection (using a TSS of 10 mg/L):

Acute: 0.349 mg/L  
Chronic: 0.014 mg/L

The Trinity-San Jacinto Coastal and San Jacinto River Basins water basins contain segments which are below the statewide 15<sup>th</sup> percentile values for hardness.

Freshwater aquatic-life protection (using the 15<sup>th</sup> percentile value of 21 mg/L hardness and 3 mg/L TSS for the softest segment, Segment No. 1011):

Acute: 0.030 mg/L  
Chronic: 0.002 mg/L

Based on these calculations, a continuance of the 0.1 mg/L total lead limit is recommended. This limitation only applies to vessels being hydrostatically tested that

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contained lead or lead additives, such as leaded gasoline. The effluent limit for total lead of 0.1 mg/L provides protection for acute toxicity in situations where little or no dilution occurs, and provides reasonable protection for chronic criteria from intermittent, low-volume discharges.

However, a total lead limit of 0.1 mg/L may not be stringent enough to protect aquatic life in every water basin of the state. The Cypress, Sabine, and Neches water basins contain segments which are below the statewide 15<sup>th</sup> percentile values for hardness. The continuance of the 0.02 mg/L total lead limit for those basins is also recommended based on the following calculations:

Freshwater aquatic-life protection (using the 15<sup>th</sup> percentile value of 12 mg/L hardness for the softest segment, Segment No. 0513):

Acute: 0.015 mg/L  
Chronic: 0.001 mg/L

Human-health criteria are also protected by a total lead limit of 0.1 mg/L for discharges which are not large or continuous, since substantial rapid dilution (>12:1) is expected for any discharges into waterbodies which are large enough to constitute a public drinking water supply or a sustainable fishery.

Human-health criteria (using a TSS of 2 mg/L for freshwater and 10 mg/L for saltwater):

Drinking water source: 0.004 mg/L  
Freshwater fishery: 0.147 mg/L  
Saltwater fishery: 0.010 mg/L

The following water quality-based permit limitations are included in the draft general permit:

Parameter	Daily Maximum mg/L	Daily Average mg/L
Total Lead <sup>1</sup>	0.10	Report
Total Lead <sup>1</sup>	0.02	Report

<sup>1</sup> The daily maximum limitation for total lead is 0.02 mg/L for discharges located in the following counties: Anderson, Angelina, Camp, Cass, Cherokee, Collin, Franklin, Gregg, Hardin, Harrison, Henderson, Hopkins, Houston, Hunt, Jasper, Jefferson, Kaufman, Liberty, Marion, Morris, Nacogdoches, Newton, Orange, Panola, Polk, Rains, Rockwall, Rusk, Sabine, San Augustine, Shelby, Smith, Titus, Trinity, Tyler, Upshur, Van Zandt, or Wood. For all other counties in the state, the daily maximum limitation is 0.10 mg/L.

Part II, Section B.2(a) and (b) of the general permit addresses discharges prohibited by the Watershed Protection and Edwards Aquifer and Contributing Zone rules. Part II, Section B.5 of the general permit states that the Executive Director may require an

application for an individual permit to authorize a discharge from any activity that will not maintain existing uses of the receiving waters. Part II, Section B.7 of the general permit disallows new sources or new dischargers of constituents of concern to impaired waters (303(d) listed water bodies) unless otherwise allowable under 30 TAC Chapter 305. Part II, Section B.8 of the general permit states that the Executive Director may require an applicant to apply for an individual TPDES permit based on conditions of an approved TMDL and TMDL implementation plan. Part II, Section B.9 of the general permit prohibits discharges that would adversely affect a listed endangered or threatened species or its critical habitat.

The TSWQS also require that discharges shall not be acutely toxic to aquatic life, as determined by requiring greater than 50% survival in 100% effluent using a 24-hour acute toxicity test. This requirement, however, is typically only required for continuously flowing discharges or discharges with the potential to exert toxicity in the receiving stream, according to the state's implementation procedures.

The discharges authorized under TPDES General Permit TXG670000 are not typically continuous flowing discharges and the limitations for pollutants of concern in the permit should preclude toxicity instream. The concentrations (LC 50) of these pollutants that exhibit 50% mortality are less protective than the effluent limitations in the general permit. The EPA's document, Quality Criteria for Water 1986 (EPA 440/5-86-001), also called the "Goldbook," lists the aquatic life criterion for Benzene as 5.3 mg/L which is less protective than the 0.05 mg/L limit in the draft general permit. Toxicity data compiled by the Standards Implementation Team shows LC 50s for sensitive freshwater species as 28.5 mg/L for Toluene, 21.8 mg/L for Ethylbenzene, and 13.4 mg/L for Xylenes. The LC 50s for marine species are 9.5 mg/L for Toluene, 5.0 mg/L for Ethylbenzene, and 8.5 mg/L for Xylenes. Therefore, the limits in the draft general permit of 0.05 mg/L for Benzene, and 0.50 mg/L for BTEX should preclude toxicity instream. Furthermore, introduction of chemicals (with the exception of chlorine and tracer dyes) to the vessel being hydrostatically tested is prohibited in the general permit.

Additionally, TCEQ has determined not to include WET testing and total residual chlorine limitations in the draft general permit based on the following rationale.

EPA approved the amendment with renewal of the Hydrostatic Test General Permit (TXG670000) without WET testing and chlorine residual limitations in correspondence dated September 3, 2019 which was approved by the commission and issued on March 10, 2020. Discharges from crude oil and natural gas vessels are similar in nature to those authorized in the existing general permit: either new vessels or vessels that previously contained refined petroleum products (e.g. gasoline, jet fuel, etc.).

WET testing:

- TCEQ performed a nation-wide search of all 50 states and identified 31 states with EPA-approved NPDES Hydrostatic Test General Permits in effect. None of the 31 general permits reviewed required any type of WET requirements.
- A review of EPA Region 6 individual hydrostatic test oil and gas NPDES permits indicated WET testing is a permit condition when chemicals are utilized in hydrostatic test operations. The proposed amendments to the general permit include a requirement prohibiting introduction of chemicals into a vessel being hydrostatically tested, with the exception of chlorine and tracer dyes.

- WET conditions in these EPA issued individual permits are for WET testing only (some permits require 24-hour acute and others further require 7-day chronic WET testing), not WET limitations. Hydrostatic tests from oil and gas operations are extremely intermittent in nature and in many cases are one-time only discharges that will not be repeated in the future. The WET language in EPA's individual permits require increased frequency of testing requirements upon a test failure and the requirement to conduct a toxicity reduction evaluation (TRE) upon failure of subsequent WET tests. The TRE would require additional WET testing, testing for individual toxics, etc. with conditions that would require a WET limit, chemical specific limit, or other control at the conclusion of the TRE. For this type of industry and discharges that in most cases are one-time discharges or future discharges will not occur for a significant time in the future, this type of WET testing is not appropriate as effluent would not be available for increased testing and conducting a TRE.
- TCEQ's EPA approved *Procedures to Implement the Texas Surface Water Quality Standards* apply WET requirements to certain continuous discharges that have the potential to cause instream toxicity. Highly intermittent hydrostatic test discharges do not meet this criteria.
- EPA Region 6 previously authorized hydrostatic test discharges from oil and gas operations under TXG260000 (Offshore Territorial Seas), TXG330000 (Onshore Stripper Wells and Coastal), and GMG290000 (Outer Continental Shelf) under the category of "Miscellaneous Discharges". These general permits only applied a limitation of no free oil and did not require WET testing or chlorine limitations. The fact sheet for GMG290000 dated September 18, 2017, includes the following language: "The EPA, in 2012, determined that toxicity tests are not required for miscellaneous discharges treated by bromide, chlorine, or hypochlorite. But, use of bromide, chlorine, or hypochlorite are still required to be in compliance with the technology-based quantity limits". EPA did not establish any technology-based chlorine limitations in any of these general permits for miscellaneous discharges (which includes hydrostatic test discharges). The only waste stream in EPA's general permits which contain chlorine limitations is for the discharge of sanitary waste which only includes a minimum chlorine concentration be achieved (to control bacteria) and sets no limitations for daily average or daily maximum to be discharged.

Total Residual Chlorine:

- A review of EPA Region 6 individual hydrostatic test oil and gas NPDES permits include total residual chlorine limitations when potable water is the source water utilized in hydrostatic test operations. TCEQ's experience in permitting intermittent and short-term discharges to surface waters (such as those from hydrostatic tests using potable water) indicates chlorine dissipates rapidly upon entering and mixing with surface waters. EPA Publication "EPA-738-F-99-001" titled "Prevention, Pesticides, And Toxic Substances" contains the following statement: "When treated effluent is released into receiving waters, free residual chlorine dissipates rapidly (it has a half-life of 1.3 to 5 hours)". Furthermore, Part III, Section B.1 of the general permit requires discharges be to a splash pad, a paved area, or other alternative surface which would result in further rapid decrease of free residual chlorine to the atmosphere prior to entering surface waters in the state.

- TCEQ has authorized hydrostatic test discharges for 20 years under this general permit and has not identified instream water quality effects from these intermittent and short-term discharges.
- TCEQ has not adopted numerical criteria for chlorine in the EPA approved Texas Surface Water Quality Standards (TSWQS).

In accordance with 30 TAC § 307.5, effective as state rule September 29, 2022, and the TCEQ implementation procedures (June 2010) for the TSWQS, it has been preliminarily determined that if the current general permit requirements are properly implemented, no significant degradation is expected, and existing uses will be maintained and protected.

## **XII. Monitoring and Reporting**

Monitoring is required by 40 CFR § 122.44(i) for each pollutant limited in a permit to ensure compliance with the permit limits. The draft general permit has the following criteria established for monitoring.

1. Samples shall be collected, and measurements shall be taken at times and in a manner so as to be representative of the monitored discharge.
2. All samples shall be collected according to the latest edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, the American Water Works Association, and the Water Environment Federation), or the EPA's, "Methods for Chemical Analysis of Water and Wastes" (1979), or the EPA's, "Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents" (1973).
3. Sample containers, holding times, and preservation methods shall either follow the requirements specified in 40 CFR Part 136 or the latest edition of "Standard Methods for the Examination of Water and Wastewater."
4. The permittee shall ensure that properly trained and authorized personnel monitor and sample the discharge.
5. The sampling point must be downstream of any treatment unit or treatment technique that is used to improve or otherwise alter the quality of the discharge; and prior to the hydrostatic test water commingling with any other wastewater, stormwater, or other flows.
6. Analytical results for determining compliance with effluent limitations shall be recorded on a Discharge Monitoring Report (DMR) (EPA No. 3320-1). The DMR must be signed in accordance with the requirements in Part IV.8 of the general permit and be maintained as required.
7. Records of monitoring activities shall include:
  - a. date, time, and place of sample or measurement;
  - b. identity of individual who collected the sample or made the measurement;
  - c. date and time of laboratory analysis;
  - d. identity of the individual and laboratory who performed the analysis;

- e. the technique or method of analysis;
  - f. the results of the analysis or measurement; and
  - g. quality assurance / quality control records.
8. If the permittee monitors any pollutant in a discharge more frequently than required by the general permit using approved analytical methods as specified in Part IV.7 of the general permit, all results of such monitoring shall be included in the calculation and recording of the values on the DMR. Increased frequency of sampling shall be indicated on the DMR.
  9. If the analytical results indicate a violation of one or more of the permitted effluent limitations, the permittee shall submit a DMR to TCEQ's Enforcement Division (MC-224) by the 20th day of the month following the discharge. Any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC-224) within five working days of becoming aware of the noncompliance. For effluent limitation violations, non-compliances shall be reported using the NetDMR reporting system available through the TCEQ website or an approved DMR form (EPA No. 3320-1) to TCEQ's Enforcement Division (MC-224) if the permittee has obtained an electronic reporting waiver.

### **XIII. Procedures for Final Decision**

The memorandum of agreement between the EPA and TCEQ provides that the 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 shall 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 shall also be provided to the following:

- the county judge of the county or counties in which the discharges under the general permit could be located;
- if applicable, state and federal agencies for which notice is required in 40 CFR § 124.10(c);
- persons on a relevant mailing list kept under 30 TAC § 39.407, relating to Mailing Lists; and
- 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(s), the public will have 30 days to provide public comment on the draft general permit.

Any person, agency, or association may make a request for a public meeting on the draft general permit to the Executive Director of TCEQ before the end of the public comment period. A public meeting will be granted when the Executive Director or Commission determines, on the basis of requests, 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 Texas Administrative Procedure Act.

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 general 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.

#### **XIV. Administrative Record**

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

1. TPDES Permits  
TPDES General Permit for Discharges of Hydrostatic Test Waters (TXG670000) effective October 21, 2020
2. 40 CFR Citations  
40 CFR Parts 122, 124, 136
3. TCEQ Rules  
30 TAC Chapters 39, 205, 213, 281, 305, 307, 319, 331, and 335
4. Letters/Memoranda/Records of Communication  
TXG670000 Antidegradation Review, Interoffice Memorandum from the Standards Implementation Team (P. Shaefer) dated April 17, 2024  
TXG670000 Groundwater Review, Interoffice Memorandum from the Water Quality Assessments Team (A. Hoh) dated March 25, 2024
5. Miscellaneous  
EPA, National Recommended Water Quality Criteria: 2002, EPA-822-R-02-047, November 2002  
EPA, Quality Criteria for Water 1986 (EPA 440/5-86-001)  
TCEQ, *Implementation Procedures of the Texas Surface Water Quality Standards*, January 2010  
EPA Oil and Gas NPDES General Permits: TXG260000, TXG330000, GMG290000.