

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Jon Niermann, *Commissioner*
Emily Lindley, *Commissioner*
Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

August 30, 2018

Protecting Texas by Reducing and Preventing Pollution

Ms. Sarah L. Garza, Director of Environmental Planning
Port of Corpus Christi Authority of Nueces County
P.O. Box 1541
Corpus Christi, Texas 78403

Re: Port of Corpus Christi Authority of Nueces County
Draft TPDES Permit No. WQ0005253000, EPA ID No. TX0138347
(CN600885248), (RN105622112)

Dear Ms. Garza:

A draft permit for the above-referenced operation is enclosed for your review and comment. This draft is subject to further staff review and modification; however, we believe it generally includes the terms and conditions that are appropriate for your discharge. **Please read the entire draft carefully.** Also enclosed for your review and comment is a copy of the draft second notice, the Notice of Application and Preliminary Decision. Please provide comments if there are inaccuracies or information that is not consistent with your application. After the draft permit is filed with the Office of the Chief Clerk, you will receive instructions for publishing this notice in a newspaper, unless notice is only required in the *Texas Register*.

Please read the enclosed "Draft Permit Form" and submit your comments before the deadline on the form. If your comments are not received by the deadline, the draft permit will be transferred to the chief clerk and comments received after the deadline will not be considered.

If you have comments or questions, please contact me before the draft permit form deadline at (512) 239-4284, by e-mail at Shannon.Gibson@tceq.texas.gov, or, if by correspondence, include "MC 148" following my name in the letterhead address.

Sincerely,

A handwritten signature in black ink, appearing to read "SMG", with a horizontal line underneath.

Shannon Gibson
Wastewater Permitting Section
Water Quality Division

SMG

Enclosure

cc: Mr. David R. Hoffman, VP, Foster Wheeler E&I, Inc., 585 North Dairy Ashford Road,
Houston, Texas 77079

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • tceq.texas.gov

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Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Mike Lindner, Team Leader
Industrial Permits Team, Wastewater Permitting Section

DATE: August 20, 2018

Thru: Peer Reviewer: _____

From: Shannon Gibson, Permit Writer
Industrial Permits Team, Wastewater Permitting Section

Subject:

Applicant:	Port of Corpus Christi Authority of Nueces County			
Facility Name:	Harbor Island Property - Former FINA Tank Farm			
<input type="checkbox"/> TPDES	<input type="checkbox"/> TCEQ	WQ0005253000	EPA ID. No.	TX0138347
Industrial:	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Major		
Toxic Rating:	1	Stream Segment:	2481	
Received:	March 7, 2018	Administratively Complete:	June 26, 2018	
Assigned:	June 19, 2018	To Team Leader:	August 20, 2018	
Tech Complete:				

ATTACHMENTS:	State-Only	TPDES
New	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Renewal	<input type="checkbox"/>	<input type="checkbox"/>
Major Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Minor Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Staff Initiated Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Fact Sheet	<input type="checkbox"/>	<input type="checkbox"/>
SOB/Technical Summary	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RATIONALE Used to Draft Permit:	
<input type="checkbox"/>	Federal Guidelines:
<input type="checkbox"/>	Waste Load Evaluation:
<input checked="" type="checkbox"/>	TCEQ Rules: 30 TAC Chapters 305, 307, and 319
<input type="checkbox"/>	Existing Permit(s):
<input checked="" type="checkbox"/>	Other: <i>Procedures to Implement the Texas Surface Water Quality Standards, BPJ</i>

Company's Rep: Ms. Sarah L. Garza

Phone #: (361) 885-6163

Fax #: N/A

Known Opposition: None If yes, briefly explain: _____

Comments: None.

FILE LOCATION: I:\WQ\IND\ERC AND REGION PERMITS\WQ0005253000.docx

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Mike Lindner, Team Leader *MLL 8/24/18*
 Industrial Permits Team, Wastewater Permitting Section

DATE: August 20, 2018

Thru: Peer Reviewer: _____

From: Shannon Gibson, Permit Writer
 Industrial Permits Team, Wastewater Permitting Section

Subject:

Applicant:	Port of Corpus Christi Authority of Nueces County			
Facility Name:	Harbor Island Property - Former FINA Tank Farm			
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Industrial:	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Major		
Toxic Rating:	1	Stream Segment:	2481	
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Major Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Minor Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Staff Initiated Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Fact Sheet	<input type="checkbox"/>	<input type="checkbox"/>
SOB/Technical Summary	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RATIONALE Used to Draft Permit:	
<input type="checkbox"/> Federal Guidelines:	
<input type="checkbox"/> Waste Load Evaluation:	
<input checked="" type="checkbox"/> TCEQ Rules:	30 TAC Chapters 305, 307, and 319
<input type="checkbox"/> Existing Permit(s):	
<input checked="" type="checkbox"/> Other:	<i>Procedures to Implement the Texas Surface Water Quality Standards, BPJ</i>

Company's Rep: Ms. Sarah L. Garza

Phone #: (361) 885-6163

Fax #: N/A

Known Opposition: None If yes, briefly explain: _____

Comments: None.

FILE LOCATION: I:\WQ\IND\ERC AND REGION PERMITS\WQ0005253000.docx

Request for Comments -- Draft Conditions

TCEQ – Water Quality Division

Phone: (512) 239-4671

Fax: (512) 239-4430

Mailing Address: TCEQ, Water Quality Division, P.O. Box 13087, Austin, TX 78711-3087

TO: Region: **14**

Submitted by: **Shannon Gibson** E-Mail ID: **Shannon.Gibson** Phone: **(512) 239-4284**

Date Request Submitted:

Comments Deadline: **within 10 business days**

Date Application Received by TCEQ in Austin: **March 7, 2018**

REGIONAL OFFICES: The entity below has submitted an application for the project referenced below in accordance with regulations of the TCEQ. Please return comments ASAP, but no later than the comments deadline which is 10 days from the submittal date. Permit disposition will proceed after comments are received or after the comments deadline has passed. If no comments are received within this time frame, we will assume you have no comments or objections to the project as proposed. Please return a complete copy of the form (both sides) with your comments.

PROJECT TYPE: **New permit**

TEAM ASSIGNED: **Industrial**

TPDES/TLAP: **TPDES**

REGULATED ENTITY NO.:
RN105622112

PERMIT NO.: **WQ0005253000**

COMPANY NAME: **Port of Corpus Christi Authority
of Nueces County**

CUSTOMER REFERENCE NO.:
CN600885248

FACILITY NAME: **Harbor Island Property - Former FINA Tank Farm**

ADDRESS: **adjacent to Highway 361 and Ferry Landing, Texas 78336.**

SEGMENT: **2481**

COUNTY: **Nueces**

TECHNICAL CONTACT: **Ms. Sarah L. Garza**

PHONE: **(361) 885-6163**

MAJOR/MINOR: **Minor**

COMPLIANCE RATING: **Customer: High (0.00); Site: N/A**

SUMMARY OF APPLICATION REQUEST: **New permit to authorize the discharge of water treatment wastes at a daily average flow not to exceed 95,600,000 gallons per day via Outfall 001.**

PERMIT WRITER COMMENTS: **No analytical data was submitted because the facility has not been constructed and Other Requirement No. 8 has been included in the draft permit requiring effluent sampling and analysis upon commencement of discharge.**

**Request for Comments -- Draft Permit
RESPONSE**

TO: Permit Writer, Shannon Gibson

FROM:

Region:

Copy of Application Received by your Office: YES NO Date Received: _____

PERMIT NO.: WQ0005253000

REGULATED ENTITY NO: RN105622112

Investigator's/Compliance Officer's Name (Please Print): _____

Phone: _____

Comments Deadline (from pg. 1):

Date of Last Site Visit: _____

COMMENTS ON CONDITIONS: (Please mark up draft special conditions with your comments. Please address applicability and enforceability. List any additional conditions below):

Compliance Determination Conditions: _____

Operational Limitations: _____

GENERAL COMMENTS: _____

The TCEQ is committed to accessibility.
To request a more accessible version of this report, please contact the TCEQ Help Desk at (512) 239-4357.



Compliance History Report

Compliance History Report for CN600885248, RN105622112, Rating Year 2017 which includes Compliance History (CH) components from September 1, 2012, through August 31, 2017.

Customer, Respondent, or Owner/Operator:	CN600885248, Port Of Corpus Christi Authority Of Nueces County	Classification: HIGH	Rating: 0.00
Regulated Entity:	RN105622112, HARBOR ISLAND PROPERTY - FORMER FINA TANK FARM	Classification: NOT APPLICABLE	Rating: N/A
Complexity Points:	N/A	Repeat Violator: N/A	
CH Group:	14 - Other		
Location:	PROPERTY ADJACENT TO HIGHWAY 361 AND FERRY LANDING TO THE NORTHWEST NUECES, TX, NUECES COUNTY		
TCEQ Region:	REGION 14 - CORPUS CHRISTI		
ID Number(s):			
WASTEWATER PERMIT WQ0005253000	WASTEWATER EPA ID TX0138347		
Compliance History Period:	September 01, 2012 to August 31, 2017	Rating Year: 2017	Rating Date: 09/01/2017
Date Compliance History Report Prepared:	August 17, 2018		
Agency Decision Requiring Compliance History:	Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.		
Component Period Selected:	August 01, 2013 to July 31, 2017		
TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.			
Name:	SGIBSON	Phone:	(512) 239-4284

Site and Owner/Operator History:

- | | |
|--|-----|
| 1) Has the site been in existence and/or operation for the full five year compliance period? | YES |
| 2) Has there been a (known) change in ownership/operator of the site during the compliance period? | NO |

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

N/A

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

N/A

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

N/A

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From: *KJC* Katie Cunningham, Water Quality Assessment Team
Water Quality Assessment Section

Date: August 22, 2018

Subject: Port of Corpus Christi Authority of Nueces County Wastewater Permit No.
WQ0005253000
Critical Conditions Recommendation Memo

This memo supersedes the memo written by Katie Cunningham, dated August 13, 2018.

The following information applies to **Outfall 001**.

A mixing analysis of the discharge from proposed Outfall 001 into the Corpus Christi Bay (Segment No. 2481) was conducted using the CORMIX Version 11 GTD modeling system. The model was used to evaluate the proposed flow of 95.6 MGD. These percentages are based on the results of the CORMIX Version 11 GTD mixing analysis performed by Katie Cunningham, dated August 13, 2018.

Outfall 001 will consist of a submerged multi-port diffuser, located approximately 300 feet from the shoreline. The diffuser design modeled in this analysis consisted of the following design parameters:

The multi-port diffuser is 111.554 feet in length and is oriented parallel to the shoreline. The port centerline depth is 50.4 feet below the surface, with a port elevation of 12.6 feet above the local channel bottom. The diffuser will consist of 10 ports, with each port area 2 feet in diameter. The ports are oriented to discharge the wastewater in a direction generally perpendicular to the tidal flow. The ports are angled towards the water surface at 60 degrees from the horizontal.

Using the CORMIX model, the following critical dilutions were predicted:

The TexTox menu number is **5** for a bay, estuary, wide tidal water body, or narrow tidal water body with no upstream flow.

This discharge is to the Corpus Christi Channel, which is part of the Corpus Christi Bay (Segment No. 2481).

Segment No.	2481
Effluent Flow for Aquatic Life (MGD)	95.6 (Proposed)
% Effluent for Chronic Aquatic Life (Mixing Zone)	1.34

NEW SOURCE DETERMINATION WORKSHEET

PERMITTEE: Port of Corpus Christi Authority of Nueces County
TPDES PERMIT NUMBER: WQ0005253000
NPDES PERMIT NUMBER: TX0138347
TYPE OF INDUSTRIAL ACTIVITY: A seawater desalination facility
SIC CODE: 4491
CATEGORICAL GUIDELINES: N/A

A. NEW SOURCE DETERMINATION - SCREENING

ANSWER EITHER "YES" OR "NO" TO THE FOLLOWING QUESTIONS AND PROCEED AS DIRECTED:

1. Is there an applicable new source performance standard for this facility?
Yes No If YES, proceed to Item No. 2. If NO proceed to Section B, the facility is not a new source.
2. Was the current production facility in existence prior to the promulgation of the applicable new source performance standard?
Yes No If NO, proceed to Item No. 3. If YES proceed to Section B, the facility is not a new source.
3. This facility MAY be classified as a new source. Additional information will be required to conduct an evaluation and make a final determination. Please refer to 40 CFR 122.29.

B. NEW SOURCE DETERMINATION - DETERMINATION

PLEASE CHECK THE APPROPRIATE DETERMINATION:

- Facility IS NOT a new source. Determination made via screening in Section A above.
- Facility IS NOT a new source. Determination made via evaluation. Please see evaluation in Appendix A of the Statement of Basis/Technical Summary.
- Facility IS a new source. Determination made via evaluation. Please see evaluation in Appendix A of the Statement of Basis/Technical Summary.

Shannon Gibson
REVIEWER

August 17, 2018
DATE

TOXIC RATING WORKSHEET

TPDES Permit No.:	WQ0005253000		
NPDES Permit No.:	TX0138347		
Permittee:	Port of Corpus Christi Authority of Nueces County		
Facility:	Harbor Island Property - Former FINA Tank Farm		
SIC Codes:	1. 4491	2.	3. 4.
40 CFR Section:	N/A		
Toxic Rating for Facility:	I		
Permit Writer:	Shannon Gibson	Date: August 17, 2018	

CALCULATE TOXIC RATING FOR THE FACILITY

For each outfall listed below, list the percent contribution to the total wastewater flow from the facility and the toxic rating for the outfall.

OUTFALL No.	% Contribution	Toxic Rating	Rating × Percent
001	100	1	100
Total =			100

Toxic Rating for Facility = Total/100 = 1 (round to nearest whole #)

OUTFALL NO.: _____

List waste streams in order of percent contribution to outfall and toxic rating for each waste stream:

Description of Waste Stream	%	Toxic Rating	Rating × Percent
Water Treatment Wastes	100	1	100
Total <u>100</u>			Total: <u>100</u>

Toxic Rating for Outfall = Total/100 = 1 (round to nearest whole #)

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005253000

FACTOR 3: Conventional Pollutants *(Only when limited by the permit)*

A. Oxygen Demanding Pollutant: (check one) BOD/CBOD COD Other:

Permit Limits: (check one)			<u>Code</u>	<u>Points</u>
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input type="checkbox"/>	1000 to 3000 lbs/day		3	15
<input type="checkbox"/>	> 3000 lbs/day		4	20

B. Total Suspended Solids (TSS)

Permit Limits: (check one)			<u>Code</u>	<u>Points</u>
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input type="checkbox"/>	1000 to 5000 lbs/day		3	15
<input type="checkbox"/>	> 5000 lbs/day		4	20

C. Nitrogen Pollutant: (check one) Ammonia Other:

Permit Limits: (check one)		<u>Nitrogen Equivalent</u>	<u>Code</u>	<u>Points</u>
<input type="checkbox"/>	< 300 lbs/day		1	0
<input type="checkbox"/>	300 to 1000 lbs/day		2	5
<input type="checkbox"/>	1000 to 3000 lbs/day		3	15
<input type="checkbox"/>	> 3000 lbs/day		4	20

CODE NUMBER CHECKED

POINTS FACTOR 3:

A	-	B	-	C	-					
A	0	+	B	0	+	C	0	=	0	Total

FACTOR 4: Public Health Impacts

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

- YES (If yes, check toxicity potential number below)
 NO (If no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column - check one below.)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process wastestreams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

CODE NUMBER CHECKED

TOTAL POINTS FACTOR 4: _____

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005253000

FACTOR 5: Water Quality Factors

A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?*

<input checked="" type="checkbox"/> YES	Code	Points
<input type="checkbox"/> NO	1	10
	2	0

B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

<input checked="" type="checkbox"/> YES	Code	Points
<input type="checkbox"/> NO	1	0
	2	5

C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

<input type="checkbox"/> YES	Code	Points
<input checked="" type="checkbox"/> NO	1	10
	2	0

CODE NUMBER CHECKED

A 1 B 1 C 2
 A 10 + B 0 + C 0 = 10 Total

POINT FACTOR 5:

FACTOR 6: Proximity to Near Coastal Waters

Base Score: Enter flow code here (from Factor 2): 34

Enter the multiplication factor that corresponds to the flow code: 0.15

Check appropriate facility HPRI Code (from PCS):

	HPRI#	CODE	HPRI Score
<input type="checkbox"/>	1	1	20
<input type="checkbox"/>	2	2	0
<input checked="" type="checkbox"/>	3	3	30
<input type="checkbox"/>	4	4	0
<input type="checkbox"/>	5	5	0

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked: | 3 |

Base Score: (HPRI Score) 30 X (Multiplication Factor) 0.15 = 4.5 (Total Points)

B. *Additional Points -- NEP Program*

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions)?

<input type="checkbox"/> YES	Code	Points
<input checked="" type="checkbox"/> NO	1	10
	2	0

C. *Additional Points -- Great Lakes Area of Concern*

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern?

<input type="checkbox"/> YES	Code	Points
<input type="checkbox"/> NO	1	10
	2	0

CODE NUMBER CHECKED

A 3 B 2 C -
 A 4.5 + B 0 + C 0 = 4.5 Total

POINT FACTOR 6:

TPDES PERMIT RATING WORK SHEET

TPDES No.: WQ0005253000

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	0
2	Flow/Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	4.5
	TOTAL (Factors 1 through 6)	44.5

S1. Is the total score equal to or greater than 80?

- YES - Facility is a major, stop here.
 NO - Facility is NOT a major, proceed to S2.

S2. Do you want the facility to be designated a discretionary major?

- YES - Add 500 points to the score above and provide justification below.
 NO - Stop here

Justification:

Check appropriate classification:

- Major
 Minor
 Discretionary Major

Shannon Gibson
Permit Reviewer

512-239-4284
Phone Number

August 17, 2018
Date Reviewed

CMP THRESHOLD REVIEW SHEET
INDUSTRIAL WASTEWATER DISCHARGE PERMITS

TPDES PERMIT NUMBER: Port of Corpus Christi Authority of Nueces County
WQ0005253000
CLASSIFIED SEGMENT: _____
NAME: Corpus Christi Bay
NUMBER: 2481
COUNTY: Nueces

Is the facility located within the Coastal Zone?

Yes No

If "Yes," complete Section A and, if directed to do so, Section B. If "No," this worksheet is not required.

SECTION A

- | <u>Yes</u> | <u>No</u> | |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1. This is a new permit application which would authorize the discharge of a wastewater subject to EPA Categorical Effluent Standards (40 CFR Parts 400-471) into a priority segment (see Appendix B). |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 2. This is an amendment permit application which would authorize an increase in the mass loading of pollutants from the discharge of a wastewater subject to EPA Categorical Effluent Standards (40 CFR Parts 400-471) into a priority segment (see Appendix B). |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 3. This is an amendment permit application which would change the point of discharge of a wastewater subject to EPA Categorical Effluent Standards (40 CFR Parts 400-471) into a priority segment (see Appendix B). |

IF "YES" TO ANY OF THE ABOVE THEN THE PERMIT ACTION IS CONSIDERED ABOVE THRESHOLD, COMPLETE SECTION B.

IF "NO" TO ALL OF THE ABOVE, THEN THE PERMIT ACTION IS CONSIDERED BELOW THRESHOLD, STOP HERE.

SECTION B

- 1. The IOM from standards states that "no significant degradation of high quality receiving waters is anticipated" (if receiving water has a designated high quality aquatic life use).
- 2. The IOM from standards states that "no loss of designated uses is anticipated."
- 3. The draft permit complies with all applicable provisions of 30 TAC 307, 309, and 319.

Shannon Gibson
PERMIT WRITER

August 17, 2018
DATE

**TIDAL SEGMENTS DESIGNATED AS TCEQ PRIORITY WATERBODIES
COASTAL MANAGEMENT PROGRAM**

<u>Segment Number</u>	<u>Name</u>
2412.....	Sabine Lake
2411.....	Sabine Pass
2423.....	East Bay
2439.....	Lower Galveston Bay
0801.....	Trinity River Tidal
1113.....	Armand Bayou Tidal
2431.....	Moses Lake
2424.....	West Bay
2432.....	Chocolate Bay
2433.....	Bastrop Bay/Oyster Lake
2434.....	Christmas Bay
2435.....	Drum Bay
2442.....	Cedar Lakes
2441.....	East Matagorda Bay
2451.....	Matagorda Bay/Powderhorn Lake
2452.....	Tres Palacios Bay/Turtle Bay
2456.....	Carancahua Bay
2455.....	Keller Bay
2461.....	Espiritu Santo Bay
2462.....	San Antonio Bay/Hynes Bay/Guadalupe Bay
1801.....	Guadalupe River Tidal
2463.....	Mesquite Bay/Carlos Bay/Ayres Bay
2473.....	St. Charles Bay
2471.....	Aransas Bay
2472.....	Copano Bay/Port Bay/Mission Bay
2483.....	Redfish Bay
2482.....	Nueces Bay
2492.....	Baffin Bay/Alazan Bay/Cayo Del Grullo/Laguna Salada
2491.....	Laguna Madre
2493.....	South Bay

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

Thru: Brad Caston, Standards Implementation Peer Review
Water Quality Assessment Section
Water Quality Division
*MAN
for BC*

From: M. A. Wallace, PhD, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division
MAN

Date: August 20, 2018

Subject: Port of Corpus Christi Authority of Nueces County;
Permit no. WQ0005253000
New; Application received 3/7/2018

This memo supercedes my memo dated July 2, 2018.

The discharge route for the above referenced permit is directly to Corpus Christi Bay in Segment 2481 of the Bays and Estuaries. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code (TAC) §307.10) for Segment 2481 are primary contact recreation, exceptional aquatic life use, oyster waters, and 5.0 mg/L dissolved oxygen.

In accordance with 30 Texas Administrative Code §307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Corpus Christi Bay, which has been identified as having exceptional aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The saltwater pH screening passed Segment 2481 criteria of 6.5-9.0 S.U.

A watershed of high priority has been identified in Segment 2481 in Nueces County. The piping plover, *Charadrius melodus* Ord, a threatened aquatic dependent species, is found in the watershed of Segment 2481; **however, the facility is not**

a petroleum facility and its discharge is not expected to have an effect on the piping plover. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998, October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From:  James E. Michalk, Water Quality Modeler
Water Quality Assessment Team
Water Quality Assessment Section

Date: August 16, 2018

Subject: Port of Corpus Christi Authority of Nueces County; Wastewater Permit No. 05253 / TX0138347 (new)
Discharge directly to Corpus Christi Bay, Segment 2481 of the Bays and Estuaries

The referenced applicant is proposing to discharge 95.6 MGD of reverse osmosis reject and pre-treatment system reject (via Outfall 001) from a seawater desalination facility. The discharge is to be located in Nueces County.

Due to the low levels of oxygen-demanding constituents expected from this type of discharge, no significant dissolved oxygen depletion is anticipated in the receiving waters as a result of this discharge.

Corpus Christi Bay (Recreational Beaches) (2481CB) is currently listed on the State's inventory of impaired and threatened waters (the 2014 Clean Water Act Section 303(d) list). The 2481CB listing is specifically for elevated bacteria levels at Cole Park (AU 2481CB_03), Ropes Park (AU 2481CB_04), and Poenisch Park (AU 2481CB_06). **There are currently no other 303(d) impairment listings for Segment 2481.**

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From: *KJC* Katie Cunningham, Water Quality Assessment Team
Water Quality Assessment Section

Date: August 13, 2018

Subject: Port of Corpus Christi Authority of Nueces County Wastewater Permit No.
WQ0005253000
Critical Conditions Recommendation Memo

The following information applies to **Outfall 001**.

A mixing analysis of the discharge from proposed Outfall 001 into the Corpus Christi Bay (Segment No. 2481) was conducted using the CORMIX Version 11 GTD modeling system. The model was used to evaluate the proposed flow of 95.6 MGD. These percentages are based on the results of the CORMIX Version 11 GTD mixing analysis performed by Katie Cunningham, dated August 13, 2018.

Outfall 001 will consist of a submerged multi-port diffuser, located approximately 300 feet from the shoreline. The diffuser design modeled in this analysis consisted of the following design parameters:

The multi-port diffuser is 111.554 feet in length and is oriented parallel to the shoreline. The port centerline depth is 50.4 feet below the surface, with a port elevation of 12.6 feet above the local channel bottom. The diffuser will consist of 10 ports, with each port area 2 feet in diameter. The ports are oriented to discharge the wastewater in a direction generally perpendicular to the tidal flow. The ports are angled towards the water surface at 60 degrees from the horizontal.

Using the CORMIX model, the following critical dilutions were predicted:

The TexTox menu number is 5 for a bay, estuary, wide tidal water body, or narrow tidal water body with no upstream flow.

This discharge is to the Corpus Christi Channel, which is part of the Corpus Christi Bay (Segment No. 2481).

Segment No.	2481
Effluent Flow for Aquatic Life (MGD)	95.6 (Proposed)
% Effluent for Chronic Aquatic Life (Mixing Zone)	1.34
% Effluent for Acute Aquatic Life (ZID)	1.95
Oyster Waters?	Yes
Effluent Flow for Human Health (MGD)	95.6 (Proposed)

TCEQ Interoffice Memorandum

% Effluent for Human Health

1.2

Human Health criteria apply for Fish Only.

The mixing zone is defined as a 303-foot by 415-foot rectangle that is centered on the diffuser barrel. This area is approximately equal to the area of a 200-foot radius circle.

It is recommended that the following language be included in the Other Requirements section of the issued permit:

The permittee shall maintain the diffuser at Outfall 001 to achieve a dilution of at least 1.95 percent effluent at the edge of the ZID. The ZID is defined as a 49-foot by 160-foot rectangle that is centered on the diffuser barrel. This area is approximately equal to the area of a 50-foot radius circle.

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

Thru: Brad Caston, Standards Implementation Peer Review
Water Quality Assessment Section
Water Quality Division
MAW for BE

From: M. A. Wallace, PhD, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division
MAW

Date: July 2, 2018

Subject: Port of Corpus Christi Authority of Nueces County;
Permit no. WQ0005253000
New; Application received 3/7/2018

The discharge route for the above referenced permit is directly to Corpus Christi Bay in Segment 2481 of the Bays and Estuaries. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code (TAC) §307.10) for Segment 2481 are primary contact recreation, exceptional aquatic life use, oyster waters, and 5.0 mg/L dissolved oxygen.

In accordance with 30 Texas Administrative Code §307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Corpus Christi Bay, which has been identified as having exceptional aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

A watershed of high priority has been identified in Segment 2481 in Nueces County. The piping plover, *Charadrius melodus* Ord, a threatened aquatic dependent species, is found in the watershed of Segment 2481; **however, the facility is not a petroleum facility and its discharge is not expected to have an effect on the piping plover.** This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998,

October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.