

NPDES PERMIT NO. TX0125067

FACT SHEET

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

APPLICANT

Golden Pass LNG Terminal, LLC
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ISSUING OFFICE

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DATE PREPARED

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PERMIT ACTION

Renewal of a permit previously modified on October 20, 2010, with an effective date of November 1, 2010, and an expiration date of December 31, 2014.

RECEIVING WATER – BASIN

Sabine-Neches Canal Tidal Waterway – Neches-Trinity Coastal Basin (Segment No. 0703)

DOCUMENT ABBREVIATIONS

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

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)
MMCFD	Million cubic feet per day
MGD	Million gallons per day
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
ML	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

Changes from the permit previously modified on October 20, 2010, with an effective date of November 1, 2010, and an expiration date of December 31, 2014, are as follow:

- Additional Outfalls 002&003 and applicable limits have been established.
- TRC has been removed at Outfall 001.
- pH limit has been changed to 6.5-9.0 s.u. from 6.0-9.0 s.u.
- Measurement frequency has been changed to weekly from daily at Outfall 001.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located at 3752 S. Gulfway Drive, Sabine Pass, TX 77655; County of Jefferson. Outfalls coordinates are:

Outfall 001: latitude 29° 45' 47.05" and longitude 93° 55' 6.64"

Outfall 002: latitude 29° 45' 42" and longitude 93° 55' 23"

Outfall 003: latitude 29° 45' 40" and longitude 93° 55' 37"

Under the SIC code 4922, the applicant operates a marine liquefied natural gas (LNG) receiving terminal for the importation, storage and re-gasification of foreign-source LNG. The first time issued permit (on November 19, 2009) authorized the discharge of non-process water via Outfall 001 and 4 outfalls associated with stormwater. In October 2010 the permit was modified to remove the 4 outfalls. The renewal permit application is for 2 additional outfalls consisted of stormwater & potential portable/city water for firefighting and Outfall 001.

Backup fire-water pump (4,000 gpm) testing is performed at Outfall 001. The pump intakes water from the Sabine Neches Canal Tidal Waterway (Port Arthur Ship Channel) and discharge to the same channel. The pump is tested for a weekly basis for 30 minutes (0.12 million gallons); no chlorine is used in this pump testing. In case of major fire, the pump may intake the seawater for firefighting. Stormwater is drained to detention basins and collection sumps and then discharged via Outfalls 002 & 003. Potential limited volumes of portable/city water is also discharged via Outfalls 002 & 003 for emergency showers, fresh portable water system flushing, flushing of eyewash stations, and fire-water/deluge water from fire-water testing. Discharges via the 3 outfalls are directly to the Sabine-Neches Canal Tidal. A map of outfalls locations is attached.

III. EFFLUENT CHARACTERISTICS

Submitted application in form 2C and 2F show as follow:

	Outfall 001 (Form 2C)	Outfall 002 (Form 2F)	Outfall 003 (Form 2F)
<i>Parameter</i>	<i>Max. Daily Value (mg/l)</i>	<i>Max. Daily Value (mg/l)</i>	
BOD	<2.0	3.9	ND (<2.0 in lab report)
TSS	19.7	3.7	2.3
Oil & Grease		ND (<2.2 in lab report)	ND (<2.1 in lab report)
Total Nitrogen		1.1	0.61
Total Phosphorus		0.067	0.069
COD	74.2	ND (<20 in lab report)	ND (<20 in lab report)
TOC	6.7		
Ammonia (as N)	<0.1	<0.1 (lab report)	<0.1 (lab report)

Discharge Flow	0.32 MGD		
pH range	7.42 – 7.42 s.u.	7.98 (min.) s.u.	8.81 (min.) s.u.
Temperature (C), summer	28.6		

There were 3 effluent violations for TRC at Outfall 001 in 2014 according to DMRs.

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 applications was dated August 6, 2014 and November 7, 2014. It is proposed that the permit be reissued 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 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, or the previous permit.

Technology-based effluent limitations are established in the proposed draft permit for TOC, O&G and TSS. Water quality-based effluent limitations are established in the proposed draft permit for monitoring of applicable WQ-based pollutants, TRC and 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

a. Outfall 001: the backup firewater pump discharges the same water back to the its source. pH and TSS limits are retained from the previous permit.

b. Outfalls 002 & 003: Since the discharges consist of stormwater and potential portable/city water, (pH, O&G, and TSS) limits along with monitoring of oil sheen from the first time-issued permit are brought back in this permit draft. TOC is limited at 50 mg/L for uncontaminated stormwater discharge according to EPA guideline letter dated June 17, 1987.

Stormwater has been identified by the permittee as a component of the discharge through Outfall 002. A requirement to develop a Stormwater Pollution Prevention Plan (SWP3) is proposed in the draft 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 tank(s) or stormwater collection basin(s) 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.

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. The discharges are intermittent; so the mass limits are not applicable to this 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 partially Texas Water Quality Standards, Texas Administrative Code (TAC), 30 TAC Sections 307.1 - 307.10, adopted March 6, 2014. The designated uses of the receiving water (Sabine-Neches Canal Tidal, Segment 0703) are primary contact recreation and high aquatic life use.

4. Reasonable Potential- Procedures

Due to testing activity of backup firewater pump at Outfall 001, EPA believes there is no concern of toxic pollutant involved. The Statement of Basis dated August 3, 2009 states discharge from the Sabine-Neches Waterway (SNW) was not required to submit the requested metals analysis at Outfall 001; so those metals are removed in the permit draft. The analysis is rather required when portable water is used at either Outfalls 002 or 003 for firewater pump testing; EPA is not concerned with the metals present in the city water. Sample of the portable water must be taken for the analysis (results may be obtained from the portable water supplier); the result will be evaluated for RP to determine whether or not there is a limit. EPA may reopen the permit if there is a RP to exceed the WQS. This change regarding to the metal analysis does not violate the Antibracksliding described in Section IX.

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 0703 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

TRC is removed from the previous permit because chlorine is not used in the backup firewater pump testing at Outfall 001. Portable/city water is used in the firewater pump testing at Outfalls 002&003, reporting of TRC is required only when fire-water/deluge water from fire-water testing causes a discharge at these outfalls. It's because the water, consisting of chlorine, passes the detention basins and/or sumps before discharged at these outfalls. Discharge of the firewater in emergency is not considered. The data will be used to evaluate TRC at these outfalls.

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 intermittent discharge at the outfalls, except for TRC and pH, which has to be analyzed within 15 minutes after sample is collected.

Parameter	Outfall 001	Outfall 002	Outfall 003
Flow	Weekly (due to weekly testing basis)	Daily*	Daily*
pH	Weekly	Weekly*	Weekly*
O&G		Weekly*	Weekly*

TSS	Weekly	Weekly*	Weekly*
TRC		Daily**	Daily**
TOC		Weekly*	Weekly*
Visible Oil Sheen		Daily*	Daily*

*When discharging

** When fire-water/deluge water from fire-water testing causes a discharge

E. WHOLE EFFLUENT TOXICITY

Due to nature of the activity, EPA believe WET testing is not necessary for the discharges. The permittee (minor discharger) does not use any chemical or biocide; there is no water-quality-based effluent limit established to protect aquatic life. Even potential TRC may present in portable/city water, it may not be detected after the basins and outfalls. After receiving TRC data, EPA will evaluate and determine whether or not WET testing is warranted at Outfalls 002&003 to protect the aquatic life.

VI. TMDL REQUIREMENTS

The receiving water (Sabine-Neches Canal Tidal, Segment 0703) of the Neches-Trinity Coastal Basin, is not listed in 2012 Texas 303(d) List, which EPA approved on May 9, 2013. No additional requirements beyond the already proposed technology-based and/or water-quality based requirements are needed in the proposed permit.

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.

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 county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://www.fws.gov/southwest/es/ES_Lists_Main.cfm, there are 3 threatened species: Piping Plover, Green sea turtle, Loggerhead sea turtle and 4 endangered species: West Indian Manatee, Hawksbill sea turtle, Leatherback sea turtle, Kemp's ridley sea turtle for Jefferson County as of November 4, 2014. The species were all listed in the previous permit with determination of "no effect".

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 that the reissuance 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. Submitted data shows no pollutants at levels which might affect species habitats. Issuance of this permit is found to have no impact on the habitats of the species.
2. EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations.
3. The draft permit is consistent with the States WQS.
4. EPA determines that Items 1, thru 3 result in no change to the environmental baseline established by the previous permit, therefore, EPA concludes that reissuance of this permit will have “no effect” on listed species and designated critical habitat.

IX. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

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, 2C dated August 6, 2014 and 2F dated on November 7, 2014.

B. State of Texas References

2012 Texas Integrated Report - Texas 303(d) List
Procedures to Implement the Texas Surface Water Quality Standards, June 2010
Texas Surface Water Quality Standards, 30 TAC Sections 307.1 - 307.10, adopted March 6, 2014

C. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

D. MISCELLANEOUS

NPDES Permit Writers' Manual, September 2010.
Permittee's emails dated January 14, 2015, January 30, 2015.