

# **NPDES PERMIT NO. TX0134005**

## **FACT SHEET**

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

### **APPLICANT**

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### **ISSUING OFFICE**

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### **PREPARED BY**

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### **DATE PREPARED**

June 4, 2014

### **PERMIT ACTION**

This is a first time issuance

### **RECEIVING WATER – BASIN**

San Jacinto River – San Jacinto River Basin (Segment No. 1001)

**DOCUMENT ABBREVIATIONS**

In the document that follows, various abbreviations are used. They are as follows:

BAT	Best Available Technology Economically Achievable
BOD <sub>5</sub>	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F&WS	United States Fish and Wildlife Service
GPD	Gallon per day
IP	Procedures to Implement the Texas Surface Water Quality Standards
µg/l	Micrograms per liter (one part per billion)
mg/l	Milligrams per liter (one part per million)
MMCFD	Million cubic feet per day
MGD	Million gallons per day
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
RRC	Railroad Commission of Texas
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDS	Total dissolved solids
TMDL	Total maximum daily load
TOC	Total Organic Carbon
TRC	Total residual chlorine
TSS	Total suspended solids
TSWQS	Texas Surface Water Quality Standards
WET	Whole effluent toxicity
WQMP	Water Quality Management Plan
WQS	Water Quality Standards

**I. CHANGES FROM THE PREVIOUS PERMIT**

Not applicable since this is a new permit issuance.

**II. APPLICANT LOCATION and ACTIVITY**

As described in the application, the facility is located in Highlands, TX 77562; counties of Harris and Chambers. It crosses San Jacinto River at a coordination of latitude 29° 51' 9" and longitude -95° 4' 19". Three possible discharge outfalls are located in Harris County.

Under the SIC code 4613, the applicant operates an underground pipeline (30-inch diameter, 25-mile length) transporting propane gas. The proposed pipeline will provide transportation services for utilities, marketers, producers, industrial end users and other shippers. This project is for discharges of hydrostatic test water at three possible locations, one is at San Jacinto River (Outfall 001) and the others are at two sand and gravel pits (Outfalls 002 & 003) located approximately 1/6 to 1/2 mile east of the river. The receiving water through the outfalls is San Jacinto River Tidal, Segment No. 1001 of the San Jacinto River Basin. No additives or chemicals will be used in conjunction with hydrostatic testing. The discharge of hydrostatic test waters will be the only contribution to the outfalls. Test water will be obtained from these outfalls. The hydrostatic test water will be discharged through a dewatering structure (haybales and filtersock) to reduce the concentration of silt and sediment in the discharges. A total discharge is estimated 5.8 million gallons of source waters with a rate of 3,500 gallons/minute. The discharge is expected to begin on December 15, 2014 and to complete by end of 2015. Once the testing is complete, no further testing or discharge will occur. Attached is a submitted vicinity map.

Outfall coordinates:

Outfall 001: Latitude 29° 51' 9"; Longitude -95° 5' 19"

Outfall 002: Latitude 29° 51' 7"; Longitude -95° 5' 11"

Outfall 003: Latitude 29° 51' 9.7"; Longitude -95° 4' 58.7"

**III. EFFLUENT CHARACTERISTICS**

Source water samples has been tested for the outfalls. Submitted application in form 2E shows as follow:

	<b>Outfall 001</b>	<b>Outfalls 002 &amp; 003</b>
<i>Parameter</i>	<i>Max. Daily Value (mg/l)</i>	<i>Max. Daily Value (mg/l)</i>
BOD	2	2
TSS	10.3	8.4
Oil & Grease	5	5
Ammonia (as N)	0.1	0.1
Discharge Flow	5.8 MG	Same flow passing Outfall 001
pH range	6.0 – 9.0 s.u.	6.0 – 9.0 s.u.
Temperature, winter (C)	15	15
Temperature, summer (C)	21	22

**IV. REGULATORY AUTHORITY/PERMIT ACTION**

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water”; more commonly known as the “swimmable, fishable” goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered the NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

The application was dated April 24, 2014 and May 14, 2014. It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR §122.46(a).

## **V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS**

### **A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS**

Regulations contained in 40 CFR §122.44 require that NPDES permit limits be developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit.

Technology-based effluent limitations are established in the proposed draft permit for O&G and TSS. Water quality-based effluent limitations are established in the proposed draft permit for pH.

### **B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS**

#### **1. General Comments**

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ pursuant to 40 CFR 125.3(c)(2). EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

**BPT** - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

**BCT** - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

**BAT** - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

2. Effluent Limitation

The proposed limitations for O&G and TSS concentrations are established in the permit draft. Concentration limits will be protective of the stream uses. These limitations are based on the BPJ of the permit writer and are consistent with hydrostatic test of newly constructed pipeline. Since these are technology-based there is no compliance schedule provided to meet these limits. Compliance is required on the permit effective date.

Regulations at 40 CFR §122.45(f)(1) require all pollutants limited in permits to have limits expressed in terms of mass such as pounds per day if feasible. However, the discharge is not continuous; therefore, mass limit is not applicable.

A summary of the technology-based limits for the facility:

Effluent Characteristic	Discharge Limitation			
	lbs/day, unless noted		mg/l, unless noted	
Parameter	Monthly Avg	Daily Max	Monthly Avg	Daily Max
O&G	N/A	N/A	10	15
TSS	N/A	N/A	30	45

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

2. Implementation

The NPDES permits contain technology-based effluent limitations 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 NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. State Water Quality Standards

The Clean Water Act in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR 122.44(d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant. If the discharge poses the reasonable potential to cause an in-stream violation of narrative standards, the permit must contain prohibitions to protect that standard. Additionally, the TWQS found at 30 TAC Chapter 307 states that

"surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life." The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards" (IP) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure 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.

The IP document is not a state water quality standard, but rather, a non-binding, non-regulatory guidance document. See IP at page 2 stating that "this is a guidance document and should not be interpreted as a replacement to the rules. The TWQS may be found in 30 TAC Sections (§§) 307.1-10."). EPA does not consider the IP to be a new or revised water quality standard and has never approved it as such. EPA did comment on and conditionally "approve" the IP as part of the Continuing Planning Process (CPP) required under 40 CFR §130.5(c) and the Memorandum of Agreement between TCEQ and EPA, but this does not constitute approval of the IP as a water quality standard under CWA section 303(c). Therefore, EPA is not bound by the IP in establishing limits in this permit – but rather, must ensure that the limits are consistent with the EPA-approved state WQS. However, EPA has made an effort, where we believe the IP procedures are consistent with all applicable State and Federal regulations, to use those procedures.

The general criteria and numerical criteria which make up the stream standards are provided in the 2000 EPA-approved Texas Water Quality Standards, Texas Administrative Code (TAC), 30 TAC Sections 307.1 - 307.10, effective August 17, 2000. The designated uses of the receiving water (Segment 1001) are primary contact recreation and high aquatic life use.

#### 4. Reasonable Potential- Procedures

EPA develops draft permits to comply with State WQS, and for consistency, attempts to follow the IP where appropriate. However, EPA is bound by the State's WQS, not State guidance, including the IP, in determining permit decisions. EPA performs its own technical and legal review for permit issuance, to assure compliance with all applicable State and Federal requirements, including State WQS, and makes its determination based on that review.

Waste load allocations (WLA's) are calculated using estimated effluent dilutions, criteria outlined in the TWQS, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentrations that can be discharged and still meet instream criteria after mixing with the receiving stream. From the WLA, a long term average (LTA) is calculated, for both chronic and acute toxicity, using a log normal probability distribution, a given coefficient of variation (0.6), and either a 90th or a 99th percentile confidence level. The 90th percentile confidence level is for discharges to rivers, freshwater streams and narrow tidal rivers with upstream flow data. The 99th percentile confidence level is for discharges to lakes, reservoirs, bays, estuaries, wide tidal rivers, and narrow tidal rivers without upstream flow data. For facilities that discharge into receiving streams that have human health standards, a separate LTA will be calculated. The implementation procedures for determining the human health LTA use a 99th percentile confidence level, along with a given coefficient of variation (0.6). The smaller LTA value between acute and chronic condition is used to calculate the daily average (DLY AVG) and daily maximum (DLY MAX) concentration limits as follow:

DLY AVG = 1.47 LTA and DLY MAX = 3.11 LTA

Procedures found in the IP for determining significant potential are to compare the reported analytical data either from the DMR history and/or the application information, against percentages of the calculated daily average water quality-based effluent limitation. If the average of the effluent data equals or exceeds 70% but is less than 85% of the calculated daily average limit, monitoring for the toxic pollutant will usually be included as a condition in the permit. If the average of the effluent data is equal to or greater than 85% of the calculated daily average limit, the permit will generally contain effluent limits for the toxic pollutant. The permit may specify a compliance period to achieve this limit if necessary.

Procedures found in the IP require review of the immediate receiving stream and effected downstream receiving waters. Discharges within three miles of perennial water or perennial pools with significant aquatic life uses are designed to protect against chronic toxicity and to protect human health in those waters.

#### 5. Permit-Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). State WQS that are more stringent than effluent limitation guidelines are as follows:

##### a. pH

Criteria for pH is between 6.5 and 9.0 s.u. for the water segment pursuant to 30 TAC 307.10.

##### b. Aesthetic parameters

Narrative criteria is surface waters must be essentially free of floating debris, visible foam and maintained in an aesthetically attractive condition so that oil, grease, or related residue will not produce a visible film or globules of grease on the surface or coat the banks or bottoms of the watercourse; or cause toxicity to man, aquatic life, or terrestrial life pursuant to 30 TAC 307.4(b).

##### c. TRC

This is a hydrostatic testing of a pipeline with no chemicals, including chlorine utilized. Test water will be obtained from the outfalls, at the river and sand and gravel pits. EPA believes monitoring TRC is not necessary.

##### d. Toxics

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criteria, the permit must contain an effluent limit for that pollutant.

In the same manner as for TRC above, toxic pollutants will not concern for this specific new discharger.

#### D. MONITORING FREQUENCY FOR PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). The monitoring frequencies are based on BPJ, taking into account the nature of the facility, the previous permit, and past compliance history. Grab sample type is appropriate for non-continuous discharges.

Parameter	Frequency*
Flow	1/event
pH	1/event
O&G	1/event
TSS	1/event

\* When discharge occurs.

#### E. WHOLE EFFLUENT TOXICITY

No additives or chemicals will be used in conjunction with hydrostatic testing. The discharge of hydrostatic test waters obtained from the river and the pits will be the only contribution to the outfall. EPA believe the WET testing is not necessary and consistent with the IP.

#### VI. TMDL REQUIREMENTS

The receiving stream, water segment 1001, is listed in 2012 Texas 303(d) List, which EPA approved on May 9, 2013. Pollutants listed are dioxin and PBCs in edible tissue with Category 5a defined as TMDLs are underway, scheduled, or will be scheduled for one or more parameters. TMDLs are not complete yet. No chemical or additives will be used in the hydrostatic testing; EPA believes monitoring of these pollutants is not necessary. No additional requirements beyond the already proposed technology-based and/or water-quality based requirements are needed in the proposed permit. The permit has a standard reopener clause that would allow the permit to be changed if at a later date additional requirements on new or revised TMDLs are completed.

#### VII. ANTIDegradation

The Texas Commission on Environmental Quality, Texas Surface Water Quality Standards, Antidegradation, Title 30, Part 1, Chapter 307, Rule §307.5 sets forth the requirements to protect designated uses through implementation of the State WQS. The limitations and monitoring requirements set forth in the proposed permit are developed from the State WQS and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water. There are no increases of pollutants being discharged to the receiving waters authorized in the proposed permit.

#### IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements and exemption to meet Antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR Part 122.44(i)(B), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless information is available which was not available at the time of permit issuance.

#### VIII. ENDANGERED SPECIES CONSIDERATIONS



According to the most recent listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, [http://www.fws.gov/southwest/es/ES\\_Lists\\_Main.cfm](http://www.fws.gov/southwest/es/ES_Lists_Main.cfm), there are two endangered species: Texas prairie dawn-flower and West Indian Manatee for Harris County as of June 2, 2014. The flower was not located at the within the project area surveyed between February and April 2014 according to a permittee's letter to COE dated May 22, 2014. Based on "Florida Manatee Recovery Plan, Third Revision" approved October 30, 2001, the largest known cause of death for the manatee is collisions with the hulls and/or propellers of boats and ships. There is no adequate evidence that the discharge causes effects on the specie and its habitat. The proposed pipeline will be tested with source water that is the same within San Jacinto River.

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. After review, EPA has determined the issuance of this permit will have "no effect" on listed endangered species nor will adversely modify designated critical habitat.

#### **IX. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS**

The issuance of the permit should have no impact on historical and/or archeological sites since the hydrostatic test water will be discharged to the same locations, where source waters are obtained within San Jacinto River and sand and gravel pits.

#### **X. PERMIT REOPENER**

The permit may be reopened and modified during the life of the permit if relevant portions of Texas WQS are revised or remanded. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the WQS are either revised or promulgated. Should the State adopt a new WQS, and/or develop a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standard and/or water quality management plan, in accordance with 40 CFR §122.44(d). Modification of the permit is subject to the provisions of 40 CFR §124.5.

#### **XI. VARIANCE REQUESTS**

None

#### **XII. CERTIFICATION**

This permit is in the process of certification by the State agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

#### **XIII. FINAL DETERMINATION**

The public notice describes the procedures for the formulation of final determinations.

#### **XIV. ADMINISTRATIVE RECORD**

The following information was used to develop the proposed permit:

A. APPLICATION

NPDES Application for Permit to Discharge, Form 1 & 2E dated on April 24 and May 14, 2014

B. State of Texas References

2012 Texas Integrated Report - Texas 303(d) List

Texas Surface Water Quality Standards, 30 TAC Sections 307.1 - 307.10, effective June 30, 2010

C. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

D. MISCELLANEOUS

NPDES Permit Writers' Manual, September 2010