

NPDES PERMIT NO. TX0134077
STATEMENT OF BASIS

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

APPLICANT:

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DATE PREPARED:

March 20, 2019

PERMIT ACTION

It is proposed that the facility be issued an NPDES permit for a 5-year term in accordance with regulations contained in 40 Code of Federal Regulations (CFR) 122.46(a).

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of March 14, 2019

RECEIVING WATER – BASIN

Discharges from Outfall 001 flow into drainage ditch, to two unnamed tributaries, to Clark's Creek, to Lavaca River above Tidal, Waterbody Segment Code No. 1602 of the Lavaca River Basin.

DOCUMENT ABBREVIATIONS

For brevity, Region 6 used acronyms and abbreviated terminology in this Statement of Basis document whenever possible. The following acronyms were used frequently in this document:

BAT	Best Available Technology Economically Achievable)
BOD ₅	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)
Menu 2	Intermittent water body within three miles of a perennial freshwater
Menu 7	Intermittent water body with perennial pools
MGD	Million gallons per day
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SQL	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. PROPOSED CHANGES FROM PREVIOUS PERMIT

This is a first time permit.

II. APPLICANT LOCATION and ACTIVITY

Under the SIC Code 4612, the applicant operates a natural gas pipeline.

As described in the application, the facility is located at 3721 US 77 ALT, Yoakum, Lavaca County, Texas (southwest corner of the intersection of US 77 and CR 394, Yoakum, Lavaca County, Texas)

Wastewater discharges from the facility are as follows:

Discharges from Outfall 001 consists of reverse osmosis reject water and non-process stormwater. Outfall 001 flows into drainage ditch, to two unnamed tributaries, to Clark's Creek, to Lavaca River above Tidal, Waterbody Segment Code No. 1602 of the Lavaca River Basin.

Discharges are located on that water at:

Outfall 001: Latitude 29° 20' 24"N; Longitude 97° 6' 35"W

III. PROCESS AND DISCHARGE DESCRIPTION

The plant receives raw natural gas from wells located in the Eagle Ford Shale via a pipeline. The raw natural gas is processed through a liquid separation process, then one of the three cryogenic-cryogenic trains cleans impurities and various non-methane hydrocarbons and fluids out of the gas to produce pipeline quality natural gas and natural gas liquids.

The gas process in plant processes about 1 billion cubic feet per day of raw natural gas. Maintenance activities are limited to the processing plant components and any fluids generated are stored in a slop tank prior to offsite disposal. A reverses osmosis unit will treat well water from an on-site well to provide up to 20,000 gallons per day clean water for process use and the same volume of RO reject that will be discharged to a drainage ditch where it will comingle with non-contact stormwater prior to being discharged through Outfall 001. Discharges flow down a drainage ditch to two unnamed tributaries to Clark's Creek.

Table 1: Discharge Characteristics

The sampling results obtained from the supplemental permit application via mail dated February 21, 2019, are summarized below:

Outfall 001 –0.01728 MGD – Reverse Osmosis Reject Water & Stormwater

Parameter	Max. Daily Value (mg/l)	Average Daily Value (mg/l)
Discharge Flow, MGD	.03	0.01728

COD	49.0	49.0
BOD	2.0	2.0
TSS	3.0	3.0
Oil & Grease	<5.0	<5.0
pH range, s.u	7.51	7.51
TOC	1.0	1.0
Ammonia (as N)	.07	.07
Sulfate	74.0	74.0
Phosphorous, Total	.33	.33
Arsenic	0.0102	0.0102
Barium	0.351	0.351
Lead	.00545	.00545
Iron	.426	.426
Magnesium	29.6	29.6
Manganese	.014	.014
Copper	0.00288	0.00288
Zinc	0.0752	0.0752
Chloride	287	287
TDS	1220	1220

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 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.

It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR 122.46(a). This is a first-time permit issuance. An NPDES Application for a Permit to Discharge (Form 1 & 2E) was received on February 21, 2019. The application as deemed administratively complete on February 28, 2019.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITION FOR PERMIT ISSUANCE

Regulations contained in 40 CFR §122.44 NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, on best professional judgment (BPJ) in the absence of guidelines, and/or requirements pursuant to 40 CFR 122.44(d), whichever are more stringent. Water quality-based effluent limitations are established in the proposed draft permit for pH.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

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 procedures. 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.

The facility discharges reverse osmosis reject water and does not use any water treatment chemicals. As a result, BOD5 and/or COD limits are not included in the proposed permit.

The narrative limitation for Oil & Grease is established in the proposed permit based on the TCEQ narrative standard to limit Oil & Grease.

Stormwater has been identified by the permittee as a component of the discharge through Outfall No. 001. Stormwater pollution prevention requirements are established in the proposed permit. It is proposed that the facility conduct an annual inspection of the facility to identify areas contributing to the storm water discharge and identify potential sources of pollution which may affect the quality of storm water discharges from the facility.

The proposed permit requires the permittee to develop a site map. The site map shall include all areas where storm water may contact potential pollutants or substances which can cause pollution. It is also proposed that all spilled product and other spilled wastes be immediately cleaned up and properly disposed. The permit prohibits the use of any detergents, surfactants or

other chemicals from being used to clean up spilled product. Additionally, the permit requires all waste fuel, lubricants, coolants, solvents or other fluids used in the repair or maintenance of vehicles or equipment be recycled or contained for proper disposal. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. The permittee shall amend the SWP3 whenever there is a change in the facility or change in operation of the facility.

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 2014 EPA-approved Texas Water Quality Standards, Texas Administrative Code (TAC), 30 TAC Sections 307.1 - 307.9, effective September 23, 2014.

The designated uses of Lavaca River Above Tidal, Segment 1602 are primary contact recreation, high aquatic life and public water supply.

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, and the 99th percentile confidence level is for the remainder of cases. 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 lowest of the calculated LTA; acute, chronic and/or human health, is used to calculate the daily average and daily maximum permit limits. 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. Further, if the discharge reaches a perennial stream or an intermittent stream with perennial pools within three-miles, chronic toxicity criteria apply at that confluence.

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

Wastewater discharges from Outfall 001 flows into Lavaca River Above Tidal (Segment No. 1602), which has Texas WQS of 6.5 – 9.0 s.u., pH shall be limited to 6.5 – 9.0 s.u, the criteria listed for Segment 1602.

b. Narrative Limitations

Narrative protection for aesthetic standards will propose that surface waters shall be maintained 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.

The following narrative limitations in the proposed permit represent protection of water quality for all Outfalls:

“The effluent shall contain no visible film of oil or globules of grease on the surface or coat the banks or bottoms of the watercourse.”

c. 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 criterion, the permit must contain an effluent limit for that pollutant.

The 7Q2 critical low flow for the receiving stream is 5.8 cfs, while the harmonic mean is 1.5 cfs. Discharge to an intermittent WB (Clarks Creek) that does not enter any perennial WB within 3 miles

Acute criteria apply at 100%. This is an intermittent water body that does not enter any perennial WB within 3 miles. TCEQ's TEXTOX Menu 1 is appropriate for evaluating the discharge.

Discharges from Outfall 001 consist of reverse osmosis reject water. In addition, Table D-16 of the IP, segment specific values for pH, TSS, total hardness, TDS, chloride, and sulfate values were used in Menu 1 to calculate reasonable potential. For Segment 1602, specific values for pH, TSS, total hardness, and chloride are 7.7, 6.0 mg/L, 177 mg/L as CaCO₃, and 68 mg/L respectively.

7Q2 for Segment No.160, based on the implementation procedures, is 16 cfs, while harmonic mean is 1.4 cfs. Water quality screening performed for Outfall 001 shows that none of the pollutants shows reasonable potential to exceed Texas Water Quality Standards. (See attached spreadsheet).

Since the facility obtains its water from a well, TRC limits are not proposed in discharges through Outfalls 001.

$$C_{TDS} = (C_c * 2500 \text{ mg/L}) / 500 \text{ mg/L}$$

where: C_{TDS} = TDS concentration (mg/L) used to determine the TDS screening value C_c
 C_c = TDS criterion (mg/L) at the first downstream Segment = 700 mg/L

$$C_{TDS} = (700 / 500 \text{ mg/L}) * 2,500 \text{ mg/L} = 3,500 \text{ mg/L}$$

According to page 186 of the IP, if C_{TDS} is less than or equal to 2,500 mg/L, then 2,500 mg/L is used as the screening value. Since C_{TDS} is $\leq 6,000$ mg/L, but $> 2,500$ mg/L then $C_{SV} = C_{TDS} = 3,500$ mg/L, where C_{SV} is the TDS screening value. Since the effluent concentration (1,220 mg/L) from Outfall 001 is less than the TDS screening value (3,500 mg/L), TDS limitations and monitoring requirements. However TDS monitoring will be required to further assess the effluents TDS values and adequately protect the receiving water.

TDS screening guidelines for intermittent streams are intended to protect livestock, wildlife, shoreline vegetation, and aquatic life during periods when the stream is flowing; the screening is also intended to preclude excessive TDS loading in watersheds that could eventually impact distant downstream perennial waters.

Similarly, Sulfate and chloride concentrations were also screened using equation 1b found on page 177 of the IP as shown below:

$$Cl \text{ or } SO_4 C_{SV} = (TDS C_{SV} / TDS \text{ Criterion}) * Cl \text{ or } SO_4 \text{ Criterion}$$

$$C_{SO_4} C_{SV} = (3,500 / 700) * 100 \text{ mg/L} = 500 \text{ mg/L};$$

$$C_{Cl} C_{SV} = (3,500 / 700 \text{ mg/L}) * 200 \text{ mg/L} = 1,000 \text{ mg/L}$$

The effluent concentrations for Outfall 001, $SO_4 = 74.0$ mg/L and $Cl = 287$ mg/L are both less than their screening value of 500 mg/L and 1,000 mg/L respectively. As a result, the proposed permit does not established limitation and monitoring requirements for SO_4 and Cl .

Solids and Foam

The prohibition of the discharge of floating solids or visible foam in other than trace amounts is continued in the proposed permit. In addition, there shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

D. MONITORING FREQUENCY FOR LIMITED 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.

For Outfall 001, flow shall be recorded continuously, when discharging. The permittee shall monitor for pH and TDS at all the Outfalls, once per month, using grab samples.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

Biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. There are no chemical specific limitations in the draft permit, the facility does not use any water treatment chemicals, Biomonitoring of the effluent is not required.

F. FINAL EFFLUENT LIMITATIONS

See the draft permit for limitations.

VI. FACILITY OPERATIONAL PRACTICES

A. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

B. OPERATION AND REPORTING

The permittee must submit Discharge Monitoring Report's (DMR's) quarterly, beginning on the effective date of the permit, lasting through the expiration date of the permit or termination of the permit, to report on all limitations and monitoring requirements in the permit.

Electronic Reporting Rule

Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at <https://netdmr.epa.gov>. Until approved for Net DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain the waiver, please contact: U.S. EPA - Region 6, Water Enforcement Branch, Texas State Coordinator (6EN-WC), (214) 665-8582. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required

by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to RRC as required (See Part III.D.IV of the permit). Reports shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

Sufficiently Sensitive Analytical Methods (SSM)

The permittee must use sufficiently sensitive EPA-approved analytical methods (SSM) (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most SSM with the lowest method detection limit (MDL) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). If no analytical laboratory is able to perform a test satisfying the SSM in the region, the most SSM with the lowest MDL must be used after adequate demonstrations by the permittee and EPA approval.

VII. IMPAIRED WATER - 303(d) LIST AND TMDL

According to the 2014 State of Texas 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs), the receiving stream for Outfall 001, the confluence of Lavaca River Above Tidal, Texas Segment 1602, is listed as impaired for bacteria. There is currently no TMDL.

Because of the type of discharge, the facility is not likely to contribute to the instream bacteria impairment. In addition, the facility does not plan to discharge bacteria. If the waterbody is listed at a later date for additional pollutants, and a total maximum discharge loading determined for the segment, the standard reopener clause would allow the permit to be revised and additional pollutants and/or limits added. No additional requirements beyond the already proposed technology-based and/or water quality-based requirements are needed in the proposed permit.

VIII. 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.

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.

X. ENDANGERED SPECIES

The effects of EPA's permitting action are considered in the context of the environmental baseline. The environmental baseline is established by the past and present impacts of all Federal, State, or private actions and other human activities in an action area; the anticipated impacts of all proposed Federal projects in an action area that have already undergone formal or early ESA §7 consultation; and the impact of State or private actions that are contemporaneous with the consultation in process (50 CFR §402.02). No construction activities are planned, therefore the scope of the evaluation of the effects of the discharge authorized by this permit is limited to the effects related to the authorized discharge. According to the US Fish and Wildlife Service (USFWS), According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website <http://ecos.fws.gov/ipac/wizard/chooseLocation!prepare.action>, five species are listed as threatened or endangered in Panola County. The endangered or threatened species are Least Tern (E), Piping Plover(T), Whooping Crane(E), Houston Toad(E) and Red Knot(T).

LEAST TERN (*Sterna Antillarum*)

The Least tern populations have declined due to habitat destruction by permanent inundation, destruction by reservoir releases, channelization projects, alterations of Natural River or lake dynamics resulting in vegetational succession of potential nesting sites, and recreational use of potential nesting sites. Issuance of this permit is found to have no impact on the habitat of this species, as none of the aforementioned listed activities is authorized by this permitting action.

PIPING PLOVER (*Charadrius melodus*)

A small plover has wings approximately 117 mm; tail 51 mm; weight 46-64 g (average 55 g); length averages about 17-18 cm. Inland birds have more complete breast band than Atlantic coast birds. The nonbreeding plovers lose the dark bands. In Laguna Madre, Texas, non-breeding home ranges were larger in winter than in fall or spring. The breeding season begins when the adults reach the breeding grounds in mid- to late-April or in mid-May in northern parts of the range. The adult males arrive earliest, select beach habitats, and defend established territories against other males. When adult females arrive at the breeding grounds several weeks later, the males conduct elaborate courtship rituals including aerial displays of circles and figure eights, whistling song, posturing with spread tail and wings, and rapid drumming of feet. The plovers defend territory during breeding season and at some winter sites. Nesting territory may or may not contain the foraging area. Home range during the breeding season generally is confined to the vicinity of the nest. Plovers are usually found in sandy beaches, especially where scattered grass tufts are present, and sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments.

Food consists of worms, fly larvae, beetles, crustaceans, mollusks, and other invertebrates. The plovers prefer open shoreline areas, and vegetated beaches are avoided. It also eats various small invertebrates. It obtains food from surface of substrate, or occasionally probes into sand or mud. Strong threats related primarily to human activity; disturbance by humans, predation, and development pressure are pervasive threats along the Atlantic coast. EPA has determined that the re-issuance of the permit will have "no effect" on the piping plover.

WHOOPING CRANE (*Grus Americana*)

The tallest bird in North America, the Whooping Crane breeds in the wetlands of Wood Buffalo National Park in northern Canada and spends the winter on the Texas coast at Arkansas National Wildlife Refuge near Rockport. Cranes live in family groups made up of the parents and 1 or 2 offspring. In the spring, Whooping Cranes perform courtship displays (loud calling, wing flapping, and leaps in the air) as they get ready to migrate to their breeding grounds. Whooping Cranes are endangered because much of their wetland habitat has been drained for farmland and pasture. Whooping Cranes are nearly 5 feet tall. They eat Blue crabs, clams, frogs, minnows, rodents, small birds, and berries. They are found in large wetland areas. EPA has determined that the re-issuance of the permit will have “no effect” on the whooping crane.

HOUSTON TOAD (*Bufo houstonensis*)

The Houston toad is 2 to 3.5 inches long. The Houston toad lives primarily on land. The toads burrow into the sand for protection from cold weather in the winter (hibernation) and hot, dry conditions in the summer (aestivation). Plants that are often present in Houston toad habitat include loblolly pine, post oak, bluejack or sandjack oak, yaupon, and little bluestem. For breeding, including egg and tadpole development, Houston toads also require still or slow-flowing bodies of water that persist for at least 30 days. The toads do best in ponds without predatory fish. The Houston toad requires loose, deep sands supporting woodland savannah and still or flowing waters for breeding.

Habitat loss and alteration are the most serious threats facing the Houston Toad. Alteration of ephemeral and permanent natural wetlands for urban and agricultural uses eliminates breeding sites. Draining a wetland, or converting an ephemeral wetland to a permanent pond, can eventually cause the Houston toad to decline or be eliminated entirely. Conversion to permanent water not only makes them more vulnerable to predation by snakes, fish, and other predators; but also increases competition and hybridization with closely related species. Periodic drought is also a threat. Drought may result in the loss or reduction of breeding sites as well as enhanced mortality of toadlets and adults. Extensive clearing of native vegetation near breeding ponds and on the uplands adjacent to these ponds reduces the quality of breeding, foraging, and resting habitat, and increases the chances of predation and hybridization. There is no specific information on the effects of various chemicals on the Houston Toad, but it is known that amphibians in general are very sensitive to many pollutants, including pesticides and other organic compounds. Issuance of this permit is found to have no impact on the habitat of this species, as none of the aforementioned listed activities is authorized by this permitting action.

RED KNOT (*Calidris canutus*)

Red Knot is a medium-sized shorebird and the largest of the "peeps" in North America, and one of the most colorful. It makes one of the longest yearly migrations of any bird, traveling 15,000 km (9,300 mile) from its Arctic breeding grounds to Tierra del Fuego in southern South America.

Their diet varies according to season; arthropods and larvae are the preferred food items at the breeding grounds, while various hard-shelled molluscs are consumed at other feeding sites at other times. The Red Knot nests on the ground, near water, and usually inland. The [nest](#) is a

shallow scrape lined with leaves, lichens and moss. Males construct three to five nest scrapes in their territories prior to the arrival of the females. The female lays three or more usually four eggs, apparently laid over the course of six days. Both parents incubate the eggs, sharing the duties equally. The incubation period last around 22 days.

The birds have become threatened as a result of commercial harvesting of horseshoe crabs in the Delaware Bay which began in the early 1990s. Delaware Bay is a critical stopover point during spring migration; the birds refuel by eating the eggs laid by these crabs (with little else to eat in the Delaware Bay). EPA has determined that the re-issuance of the permit will have “no effect” on the red knot.

The Environmental Protection Agency has evaluated the potential effects of issuance of this permit upon listed endangered or threatened species. After review, EPA has determined that the issuance of this permit will have “*no effect*” on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

No pollutants are identified by the permittee-submitted application at levels which might affect species habitat or prey species. Issuance of this permit is found to have no impact on the habitats of these species.

Based on the information described above, EPA Region 6 has determined that discharges proposed to be authorized by the proposed permit will have no effect on the listed species in Lavaca County.

The standard reopener clause in the permit will allow EPA to reopen the permit and impose additional limitations if it is determined that changes in species or knowledge of the discharge would require different permit conditions.

XI. HISTORICAL AND ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The issuance of the permit should have no impact on historical and/or archeological preservation as no construction activities are planned.

XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of the 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.

XIII. VARIANCE REQUESTS

No variance requests have been received.

XIV. COMPLIANCE HISTORY

This proposed permit is a first-time permit issuance.

XV. CERTIFICATION

This permit is in the process of certification by the Railroad Commission of Texas 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.

XVI. FINAL DETERMINATION

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

XVII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION

NPDES Application for Permit to Discharge, Form 1 and Form 2E was received on February 21, 2019 and was deemed administratively complete on February 28, 2019. Additional permit application information (Form 2E) was received March 30, 2019 and February 28, 2019.

B. State of Texas References

The State of Texas Water Quality Inventory, 13th Edition, Publication No. SFR-50, Texas Commission on Environmental Quality, December 1996.

"Procedures to Implement the Texas Surface Water Quality Standards via Permitting," Texas Commission on Environmental Quality, June 2010.

Texas Surface Water Quality Standards, 30 TAC Sections 307.1 - 307.9, effective September 23, 2014.

C. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

D. MISCELLANEOUS CORRESPONDENCE

Email from Mr Deodat Bhagwandin, Senior Environmental Engineer, Enterprise Products LLC, to Nichole Young, EPA, received February 28, 2019 and March 20, 2019 on additional facility information.

Letter from Dorothy Brown, EPA, to Mr. Kurt Rich, dated February 28, 2019 informing applicant that its NPDES application received on August 25, 2014 is administratively complete.

Email from Quang Nguyen, EPA, to Nichole Young, EPA, dated March 19, 2019, on critical conditions information.

<http://ecos.fws.gov/ipac/wizard/chooseLocation!prepare.action>