

STATEMENT OF BASIS

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

APPLICANT:

Energy Transfer Company, Texas Processing Inc.
Jackson Gas Plant
800 E. Sonterra Blvd, Suite 400
San Antonio, TX 78258

ISSUING OFFICE:

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY:

Maria E. Okpala
Environmental Engineer
NPDES Permits Branch (6WQ-PP)
Water Quality Protection Division
Voice: 214-665-3152
Fax: 214-665-2191
Email: okpala.maria@epa.gov

DATE PREPARED:

May 5, 2015

PERMIT ACTION

It is proposed that the facility be reissued 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 May 1, 2015.

RECEIVING WATER – BASIN

Discharges from Outfall 001 flow into unnamed ditch located along County Road 260, to unnamed tributary, to Sandy Creek in waterbody Segment No. 1604C, which is an unclassified waterbody. Discharges from Outfall 002 flow into unnamed ditch from an unnamed tributary, 1.3 miles upstream from Sandy Creek in Waterbody Segment Code No. 1604C, an unclassified waterbody.

Discharges from Outfall 003 is to an intermittent water body with perennial pools. It discharges directly into a roadside ditch which empties into an unnamed tributary and then Devers Creek in Waterbody Segment Code No. 1604, Lake Texana.

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
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. PROPOSED CHANGES FROM PREVIOUS PERMIT

1. Permitted process wastewater discharge is changed to non-process wastewater (i.e. reverse osmosis reject water).
2. An additional Outfall 003 which conveys stormwater only from the pipeline equipment has been established.

II. APPLICANT LOCATION and ACTIVITY

Under the SIC Code 1321, the applicant operates a natural gas processing facility.

As described in the application, the facility is located at 676 County Road 260 (Galow Rd), Ganado, Jackson County, Texas.

Wastewater discharges from the facility are as follows:

Discharges from Outfall 001 consist of flow from a stormwater retention pond that will collect water from stormwater (from Trains 1-5) and other areas near the Outfall and reverse osmosis reject water which flow into unnamed ditch located along County Road 260, to unnamed tributary, 1.3 miles upstream from Sandy Creek, in Waterbody Segment Code No.1604C, which is an unclassified waterbody.

Discharges are located on that water at:

Outfall 001: Latitude 29° 6' 26"N; Longitude 96° 32' 31"W

The storm events will be intermittent, but the reverse osmosis system will run continuously. The facility anticipates that the volume of water from the reverse osmosis system will typically evaporate prior to exceeding the provided volume in the retention pond; therefore, the discharge of the reverse osmosis water will be intermittent and occur prior to comingling with the stormwater events.

Discharges from Outfall 002 consist of stormwater from the area around the office, warehouse and electrical substation, which flow into unnamed ditch to unnamed tributary, 1.3 miles upstream from Sandy Creek in Waterbody Segment Code No. 1604C, an unclassified waterbody.

Discharges are located on that water at:

Outfall 002: Latitude 29° 6' 26.67"N; Longitude 96° 32' 24.43"W

Discharges from Outfall 003 consist of stormwater only from the pipeline equipment, which flow into an intermittent water body with perennial pools. It discharges directly into a roadside ditch which empties into an unnamed tributary and then Devers Creek in Waterbody Segment Code No. 1604, Lake Texana of the Lavaca River Basin.

The facility anticipates that the volume of water from the reverse osmosis system will typically evaporate prior to exceeding the provided volume in the retention pond; therefore, the discharge of the reverse osmosis water will be intermittent and occur prior to coinciding with the stormwater events.

Discharges are located on that water at:

Outfall 003: Latitude 29° 6' 27.10"N; Longitude 96° 31' 58.59"W

III. PERMIT ACTION

EPA proposes to revoke and reissue the NPDES permit for the current permit issued on April 17, 2014, with an effective date of April 18, 2014, and an expiration date of April 17, 2019.

This permit reissuance is prepared in response to Jackson Gas Plant's letter dated August 22, 2014, requesting modification of the current permit. Based on a conversation with EPA Permit writer, both the Region and the facility agreed that a revoke and reissue would be preferable to a modification. The facility later submitted a letter dated October 6, 2014, requesting a revoke and reissue of the current permit. The federal regulation at 40 CFR 124.5(c) requires that, if a permit is to be revoked and reissued, the permittee must submit a new application. EPA received a new application from Jackson Gas Plant on October 8, 2014, and supplemental application information via email on October 29, 2014, and December 5, 2014.

IV. PROCESS AND DISCHARGE DESCRIPTION

The facility includes associated natural gas compression equipment, a slug catcher, separators, condensate stabilization unit, condensate unloading and NGL (Natural Gas Liquid) loading area, amine units, dehydration units, cryogenic units, condensate storage tanks, heaters, associated piping and a flare. The facility receives rich gas via pipeline which passes through the facilities slug catcher, DEA amine system for hydrogen sulfide and carbon dioxide removal, triethylene glycol (TEG) system to remove moisture, and then through the cryogenic process to separate natural gas from the NGL product. The natural gas is compressed and delivered to three offsite customer pipelines. The NGL product is compressed and put into the Justice Pipeline.

Water to the facility is provided by two onsite water wells. Groundwater is obtained from the Gulf Coast aquifer. The water is treated in the reverse osmosis unit and is used to blend with the amine during the treating process. The RO reject flows to the stormwater retention pond located on the plant property. Sanitary wastes are treated via an on-site sewage system. There is one aerobic system and a lateral line associated with the office. The sanitary wastes are not discharged, but treated via an on-site sewage system.

Table 1: Discharge Characteristics

The sampling results obtained from the supplemental permit application via email dated December 5, 2014, are summarized below:

Outfall 001 -0.179 MGD – Reverse Osmosis Reject Water

Parameter	Max. Daily Value (mg/l)	Average Daily Value (mg/l)
Discharge Flow, MGD	13.262	0.179
BOD	5	<2
COD	<20	<20
TSS	235	129.67
Oil & Grease	<5	<5
pH range, s.u	7.84 min –8.17 max	7.98

Parameter	Max. Daily Value (mg/l)	Average Daily Value (mg/l)
TDS	540	462.67
Chlorides	47	33.33
Sulfate	341	293.33
Total Kjeldahl Nitrogen	3	2
Nitrate Nitrogen	5.7	2.71
Phosphorous	0.1	<0.1
Benzene, Total	0	<0.01
Arsenic	0.00245	0
Barium	0.0897	0.0525
Cadmium	0	<0.001
Chromium	0	<0.002
Lead	0.0009	0
Mercury	0	0
Selenium	0	0
Silver	0	0

Stormwater discharges from Outfall 002 is estimated to be 0.024 MGD average flow, with a maximum flow of 1.816 MGD. The average flow from Outfall 003 which also comprises of stormwater discharges is estimated to be 0.009 MGD, with a maximum flow of 0.697 MGD.

Outfall 002 –0.024 MGD – Stormwater

Parameter	Max. Daily Value (mg/l)	Average Daily Value (mg/l)
Discharge Flow, MGD	1.816	0.024
BOD	7	2.33
COD	<20	<20
TSS	197	97.33
Oil & Grease	<5	<5
pH range, s.u	7.49 min –7.64 max	7.55
TDS	844	677.33
Chlorides	38	31
Sulfate	568	454
Total Kjeldahl Nitrogen	2	1.67
Nitrate Nitrogen	1.9	1.05
Phosphorous	0.28	0.173
Benzene, Total	0	<0.01
Arsenic	0.00224	0.0014
Barium	0.0893	0.0685
Cadmium	0	<0.001
Chromium	0	<0.002
Lead	0.0012	0.004
Mercury	0	0
Selenium	0	0
Silver	0	0

Outfall 003 –0.009 MGD – Stormwater

Parameter	Max. Daily Value (mg/l)	Average Daily Value (mg/l)
Discharge Flow, MGD*	0.697	0.009
BOD	11	5
COD	27	9
TSS	1060	416.33
Oil & Grease	<5	<5
pH range, s.u	7.8 min –7.9 max	7.84
TDS	324	214
Chlorides	27	24.33
Sulfate	32	23
Total Kjeldahl Nitrogen	3	2.33
Nitrate Nitrogen	2.3	0.92
Phosphorous	0.17	0.15
Benzene, Total	0	<0.01
Arsenic	0.0068	0.003
Barium	0.435	0.212
Cadmium	0	<0.001
Chromium	0	0
Lead	0.0199	0.0074
Mercury	0	0
Selenium	0.0091	0
Silver	0	0

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 revoke and reissue of the current permit issued on October 26, 2012, with an effective date of December 1, 2012, and an expiration date of November 30, 2017. An NPDES Application for a Permit to Discharge (Form 1, Form 2E and Form 2F) was received on August 25, 2014, & October 6, 2014, and was deemed administratively complete on December 10, 2014. Additional Permit application information were received October 29, 2014, December 2, 2014, and December 5, 2014, and via email from Ms. Stacy Boultinghouse.

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 Outfalls No. 001, 002 and 003. 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 Lake Texana, Segment 1604 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 flow into unnamed ditch located along County Road 260, to unnamed tributary, 1.3 miles upstream from Sandy Creek in waterbody Segment No. 1604C, which is an unclassified waterbody. Discharges from Outfall 002 flow into unnamed ditch from an unnamed tributary, 1.3 miles upstream from Sandy Creek in Waterbody Segment Code No. 1604C, an unclassified waterbody. Discharges from Outfall 003 is to an intermittent water body with perennial pools. It discharges directly into a roadside ditch which empties into an unnamed tributary and then Devers Creek in Waterbody Segment Code No. 1604, Lake Texana. The designated uses of Lake Texana, Segment 1604 are primary contact recreation, high aquatic life, and public water supply. pH shall be limited to the standards for the Lake Texana in Water Body Segment No. 1604 of the Lavaca River Basin to the range of 6.5 to 9.0 s.u.

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

The critical low flow, 7Q2 for the receiving stream is 0.92 cfs, while the harmonic mean is 3.87 cfs. The facility discharges directly from Outfall 001 into unnamed ditch located along County Road 260, to unnamed tributary, to Sandy Creek in waterbody Segment No. 1604C, which is an unclassified waterbody. This is an intermittent water body within three miles of a perennial freshwater ditch, stream or river. It is located on an unnamed tributary, 1.3 miles upstream from Sandy Creek. TCEQ'S TEXTOX Menu 2 is appropriate for evaluating the discharge. Menu 2 (Discharge is to an intermittent water body within three miles of a perennial freshwater ditch, stream or river) is also appropriate for evaluating discharges from Outfall 002. Outfall 002 discharges stormwater from the area around the office, warehouse and electrical substation,

which flow into unnamed ditch to unnamed tributary, to Devers Creek in Waterbody Segment Code No. 1604C, an unclassified waterbody.

Outfall 003 is Menu 7, discharge is to an intermittent water body with perennial pools. It discharges directly into a roadside ditch which empties into and unnamed tributary and then Devers Creek. This is Segment ID 1604 Lake Texana.

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 2 to calculate reasonable potential. For Segment 1604, specific values for pH, TSS, total hardness, and chloride are 7.4, 7.4 mg/L, 57 mg/L as CaCO₃, and 19 mg/L respectively. 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). Water quality screenings were not performed for Outfalls 002 & 003 since the facility discharges stormwater from both outfalls.

Average concentration of TDS obtained from the permit application was screened using the procedures found on page 175/176 of the ITWQS. Using these procedures, the geometric mean of the effluent concentrations of TDS obtained from the permit application (462.67 mg/L from Outfall 001) were compared to the screening value to determine whether a TDS permit limit is needed.

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

where: C_{TDS} = TDS concentration (mg/L) used to determine the TDS screening value
 C_c = TDS criterion (mg/L) at the first downstream Segment = 500 mg/L

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

According to page 176 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 $C_{TDS} = 2,500 \text{ mg/L}$, then $C_{SV} = C_{TDS} = 2,500 \text{ mg/L}$, where C_{SV} is the TDS screening value. Since the effluent concentration, 462.67 mg/L from Outfall 001 is less than the TDS screening value (2,500 mg/L), TDS limitations and monitoring requirements are not established in the proposed permit.

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:

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

$$C_{SO_4} = (2,500/500) * 50 \text{ mg/L} = 250 \text{ mg/L};$$

$$C_{Cl} = (2,500 / 500 \text{ mg/L}) * 100 \text{ mg/L} = 500 \text{ mg/L}$$

According to page 175 of the IP, the values of 250 mg/L and 500 mg/L are both less than 2,500 mg/L. As a result, 2,500 mg/L is their respective screening value. But their respective effluent

concentrations (for Outfall 001, $\text{SO}_4=293.33$ mg/L and $\text{Cl} = 33.33$ mg/L) are all less than their screening value of 2,500 mg/L. As a result, the proposed permit did 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 Outfalls 001, 002 and 003, flow shall be recorded continuously, when discharging. The permittee shall monitor for pH 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. Since 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.

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

Discharges from Outfall 001 flow into unnamed ditch located along County Road 260, to unnamed tributary, to Sandy Creek in Waterbody Segment No. 1604C, which is an unclassified Waterbody. Discharges from Outfall 002 flow into unnamed ditch to an unnamed tributary to

Devers Creek, Waterbody Segment Code No. 1604C, an unclassified waterbody. Discharges from Outfall 003 is to an intermittent water body with perennial pools. It discharges directly into a roadside ditch which empties into an unnamed tributary and then Devers Creek in Waterbody Segment Code No. 1604, Lake Texana.

The receiving stream is not listed as impaired in the 2012 State of Texas 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs). Therefore, 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. 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. The proposed permit maintains the limitation requirements of the previous permit for pH.

X. ENDANGERED SPECIES

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 Jackson County. The endangered or threatened species are Whooping Crane, West Indian Manatee, Least Tern, Piping Plover and Red Knot. The species description and its effects on the discharges follow:

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. Cranes are considered sacred in many parts of the world. In China, they are a symbol of long life.

WEST INDIAN MANATEE (*Trichechus manatus*)

West Indian manatees are large, gray aquatic mammals with bodies that taper to a flat, paddle-shaped tail. They have two forelimbs, called flippers, with three to four nails on each flipper. Their head and face are wrinkled with whiskers on the snout. The manatee's closest relatives are the elephant and the hyrax. Manatees are believed to have evolved from a wading, plant-eating animal. The average adult manatee is about 10 feet long and weighs between 800 and 1,200 pounds.

Manatees can be found in shallow, slow-moving rivers, estuaries, saltwater bays, canals, and coastal areas - particularly where seagrass beds or freshwater vegetation flourish. Manatees are a migratory species. Manatees are gentle and slow-moving animals. Most of their time is spent eating, resting, and traveling. Manatee are mostly herbivorous, however small fish and invertebrates can sometimes be ingested along with a manatee's normal vegetation diet.

West Indian manatees have no natural enemies, and it is believed they can live 60 years or more. As with all wild animal populations, a certain percentage of manatee mortality is attributed to natural causes of death such as cold stress, gastrointestinal disease, pneumonia, and other diseases. A high number of additional fatalities are from human-related causes. Most human-related manatee fatalities occur from collisions with watercraft. Other causes of human-related manatee mortality include being crushed and/or drowned in canal locks and flood control structures; ingestion of fish hooks, litter, and monofilament line; and entanglement in crab trap lines. Ultimately, loss of habitat is the most serious threat facing manatees in the United States today.

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.

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).

Determination

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.

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:

1. The pollutant level authorized under this permit is found to have no impact on the habitats of these species.
2. Based on 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 Jackson 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. Although construction activities are planned in the issuance, there are no historical and archeological preservation nearby. In an email dated July 9, 2013, from Stacy Boultinghouse, she affirmed that construction of the Jackson Plant will not adversely affect significant cultural resources.

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

The facility reported a significant and unanticipated weather event which occurred in May 26, 2014. This event deposited approximately 10 inches of rain on the plant and filled all the surrounding ditches and Creeks, which directly affected normal flow routes to the ditches and associated creeks. As a result, the regulated discharges from the plant could not be determined during the flood event.

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, Form 2E and Form 2F received on August 25, 2014 & October 6, 2014, and was deemed administratively complete on December 10, 2014.

Additional Permit application information were received October 29, 2014, December 2, 2014, and December 5, 2014, and via email from Ms. Stacy Boultinghouse.

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 Ms. Stacy Boultinghouse, Senior Environmental Specialist, Energy Transfer Company to Maria Okpala, EPA, received August 25, 2014, October 29, 2014, December 2, 2014, and December 8, 2014, on additional facility information.

Letter & email from Ms. Stacy Boultinghouse, Senior Environmental Specialist, Energy Transfer Company, to Maria Okpala, EPA, dated December 5, 2014, on sample results.

Letter from Dorothy Brown, EPA, to Ms. Stacy Boultinghouse, Senior Environmental Specialist, Energy Transfer Company, dated December 10, 2014, informing applicant that its NPDES application received on August 25, 2014 is administratively complete.

Email from Robert Kirkland, EPA, to Maria Okpala, EPA, dated April 7, 2015, on updated critical conditions information.

Letter from Dorothy Brown, EPA, to Ms. Stacy Boultinghouse, Senior Environmental Specialist, Energy Transfer Company, dated September 29, 2014, informing applicant that its NPDES application received on August 25, 2014 is administratively incomplete.

Email from Stacy Boultinghouse, Energy Transfer Company, to Maria Okpala, EPA, dated July 9, 2013, affirming that construction of the Jackson Plant will not adversely affect significant cultural resources.

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