NPDES PERMIT NO. TX0134002
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:

April 1, 2014

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 February 28, 2014.

RECEIVING WATER – BASIN

La Quinta Channel to Corpus Christi Bay, Water Body Segment Code No. 2481 of the Bays and Estuaries.

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
HT	Hydrostatic Testing
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)
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 CURRENT PERMIT

The facility is a new discharger.

II. APPLICANT LOCATION and ACTIVITY

Under the Standard Industrial Classification (SIC) Code No. 4925, the applicant operates natural gas liquefaction and export plant as well as import facilities with regasification capabilities. The Corpus Christi Liquefaction (CCL) Project will be located in San Patricio and Nueces Counties, Texas.

As described in the application, the facility is located at No. 2 La Quinta Rd (at La Quinta Channel), Gregory, San Patricio and Nueces County, Texas.

The facility will have the capability to liquefy natural gas from a pipeline system for export as Liquefied Natural Gas (LNG) or import LNG and regasify it to supply the pipeline, which will be constructed in conjunction with the CCL Project.

The CCL facility will have three full containment LNG storage tanks that are designed to store a nominal volume of 160,000 cubic meters of LNG. The three LNG new storage tanks will require hydrostatic testing. Each LNG storage tank will be filled, hydrostatically tested, and discharged separately from the other tanks.

Hydrostatic test water is discharged into La Quinta Channel to Corpus Christi Bay, Water Body Segment Code No. 2481 of the Bays and Estuaries.

Discharges are located on that water at:

Outfall 001: Latitude 27^{o} 53’ 21” N; Longitude 97^{o} 16’ 31” W

III. DISCHARGE LOCATION

The discharge point showing Outfall number, discharge coordinates: latitude and longitude, county, average flow rate in millions gallons per day (MGD), receiving water, and the waterbody identification numbers are shown in the following table:

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min’ Sec” Longitude Deg° Min’ Sec”	County	Average Flow MGD	Receiving Water	Segment #
001	27° 53’ 21” N 97° 16’ 31” W	San Patricio & Nueces	5.76	La Quinta Channel to Corpus Christi Bay	2481

IV. DISCHARGE DESCRIPTION

This will be a new facility and no discharge has occurred. The facility provided estimate for the following parameters:

Parameter	Max Concentration, mg/L unless noted	Average Concentration, mg/L unless noted
Flow, MGD	5.76	5.76
pH, su	6.5 – 8	
BOD	<75	<75
TSS	<1.0	<1.0
Ammonia	<1	<1
Temperature	30 ^{o}C (Winter); 14 ^{o}C (Summer)	23 ^{o}C (Winter); 23 ^{o}C (Summer)
Oil & Grease	0	0
Total Residual Chlorine	4.8	4.12

Test water will be drawn from municipal source. Test water will come into contact with only new piping, and therefore, no contaminants will be introduced to the water as a result of the hydrostatic test.

However, the proposed discharges from Outfall 001 are described as follows:

Discharges from Outfall 001 are to La Quinta Channel to Corpus Christi Bay, Water Body Segment Code No. 2481. The designated uses of Corpus Christi Bay, Segment No. 2481 are primary contact recreation, exceptional aquatic life use and Oyster waters.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

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

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.

There are no published ELG's for this type of activity. Permit limits are proposed based on BPJ. Since hydrostatic test water discharges are batch discharges of short term duration, limits in this Permit will be expressed in terms of daily maximum concentrations rather than in terms of mass limitations, as allowed by 40 CFR 122.45(e) and (f). Limitations for Oil & Grease, TSS, and pH are proposed in the permit. The proposed limitations for TSS are 30 mg/l average, 45 mg/l maximum; and Oil & Grease is 15 mg/l maximum. Narrative standards for oil, grease, or related residue have been placed in the proposed permit. A technology-based limit of 15 mg/l for Oil

and Grease should assure that the narrative criterion is maintained. Concentration limits will be protective of the stream uses.

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.

The general criteria and numerical criteria which make up the stream standards are provided in the 2010 EPA-approved Texas Water Quality Standards, Texas Administrative Code (TAC), 30 TAC Sections 307.1 - 307.9, effective August 24, 2012.

2. 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.

For Outfall 001, the hydrostatic test water will not be drawn and discharged back into the same water body. Test water will be obtained from municipal source and be discharged to La Quinta Channel then to Corpus Christi Bay. As a result, intake credits are not authorized for Outfall 001. Intake credits account for in-situ waterbody conditions for only TSS.

3. 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

The daily minimum and daily maximum permit limits of 6.0 standard units to 9.0 standard units on hydrostatic test general permits are developed by other EPA Regions and States. TAC 307.10 states, "The pH criteria are listed as minimum and maximum values expressed in standard units at any site within the segment."

Wastewater discharges from the facility flow into La Quinta Channel of Corpus Christi Bay, Water Body Segment No. 2481, 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 2481.

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. Total Residual Chlorine

TRC shall be limited to 0.019 mg/l in Outfall 001 because the source water is from a municipal source. 0.019 mg/l is EPA’s acute criteria for chlorine. The effluent shall contain NO MEASURABLE total residual chlorine (TRC) at any time. NO MEASURABLE will be defined as no detectable concentration of TRC as determined by any approved method established in 40 CFR 136. The MQL for TRC is 33 µg/l. Results of analyses that are less than the listed MQL may be reported as “non-detect” (ND).

d. Toxics

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

The hydrostatic test water would be discharged directly into La Quinta Channel then to Corpus Christi Bay, Water Body Segment No. 2481. TCEQ's MENU 10 (Discharge to an intermittent water body within 3 miles of a bay, estuary or tidal water body with no upstream flow information.) It discharges to an unnamed ditch, which flows into Corpus Christi Bay.

Discharge from the facility is 5.76 MGD and the bay is approximately 11.39 miles wide at the discharge point. This means that chronic criteria apply at 8%, acute criteria apply at 30%, and human health criteria apply at 4% (i.e. MZ = 8%; ZID = 30%; HH = 4%). Human health criteria apply for Saltwater Fish Tissue.

The applicant proposes to draw water from municipal source. Hydrostatic test water will contact only new pipe, and no chemicals will be added. As a result, no contaminants are expected to be present in the hydrostatic test water discharge at amounts that would pose a reasonable potential to exceed State WQS.

Solids and Foam

The prohibition of the discharge of floating solids or visible foam in other than trace amounts is proposed in the draft permit.

Turbidity

Waste discharges must not cause substantial and persistent changes from ambient conditions of turbidity or color.

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.

For ALL outfalls, monitoring for flow, TSS, Oil & Grease, TRC and pH shall be daily by grab sample, when discharging.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

There are no chemical specific limitations in the draft permit and the applicant has stated that no chemical additives such as corrosion inhibitors are being added to the HT water. There does not appear that the discharge will have a potential for toxicity. The draft permit does not propose any biomonitoring of the HT water.

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

According to the 2012 State of Texas 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs), the receiving stream for Outfall 001, La Quinta Channel then to Corpus Christi Bay, Water Body Segment No. 2481 is listed as impaired for bacteria (Category 5a), in the 2012 State of Texas 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs). Category 5a implies that a TMDL is underway, scheduled, or will be scheduled. 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. Since this is a first time NPDES Permit for this discharge, antibacksliding does not apply.

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). Hydrostatic test water discharges occur after a pipeline has already been put in place following earth disturbing activities that have had to have received appropriate federal, state, and local authorizations putting the construction of pipeline itself into the environmental baseline. The scope of the evaluation of the effects of the discharge authorized by this permit was therefore limited to the effects related to the authorized discharge.

The permittee has committed to certain measures to protect sensitive species in their Federal Energy Regulatory Commission (FERC) application dated August 30, 2012. The FERC designated Corpus Christi Liquefaction as its non-federal representative in an email dated May 1, 2013. In a letter dated September 6, 2013, the Service stated that no Section 7 consultation is necessary for these species and believes that the agency has complied with Section 7 (a)(2) of the ESA by making the determination. Furthermore, the Service stated that with the incorporation and implementation of the conservation measures outlined in the facility's August 22, 2013, letter, the Service believes impacts will be insignificant and discountable; therefore, the Service concur with the determinations of may affect, not likely to adversely affect the whooping crane and the piping plover.

Since the Service has already concurred for the construction, operation and maintenance of the LNG, this puts the construction of the LNG terminal into the environmental baseline. Additionally, the scope of the evaluation of the effects of the discharge authorized by this permit was therefore limited to the effects related to the authorized discharge, EPA has determined that this permit issuance will have "*no effect*" on listed threatened and endangered species nor will adversely modify designated critical habitat.

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_ListSpecies.cfm, thirteen species are listed as threatened or endangered in Nueces County. They are 5 reptiles, 3 mammals, 3 birds, and 2 flowering plants. Ten species are listed as threatened or endangered in San Patricio County. They are 5 reptiles, 3 mammals, and 2 birds. The same species that are listed in Nueces County are also listed in San Patricio County. The extra three species that are listed in Nueces County but not listed in San Patricio County are northern aplomado falcon, slender rush-pea and south Texas ambrosia. A description of the species and its effects to the proposed permit follows:

GREEN SEA TURTLE (Chelonia mydas)

Green Sea Turtle is found in Nueces County. Sea turtles are graceful saltwater reptiles, well adapted to life in their marine world. With streamlined bodies and flipper-like limbs, they are graceful swimmers able to navigate across the oceans. When they are active, sea turtles must swim to the ocean surface to breathe every few minutes. When they are resting, they can remain underwater for much longer periods of time. Although sea turtles live most of their lives in the ocean, adult females must return to land in order to lay their eggs. Sea turtles often travel long

distances from their feeding grounds to their nesting beaches. Human threats include: oil spills, live bottom smothering with sediments and drilling fluids, dredging, coastal development, agricultural and industrial pollution, seagrass bed degradation, shrimp trawling and other fisheries, boat collisions, under water explosions, ingestion of marine debris, entanglement in marine debris, and poaching.

HAWKSBILL SEA TURTLE (Eretmochelys imbricata)

Hawksbill sea turtle is found in Nueces County. Hawksbill is a small to medium-sized sea turtle averaging approximately 2.8 feet in curved carapace length with a weight of approximately 176 pounds. Hawksbills reenter coastal waters when they reach approximately 20-25 cm carapace length. Coral reefs are widely recognized as the resident foraging habitat of juveniles, sub-adults and adults. This habitat association is undoubtedly related to their diet of sponges, which need solid substrate for attachment. The ledges and caves of the reef provide shelter for resting both during the day and night. Hawksbills are also found around rocky outcrops and high energy shoals, which are also optimum sites for sponge growth. Hawksbills are also known to inhabit mangrove-fringed bays and estuaries, particularly along the eastern shore of continents where coral reefs are absent. In Texas, juvenile hawksbills are associated with stone jetties. Hawksbills utilize both low- and high-energy nesting beaches in tropical oceans of the world. Both insular and mainland nesting sites are known. Hawksbills will nest on small pocket beaches and, because of their small body size and great agility can traverse fringing reefs that limit access by other species. They exhibit a wide tolerance for nesting substrate type. Nests are typically placed under vegetation. Threats to this species include: poaching, oil spills, vessel anchoring and groundings, artificial lighting at nesting sites, mechanical beach cleaning, increased human presence, beach vehicular driving, entanglement at sea, ingestion of marine debris, commercial and recreational fisheries, water craft collisions, sedimentation and siltation, and agricultural and industrial pollution.

KEMP'S RIDLEY SEA TURTLE (Lepidochelys kempii)

Kemp’s ridley sea turtle is found in Nueces County. Kemp's ridley sea turtles are the smallest of all extant sea turtles. Adult Kemp's ridleys' shells are almost as wide as long. Neonatal Kemp's ridleys feed on the available sargassum and associated infauna or other epipelagic species found in the Gulf of Mexico. In post-pelagic stages, the ridley is largely a crab-eater, with a preference for portunid crabs. Age at sexual maturity is not known, but is believed to be approximately 7-15 years, although other estimates of age at maturity range as high as 35 years. The major nesting beach for Kemp's ridleys is on the northeastern coast of Mexico. This location is near Rancho Nuevo in southern Tamaulipas. The species occurs mainly in coastal areas of the Gulf of Mexico and the northwestern Atlantic Ocean. Hunting of both turtles and eggs contributed to the decline of this species. Existing threats include: development and human encroachment of nesting beaches, erosion of beaches, vehicular traffic on beaches, fisheries, oil spills, floating debris, dredging, and explosive removal of old oil and gas platforms.

LEATHERBACK SEA TURTLE (Dermochelys coriacea)

Leatherback sea turtle is found in Nueces County. Leatherback is the largest living turtle, and is so distinctive as to be placed in a separate taxonomic family, Dermochelyidae. The carapace is distinguished by a rubber-like texture, about 4 cm thick, and made primarily of tough, oil-saturated connective tissue. No sharp angle is formed between the carapace and the plastron, resulting in the animal being somewhat barrel-shaped. The front flippers are proportionally

longer than in any other sea turtle. Nesting occurs from February - July with sites located from Georgia to the U.S. Virgin Islands. During the summer, leatherbacks tend to be found along the east coast of the U.S. from the Gulf of Maine south to the middle of Florida.

Leatherbacks become entangled in longlines, fish traps, buoy anchor lines and other ropes and cables. This can lead to serious injuries and/or death by drowning. Leatherback turtles eat a wide variety of marine debris such as plastic bags, plastic and styrofoam pieces, tar balls, balloons and plastic pellets. Effects of consumption include interference in metabolism or gut function, even at low levels of ingestion, as well as absorption of toxic byproducts. Leatherbacks are vulnerable to boat collisions and strikes, particularly when in waters near shore. Marine turtles are at risk when encountering an oil spill. Respiration, skin, blood chemistry and salt gland functions are affected.

LOGGERHEAD SEA TURTLE (Caretta caretta)

Loggerhead sea turtle is found in Nueces County. Loggerheads are the most abundant species in U.S. coastal waters, and are often captured incidental to shrimp trawling. Shrimping is thought to have played a significant role in the population declines observed for the loggerhead. Maturity is reached at between 16-40 years. Mating takes place in late March-early June, and eggs are laid throughout the summer.

Loggerheads are circumglobal, inhabiting continental shelves, bays, estuaries, and lagoons in temperate, subtropical, and tropical waters. In the United States, killing of nesting loggerheads is infrequent. However, in a number of areas, egg poaching is common. Erosion of nesting beaches can result in loss of nesting habitat. Loggerhead turtles eat a wide variety of marine debris such as plastic bags, plastic and styrofoam pieces, tar balls, balloons and raw plastic pellets. Effects of consumption include interference in metabolism or gut function, even at low levels of ingestion, as well as absorption of toxic byproducts. Turtles are taken by gillnet fisheries in the Atlantic and Gulf of Mexico. Several thousand vessels are involved in hook and line fishing for various coastal species. Sea turtles are at risk when encountering an oil spill. Respiration, skin, blood chemistry and salt gland functions are affected. Pesticides, heavy metals and PCB's have been detected in turtles and eggs, but the effect on them is unknown. Turtles have been caught in saltwater intake systems of coastal power plants. The mortality rate is estimated at 2%. Underwater explosions can kill or injure turtles, and may destroy or damage habitat. The effects of offshore lights are not known. They may attract hatchlings and interfere with proper offshore orientation, increasing the risk from predators. Turtles get caught in discarded fishing gear. The number affected is unknown, but potentially significant.

PIPING PLOVER *(Charadrius melodus)*

Piping Plover is listed in Nueces County as endangered and threatened. 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 non-breeding plovers lose the dark bands. 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.

Destruction of habitat, disturbance and increased predation rates due to elevated predator densities in piping plover habitat are described as the main reasons for this species' endangered status and continue to be the primary threats to its recovery. The remaining populations, whether on the breeding or wintering grounds, mostly inhabit public or undeveloped beaches. These populations are vulnerable to predation and disturbance.

Research of available material finds that the primary cause for the population decreases leading to threatened or endangered status for these species is destruction of habitat. Issuance of the permit will have no effect on this species, in that the discharge is not expected to lead to the destruction of habitat.

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.

JAGUARUNDI, GULF COAST (*Herpailurus Yagouaroundi Cacomitli*)

The Jaguarundi is a small weasel-like wild cat with short rounded ears. It is also called Otter cats because of their shot legs, slender elongated bodies, and small flattened heads, giving them an otter-like appearance. They prefer lowland brush areas close to water or dense tropical areas as their habitat. They are good tree climbers and swimmers. Jaguarundis eat fish that they catch from streams and rivers. Mating occurs from September to November. The cat is suffering decline due to loss of habitat.

EPA has determined that the re-issuance of the permit will have “no effect” on the Gulf Coast Jaguarundi based on the limited information available on the species which indicates that in Texas, any current presence of jaguarundi apparently is confined to the southernmost four counties of Cameron, Willacy, Hidalgo and Starr.

OCELOT (*Leopardus Pardalis*)

The ocelot is a small cat, ranging from 15 to 30 pounds and measuring an average 3 feet 9 inches in length. Its coat has black spots, bars, and stripes on a rich tan to gray background, with

irregular black dots on a white underside and dark bars on the tail. The ocelot is listed endangered due to habitat alteration and loss (primarily due to brush clearing), and predator control activities. EPA has determined that the issuance of the permit will have “no effect” on the Ocelot.

NORTHEERN APLOMADO FALCON (*Falco femoralis septentrionalis*)

The aplomado falcon has a steel grey back, red breast, black "sash" on its belly, and striking black markings on the top of its head, around its eyes, and extending down its face.

Aplomado falcons are most often seen in pairs. They do not build their own nests, but use stick nests built by other birds. Pairs work together to find prey and flush it from cover. Aplomados eat mostly birds and insects. They are fast fliers, and often chase prey animals as they try to escape into dense grass. They live up to 20 years in captivity.

Aplomado falcons require open grassland or savannah habitat with scattered trees or shrubs. Severe overgrazing by domestic livestock and resultant brush encroachment in the Southwest, including Texas, has been most frequently implicated as the principal cause for the species' decline. Direct adverse effects of livestock grazing on potential falcon prey species have also been suggested as a possible cause. However, a recent review of the history of livestock trends and practices and other ecological factors in the Southwest in relation to the decline of Aplomados suggests different causes. Climate change may also be a reason for the falcons decline. Organophosphate pesticides are still heavily used throughout the range of the Aplomado Falcon, including in the U.S., and remain a serious threat to Aplomados.

RED KNOT *(Calidris Canutus rufa)*

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).

SLENDER RUSH PEA *(Hoffmannseggia tenella)*

Slender rush-pea is a perennial legume, 3-6 inches tall, with spreading stems. Leaves are twice compound, with 3-7 primary divisions each with 5-6 pairs of leaflets. The tiny leaflets are oblong, about 1/8 inch long, and slightly hairy on the under surface. Three to five salmon to orange-colored flowers, about 1/4 inch long, occur on each flowering stalk. Each flower has 5 egg-shaped petals and 10 stamens. Seed pods are straight, about 1/2 inch long and 1/4 inch wide, and densely covered with fine hairs.

Slender rush-pea grows on clayey soil of blackland prairies and creek banks in association with short and midgrasses such as buffalograss, Texas wintergrass, and Texas grama. Woody plants such as mesquite, huisache, huisachillo, spiny hackberry, brasil, retama, lotebush, tasajillo, and prickly pear are also common at the known sites.

It sometimes occurs in association with another endangered species, the south Texas 6 (Ambrosia cheiranthifolia). The use of herbicides for right-of-way maintenance poses a threat to this species. Conversion of coastal prairie habitat to other land uses is likely the most important factor contributing to the decline of slender rush-pea.

SOUTH TEXAS AMBROSIA (*Ambrosia Cheiranthifolia*)

South Texas ambrosia is an erect, silvery to grayish-green, perennial, herbaceous plant, 4 to 12 inches in height. Its' simple leaves, about 3 inches long and 1.5 inches wide, are usually opposite on the lower portion of the plant and alternate above. Male and female flowers are separate but occur on the same plant. Male flowers are in heads arranged along a terminal, elongated stem. Flower stalks contain 10-20 small, yellowish, bud-like flowers, about 1/4 inch across and shaped like hanging bowls. Female flowers are in small clusters at the leaf bases below the male flowering stalks.

South Texas ambrosia occurs in open grasslands or savannas on soils varying from clay loams to sandy loams. It may occur in association with slender rush-pea, which is also federally-listed as endangered.

Associated native grasses found at the existing sites include Texas grama, buffalograss, Texas wintergrass, and tobosa. Native woody species found scattered throughout the existing sites include mesquite, huisache, huisachillo, brasil, granjeno, and lotebush. While south Texas ambrosia does not appear to survive continual plowing, sporadic disturbance may enhance its growth and spread.

Loss of habitat has led to the decline of this species. Conversion of habitat to agricultural fields and urban areas has limited the amount of habitat available for colonization. In addition, introduced species such as buffelgrass and King Ranch bluestem compete with this and other natives of the coastal prairie. Invasion of grasslands by shrub and tree species also contributes to loss of available habitat, although the species does occur among scattered woody plants. Disturbance associated with activities occurring along road right-of-ways where the species is found may also be detrimental.

SPRAGUE'S PIPIT *(Anthus sprague)*

The Sprague's pipit is a relatively small passerine endemic to the North American grasslands. It has a plain buff colored face with a large eye-ring. The Sprague's pipit is a ground nester that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. Wintering occurs in the southern States of Arizona, Texas, Oklahoma, Arkansas, Mississippi, Louisiana, and New Mexico.

Sprague's pipits prefer native mixed or tall-grass upland prairies, particularly tracts that have light to moderate levels of grazing. Occasional mowing or burning may also provide the short-grass habitat required by this species. Areas with taller, dense grassy vegetation are sought for nest sites. Heavily-grazed pastures without tall, native grasses do not provide suitable habitat.

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.

Determination

Many of the threats to listed threatened or endangered species are related to activities in coastal areas and will not be affected by the proposed discharges. Those threats include: oil spills, live bottom smothering with sediments and drilling fluids, dredging, coastal development, agricultural and industrial pollution, seagrass bed degradation, shrimp trawling and other fisheries, boat collisions, under water explosions, ingestion of marine debris, entanglement in marine debris, commercial and recreational fisheries, water craft collisions, sedimentation and

siltation, commercial harvesting of horseshoe crabs, and occasional mowing or burning. The discharges proposed to be authorized by the permit issuance will not affect those threats to threatened or endangered turtle species.

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. 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.

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 Nueces and San Patricio 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.

Operators have an independent ESA obligation to ensure that any of their activities do not result in prohibited "take" of listed species. Section 9 of the ESA prohibits any person from "taking" a listed species, e.g., harassing or harming it, with limited exceptions. See ESA Sec 9; 16 U.S.C. §1538. This prohibition generally applies to "any person," including private individuals, businesses and government entities. Operators who intend to undertake construction activities in areas that harbor endangered and threatened species may seek protection from potential "take" liability under ESA section 9 either by obtaining an ESA section 10 permit or by requesting coverage under an individual permit and participating in the section 7 consultation process with the appropriate FWS or NMFS office. Operators unsure of what is needed for such liability protection should confer with the appropriate Services.

XI. HISTORICAL AND ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

In an email from the Texas Historical Commission, dated August 15, 2012, the commission stated that the project may proceed without any further consultation. The issuance of the permit should have no impact on historical and/or archeological sites since no significant archeological deposits are encountered during construction and development of the property.

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 Texas Railroad Commission 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 modified permit:

A. APPLICATION

NPDES Application for Permit to Discharge, Form 1 & 2E, Permit Application received on November 27, 2013.

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, January 2003.

Texas Surface Water Quality Standards, 30 TAC Sections 307.1 - 307.9, August 24, 2012.

C. Endangered Species References

http://www.fws.gov/southwest/es/ES_ListSpecies.cfm

D. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

E. MISCELLANEOUS CORRESPONDENCE

Letter from Dorothy Brown, EPA, to Mr. Andrew Chartrand, Corpus Christi Liquefaction, LLC,

dated February 14, 2014, informing applicant that its NPDES permit is administratively complete.

Email from Robert Kirkland, EPA, to Maria Okpala, EPA, dated February 20, 2014, on critical conditions information.