

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 10

Submitted by: Michael Sunderlin **E-Mail ID:** michael.sunderlin **Phone:** (512) 239-4523

Date request submitted:

Comments deadline: within 7 calendar days

Date application received by TCEQ in Austin: June 29, 2023

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 7 calendar 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.: RN110935285

Permit No.: WQ0005432000

Company name: Golden Triangle Polymers Company LLC **Customer Reference No.:** CN606046183

Facility name: Golden Triangle Polymers Plant

Address: 850 Foreman Road, Orange, Texas 77630

Segment: 0501

County: Orange

Technical contact: Mr. Gopal Periapattanam

Phone: 832-416-3060

Major/Minor: Minor

Compliance rating: Customer – Satisfactory (**0.36**) / Site – Satisfactory (**0.36**)

Summary of application request:

New permit to discharge utility wastewater, stormwater, passivation wastewater, and system flush water on an intermittent and flow-variable basis via Outfall 001 (Phase 1); process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 2,650,000 gallons per day via Outfall 001 (Phase 2); and process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 5,150,000 gallons per day via Outfall 001 (Phase 3)

Permit writer comments: Permit drafted as requested. There is another permit (TPDES Permit No. WQ0005288000) issued for the same sight.

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

TO: Permit Writer, Michael Sunderlin

FROM:

Region:

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

PERMIT NO.: WQ0005432000

REGULATED ENTITY NO: RN110935285

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: _____

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

U.S. Environmental Protection Agency
Region 6
Attention: Nelly Smith (6WQ)
1201 Elm Street, Suite 500
Dallas, Texas 75270

**Re: TPDES Draft Permit No. WQ0005432000, EPA ID No. TX0144690
CN606046183, RN110935285**

Dear Ms. Smith:

Enclosed are the draft permit and statement of basis for the above-referenced permit as required under the TCEQ/EPA memorandum of agreement. Please review and provide any written comments, objections (general or interim), or recommendations with respect to the draft permit within forty-five days from receipt of this draft permit, to my attention.

If you need additional information or have any questions, please contact me by telephone at (512) 239-4523, by e-mail at michael.sunderlin@tceq.texas.gov, by fax at (512) 239-4430, or, if by correspondence, include "MC 148" following my name in the letterhead address. Thank you for your cooperation in this matter.

Sincerely,

Michael Sunderlin

Michael Sunderlin
Wastewater Permitting Section
Water Quality Division

MJS

Enclosures

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Mr. Gopal Periapattanam, Environmental Engineer
Chevron Philips Chemical Company
10001 Six Pines Drive
The Woodlands, Texas 77380

Re: Golden Triangle Polymers Company LLC
Draft TPDES Permit No. WQ0005432000, EPA ID No. TX0144690
(CN606046183), (RN110935285)

Dear Mr. Periapattanam:

A draft permit and technical summary for the above-referenced operation are enclosed for your review and comment. The drafts are subject to further staff review and modification; however, they generally include 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 submit your comments before the deadline provided in the e-mail. If your comments are not received by the deadline, the draft permit will be transferred to the Office of the Chief Clerk and comments received after the deadline will not be considered.

This application was declared administratively complete on August 7, 2023. Please note, a translated copy of the NAPD in the alternative language must be submitted with your comments on the draft permit. If a translated NAPD is not received, the draft permit cannot be filed with the Office of the Chief Clerk. For notice templates in Spanish, please visit: https://www.tceq.texas.gov/permitting/wastewater/review/napd/wqspanish_napd.html.

If you have comments or questions, please contact me before the comment deadline at (512) 239-4523, by e-mail at michael.sunderlin@tceq.texas.gov, or, if by correspondence, include "MC 148" following my name in the letterhead address.

Sincerely,

Michael Sunderlin

Michael Sunderlin
Wastewater Permitting Section
Water Quality Division

MJS

Enclosure

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Date, 2025

Mr. Gopal Periapattanam, Environmental Engineer
Chevron Philips Chemical Company
10001 Six Pines Drive
The Woodlands, Texas 77380

RE: Notice of Preliminary Decision and Draft Permit
Applicant Name: Golden Triangle Polymers Company LLC
Facility Name: Golden Triangle Polymers Plant
Permit No.: WQ0005432000
Customer Reference Number: CN606046183
Regulated Entity Number: RN110935285
Type of Application: New permit FOR TPDES INDUSTRIAL WASTEWATER PERMIT

Dear Mr. Periapattanam:

The executive director has completed the technical review of the above referenced application, received on June 29, 2023 and has prepared a preliminary decision and draft permit.

You are now required to publish another notice of your proposed activity. To help you meet the requirements associated with this notice, we have included the following items:

Instructions for Public Notice
Notice for Newspaper Publication
Publisher's Affidavits
Draft Permit
Executive Director's Preliminary Decision
Public Notice Verification Form

You must follow all the directions in the enclosed instructions. The most common mistakes are the unauthorized changing of notice, wording, or font. If you fail to follow these instructions, you may be required to republish the notices.

The following requirements are also described in the enclosed instructions. However, due to their importance, they are highlighted here as well.

1. You must publish the enclosed notice within as soon as possible, but no later than 45 days from the date on the cover letter. **You may be required to publish the notice in more than one newspaper, including a newspaper published in an alternative language, to satisfy all of the notice requirements.**
2. On or before the date you publish notice, you must place the following items in a

public place in the county where the facility is or will be located.

- (a) a copy of your permit application, including any subsequent revisions;
- (b) the executive director's preliminary decision as contained in the technical summary; and
- (c) the draft permit, including any subsequent revisions.

These items must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place until the commission has taken action on the application or the commission refers issues to the State Office of Administrative Hearings.

- 3. For each publication, submit proof of publication of the notice that shows the publication date and newspaper name to the Office of the Chief Clerk within **30 calendar days** after notice is published in the newspaper.
- 4. Return the original enclosed Public Notice Verification and the Publisher's Affidavits to the Office of the Chief Clerk within **30 calendar days** after the notice is published in the newspaper.

If you do not comply with **all** the requirements described in the instructions, further processing of your application may be suspended or the agency may take other actions.

If you have any questions regarding publication requirements, please contact the Office of Legal Services at (512) 239-0600. If you have any questions regarding the content of the notice, please contact the individual in the permitting area assigned to your application.

Sincerely,

Laurie Gharis
Chief Clerk
Office of the Chief Clerk

LG/MJS/CIA team member initials

Enclosures

Mr. Periapattanam Page 3

Date, 2025

Permit No. WQ0005432000

bcc: TCEQ Region 10, Water Program Manager

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Date, 2025

Mr. Gopal Periapattanam, Environmental Engineer
Chevron Philips Chemical Company
10001 Six Pines Drive
The Woodlands, Texas 77380

RE: Permit Application
Permit No.: WQ0005432000
Golden Triangle Polymers Company LLC
Golden Triangle Polymers Plant
Orange, Orange County
Customer Reference Number: CN606046183
Regulated Entity Number: RN110935285

Dear Mr. Periapattanam:

The Texas Commission on Environmental Quality (TCEQ) has made a preliminary decision on the above-referenced permit application. In accordance with Title 30 Texas Administrative Code § 39.419(b), you are now required to publish Notice of Application and Preliminary Decision. You must provide a copy of the preliminary decision letter with the draft permit at the public place referenced in the public notice.

If you have any questions, please contact Michael Sunderlin at 512-239-4523, by email at michael.sunderlin@tceq.texas.gov, or write to the TCEQ, Office of Water, Water Quality Division, MC-148, Austin, Texas, 78711-3087.

Sincerely,

Matthew Udenenwu
Section Manager, Wastewater Permitting
Office of Water

MU/MJS/CIA team member initials

Enclosures

cc: TCEQ Region 10, Water Program Manager

THIS IS A DRAFT VERSION OF THIS NOTICE. DO NOT PUBLISH UNTIL YOU RECEIVE THE OFFICIAL VERSION AND INSTRUCTIONS FROM TCEQ's OFFICE OF THE CHIEF CLERK.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**NOTICE OF APPLICATION AND PRELIMINARY DECISION
FOR TPDES PERMIT FOR INDUSTRIAL WASTEWATER
NEW**

Permit No. WQ0005432000

APPLICATION AND PRELIMINARY DECISION. Golden Triangle Polymers Company LLC, 10001 Six Pines Drive, The Woodlands, Texas 77380, which proposes to operate Golden Triangle Polymers Plant, an integrated polymers production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005432000, to authorize the discharge of utility wastewater, stormwater, passivation wastewater, and system flush water on an intermittent and flow-variable basis via Outfall 001 (Phase 1); process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 2,650,000 gallons per day via Outfall 001 (Phase 2); and process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 5,150,000 gallons per day via Outfall 001 (Phase 3). The TCEQ received this application on June 29, 2023.

The facility is located at 850 Foreman Road, southwest of the City of Orange, Orange County, Texas 77630. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.775833,30.074167&level=18>

The effluent is discharged directly to the Sabine River Tidal in Segment No. 0501 of the Sabine River Basin. The designated uses for Segment No. 0501 are primary contact recreation and high aquatic life use.

In accordance with 30 Texas Administrative Code §307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), 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 Sabine River Tidal, which has been identified as having high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director reviewed this action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Orange Public Library, 220 North 5th Street, Orange, Texas.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit written or oral comment or to ask questions about the application. Generally, the TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for public comments, the Executive Director will consider the comments and prepare a response to all relevant and material, or significant public comments. **The response to comments, along with the Executive Director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on a mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period; and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed**

questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or a timely request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and requests to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be added to: (1) the permanent list for a specific applicant name and permit number; and (2) the mailing list for a specific county. If you wish to be placed on the permanent and the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://www.tceq.texas.gov/goto/comment> within 30 days from the date of newspaper publication of this notice.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at <https://www.tceq.texas.gov/goto/cid/>. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at <https://www.tceq.texas.gov/goto/comment>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address, and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, toll free, at 1-800-687-4040 or visit their website at <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Golden Triangle Polymers Company LLC at the address stated above or by calling Mr. Gopal Periapattanam, Environmental Engineer, Chevron Phillips Chemical Company, at 832-416-3060.

Issued:

Agenda Caption (save to I:\EVERYONE\WQ\CAPTION\WQ0005432000 with no filename extension):

AGENDA CAPTION FOR PERMIT NO. WQ0005432000

Golden Triangle Polymers Company LLC, which proposes to operate Golden Triangle Polymers Plant, an integrated polymers production facility, has applied for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005432000, to authorize the discharge of utility wastewater, stormwater, passivation wastewater, and system flush water on an intermittent and flow-variable basis via Outfall 001 (Phase 1); process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 2,650,000 gallons per day via Outfall 001 (Phase 2); and process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 5,150,000 gallons per day via Outfall 001 (Phase 3). The facility is located at 850 Foreman Road, southwest of the City of Orange, Orange County, Texas 77630. The TCEQ Executive Director reviewed this action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.

**FOR NEW, RENEWAL, AND MAJOR AMENDMENT APPLICATIONS
RECEIVED ON OR AFTER SEPTEMBER 1, 2015.** Otherwise, delete the following legislative notice.

DELETE INSTRUCTIONS and

- 1) Save notice to I:\WQ\IND\Legislative Notice\WQ0005432000 with no filename extension and
- 2) email to **WQCIATEAM** with the subject line:
Legislative Notice, Permit #XXXX

Senate Bill 709 (84th Legislative Session, 2015) amended the Texas Water Code by adding new Section 5.5553, which requires the Texas Commission on Environmental Quality (TCEQ) to provide written notice to you at least thirty (30) days prior to the TCEQ's issuance of draft permits for applications that are located in your district.

Golden Triangle Polymers Company LLC, 10001 Six Pines Drive, The Woodlands, Texas 77380, which owns an integrated polymers production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005432000 (EPA I.D. No. TX0144690) to authorize the discharge of treated wastewater and stormwater at a volume not to exceed a daily average flow of 5,150,000 gallons per day. The facility will be located at 850 Foreman Road, Orange, in Orange County, Texas 77630. The discharge route will be from the plant site directly to Sabine River Tidal. TCEQ received this application on June 29, 2023. The permit application will be available for viewing and copying at Orange Public Library, 220 North 5th Street, Orange, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.775833,30.074167&level=18>

TCEQ is preparing the initial draft permit. At the time the draft permit is issued, the applicant will be required to publish notice in a newspaper of general circulation, and the TCEQ will provide a copy of the notice of draft permit to persons who have requested to be on a mailing list.

Questions regarding this application may be directed to Mr. Matthew Kennington by calling 512-239-4524.

Issuance Date: 2/19/2025

STATEMENT OF BASIS/TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant: Golden Triangle Polymers Company LLC; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005432000 (EPA I.D. No. TX0144690)

Regulated activity: Industrial wastewater permit

Type of application: New permit

Request: New permit

Authority: Federal Clean Water Act (CWA) §402; Texas Water Code (TWC) §26.027; 30 Texas Administrative Code (TAC) Chapter 305, Subchapters C-F, and Chapters 307 and 319; commission policies; and Environmental Protection Agency (EPA) guidelines

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit will expire at midnight, five years from the date of permit issuance according to the requirements of 30 TAC §305.127(1)(C)(i).

REASON FOR PROJECT PROPOSED

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit.

PROJECT DESCRIPTION AND LOCATION

The applicant proposes to operate Golden Triangle Polymers Plant, an integrated polymers production facility consisting of multiple independent petrochemical units including an ethane cracker and two high density polyethylene units. The ethane cracker produces ethylene from ethane feedstock while the polyethylene units produce polyethylene pellets from ethylene feedstock. Railcar loading of polyethylene pellets will occur onsite for transport of pellets to customers.

The facility polyethylene units and ethane cracker unit will be commissioned and operated in the following phases:

Phase 1: The first (initial) phase will only generate flows from the commissioning of the polyethylene units, commissioning of associated utilities, and from stormwater. Stormwater includes stormwater associated with construction activities and allowable Multi-Sector General Permit (MSGP) non-stormwater discharges.

Phase 2: The second (interim) phase will generate flows from the operations of the polyethylene units, operations of associated utilities, commissioning of the ethane cracker unit, and from stormwater. Utility wastewater includes, but is not limited to non-contact cooling water, cooling tower blowdown, boiler blowdown, condensates (air conditioner, air compressor, and steam pipe), water treatment wastes, and hydrostatic test water. Stormwater includes stormwater associated with construction activities and allowable Multi-Sector General Permit (MSGP) non-stormwater discharges.

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005432000

Phase 3: The third (final) phase will generate flows from the operations of the polyethylene units, operations of the ethane cracker, operations of associated utilities, and from stormwater. Utility wastewater includes, but is not limited to non-contact cooling water, cooling tower blowdown, boiler blowdown, condensates (air conditioner, air compressor, and steam pipe), water treatment wastes (reverse osmosis (ro) reject water, mixed bed ion exchange (MBIX) regeneration wastewater), and hydrostatic test water. Stormwater includes stormwater associated with construction activities and allowable Multi-Sector General Permit (MSGP) non-stormwater discharges.

A narrative description of the wastewater treatment system is provided in Appendix A.

The facility is located at 850 Foreman Road, southwest of the City of Orange, Orange County, Texas 77630.

Discharge Route and Designated Uses

The effluent is discharged directly to the Sabine River Tidal in Segment No. 0501 of the Sabine River Basin. The designated uses for Segment No. 0501 are primary contact recreation and high aquatic life use. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and revisions.

Antidegradation Review

In accordance with 30 Texas Administrative Code §307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), 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 Sabine River Tidal, which has been identified as having high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. 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.

Impaired Water Bodies

Segment No. 0501 is currently listed on the State's inventory of impaired and threatened waters, the 2022 Clean Water Act Section 303(d) list. The listings are for elevated bacteria levels in water (recreation use) from the confluence of Sabine Lake upstream to the confluence of Little Cypress Bayou (AUs 0501_01 and 0501_02); and for polychlorinated biphenyls [PCBs] in edible tissue from the confluence of Sabine Lake upstream to Morgans Bluff in Orange County (AUs 0501_01, 0501_02, and 0501_03). The issuance of this permit is not anticipated to cause any additional adverse impact to the receiving waters with respect to the listed impairments.

Domestic wastewater generated at the facility is the only identified potential source for bacteria from the facility activities. The draft permit does not authorize the discharge of domestic wastewater via

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005432000

Outfall 001. Domestic wastewater generated at the facility will be routed to a third party, Orange County WCID #2, that is authorized to receive, treat, and discharge treated domestic wastewater via TPDES Permit No. WQ0010240001.

None of the activities proposed to be conducted at the facility have been identified as potential sources for PCBs. Additionally, the draft permit includes an effluent retest requirement (Other Requirement No. 13) to obtain actual effluent quantitative data for many parameters (including PCBs) after discharge from each production phases (Phases 2 and 3) commence. That data will be reviewed to confirm there are no detectable sources of PCBs present in the wastewater.

Completed Total Maximum Daily Loads (TMDLs)

There are no completed TMDLs for Segment No. 0501.

Dissolved Oxygen

The following determinations were made and summarized in the interoffice memorandum (IOM) from the Water Quality Assessment Team dated February 14, 2025.

The Phase 1 flow phase is not expected to have a significant impact on dissolved oxygen levels in the receiving waters. Only Phase 2 (2.65 MGD) and Phase 3 (5.15 MGD) flow phases are expected to discharge wastewater with significant levels of oxygen-demanding substances. A dissolved oxygen modeling analysis of the discharge was conducted using an uncalibrated QUAL-TX model for the Phase 2 (2.65 MGD) and Phase 3 (5.15 MGD) flow phases.

Based on model results, effluent limits of 264 pounds per day (lbs/day) for five-day biochemical oxygen demand (BOD₅) for the Phase 2 (2.65 MGD) flow phase and 528 lbs/day BOD₅ for the Phase 3 (5.15 MGD) flow phase are predicted to be adequate to maintain dissolved oxygen levels above the criterion stipulated by the Standards Implementation Team for the Sabine River Tidal (4.0 mg/L).

Coefficients and kinetics used in the model are a combination of site-specific and standardized default values. The results of this evaluation can be reexamined upon receipt of information that conflicts with the assumptions employed in this analysis.

SUMMARY OF EFFLUENT DATA

Self-reporting data is not available because the facility has not commenced facility operations and has not discharged.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the discharge of utility wastewater, stormwater, passivation wastewater, and system flush water on an intermittent and flow-variable basis via Outfall 001 (Phase 1); process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 2,650,000 gallons per day via Outfall 001 (Phase 2); and process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 5,150,000 gallons per day via Outfall 001 (Phase 3).

Effluent limitations are established in the draft permit as summarized in Appendix E:

OUTFALL LOCATION

Outfall	Latitude	Longitude
001	30.063007 N	93.720125 W

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005432000

Technology-Based Effluent Limitations

Regulations in Title 40 of the Code of Federal Regulations (40 CFR) require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines. Technology-based effluent limitation guidelines (ELGs) from 40 CFR Part 414 apply to the discharge of process wastewater from this facility. Development of technology-based effluent limitations is presented in Appendix A.

Water Quality-Based Effluent Limitations

Calculations of water quality-based effluent limitations for the protection of aquatic life and human health are presented in Appendix B. Aquatic life criteria established in Table 1 and human health criteria established in Table 2 of 30 TAC Chapter 307 are incorporated into the calculations, as are recommendations in the Water Quality Assessment Team's memorandum dated February 28, 2025. TCEQ practice for determining significant potential is to compare the reported analytical data from the facility against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting are required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

The application included effluent data from a similar facility, however, the wastewater sources regulated in the draft permit are not operational at this time so there is no actual effluent data from the facility to conduct water quality screening for a reasonable potential assessment. The draft permit includes a testing requirement of the effluent (Other Requirement Provision No. 10) so actual data can be collected after discharge commences and a reasonable potential evaluation can be concluded at that time.

Calculated technology-based effluent limitations are compared to calculated water quality-based effluent limitations in Appendix D, to determine if technology-based effluent limitations are protective of water quality or if water quality-based effluent limitations need to be included in the draft permit, in addition to the required technology-based effluent limitations, to protect water quality. Based on this comparison, it was determined that water quality-based effluent limitations for benzo(a)anthracene, benzo(a)pyrene, and hexachlorobenzene will be required for the production phases (Phases 2 and 3) of Outfall 001, in addition to the required technology-based effluent limitations for these parameters at internal Outfall 101 of the same phases.

The draft permit includes self-expiring monitoring/reporting requirements for temperature for the production phases (Phases 2 and 3) of Outfall 001 to gather sufficient data so the need for temperature limitations can be evaluated at the next permit renewal action.

Total Dissolved Solids (TDS), Chloride, and Sulfate Screening

Segment No. 0501, which receives the discharge from this facility, does not have criteria established for TDS, chloride, or sulfate in 30 TAC Chapter 307; therefore, no screening was performed for TDS, chloride, or sulfate in the effluent.

pH Screening

The draft permit includes pH limits of 6.0 – 9.0 SU at Outfall 001, which discharges directly into Sabine River Tidal, Segment No. 0501. Screening was performed to ensure that these existing pH limits would not cause a violation of the 6.0 – 8.5 SU pH criteria for Sabine River Tidal (see Appendix C). The effluent limits of 6.0 – 9.0 SU are adequate to ensure that the discharge will not violate the pH criteria in Sabine River Tidal.

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316(b) Cooling Water Intake Structures

The facility obtains water from Sabine River Authority Gulf Coast, a public water system (PWS No. TX1810193), for cooling purposes. The use of water obtained from a public water system for cooling purposes does not constitute the use of a cooling water intake structure; therefore, the facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

Other Requirement No. 5 has been included in the draft permit and it requires the permittee to notify the TCEQ of any changes in the method by which cooling water is obtained. Upon receipt of such notification, the TCEQ may reopen the permit to include additional terms and conditions as necessary.

Whole Effluent Toxicity Testing (Biomonitoring)

The following determinations were made and summarized in the interoffice memorandum (IOM) from the Water Quality Assessment Team dated July 19, 2024.

An RP determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of chronic WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

This is a new facility, therefore, there is no whole effluent testing (WET) history. With no WET testing history, and therefore zero (0) failures, a determination of no RP was made.

Marine chronic and 24-hour acute testing are recommended for Outfall 001. For both tests, the mysid shrimp (*Americamysis bahia*) and the inland silverside (*Menidia beryllina*) are recommended as test species. A chronic testing frequency of once per quarter for both test species and a dilution series of 4%, 5%, 7%, 9%, and 12% with a critical dilution of 9% are recommended. WET limits are not required and both test species may be eligible for the testing frequency reduction after one year of quarterly testing. WET testing requirements are only applicable for Phases 2 and 3. For 24-hour acute a testing frequency of once per six months is recommended for both species.

SUMMARY OF CHANGES FROM APPLICATION

The draft permit includes effluent testing requirements in Other Requirement No. 13 for all phases of Outfall 001, and not just the final phase as anticipated by the applicant.

SUMMARY OF CHANGES FROM EXISTING PERMIT

This application is for a new TPDES permit for a new facility, there is no existing permit for this facility.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on June 29, 2023, and additional information received on February 25, 2025.
2. TCEQ Rules.

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3. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 1, 2018, as approved by EPA Region 6.
4. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.
5. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not approved by EPA Region 6.
6. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not approved by EPA Region 6.
7. *Procedures to Implement the Texas Surface Water Quality Standards* (IPs), Texas Commission on Environmental Quality, June 2010, as approved by EPA Region 6.
8. *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.
9. Memos from the Standards Implementation Team and Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
10. *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
11. EPA Effluent Guidelines: 40 CFR Part 414 Suparts D, F, and I (NSPS). A new source determination was performed, and the discharge of process wastewater is a new source as defined at 40 CFR §122.2.
12. Consistency with the Coastal Management Plan: The executive director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.
13. Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).
14. Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).
15. Letter dated December 28, 2015, from L'Oreal Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).
16. Letter dated December 28, 2015, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).
17. Letter dated April 29, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for thermal evaluation procedures).
18. Letter dated May 12, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for thermal evaluation procedures).
19. General Guidance – Industrial Permits: Uncontaminated Stormwater Runoff, EPA, January 1997.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the chief clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the

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newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for reviewing and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent to the Chief Clerk, along with the Executive Director's preliminary decision contained in the technical summary or fact sheet. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case hearing.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ commissioners for their consideration at a scheduled commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the commission grants a contested case hearing as described above, the commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Michael Sunderlin at (512) 239-4523.

Michael Sunderlin

Michael Sunderlin

March 24, 2025

Date

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Appendix A
Calculated Technology-Based Effluent Limits

Domestic wastewater generated at the facility will be collected and conveyed offsite via a lift station to the nearby Water Control and Improvement District No. 2 plant for treatment and discharge under TPDES Permit No. WQ0010240001.

Spent caustic wastewaters and stormwater from spent caustic facility areas are collected and routed to the Wet Air Oxidation (WAO) Treatment Unit prior to being commingled with other wastewaters and routed to the Benzene Wastewater Induced Gas Flotation Vessel where oils and solids are removed. Wastewater is then routed to the Benzene Stripper Package for further benzene removal before being routed to the biological treatment system.

The biological wastewater treatment system includes moving bed bioreactors (MBBRs), activated sludge units (ASUs), and wastewater clarifiers. The MBBR Tanks remove easily biodegradable organics and handle fluctuations in influent wastewater strength, with the downstream ASUs providing removal of remaining organics, benzene, and phenols. After bulk biomass removal in the clarifiers, effluent is pumped through continuous backwashing sand filters for polishing prior to discharge into the check basin.

Wastewater from the equalization tanks is pumped to the Moving Bed Bioreactor (MBBR) Splitter Box where chemical treatment may occur on an as-needed basis. Flow from the MBBR Splitter Box is directed to one of two wastewater treatment trains. The treatment system is composed of redundant MBBR/Activated Sludge Unit (ASU) trains. Effluent from the MBBR Tanks is directed to the ASUs to provide biologic treatment. Return activated sludge (RAS) will be provided upstream of the ASUs. Wastewater is then directed to one of two wastewater clarifier tanks for solids settling, then convey by gravity to the Clarifier Effluent Tank for solids removal by RAS pumps.

The clarifier effluent from both wastewater clarifier tanks gravity flows into the Clarifier Effluent Tank modulating flow into the continuous backwash Sand Filters. Operators have the ability to redirect off-spec clarifier effluent back to the equalization tanks or the First Slush Pond for re-processing through the biological treatment system.

The effluent from the sand filters is directed to the Check Basin, an in-ground concrete structure to commingle treated wastewater effluent with additional flows of utility wastewaters that did not require biological treatment.

The Check Basin contains three final discharge pumps. Online monitoring of flow, pH, and temperature can be conducted at the Check Basin prior to conveying the combined discharge to the outfall via pipeline.

Settled solids from the clarifiers are removed from the system and transferred to the aerated Sludge Holding Tank. Sludge is periodically pumped from the holding tank to the centrifuge dewatering system. Polymer may be fed to the solids dewatering process for sludge conditioning. Solids from the wastewater and water treatment centrifuges, ultrafiltration waste streams, and Sand Filter backwash are directed to the Wastewater Dewatering Sump, an in-ground concrete structure, for storage prior to disposal.

Blowdown and contact wastewater from the cutting, cooling, and washing of polyethylene pellets are collected and routed to a roll-off box with a filter liner to remove stray pellets and particulate before wastewaters are routed to the Pellet Wastewater Filters to further remove solids or pellets before the wastewaters are routed to the equalization tanks for biological treatment.

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Combined wastewaters in the Check Basin can be routed to the first flush pond and retreated through the biological system based on the discretion of the facility operators.

Pellet area stormwater generated in the polyethylene units and pellet loadout areas within the storage battery are routed to the Pellet Separator Sump where flow velocities decrease to allow pellets to float and be skimmed from the surface prior to routing the stormwater through an underflow weir to the Stormwater Diversion Box. Skimmed stormwater flows from the Pellet Separator Sump are conveyed to a filter fabric lined roll-off dumpster.

Stormwater flows for the inside storage battery limit area are routed to the Stormwater Diversion Box, which is sized to receive the first flush, then routed to the First Flush Pond. The First Flush Pond includes a First Flush Pond Wet Well that is equipped with screens. Stormwater is then pumped to equalization tanks for biological treatment in the wastewater treatment system.

Once the first flush capacity in the Stormwater Division Box is reached, the system routes the remainder of the stormwater (post-first flush) through an underflow and overflow weir to the outside battery limit (OSBL) Pond prior to discharge under TPDES Permit No. WQ0005288000.

The draft permit is set up into three (3) operational phases. Phase 1 is identified in the application as the commissioning phase of the polyethylene units with no facility production. Phase 2 is identified in the application as the operational phase of the polyethylene production units and the commissioning phase of the ethane cracker. Phase 3 is identified as the operational phase of the polyethylene production units and the operational phase of the ethane cracker.

The final discharge is via Outfall 001 which consists of a submerged single-port diffuser, located approximately 85 feet from the right shoreline with an orientation 45° perpendicular to the ambient river flow. The port has a diameter of 12 inches (0.3048 m) and is oriented horizontally to the water surface.

The applicant commenced construction of the facility, received an authorization to construct the wastewater treatment/management facilities from the Commission on September 12, 2023. New Source Performance Standards for ELGs in 40 CFR Part 414 were promulgated on November 5, 1987 [52 FR 42568] and amended on September 11, 1992 [57 FR 41843]. Based on the comparison of the promulgation of the ELGs to the date the authorization to construct was issued, the facility is a new source

All effluent limitations are expressed in one of the following units of measure:

°F	degrees Fahrenheit
lbs/day	pounds per day
MGD	million gallons per day
mg/L	milligrams per liter
su	standard units

Mass effluent limitations/allocations are calculated as follows:

$$[\text{concentration criteria (mg/L)}] \times [\text{flow (MGD)}] \times [8.345] = [\text{mass limitation/allocation (lbs/day)}]$$

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I. PHASE 1

This phase is effective upon date of permit issuance and lasting through the date of activation of the polyethylene production units. There are no applicable ELGs, all effluent limitations and monitoring requirements are based on best professional judgement (BPJ). This phase consists of Outfall 001 only.

The effluent limitations for chemical oxygen demand (COD), oil and grease, and pH based on the standard BPJ limitations assigned for stormwater discharges and are consistent with limitations established in other TPDES permits for similar wastewaters consisting of stormwater commingled with intermittent discharges of utility wastewaters.

Monitoring/reporting requirements for total suspended solids are also based on BPJ.

Monitoring/reporting requirements for flow are based on 40 CFR 122.44(i)(1)(ii).

II. PHASE 2

This phase is effective upon the date of activation of the polyethylene production units and lasts through the date of activation of the ethane cracker. ELGs for the production of organic chemicals, plastics, and synthetic fibers under 40 CFR Part 414 Subparts D and I apply to the discharge of process wastewater (including process area stormwater) from the polyethylene production units. Additional limitations/allocations are developed for non-process wastewater by BPJ.

A. Internal Outfall 101

1. Process Wastewater – Conventional Pollutants

Effluent limitations are calculated for biochemical oxygen demand (5-day) and total suspended solids based on the criteria in 40 CFR 414.44(a) and the process wastewater source flow of 0.37 MGD, which is inclusive of process wastewater and process area stormwater.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
BOD ₅	24	64	0.37	74.10	197.61
TSS	40	130	0.37	123.51	401.39

2. Stormwater Associated w/ Industrial Activity – Conventional Pollutants

Allocations were calculated using the sum of the flows for the contributing stormwater sources and concentration criteria based on BPJ. The BPJ criteria for BOD₅ and O&G are based on the expected quality levels for stormwater. The BPJ criteria for TSS are based on the benchmark values for TSS in the Multi-Sector General Permit.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
BOD ₅	10	10	0.60	50.07	50.07
TSS	50	50	0.60	250.35	250.35

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3. Summations – Conventional Pollutants

The calculated allocations for the contributing sources are summed to derive mass-based effluent limitations for the discharge via Outfall 001 during the final phase.

Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
BOD ₅	Process Wastewater	74.10	197.61
	Stormwater	50.07	50.07
	Total	124.17 ~124	247.68 ~248
TSS	Process Wastewater	123.51	401.39
	Stormwater	250.35	250.35
	Total	373.86 ~374	651.74 ~652

4. Process Wastewater – Toxic Pollutants

BAT Effluent Limitations for the Organic Chemicals, Plastics and Synthetic Fibers Point Source Category - 40 CFR 414.91 (Subpart I)

Total Flow from Outfall	0.97 MGD
Process Wastewater Flow	0.37 MGD
Metal Bearing Wastewater Flow	0 MGD
Cyanide Bearing Wastewater Flow	0 MGD

Parameter	Daily Avg (ug/l)	Daily Max (ug/l)	Daily Avg (lb/day)	Daily Max (lb/day)
Chromium	1110	2770	n/a	n/a
Zinc	1050	2610	n/a	n/a
Copper	1450	3380	n/a	n/a
Lead	320	690	n/a	n/a
Nickel	1690	3980	n/a	n/a
Cyanide	420	1200	n/a	n/a
Acenaphthene	22	59	0.07	0.18
Acenaphthylene	22	59	0.07	0.18
Acrylonitrile	96	242	0.30	0.75
Anthracene	22	59	0.07	0.18
Benzene	37	136	0.11	0.42
Benzo(a)anthracene	22	59	0.07	0.18
Benzo(a)pyrene	23	61	0.07	0.19
3,4-Benzofluoranthene	23	61	0.07	0.19
Benzo(k)fluoranthene	22	59	0.07	0.18
Bis(2-ethylhexyl)phthalate	103	279	0.32	0.86
Carbon Tetrachloride	18	38	0.06	0.12
Chlorobenzene	15	28	0.05	0.09
Chloroethane	104	268	0.32	0.83
Chloroform	21	46	0.06	0.14
2-Chlorophenol	31	98	0.10	0.30
Chrysene	22	59	0.07	0.18

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Parameter	Daily Avg (ug/l)	Daily Max (ug/l)	Daily Avg (lb/day)	Daily Max (lb/day)
1,2-Dichlorobenzene	77	163	0.24	0.50
1,3-Dichlorobenzene	31	44	0.10	0.14
1,4-Dichlorobenzene	15	28	0.05	0.09
1,1-Dichloroethane	22	59	0.07	0.18
1,2-Dichloroethane	68	211	0.21	0.65
1,1-Dichloroethylene	16	25	0.05	0.08
1,2-trans Dichloroethylene	21	54	0.06	0.17
2,4-Dichlorophenol	39	112	0.12	0.35
1,2-Dichloropropane	153	230	0.47	0.71
1,3-Dichloropropylene	29	44	0.09	0.14
Diethyl phthalate	81	203	0.25	0.63
2,4-Dimethylphenol	18	36	0.06	0.11
Dimethyl phthalate	19	47	0.06	0.15
Di-n-butyl phthalate	27	57	0.08	0.18
4,6-Dinitro-o-cresol	78	277	0.24	0.86
2,4-Dinitrophenol	71	123	0.22	0.38
2,4-Dinitrotoluene	113	285	0.35	0.88
2,6-Dinitrotoluene	255	641	0.79	1.98
Ethylbenzene	32	108	0.10	0.33
Fluoranthene	25	68	0.08	0.21
Fluorene	22	59	0.07	0.18
Hexachlorobenzene	15	28	0.05	0.09
Hexachlorobutadiene	20	49	0.06	0.15
Hexachloroethane	21	54	0.06	0.17
Methyl Chloride	86	190	0.27	0.59
Methylene Chloride	40	89	0.12	0.27
Naphthalene	22	59	0.07	0.18
Nitrobenzene	27	68	0.08	0.21
2-Nitrophenol	41	69	0.13	0.21
4-Nitrophenol	72	124	0.22	0.38
Phenanthrene	22	59	0.07	0.18
Phenol	15	26	0.05	0.08
Pyrene	25	67	0.08	0.21
Tetrachloroethylene	22	56	0.07	0.17
Toluene	26	80	0.08	0.25
1,2,4-Trichlorobenzene	68	140	0.21	0.43
1,1,1-Trichloroethane	21	54	0.06	0.17
1,1,2-Trichloroethane	21	54	0.06	0.17
Trichloroethylene	21	54	0.06	0.17
Vinyl Chloride	104	268	0.32	0.83

B. Outfall 001

1. Process Wastewater Non-ELG Allocations – Conventional Pollutants

The process wastewater limitations calculated above for Outfall 101 (see II.A.1. above) are used for the process wastewater allocations at final Outfall 001. Additional allocations for oil and grease are calculated as follows based on BPJ.

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Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
Oil & Grease	15	20	0.37	46.31	61.75

2. Utility Wastewater Allocations – Conventional Pollutants

Allocations were calculated using the sum of the flows for the contributing wastestreams that are categorized as utility wastewaters and concentration criteria based on BPJ. The BPJ criteria for BOD₅ are based on the expected quality levels of this category of wastewaters. The BPJ criteria for TSS and oil & grease are derived from the quality criteria for low-volume wastes found in 40 CFR Part 423. The quality and character of low-volume wastes is very similar to those for utility wastewaters.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
BOD ₅	10	20	1.68	140.20	280.39
TSS	30	100	1.68	420.59	1401.96
Oil & Grease	15	20	1.68	210.29	280.39

3. Stormwater Associated w/ Industrial Activity Additional Allocations – Conventional Pollutants

Allocations were calculated using the sum of the flows for the contributing stormwater sources and concentration criteria based on BPJ. The BPJ criteria for oil and grease are based on the expected quality levels for stormwater. Although the contributing source is previously monitored at internal Outfall 101, allocations are only applied at the point of final discharge via Outfall 001.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
Oil & Grease	15	15	0.60	75.10	75.10

4. Summations – Conventional Pollutants

The calculated allocations for the contributing sources are summed to derive mass-based effluent limitations for the discharge via Outfall 001 during the final phase.

Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
Biochemical Oxygen Demand 5-day	Outfall 101 PME	124.17	247.68
	Utility Wastewater	140.20	280.39
	Total	264.37 ~264	528.07 ~528
Total Suspended Solids	Outfall 101 PME	373.86	401.39
	Utility Wastewater	420.59	1401.96
	Total	794.45 ~794	2,053.7 ~2,054

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Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
Oil & Grease	Process Wastewater	46.31	61.75
	Utility Wastewater	210.29	280.39
	Stormwater	75.10	75.10
	Total	331.70 ~332	417.24 ~417

5. Chloroform

The applicant requested additional allocations for chloroform for specific utility wastewater sources. Based on the fact that ELG sources for chloroform are regulated at internal Outfall 101 prior to commingling with the utility wastewater sources for chloroform identified in the application, utility wastewater allocations for chloroform calculated here will be added to the limitations imposed at internal Outfall 101 to calculate the effluent limitations for chloroform imposed at Outfall 001.

The BPJ criteria used for chloroform for the utility wastewaters is derived from 40 CFR Part 414.101. The flow of 1.68 MGD is the summation of the contributing sources identified in the application.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
Chloroform	0.111	0.325	1.68	1.56	4.56

The summation of the two sources (process wastewater from internal Outfall 101 and utility wastewater) is provided below.

Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
Chloroform	Process Wastewater	0.06	0.14
	Utility Wastewater	1.56	4.56
	Total	1.62	4.70

III. PHASE 3

This phase is effective upon the date of activation of the ethane cracker and lasts through date of permit expiration. ELGs for the production of organic chemicals, plastics, and synthetic fibers under 40 CFR Part 414 Subparts D, F, and I apply to the discharge of process wastewater (including process area stormwater) from the polyethylene production units and the ethane cracker. Additional limitations/allocations are developed for non-process wastewater by BPJ.

A. Internal Outfall 101

1. Process Wastewater – Conventional Pollutants

The application identifies 50% production from the polyethylene units that are subject to 40 CFR Part 414 Subpart D and 50% production of ethylene from the ethane cracker subject to 40 CFR Part 414 Subpart F. A review of 40 CFR Part 414 confirms that polyethylene production is subject to 40 CFR Part 414 Subpart D, and ethylene production from the ethane cracker is subject to 40 CFR Part 414 Subpart F as stated in the application. Concentration criteria for biochemical oxygen demand (5-day) and total

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suspended solids are calculated by prorating the percent production of the two contributing ELGs [40 CFR 414.44(a) and 40 CFR 414.64(b)].

OCPSF Subcategory	% Production
Subpart D Thermoplastic Resins - 40 CFR 414.44(b)	50 %
Subpart F Commodity Organic - 40 CFR 414.64(b))	50 %
TOTAL	100 %

BOD ₅ -Avg	Sub-D	(24 mg/L) * (0.50)	=	12.0
	Sub-F	(30 mg/L) * (0.50)	=	15.0
		TOTAL		27.0

BOD ₅ -Max	Sub-D	(64 mg/L) * (0.50)	=	32.0
	Sub-F	(80 mg/L) * (0.50)	=	40.0
		TOTAL		72.0

TSS-Avg	Sub-D	(40 mg/L) * (0.50)	=	20.0
	Sub-F	(46 mg/l) * (0.50)	=	23.0
		TOTAL		43.0

TSS-Max	Sub-D	(130 mg/L) * (0.50)	=	65.0
	Sub-F	(149 mg/L) * (0.50)	=	74.5
		TOTAL		139.5

Effluent limitations are calculated for BOD₅ and TSS based on the combined criteria above and the process wastewater source flow of 0.70 MGD.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
BOD ₅	27	72	0.70	157.72	420.59
TSS	43.0	139.5	0.70	251.18	814.89

2. Stormwater Associated w/ Industrial Activity – Conventional Pollutants

Allocations were calculated using the sum of the flows for the contributing stormwater sources and concentration criteria based on BPJ. The BPJ criteria for BOD₅ and O&G are based on the expected quality levels for stormwater. The BPJ criteria for TSS are based on the benchmark levels for TSS in the Multi-Sector General Permit.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
BOD ₅	10	10	0.60	50.07	50.07
TSS	50	50	0.60	250.35	250.35

3. Summations – Conventional Pollutants

The calculated allocations for the contributing sources are summed to derive mass-based effluent limitations for the discharge via Outfall 101 during the final phase.

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Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
BOD ₅	Process Wastewater	157.72	420.59
	Stormwater	50.07	50.07
	Total	207.79 ~208	470.66 ~471
TSS	Process Wastewater	251.18	814.89
	Stormwater	250.35	250.35
	Total	501.53 ~502	1,065.24 ~1,605

4. Process Wastewater – Toxic Pollutants

BAT Effluent Limitations for the Organic Chemicals, Plastics and Synthetic Fibers Point Source Category - 40 CFR 414.91 (Subpart I)

Total Flow from Outfall	1.30 MGD
Process Wastewater Flow	0.70 MGD
Metal Bearing Wastewater Flow	0 MGD
Cyanide Bearing Wastewater Flow	0 MGD

Parameter	Daily Avg (ug/l)	Daily Max (ug/l)	Daily Avg (lb/day)	Daily Max (lb/day)
Chromium	1110	2770	n/a	n/a
Copper	1450	3380	n/a	n/a
Lead	320	690	n/a	n/a
Nickel	1690	3980	n/a	n/a
Zinc	1050	2610	n/a	n/a
Cyanide	420	1200	n/a	n/a
Acenaphthene	22	59	0.13	0.34
Acenaphthylene	22	59	0.13	0.34
Acrylonitrile	96	242	0.56	1.41
Anthracene	22	59	0.13	0.34
Benzene	37	136	0.22	0.79
Benzo(a)anthracene	22	59	0.13	0.34
Benzo(a)pyrene	23	61	0.13	0.36
3,4-Benzofluoranthene	23	61	0.13	0.36
Benzo(k)fluoranthene	22	59	0.13	0.34
Bis(2-ethylhexyl)phthalate	103	279	0.60	1.63
Carbon Tetrachloride	18	38	0.11	0.22
Chlorobenzene	15	28	0.09	0.16
Chloroethane	104	268	0.61	1.57
Chloroform	21	46	0.12	0.27
2-Chlorophenol	31	98	0.18	0.57
Chrysene	22	59	0.13	0.34
1,2-Dichlorobenzene	77	163	0.45	0.95
1,3-Dichlorobenzene	31	44	0.18	0.26
1,4-Dichlorobenzene	15	28	0.09	0.16
1,1-Dichloroethane	22	59	0.13	0.34
1,2-Dichloroethane	68	211	0.40	1.23

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Parameter	Daily Avg (ug/l)	Daily Max (ug/l)	Daily Avg (lb/day)	Daily Max (lb/day)
1,1-Dichloroethylene	16	25	0.09	0.15
1,2-trans Dichloroethylene	21	54	0.12	0.32
2,4-Dichlorophenol	39	112	0.23	0.65
1,2-Dichloropropane	153	230	0.89	1.34
1,3-Dichloropropylene	29	44	0.17	0.26
Diethyl phthalate	81	203	0.47	1.19
2,4-Dimethylphenol	18	36	0.11	0.21
Dimethyl phthalate	19	47	0.11	0.27
Di-n-butyl phthalate	27	57	0.16	0.33
4,6-Dinitro-o-cresol	78	277	0.46	1.62
2,4-Dinitrophenol	71	123	0.41	0.72
2,4-Dinitrotoluene	113	285	0.66	1.66
2,6-Dinitrotoluene	255	641	1.49	3.74
Ethylbenzene	32	108	0.19	0.63
Fluoranthene	25	68	0.15	0.40
Fluorene	22	59	0.13	0.34
Hexachlorobenzene	15	28	0.09	0.16
Hexachlorobutadiene	20	49	0.12	0.29
Hexachloroethane	21	54	0.12	0.32
Methyl Chloride	86	190	0.50	1.11
Methylene Chloride	40	89	0.23	0.52
Naphthalene	22	59	0.13	0.34
Nitrobenzene	27	68	0.16	0.40
2-Nitrophenol	41	69	0.24	0.40
4-Nitrophenol	72	124	0.42	0.72
Phenanthrene	22	59	0.13	0.34
Phenol	15	26	0.09	0.15
Pyrene	25	67	0.15	0.39
Tetrachloroethylene	22	56	0.13	0.33
Toluene	26	80	0.15	0.47
1,2,4-Trichlorobenzene	68	140	0.40	0.82
1,1,1-Trichloroethane	21	54	0.12	0.32
1,1,2-Trichloroethane	21	54	0.12	0.32
Trichloroethylene	21	54	0.12	0.32
Vinyl Chloride	104	268	0.61	1.57

B. Outfall 001

1. Process Wastewater Allocations – Conventional Pollutants

The process wastewater limitations for BOD₅ and TSS calculated above for internal Outfall 101 (see III.A.1. above) are used for the process wastewater allocations at final Outfall 001. Additional allocations for oil and grease are calculated as follows based on BPJ.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
Oil & Grease	15	20	0.70	87.62	116.83

2. Utility Wastewater Allocations – Conventional Pollutants

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Allocations were calculated using the sum of the flows for the contributing wastestreams that are categorized as utility wastewaters and concentration criteria based on BPJ. The BPJ criteria for BOD₅ are based on the expected quality levels of this category of wastewaters. The BPJ criteria for TSS and oil & grease are derived from the quality criteria for low-volume wastes found in 40 CFR Part 423. The quality and character of low-volume wastes is very similar to those for utility wastewaters.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
BOD ₅	10	20	3.84	320.49	640.90
TSS	30	100	3.84	961.34	3204.48
Oil & Grease	15	20	3.84	480.67	640.90

3. Stormwater Associated w/ Industrial Activity – Conventional Pollutants

Allocations were calculated using the sum of the flows for the contributing stormwater sources and concentration criteria based on BPJ. The BPJ criteria for oil and grease are based on the expected quality levels for stormwater. Although the contributing source is previously monitored at internal Outfall 101, allocations are only applied at the point of final discharge via Outfall 001.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
Oil & Grease	15	15	0.60	75.10	75.10

4. Summations – Conventional Pollutants

The calculated allocations for the contributing sources are summed to derive mass-based effluent limitations for the discharge via Outfall 001 during the final phase.

Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
BOD ₅	Process Wastewater	157.72	420.59
	Utility Wastewater	320.49	640.90
	Total	528.28 ~528	1,111.56 ~1,112
TSS	Process Wastewater	251.18	814.89
	Utility Wastewater	961.34	3204.48
	Total	1,462.87 ~1,463	4,269.72 ~4,270
Oil & Grease	Process Wastewater	87.62	116.83
	Utility Wastewater	480.67	640.90
	Stormwater	75.10	75.10
	Total	643.39 ~643	832.83 ~833

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5. Chloroform

The applicant requested additional allocations for chloroform for specific utility wastewater sources. Based on the fact that ELG sources for chloroform are regulated at internal Outfall 101 prior to commingling with the utility wastewater sources for chloroform identified in the application, utility wastewater allocations for chloroform calculated here will be added to the limitations imposed at internal Outfall 101 to calculate the effluent limitations for chloroform imposed at Outfall 001.

The BPJ criteria used for chloroform for the utility wastewaters is derived from 40 CFR Part 414.101. The flow of 3.84MGD is the summation of the contributing sources identified in the application.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
Chloroform	0.111	0.325	3.84	3.56	10.41

The summation of the two sources (process wastewater from internal Outfall 101 and utility wastewater) is provided below.

Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
Chloroform	Process Wastewater	0.12	0.27
	Utility Wastewater	3.56	10.41
	Total	3.68	10.68 ~10.7

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Appendix B
Calculated Water Quality-Based Effluent Limits

TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Saltwater Aquatic Life

Table 2, 2018 Texas Surface Water Quality Standards for Human Health

"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Golden Triangle Polymers Company LLC
TPDES Permit No:	WQ0005432000
Outfall No:	001 (all phases)
Prepared by:	Michael Sunderlin
Date:	February 28, 2025

DISCHARGE INFORMATION

Receiving Waterbody:	Sabine River Tidal
Segment No:	0501
TSS (mg/L):	7
Effluent Flow for Aquatic Life (MGD)	5.15
% Effluent for Chronic Aquatic Life (Mixing Zone):	9.3
% Effluent for Acute Aquatic Life (ZID):	18.1
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	5.15
% Effluent for Human Health:	8.4

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

<i>Estuarine Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Cadmium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	4.85	-0.72	17439	0.891		1.00	Assumed
Lead	6.06	-0.85	219617	0.394		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	171644	0.454		1.00	Assumed
Zinc	5.36	-0.52	83282	0.632		1.00	Assumed

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AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>WLAa (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTAa (µg/L)</i>	<i>LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrolein	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	1.3	N/A	7.18	N/A	2.30	N/A	3.37	7.14
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	823	839	263	512	387	819
Cadmium	40.0	8.75	221	94.1	70.7	57.4	84.3	178
Carbaryl	613	N/A	3387	N/A	1084	N/A	1593	3370
Chlordane	0.09	0.004	0.497	0.0430	0.159	0.0262	0.0385	0.0815
Chlorpyrifos	0.011	0.006	0.0608	0.0645	0.0194	0.0394	0.0285	0.0604
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	6022	533	1927	325	478	1011
Copper	13.5	3.6	83.7	43.4	26.8	26.5	38.9	82.4
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide (free)	5.6	5.6	30.9	60.2	9.90	36.7	14.5	30.7
4,4'-DDT	0.13	0.001	0.718	0.0108	0.230	0.00656	0.00964	0.0203
Demeton	N/A	0.1	N/A	1.08	N/A	0.656	0.964	2.03
Diazinon	0.819	0.819	4.52	8.81	1.45	5.37	2.12	4.50
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	3.92	0.0215	1.26	0.0131	0.0192	0.0407
Diuron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.034	0.009	0.188	0.0968	0.0601	0.0590	0.0867	0.183
Endosulfan II (<i>beta</i>)	0.034	0.009	0.188	0.0968	0.0601	0.0590	0.0867	0.183
Endosulfan sulfate	0.034	0.009	0.188	0.0968	0.0601	0.0590	0.0867	0.183
Endrin	0.037	0.002	0.204	0.0215	0.0654	0.0131	0.0192	0.0407
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.108	N/A	0.0656	0.0964	0.203
Heptachlor	0.053	0.004	0.293	0.0430	0.0937	0.0262	0.0385	0.0815
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.16	N/A	0.884	N/A	0.283	N/A	0.415	0.879
Lead	133	5.3	1864	145	597	88.2	129	274
Malathion	N/A	0.01	N/A	0.108	N/A	0.0656	0.0964	0.203
Mercury	2.1	1.1	11.6	11.8	3.71	7.22	5.45	11.5
Methoxychlor	N/A	0.03	N/A	0.323	N/A	0.197	0.289	0.611
Mirex	N/A	0.001	N/A	0.0108	N/A	0.00656	0.00964	0.0203
Nickel	118	13.1	652	141	209	85.9	126	267
Nonylphenol	7	1.7	38.7	18.3	12.4	11.2	16.3	34.6
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	83.4	103	26.7	63.0	39.2	83.0
Phenanthrene	7.7	4.6	42.5	49.5	13.6	30.2	20.0	42.3
Polychlorinated Biphenyls [PCBs]	10	0.03	55.2	0.323	17.7	0.197	0.289	0.611
Selenium	564	136	3116	1462	997	892	1311	2774
Silver	2	N/A	24.3	N/A	7.78	N/A	11.4	24.2
Toxaphene	0.21	0.0002	1.16	0.00215	0.371	0.00131	0.00192	0.00407
Tributyltin [TBT]	0.24	0.0074	1.33	0.0796	0.424	0.0485	0.0713	0.150
2,4,5 Trichlorophenol	259	12	1431	129	458	78.7	115	244
Zinc	92.7	84.2	811	1433	259	874	381	806

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HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	115	1369	1273	1871	3959
Aldrin	1.147E-05	0.000137	0.000127	0.000186	0.000394
Anthracene	1317	15679	14581	21434	45347
Antimony	1071	12750	11858	17430	36876
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	6917	6433	9455	20005
Benzidine	0.107	1.27	1.18	1.74	3.68
Benzo(a)anthracene	0.025	0.298	0.277	0.406	0.860
Benzo(a)pyrene	0.0025	0.0298	0.0277	0.0406	0.0860
Bis(chloromethyl)ether	0.2745	3.27	3.04	4.46	9.45
Bis(2-chloroethyl)ether	42.83	510	474	697	1474
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	89.9	83.6	122	259
Bromodichloromethane [Dichlorobromomethane]	275	3274	3045	4475	9468
Bromoform [Tribromomethane]	1060	12619	11736	17251	36498
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	548	509	748	1583
Chlordane	0.0025	0.0298	0.0277	0.0406	0.0860
Chlorobenzene	2737	32583	30303	44544	94240
Chlorodibromomethane [Dibromochloromethane]	183	2179	2026	2978	6301
Chloroform [Trichloromethane]	7697	91631	85217	125268	265024
Chromium (hexavalent)	502	5976	5558	8170	17284
Chrysene	2.52	30.0	27.9	41.0	86.7
Cresols [Methylphenols]	9301	110726	102975	151373	320253
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0238	0.0221	0.0325	0.0688
4,4'-DDE	0.00013	0.00155	0.00144	0.00211	0.00447
4,4'-DDT	0.0004	0.00476	0.00443	0.00651	0.0137
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	5631	5237	7698	16286
1,2-Dibromoethane [Ethylene Dibromide]	4.24	50.5	46.9	69.0	145
m-Dichlorobenzene [1,3-Dichlorobenzene]	595	7083	6588	9683	20487
o-Dichlorobenzene [1,2-Dichlorobenzene]	3299	39274	36525	53691	113591
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	26.7	24.8	36.4	77.1
1,2-Dichloroethane	364	4333	4030	5924	12533
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	656119	610191	896980	1897693
Dichloromethane [Methylene Chloride]	13333	158726	147615	216994	459083
1,2-Dichloropropane	259	3083	2868	4215	8917
1,3-Dichloropropene [1,3-Dichloropropylene]	119	1417	1318	1936	4097
Dicofol [Kelthane]	0.30	3.57	3.32	4.88	10.3
Dieldrin	2.0E-05	0.000238	0.000221	0.000325	0.000688
2,4-Dimethylphenol	8436	100429	93399	137295	290469
Di-n-Butyl Phthalate	92.4	1100	1023	1503	3181
Dioxins/Furans [TCDD Equivalents]	7.97E-08	9.49E-07	8.82E-07	0.0000013	0.0000027
Endrin	0.02	0.238	0.221	0.325	0.688
Epichlorohydrin	2013	23964	22287	32761	69311
Ethylbenzene	1867	22226	20670	30385	64284
Ethylene Glycol	1.68E+07	200000000	186000000	273420000	578460000

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<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00119	0.00111	0.00162	0.00344
Heptachlor Epoxide	0.00029	0.00345	0.00321	0.00471	0.00998
Hexachlorobenzene	0.00068	0.00810	0.00753	0.0110	0.0234
Hexachlorobutadiene	0.22	2.62	2.44	3.58	7.57
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.1000	0.0930	0.136	0.289
Hexachlorocyclohexane (<i>beta</i>)	0.26	3.10	2.88	4.23	8.95
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	4.06	3.78	5.54	11.7
Hexachlorocyclopentadiene	11.6	138	128	188	399
Hexachloroethane	2.33	27.7	25.8	37.9	80.2
Hexachlorophene	2.90	34.5	32.1	47.1	99.8
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	190262	176944	260107	550294
Lead	3.83	116	108	158	334
Mercury	0.0250	0.298	0.277	0.406	0.860
Methoxychlor	3.0	35.7	33.2	48.8	103
Methyl Ethyl Ketone	9.92E+05	11809524	10982857	16144800	34156685
Methyl <i>tert</i> -butyl ether [MTBE]	10482	124786	116051	170594	360917
Nickel	1140	13571	12621	18553	39252
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	22298	20737	30483	64491
N-Nitrosodiethylamine	2.1	25.0	23.3	34.1	72.3
N-Nitroso-di- <i>n</i> -Butylamine	4.2	50.0	46.5	68.3	144
Pentachlorobenzene	0.355	4.23	3.93	5.77	12.2
Pentachlorophenol	0.29	3.45	3.21	4.71	9.98
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.00762	0.00709	0.0104	0.0220
Pyridine	947	11274	10485	15412	32607
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	2.86	2.66	3.90	8.26
1,1,2,2-Tetrachloroethane	26.35	314	292	428	907
Tetrachloroethylene [Tetrachloroethylene]	280	3333	3100	4557	9641
Thallium	0.23	2.74	2.55	3.74	7.91
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.131	0.122	0.179	0.378
2,4,5-TP [Silvex]	369	4393	4085	6005	12705
1,1,1-Trichloroethane	784354	9337548	8683919	12765361	27006988
1,1,2-Trichloroethane	166	1976	1838	2701	5715
Trichloroethylene [Trichloroethene]	71.9	856	796	1170	2475
2,4,5-Trichlorophenol	1867	22226	20670	30385	64284
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	196	183	268	568

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CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Acrolein	N/A	N/A
Aldrin	2.36	2.87
Aluminum	N/A	N/A
Arsenic	271	329
Cadmium	59.0	71.7
Carbaryl	1115	1354
Chlordane	0.0269	0.0327
Chlorpyrifos	0.0200	0.0242
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	334	406
Copper	27.2	33.1
Copper (oyster waters)	N/A	N/A
Cyanide (free)	10.1	12.3
4,4'-DDT	0.00674	0.00819
Demeton	0.674	0.819
Diazinon	1.48	1.80
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0134	0.0163
Diuron	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.0607	0.0737
Endosulfan II (<i>beta</i>)	0.0607	0.0737
Endosulfan sulfate	0.0607	0.0737
Endrin	0.0134	0.0163
Guthion [Azinphos Methyl]	0.0674	0.0819
Heptachlor	0.0269	0.0327
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.291	0.353
Lead	90.7	110
Malathion	0.0674	0.0819
Mercury	3.82	4.63
Methoxychlor	0.202	0.245
Mirex	0.00674	0.00819
Nickel	88.4	107
Nonylphenol	11.4	13.9
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	27.4	33.3
Phenanthrene	14.0	17.0
Polychlorinated Biphenyls [PCBs]	0.202	0.245
Selenium	917	1114
Silver	8.01	9.72
Toxaphene	0.00134	0.00163
Tributyltin [TBT]	0.0499	0.0606
2,4,5 Trichlorophenol	80.9	98.3
Zinc	266	324

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Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrylonitrile	1310	1590
Aldrin	0.000130	0.000158
Anthracene	15003	18219
Antimony	12201	14815
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	6619	8037
Benzidine	1.21	1.48
Benzo(a)anthracene	0.284	0.345
Benzo(a)pyrene	0.0284	0.0345
Bis(chloromethyl)ether	3.12	3.79
Bis(2-chloroethyl)ether	487	592
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	86.0	104
Bromodichloromethane [Dichlorobromomethane]	3132	3804
Bromoform [Tribromomethane]	12076	14663
Cadmium	N/A	N/A
Carbon Tetrachloride	524	636
Chlordane	0.0284	0.0345
Chlorobenzene	31181	37862
Chlorodibromomethane [Dibromochloromethane]	2084	2531
Chloroform [Trichloromethane]	87688	106478
Chromium (hexavalent)	5719	6944
Chrysene	28.7	34.8
Cresols [Methylphenols]	105961	128667
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0227	0.0276
4,4'-DDE	0.00148	0.00179
4,4'-DDT	0.00455	0.00553
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	5388	6543
1,2-Dibromoethane [Ethylene Dibromide]	48.3	58.6
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	6778	8231
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	37583	45637
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	25.5	30.9
1,2-Dichloroethane	4146	5035
1,1-Dichloroethylene [1,1-Dichloroethene]	627886	762433
Dichloromethane [Methylene Chloride]	151896	184445
1,2-Dichloropropane	2950	3582
1,3-Dichloropropene [1,3-Dichloropropylene]	1355	1646
Dicofol [Kelthane]	3.41	4.15
Dieldrin	0.000227	0.000276
2,4-Dimethylphenol	96107	116701
Di- <i>n</i> -Butyl Phthalate	1052	1278
Dioxins/Furans [TCDD Equivalents]	9.07E-07	0.0000011
Endrin	0.227	0.276
Epichlorohydrin	22933	27847
Ethylbenzene	21269	25827
Ethylene Glycol	191394000	232407000
Fluoride	N/A	N/A

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Human Health <i>Parameter</i>	<i>70% of Daily Avg. (µg/L)</i>	<i>85% of Daily Avg. (µg/L)</i>
Heptachlor	0.00113	0.00138
Heptachlor Epoxide	0.00330	0.00401
Hexachlorobenzene	0.00774	0.00940
Hexachlorobutadiene	2.50	3.04
Hexachlorocyclohexane (<i>alpha</i>)	0.0956	0.116
Hexachlorocyclohexane (<i>beta</i>)	2.96	3.59
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	3.88	4.71
Hexachlorocyclopentadiene	132	160
Hexachloroethane	26.5	32.2
Hexachlorophene	33.0	40.1
4,4'-Isopropylidenediphenol [Bisphenol A]	182074	221090
Lead	110	134
Mercury	0.284	0.345
Methoxychlor	34.1	41.5
Methyl Ethyl Ketone	11301360	13723080
Methyl <i>tert</i> -butyl ether [MTBE]	119416	145005
Nickel	12987	15770
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	21338	25910
N-Nitrosodiethylamine	23.9	29.0
N-Nitroso-di- <i>n</i> -Butylamine	47.8	58.1
Pentachlorobenzene	4.04	4.91
Pentachlorophenol	3.30	4.01
Polychlorinated Biphenyls [PCBs]	0.00729	0.00885
Pyridine	10788	13100
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.73	3.32
1,1,2,2-Tetrachloroethane	300	364
Tetrachloroethylene [Tetrachloroethylene]	3189	3873
Thallium	2.62	3.18
Toluene	N/A	N/A
Toxaphene	0.125	0.152
2,4,5-TP [Silvex]	4203	5104
1,1,1-Trichloroethane	8935752	10850557
1,1,2-Trichloroethane	1891	2296
Trichloroethylene [Trichloroethene]	819	994
2,4,5-Trichlorophenol	21269	25827
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	187	228

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Mass Effluent Limitations – Phase 2

Mass effluent limitations are calculated as follows:

$$[\text{concentration criteria } (\mu\text{g/L})/1000] \times [2.65 \text{ MGD}] \times [8.345] = [\text{mass limitation (lbs/day)}]$$

<u>POLLUTANT</u>	<u>Dly Avg μg/L</u>	<u>Dly Max μg/L</u>		<u>Dly Avg lbs/day</u>	<u>Dly Max lbs/day</u>
Acrylonitrile	1871	3959		41.4	87.6
Anthracene	21434	45347		474	1003
Benzene	9455	20005		209	442
Benzo(a)anthracene	0.406	0.86		0.0090	0.0190
Benzo(a)pyrene	0.0406	0.086		0.00090	0.00190
Bis(2-ethylhexyl)phthalate	122	259		2.70	5.73
Carbon Tetrachloride	748	1583		16.5	35.0
Chlorobenzene	44544	94240		985	2084
Chloroform	125268	265024		2770	5861
Chrysene	41	86.7		0.907	1.92
m-Dichlorobenzene	9683	20487		214	453
o-Dichlorobenzene	53691	113591		1187	2512
1,2-Dichloroethane	5924	12533		131	277
1,1-Dichloroethylene	896980	1897693		19836	41966
1,2-Dichloropropane	4215	8917		93.2	197
1,3-Dichloropropene (1,3- Dichloropropylene)	1936	4097		42.8	90.6
2,4-Dimethylphenol	137295	290469		3036	6424
Di-n-Butyl Phthalate	1503	3181		33.2	70.3
Ethylbenzene	30385	64284		672	1422
Hexachlorobenzene	0.011	0.0234		0.00024	0.00052
Hexachlorobutadiene	3.58	7.57		0.079	0.167
Hexachloroethane	37.9	80.2		0.84	1.77
Nitrobenzene	30483	64491		674	1426
Phenanthrene	20	42.3		0.442	0.935
Tetrachloroethylene	4557	9641		101	213
1,1,1-Trichloroethane	12765361	27006988		282296	597239
1,1,2-Trichloroethane	2701	5715		59.7	126
Trichloroethylene	1170	2475		25.9	54.7
Vinyl Chloride	268	568		5.93	12.6

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Mass Effluent Limitations – Phase 3

Mass effluent limitations/allocations are calculated as follows:

$$[\text{concentration criteria } (\mu\text{g/L})/1000] \times [5.15 \text{ MGD}] \times [8.345] = [\text{mass limitation (lbs/day)}]$$

<u>POLLUTANT</u>	<u>Dly Avg μg/L</u>	<u>Dly Max μg/L</u>		<u>Dly Avg lbs/day</u>	<u>Dly Max lbs/day</u>
Acrylonitrile	1871	3959		80.4	170
Anthracene	21434	45347		921	1949
Benzene	9455	20005		406	860
Benzo(a)anthracene	0.406	0.86		0.0174	0.0370
Benzo(a)pyrene	0.0406	0.086		0.00174	0.00370
Bis(2-ethylhexyl)phthalate	122	259		5.24	11.1
Carbon Tetrachloride	748	1583		32.1	68.0
Chlorobenzene	44544	94240		1914	4050
Chloroform	125268	265024		5384	11390
Chrysene	41	86.7		1.76	3.73
m-Dichlorobenzene	9683	20487		416	880
o-Dichlorobenzene	53691	113591		2307	4882
1,2-Dichloroethane	5924	12533		255	539
1,1-Dichloroethylene	896980	1897693		38549	81557
1,2-Dichloropropane	4215	8917		181	383
1,3-Dichloropropene (1,3- Dichloropropylene)	1936	4097		83.2	176
2,4-Dimethylphenol	137295	290469		5900	12483
Di-n-Butyl Phthalate	1503	3181		64.6	137
Ethylbenzene	30385	64284		1306	2763
Hexachlorobenzene	0.011	0.0234		0.00047	0.00101
Hexachlorobutadiene	3.58	7.57		0.154	0.325
Hexachloroethane	37.9	80.2		1.63	3.45
Nitrobenzene	30483	64491		1310	2772
Phenanthrene	20	42.3		0.860	1.82
Tetrachloroethylene	4557	9641		196	414
1,1,1-Trichloroethane	12765361	27006988		548614	1160673
1,1,2-Trichloroethane	2701	5715		116	246
Trichloroethylene	1170	2475		50.3	106
Vinyl Chloride	268	568		11.5	24.4

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Appendix C
pH Screening
Outfall 001

Calculation of pH of a mixture in seawater.
Based on the CO2SYS program (Lewis and Wallace, 1998)
<http://cdiac.esd.ornl.gov/oceans/co2rprt.html>

INPUT		
1. MIXING ZONE BOUNDARY CHARACTERISTICS		
Dilution factor at mixing zone boundary	10.75 ^A	10.75 ^A
Depth at plume trapping level (m)	2.00 ^B	2.00 ^B
2. BACKGROUND RECEIVING WATER CHARACTERISTICS		
Temperature (deg C):	20.00 ^C	25.00 ^C
pH:	6.70 ^D	6.70 ^D
Salinity (psu):	10.00 ^E	20.00 ^E
Total alkalinity (meq/L)	1.00 ^F	10.00 ^F
3. EFFLUENT CHARACTERISTICS		
Temperature (deg C):	20.00 ^G	30.00 ^G
pH:	6.00 ^H	9.00 ^H
Salinity (psu)	1.00 ^I	2.00 ^I
Total alkalinity (meq/L):	0.40 ^J	4.00 ^J
OUTPUT		
CONDITIONS AT THE MIXING ZONE BOUNDARY		
Temperature (deg C):	20.80	20.00
Salinity (psu)	4.68	4.76
Density (kg/m ³)	1001.60	1001.83
Alkalinity (mmol/kg-SW):	0.55	0.83
Total Inorganic Carbon (mmol/kg-SW):	0.70	0.89
pH at Mixing Zone Boundary:	6.62	7.19

Notes:

To convert from units of mgCaCO₃/L to meq/L divide by 50.044 g/meq
PSU refers to the Practical Salinity Scale (PSS) and is approximately equivalent to parts per thousand (ppt)

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Notes on Data Sources

- A Calculated from chronic effluent % at edge of mixing zone given in critical conditions memo. Inverse of effluent fraction ($1/0.08 = 12.5$).
- B Default value. Range of depths tested.
- C Range of temperatures tested (5 to 35 degrees C).
- D Ambient pH for Segment No. 0501 from 2010 IPs.
- E Range of salinities tested (2 to 30 psu).
- F Calculated from 15th percentile hardness from 2010 IPs for Segment No. 0501 (28 mg/L CaCO_3).
- G Range of temperatures tested (5 to 35 degrees C).
- H Proposed permit limit. Sequentially modified until predicted pH met segment criteria (6.0 to 8.5).
- I Minimum salinity assumed because discharge is freshwater. However, values up to 5 ppt tested.
- J For high pH scenario, calculated and tested a range of values. For low pH scenarios, used default of 20 mg/L $\text{CaCO}_3 = 0.40$ meq/L

FINAL DETERMINATION

Effluent pH limitations [6.0 su (min) & 9.0 su (max)] meet segment criteria at the edge of the mixing zone.

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Appendix D
Comparison of Effluent Limits

The following tables are a comparison of technology based effluent limitations calculated/assessed in the draft permit (Tech Based) and calculated/assessed water quality-based effluent limitations (WQ Based).

For final Outfall 001 (Phases 2 and 3) comparisons are performed as follows:

- The technology-based effluent limits used for comparisons at final Outfall 001 are the technology-based effluent limitations from internal Outfall 101 of the respective phase.
- The WQ-based mass limits for Outfall 001 are compared to technology-based mass limits from the respective phase of internal Outfall 101. This comparison is listed at the respective internal outfall comparison table. Any comparison that results in more stringent water quality-based limitations being included at the final outfall (Outfall 001) will also be documented in the respective Outfall 001 comparison table. Exceptions noted with an asterisk "*" next to the parameter name are direct comparisons of the WQ-based and the technology-based effluent limitations for the final outfall (Outfall 001).
- If the WQ-based mass limits are more stringent than the technology-based mass limits, then the WQ-based concentration limits are included in the draft permit at Outfall 001 in addition to the required technology-based effluent limitations at Outfall 101 of the respective phase.
- If the WQ based mass-equivalent limits are less stringent than the technology-based mass limits, then WQ-based limits are not required to be included in the draft permit at the final outfall based on this comparison.

OUTFALL 001 (Phase 1)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Flow	----	----	Report (MGD)	Report (MGD)
Chemical Oxygen Demand	----	----	N/A	200 mg/L
Total Suspended Solids ¹	----	----	N/A	Report mg/L
Oil and Grease	----	----	N/A	15 mg/L
pH	6.0 SU (min)	9.0 SU	6.0 SU (min)	9.0 SU

¹ When discharge of utility wastewater, passivation wastewater, or system flush water occurs.

OUTFALL 001 (Phase 2) continued

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Flow	----	----	2.65 MGD	3.15 MGD
Biochemical Oxygen Demand 5-day	264	n/a	264	528
Total Suspended Solids	----	----	794	2,054
Oil and Grease	----	----	332	417
Temperature	Report °F	Report °F	----	----

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OUTFALL 001 (Phase 2)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Chloroform *	5384	11390	1.62	4.70
Benzo(a)anthracene	0.0090	0.0190	0.07	0.18
Benzo(a)pyrene	0.00090	0.00190	0.07	0.19
Hexachlorobenzene	0.00047	0.00101	0.05	0.09
pH	6.0 SU (min)	9.0 SU	6.0 SU (min)	9.0 SU

OUTFALL 101 (Phase 2)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Flow	----	----	0.97 MGD	0.99 MGD
Biochemical Oxygen Demand 5-day	----	----	124	248
Total Suspended Solids	----	----	374	652
Acenaphthene	----	----	0.07	0.18
Acenaphthylene	----	----	0.07	0.18
Acrylonitrile	41.4	87.6	0.30	0.75
Anthracene	474	1003	0.07	0.18
Benzene	209	442	0.11	0.42
Benzo(a)anthracene	0.0090	0.0190	0.07	0.18
Benzo(a)pyrene	0.00090	0.00190	0.07	0.19
3,4-Benzofluoranthene	----	----	0.07	0.19
Benzo(k)fluoranthene	----	----	0.07	0.18
Bis(2-ethylhexyl)phthalate	2.70	5.73	0.32	0.86
Carbon Tetrachloride	16.5	35.0	0.06	0.12
Chlorobenzene	985	2084	0.05	0.09
Chloroethane	----	----	0.32	0.83
Chloroform	2770	5861	0.06	0.14
2-Chlorophenol	----	----	0.10	0.30
Chrysene	0.907	1.92	0.07	0.18
1,2-Dichlorobenzene	1187	2512	0.24	0.50
1,3-Dichlorobenzene	214	453	0.10	0.14
1,4-Dichlorobenzene	----	----	0.05	0.09
1,1-Dichloroethane	----	----	0.07	0.18
1,2-Dichloroethane	131	277	0.21	0.65
1,1-Dichloroethylene	19836	41966	0.05	0.08
1,2-trans Dichloroethylene	----	----	0.06	0.17
2,4-Dichlorophenol	----	----	0.12	0.35
1,2-Dichloropropane	93.2	197	0.47	0.71
1,3-Dichloropropylene	42.8	90.6	0.09	0.14
Diethyl phthalate	----	----	0.25	0.63
2,4-Dimethylphenol	3036	6424	0.06	0.11
Dimethyl phthalate	----	----	0.06	0.15
Di-n-butyl phthalate	33.2	70.3	0.08	0.18
4,6-Dinitro-o-cresol	----	----	0.24	0.86

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005432000

OUTFALL 101 (Phase 2) continued

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
2,4-Dinitrophenol	----	----	0.22	0.38
2,4-Dinitrotoluene	----	----	0.35	0.88
2,6-Dinitrotoluene	----	----	0.79	1.98
Ethylbenzene	672	1422	0.10	0.33
Fluoranthene	----	----	0.08	0.21
Fluorene	----	----	0.07	0.18
Hexachlorobenzene	0.00024	0.00052	0.05	0.09
Hexachlorobutadiene	0.079	0.167	0.06	0.15
Hexachloroethane	0.84	1.77	0.06	0.17
Methyl Chloride	----	----	0.27	0.59
Methylene Chloride	----	----	0.12	0.27
Naphthalene	----	----	0.07	0.18
Nitrobenzene	674	1426	0.08	0.21
2-Nitrophenol	----	----	0.13	0.21
4-Nitrophenol	----	----	0.22	0.38
Phenanthrene	0.442	0.935	0.07	0.18
Phenol	----	----	0.05	0.08
Pyrene	----	----	0.08	0.21
Tetrachloroethylene	101	213	0.07	0.17
Toluene	----	----	0.08	0.25
1,2,4-Trichlorobenzene	----	----	0.21	0.43
1,1,1-Trichloroethane	282296	597239	0.06	0.17
1,1,2-Trichloroethane	59.7	126	0.06	0.17
Trichloroethylene	25.9	54.7	0.06	0.17
Vinyl Chloride	5.93	12.6	0.32	0.83
pH	6.0 SU (min)	9.0 SU	N/A	N/A

OUTFALL 001 (Phase 3)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Flow	----	----	5.15 MGD	5.81 MGD
Biochemical Oxygen Demand 5-day	528	----	528	1,112
Total Suspended Solids	----	----	1,463	4,270
Oil and Grease	----	----	643	833
Temperature	Report °F	Report °F	----	----
Chloroform *	5384	11390	3.68	10.7
Benzo(a)anthracene	0.0174	0.0370	0.22	0.79
Benzo(a)pyrene	0.00174	0.00370	0.13	0.34
Hexachlorobenzene	0.00047	0.00101	0.13	0.36
pH	6.0 SU (min)	9.0 SU	6.0 SU (min)	9.0 SU

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OUTFALL 101 (Phase 3)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Flow	----	----	1.30 MGD	1.49 MGD
Biochemical Oxygen Demand 5-day	----	----	208	471
Total Suspended Solids	----	----	502	1,605
Acenaphthene	----	----	0.13	0.34
Acenaphthylene	----	----	0.13	0.34
Acrylonitrile	80.4	170	0.56	1.41
Anthracene	921	1949	0.13	0.34
Benzene	406	860	0.22	0.79
Benzo(a)anthracene	0.0174	0.0370	0.13	0.34
Benzo(a)pyrene	0.00174	0.00370	0.13	0.36
3,4-Benzofluoranthene	----	----	0.13	0.36
Benzo(k)fluoranthene	----	----	0.13	0.34
Bis(2-ethylhexyl)phthalate	5.24	11.1	0.60	1.63
Carbon Tetrachloride	32.1	68.0	0.11	0.22
Chlorobenzene	1914	4050	0.09	0.16
Chloroethane	----	----	0.61	1.57
Chloroform	5384	11390	0.12	0.27
2-Chlorophenol	----	----	0.18	0.57
Chrysene	1.76	3.73	0.13	0.34
1,2-Dichlorobenzene	2307	4882	0.45	0.95
1,3-Dichlorobenzene	416	880	0.18	0.26
1,4-Dichlorobenzene	----	----	0.09	0.16
1,1-Dichloroethane	----	----	0.13	0.34
1,2-Dichloroethane	255	539	0.40	1.23
1,1-Dichloroethylene	38549	81557	0.09	0.15
1,2-trans Dichloroethylene	----	----	0.12	0.32
2,4-Dichlorophenol	----	----	0.23	0.65
1,2-Dichloropropane	181	383	0.89	1.34
1,3-Dichloropropylene	83.2	176	0.17	0.26
Diethyl phthalate	----	----	0.47	1.19
2,4-Dimethylphenol	5900	12483	0.11	0.21
Dimethyl phthalate	----	----	0.11	0.27
Di-n-butyl phthalate	64.6	137	0.16	0.33
4,6-Dinitro-o-cresol	----	----	0.46	1.62
2,4-Dinitrophenol	----	----	0.41	0.72
2,4-Dinitrotoluene	----	----	0.66	1.66
2,6-Dinitrotoluene	----	----	1.49	3.74
Ethylbenzene	1306	2763	0.19	0.63
Fluoranthene	----	----	0.15	0.40
Fluorene	----	----	0.13	0.34
Hexachlorobenzene	0.00047	0.00101	0.09	0.16
Hexachloroethane	0.154	0.325	0.12	0.32
Hexachlorobutadiene	1.63	3.45	0.12	0.29
Methyl Chloride	----	----	0.50	1.11

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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OUTFALL 001 (Phase 3 continued)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg lbs/day	Dly Max lbs/day	Dly Avg lbs/day	Dly Max lbs/day
Methylene Chloride	----	----	0.23	0.52
Naphthalene	----	----	0.13	0.34
Nitrobenzene	1310	2772	0.16	0.40
2-Nitrophenol	----	----	0.24	0.40
4-Nitrophenol	----	----	0.42	0.72
Phenanthrene	0.860	1.82	0.13	0.34
Phenol	----	----	0.09	0.15
Pyrene	----	----	0.15	0.39
Tetrachloroethylene	196	414	0.13	0.33
Toluene	----	----	0.15	0.47
1,2,4-Trichlorobenzene	----	----	0.40	0.82
1,1,1-Trichloroethane	548614	1160673	0.12	0.32
1,1,2-Trichloroethane	116	246	0.12	0.32
Trichloroethylene	50.3	106	0.12	0.32
Vinyl Chloride	11.5	24.4	0.61	1.57
pH	6.0 SU (min)	9.0 SU	6.0 SU (min)	9.0 SU

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Appendix E
Summary of Effluent Limitations

Outfall/Phase	Pollutant	Daily Average Lbs/day	Daily Maximum Lbs/day
001 – Phase 1	Flow	Report (MGD)	Report (MGD)
	Chemical Oxygen Demand	N/A	200 mg/L
	Total Suspended Solids	N/A	Report mg/L
	Oil and Grease	N/A	15 mg/L
	pH	6.0 SU (min)	9.0 SU
001 – Phase 2	Flow	2.65 MGD	3.15 MGD
	Biochemical Oxygen Demand 5-day	264	528
	Total Suspended Solids	794	2,054
	Oil and Grease	332	417
	Temperature ¹	Report °F	Report °F
	Chloroform	1.62	4.70
	Benzo(a)anthracene	0.0090	0.0190
	Benzo(a)pyrene	0.00090	0.00190
	Hexachlorobenzene	0.00024	0.00052
	pH	6.0 SU (min)	9.0 SU
101 – Phase 2	Flow	0.97 MGD	0.99 MGD
	Biochemical Oxygen Demand (5-day)	124	248
	Total Suspended Solids	374	652
	Acenaphthene	0.07	0.18
	Acenaphthylene	0.07	0.18
	Acrylonitrile	0.30	0.75
	Anthracene	0.07	0.18
	Benzene	0.11	0.42
	Benzo(a)anthracene	0.07	0.18
	Benzo(a)pyrene	0.07	0.19
	3,4-Benzofluoranthene	0.07	0.19
	Benzo(k)fluoranthene	0.07	0.18
	Bis(2-ethylhexyl)phthalate	0.32	0.86
	Carbon Tetrachloride	0.06	0.12
	Chlorobenzene	0.05	0.09
	Chloroethane	0.32	0.83
	Chloroform	0.06	0.14
	2-Chlorophenol	0.10	0.30
	Chrysene	0.07	0.18
	1,2-Dichlorobenzene	0.24	0.50
	1,3-Dichlorobenzene	0.10	0.14
	1,4-Dichlorobenzene	0.05	0.09
	1,1-Dichloroethane	0.07	0.18
	1,2-Dichloroethane	0.21	0.65
	1,1-Dichloroethylene	0.05	0.08
	1,2-trans Dichloroethylene	0.06	0.17

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Outfall/Phase	Pollutant	Daily Average Lbs/day	Daily Maximum Lbs/day
101 – Phase 2	2,4-Dichlorophenol	0.12	0.35
	1,2-Dichloropropane	0.47	0.71
	1,3-Dichloropropylene	0.09	0.14
	Diethyl phthalate	0.25	0.63
	2,4-Dimethylphenol	0.06	0.11
	Dimethyl phthalate	0.06	0.15
	Di-n-butyl phthalate	0.08	0.18
	4,6-Dinitro-o-cresol	0.24	0.86
	2,4-Dinitrophenol	0.22	0.38
	2,4-Dinitrotoluene	0.35	0.88
	2,6-Dinitrotoluene	0.79	1.98
	Ethylbenzene	0.10	0.33
	Fluoranthene	0.08	0.21
	Fluorene	0.07	0.18
	Hexachlorobenzene	0.05	0.09
	Hexachloroethane	0.06	0.17
	Hexachlorobutadiene	0.06	0.15
	Methyl Chloride	0.27	0.59
	Methylene Chloride	0.12	0.27
	Naphthalene	0.07	0.18
	Nitrobenzene	0.08	0.21
	2-Nitrophenol	0.13	0.21
	4-Nitrophenol	0.22	0.38
	Phenanthrene	0.07	0.18
	Phenol	0.05	0.08
	Pyrene	0.08	0.21
	Tetrachloroethylene	0.07	0.17
	Toluene	0.08	0.25
	1,2,4-Trichlorobenzene	0.21	0.43
	1,1,1-Trichloroethane	0.06	0.17
	1,1,2-Trichloroethane	0.06	0.17
	Trichloroethylene	0.06	0.17
	Vinyl Chloride	0.32	0.83
	pH	6.0 SU (min)	9.0 SU
001 – Phase 3	Flow	5.15 MGD	5.81 MGD
	Biochemical Oxygen Demand 5-day	528	1,112
	Total Suspended Solids	1,463	4,270
	Oil and Grease	643	833
	Temperature ¹	Report °F	Report °F
	Chloroform	3.68	10.7
	Benzo(a)anthracene	0.0174	0.0370
	Benzo(a)pyrene	0.00174	0.00370
	Hexachlorobenzene	0.00047	0.00101
	pH	6.0 SU (min)	9.0 SU

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Outfall/Phase	Pollutant	Daily Average Lbs/day	Daily Maximum Lbs/day
101 – Phase 3	Flow	1.30 MGD	1.49 MGD
	Biochemical Oxygen Demand (5-day)	208	471
	Total Suspended Solids	502	1,605
	Acenaphthene	0.13	0.34
	Acenaphthylene	0.13	0.34
	Acrylonitrile	0.56	1.41
	Anthracene	0.13	0.34
	Benzene	0.22	0.79
	Benzo(a)anthracene	0.13	0.34
	Benzo(a)pyrene	0.13	0.36
	3,4-Benzofluoranthene	0.13	0.36
	Benzo(k)fluoranthene	0.13	0.34
	Bis(2-ethylhexyl)phthalate	0.60	1.63
	Carbon Tetrachloride	0.11	0.22
	Chlorobenzene	0.09	0.16
	Chloroethane	0.61	1.57
	Chloroform	0.12	0.27
	2-Chlorophenol	0.18	0.57
	Chrysene	0.13	0.34
	1,2-Dichlorobenzene	0.45	0.95
	1,3-Dichlorobenzene	0.18	0.26
	1,4-Dichlorobenzene	0.09	0.16
	1,1-Dichloroethane	0.13	0.34
	1,2-Dichloroethane	0.40	1.23
	1,1-Dichloroethylene	0.09	0.15
	1,2-trans Dichloroethylene	0.12	0.32
	2,4-Dichlorophenol	0.23	0.65
	1,2-Dichloropropane	0.89	1.34
	1,3-Dichloropropylene	0.17	0.26
	Diethyl phthalate	0.47	1.19
	2,4-Dimethylphenol	0.11	0.21
	Dimethyl phthalate	0.11	0.27
	Di-n-butyl phthalate	0.16	0.33
	4,6-Dinitro-o-cresol	0.46	1.62
	2,4-Dinitrophenol	0.41	0.72
	2,4-Dinitrotoluene	0.66	1.66
	2,6-Dinitrotoluene	1.49	3.74
	Ethylbenzene	0.19	0.63
	Fluoranthene	0.15	0.40
	Fluorene	0.13	0.34
	Hexachlorobenzene	0.09	0.16
	Hexachloroethane	0.12	0.32
	Hexachlorobutadiene	0.12	0.29
	Methyl Chloride	0.50	1.11
	Methylene Chloride	0.23	0.52
	Naphthalene	0.13	0.34

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Outfall/Phase	Pollutant	Daily Average Lbs/day	Daily Maximum Lbs/day
101 – Phase 3	Nitrobenzene	0.16	0.40
	2-Nitrophenol	0.24	0.40
	4-Nitrophenol	0.42	0.72
	Phenanthrene	0.13	0.34
	Phenol	0.09	0.15
	Pyrene	0.15	0.39
	Tetrachloroethylene	0.13	0.33
	Toluene	0.15	0.47
	1,2,4-Trichlorobenzene	0.40	0.82
	1,1,1-Trichloroethane	0.12	0.32
	1,1,2-Trichloroethane	0.12	0.32
	Trichloroethylene	0.12	0.32
	Vinyl Chloride	0.61	1.57
	pH	6.0 SU (min)	9.0 SU

¹ Effective beginning upon date of permit issuance and lasting for a period of 58 months.



TPDES PERMIT NO.
WQ0005432000
*[For TCEQ office use only -
EPA I.D. No. TX0144690]*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code
and 40 CFR Part 414

Golden Triangle Polymers Company LLC

whose mailing address is

10001 Six Pines Drive
The Woodlands, Texas 77380

is authorized to treat and discharge wastes from Golden Triangle Polymers Plant, an integrated polymers production facility (SIC 2821, 2869, & 4226)

located at 850 Foreman Road, southwest of the City of Orange, Orange County, Texas 77630

directly to the Sabine River Tidal in Segment No. 0501 of the Sabine River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, five years from the date of permit issuance.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001 – Phase 1

1. During the period beginning upon the date of permit issuance and lasting through the date of activation of the ethylene production units ¹, the permittee is authorized to discharge utility wastewater ², stormwater ³, passivation wastewater ⁴, and system flush water ⁵ subject to the following effluent limitations:

Volume: Intermittent and Flow-Variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report (MGD)	Report (MGD)	N/A	1/day ⁶	Estimate
Chemical Oxygen Demand	N/A	200	200	1/week ⁶	Grab
Total Suspended Solids	N/A	Report	N/A	1/week ⁶	Grab
Oil and Grease	N/A	15	15	1/week ⁶	Grab

¹ See Other Requirement No. 3 for notification requirements for phase changes.

² See Other Requirement No. 4.B.

³ See Other Requirement No. 4.E.

⁴ See Other Requirement No. 4.F.

⁵ See Other Requirement No. 4.G.

⁶ When discharge occurs.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day, by grab sample, when discharge occurs.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following location: at the sampling point for Outfall 001, which is downstream of the outlet of the check basin and before entering the discharge pipe. The physical location of Outfall 001 is a submerged diffuser in the Sabine River.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001 – Phase 2

1. During the period beginning upon the date of start-up of the ethylene production units ¹ and lasting through the start-up of the ethane cracker ¹, the permittee is authorized to discharge process wastewater ² (previously monitored via internal Outfall 101), utility wastewater ³, and stormwater ⁴ (including previously monitored via internal Outfall 101) subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 2.65 million gallons per day (MGD). The daily maximum flow shall not exceed 3.15 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	2.65 MGD	3.15 MGD	N/A	Continuous	Meter
Biochemical Oxygen Demand 5-day	264	528	45	1/Week	Composite
Total Suspended Solids	794	2,054	120	1/Week	Composite
Oil and Grease	332	417	20	1/Week	Grab
Temperature ⁵	Report °F	Report °F	N/A	1/Week	Instantaneous
Chloroform	1.62	4.70	0.30	1/Week	Composite
Benzo(a)anthracene	0.0090	0.0190	0.005	1/Year	Composite
Benzo(a)pyrene	0.00090	0.00190	0.005	1/Year	Composite
Hexachlorobenzene	0.00024	0.00052	0.005	1/Year	Composite

¹ See Other Requirement No. 3 for notification requirements for phase changes.

² See Other Requirement No. 4.A.

³ See Other Requirement No. 4.B.

⁴ Includes process area stormwater and first-flush stormwater associated with industrial activities previously monitored via internal Outfall 101; post first-flush stormwater associated with industrial activities not previously monitored; and stormwater associated with construction activities. See Other Requirement No. 4.E.

⁵ Effective beginning upon date of outfall-phase activation and lasting until 58 months after date of permit issuance.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day by grab sample.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following location: at the sampling point for Outfall 001, which is downstream of the outlet of the check basin and before entering the discharge pipe. The physical location of Outfall 001 is a submerged diffuser in the Sabine River.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 101 – Phase 2

1. During the period beginning upon the date of start-up of the ethylene production units ¹ and lasting through the start-up of the ethane cracker ¹, the permittee is authorized to discharge process wastewater ² and stormwater associated with industrial activity ³ subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.97 million gallons per day (MGD). The daily maximum flow shall not exceed 0.99 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	0.97 MGD	0.99 MGD	N/A	Continuous	Meter
Biochemical Oxygen Demand (5-day)	124	248	45	1/Week	Composite
Total Suspended Solids	374	652	90	1/Week	Composite
Acenaphthene	0.07	0.18	0.09	1/Year	Composite
Acenaphthylene	0.07	0.18	0.09	1/Year	Composite
Acrylonitrile	0.30	0.75	0.36	1/Year	Composite
Anthracene	0.07	0.18	0.09	1/Year	Composite
Benzene	0.11	0.42	0.20	1/Year	Composite
Benzo(a)anthracene	0.07	0.18	0.09	1/Year	Composite
Benzo(a)pyrene	0.07	0.19	0.09	1/Year	Composite
3,4-Benzofluoranthene	0.07	0.19	0.09	1/Year	Composite
Benzo(k)fluoranthene	0.07	0.18	0.09	1/Year	Composite
Bis(2-ethylhexyl)phthalate	0.32	0.86	0.42	1/Year	Composite
Carbon Tetrachloride	0.06	0.12	0.06	1/Year	Composite
Chlorobenzene	0.05	0.09	0.04	1/Year	Composite
Chloroethane	0.32	0.83	0.40	1/Year	Composite
Chloroform	0.06	0.14	0.07	1/Year	Composite
2-Chlorophenol	0.10	0.30	0.15	1/Year	Composite
Chrysene	0.07	0.18	0.09	1/Year	Composite
1,2-Dichlorobenzene	0.24	0.50	0.24	1/Year	Composite
1,3-Dichlorobenzene	0.10	0.14	0.07	1/Year	Composite
1,4-Dichlorobenzene	0.05	0.09	0.04	1/Year	Composite
1,1-Dichloroethane	0.07	0.18	0.09	1/Year	Composite
1,2-Dichloroethane	0.21	0.65	0.32	1/Year	Composite
1,1-Dichloroethylene	0.05	0.08	0.04	1/Year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 101 – Phase 2

1. CONTINUED.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
1,2-trans Dichloroethylene	0.06	0.17	0.08	1/Year	Composite
2,4-Dichlorophenol	0.12	0.35	0.17	1/Year	Composite
1,2-Dichloropropane	0.47	0.71	0.35	1/Year	Composite
1,3-Dichloropropylene	0.09	0.14	0.07	1/Year	Composite
Diethyl phthalate	0.25	0.63	0.30	1/Year	Composite
2,4-Dimethylphenol	0.06	0.11	0.05	1/Year	Composite
Dimethyl phthalate	0.06	0.15	0.07	1/Year	Composite
Di-n-butyl phthalate	0.08	0.18	0.09	1/Year	Composite
4,6-Dinitro-o-cresol	0.24	0.86	0.42	1/Year	Composite
2,4-Dinitrophenol	0.22	0.38	0.18	1/Year	Composite
2,4-Dinitrotoluene	0.35	0.88	0.43	1/Year	Composite
2,6-Dinitrotoluene	0.79	1.98	0.96	1/Year	Composite
Ethylbenzene	0.10	0.33	0.16	1/Year	Composite
Fluoranthene	0.08	0.21	0.10	1/Year	Composite
Fluorene	0.07	0.18	0.09	1/Year	Composite
Hexachlorobenzene	0.05	0.09	0.04	1/Year	Composite
Hexachloroethane	0.06	0.17	0.08	1/Year	Composite
Hexachlorobutadiene	0.06	0.15	0.07	1/Year	Composite
Methyl Chloride	0.27	0.59	0.29	1/Year	Composite
Methylene Chloride	0.12	0.27	0.13	1/Year	Composite
Naphthalene	0.07	0.18	0.09	1/Year	Composite
Nitrobenzene	0.08	0.21	0.10	1/Year	Composite
2-Nitrophenol	0.13	0.21	0.10	1/Year	Composite
4-Nitrophenol	0.22	0.38	0.19	1/Year	Composite
Phenanthrene	0.07	0.18	0.09	1/Year	Composite
Phenol	0.05	0.08	0.04	1/Year	Composite
Pyrene	0.08	0.21	0.10	1/Year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 101 – Phase 21. CONTINUED.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Tetrachloroethylene	0.07	0.17	0.08	1/Year	Composite
Toluene	0.08	0.25	0.12	1/Year	Composite
1,2,4-Trichlorobenzene	0.21	0.43	0.21	1/Year	Composite
1,1,1-Trichloroethane	0.06	0.17	0.08	1/Year	Composite
1,1,2-Trichloroethane	0.06	0.17	0.08	1/Year	Composite
Trichloroethylene	0.06	0.17	0.08	1/Year	Composite
Vinyl Chloride	0.32	0.83	0.40	1/Year	Composite

¹ See Other Requirement No. 3 for notification requirements for phase changes.

² See Other Requirement No. 4.A.

³ Includes process area stormwater and first-flush stormwater associated with industrial activities. See Other Requirement No. 4.E.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per month by grab sample.
3. Effluent monitoring samples must be taken at the following locations: at the Outfall 101 sampling point located at the wastewater treatment facility downstream of the sand filter and prior to the check basin.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001 – Phase 3

1. During the period beginning upon the date of activation of the ethane cracker ¹ and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater ² (previously monitored via internal Outfall 101), utility wastewater ³, and stormwater ⁴ (including previously monitored via internal Outfall 101) subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 5.15 million gallons per day (MGD). The daily maximum flow shall not exceed 5.81 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	5.15 MGD	5.81 MGD	N/A	Continuous	Meter
Biochemical Oxygen Demand (5-day)	528	1,112	45	1/Week	Composite
Total Suspended Solids	1,463	4,270	120	1/Week	Composite
Oil and Grease	643	833	20	1/Week	Grab
Temperature ⁵	Report °F	Report °F	N/A	1/Week	Instantaneous
Chloroform	3.68	10.7	0.30	1/Week	Composite
Benzo(a)anthracene	0.0174	0.0370	0.005	1/Year	Composite
Benzo(a)pyrene	0.00174	0.00370	0.005	1/Year	Composite
Hexachlorobenzene	0.00047	0.00101	0.005	1/Year	Composite

¹ See Other Requirement No. 3 for notification requirements for phase changes.

² See Other Requirement No. 4.A.

³ See Other Requirement No. 4.B.

⁴ Includes process area stormwater and first-flush stormwater associated with industrial activities previously monitored via internal Outfall 101; post first-flush stormwater associated with industrial activities not previously monitored; and stormwater associated with construction activities. See Other Requirement No. 4.E.

⁵ Effective beginning upon date of outfall-phase activation and lasting until 58 months after date of permit issuance.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day by grab sample.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following location: at the sampling point for Outfall 001, which is downstream of the outlet of the check basin and before entering the discharge pipe. The physical location of Outfall 001 is a submerged diffuser in the Sabine River.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 101 – Phase 3

1. During the period beginning upon the date of activation of the ethane cracker ¹ and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater ² and stormwater associated with industrial activity ³ subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 1.30 million gallons per day (MGD). The daily maximum flow shall not exceed 1.49 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	1.30 MGD	1.49 MGD	N/A	Continuous	Meter
Biochemical Oxygen Demand (5-day)	208	471	50	1/week	Composite
Total Suspended Solids	502	1,605	160	1/week	Composite
Acenaphthene	0.13	0.34	0.05	1/year	Composite
Acenaphthylene	0.13	0.34	0.05	1/year	Composite
Acrylonitrile	0.56	1.41	0.21	1/year	Composite
Anthracene	0.13	0.34	0.05	1/year	Composite
Benzene	0.22	0.79	0.12	1/year	Composite
Benzo(a)anthracene	0.13	0.34	0.05	1/year	Composite
Benzo(a)pyrene	0.13	0.36	0.05	1/year	Composite
3,4-Benzofluoranthene	0.13	0.36	0.05	1/year	Composite
Benzo(k)fluoranthene	0.13	0.34	0.05	1/year	Composite
Bis(2-ethylhexyl)phthalate	0.60	1.63	0.24	1/year	Composite
Carbon Tetrachloride	0.11	0.22	0.03	1/year	Composite
Chlorobenzene	0.09	0.16	0.02	1/year	Composite
Chloroethane	0.61	1.57	0.23	1/year	Composite
Chloroform	0.12	0.27	0.04	1/year	Composite
2-Chlorophenol	0.18	0.57	0.08	1/year	Composite
Chrysene	0.13	0.34	0.05	1/year	Composite
1,2-Dichlorobenzene	0.45	0.95	0.14	1/year	Composite
1,3-Dichlorobenzene	0.18	0.26	0.04	1/year	Composite
1,4-Dichlorobenzene	0.09	0.16	0.02	1/year	Composite
1,1-Dichloroethane	0.13	0.34	0.05	1/year	Composite
1,2-Dichloroethane	0.40	1.23	0.18	1/year	Composite
1,1-Dichloroethylene	0.09	0.15	0.02	1/year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 101 – Phase 3

1. CONTINUED.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
1,2-trans Dichloroethylene	0.12	0.32	0.05	1/year	Composite
2,4-Dichlorophenol	0.23	0.65	0.10	1/year	Composite
1,2-Dichloropropane	0.89	1.34	0.20	1/year	Composite
1,3-Dichloropropylene	0.17	0.26	0.04	1/year	Composite
Diethyl phthalate	0.47	1.19	0.17	1/year	Composite
2,4-Dimethylphenol	0.11	0.21	0.03	1/year	Composite
Dimethyl phthalate	0.11	0.27	0.04	1/year	Composite
Di-n-butyl phthalate	0.16	0.33	0.05	1/year	Composite
4,6-Dinitro-o-cresol	0.46	1.62	0.24	1/year	Composite
2,4-Dinitrophenol	0.41	0.72	0.11	1/year	Composite
2,4-Dinitrotoluene	0.66	1.66	0.24	1/year	Composite
2,6-Dinitrotoluene	1.49	3.74	0.55	1/year	Composite
Ethylbenzene	0.19	0.63	0.09	1/year	Composite
Fluoranthene	0.15	0.40	0.06	1/year	Composite
Fluorene	0.13	0.34	0.05	1/year	Composite
Hexachlorobenzene	0.09	0.16	0.02	1/year	Composite
Hexachloroethane	0.12	0.32	0.05	1/year	Composite
Hexachlorobutadiene	0.12	0.29	0.04	1/year	Composite
Methyl Chloride	0.50	1.11	0.16	1/year	Composite
Methylene Chloride	0.23	0.52	0.08	1/year	Composite
Naphthalene	0.13	0.34	0.05	1/year	Composite
Nitrobenzene	0.16	0.40	0.06	1/year	Composite
2-Nitrophenol	0.24	0.40	0.06	1/year	Composite
4-Nitrophenol	0.42	0.72	0.11	1/year	Composite
Phenanthrene	0.13	0.34	0.05	1/year	Composite
Phenol	0.09	0.15	0.02	1/year	Composite
Pyrene	0.15	0.39	0.06	1/year	Composite

1. CONTINUED.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Tetrachloroethylene	0.13	0.33	0.05	1/year	Composite
Toluene	0.15	0.47	0.07	1/year	Composite
1,2,4-Trichlorobenzene	0.40	0.82	0.12	1/year	Composite
1,1,1-Trichloroethane	0.12	0.32	0.05	1/year	Composite
1,1,2-Trichloroethane	0.12	0.32	0.05	1/year	Composite
Trichloroethylene	0.12	0.32	0.05	1/year	Composite
Vinyl Chloride	0.61	1.57	0.23	1/year	Composite

¹ See Other Requirement No. 3 for notification requirements for phase changes.

² See Other Requirement No. 4.A.

³ Includes process area stormwater and first-flush stormwater associated with industrial activities. See Other Requirement No. 4.E.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per month by grab sample.
3. Effluent monitoring samples must be taken at the following locations: at the Outfall 101 sampling point located at the wastewater treatment facility downstream of the sand filter and prior to the check basin.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Texas Water Code §26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total

mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the sampling day.

The “daily discharge” determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the “daily discharge” determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as $(\text{Flow, MGD} \times \text{Concentration, mg/L} \times 8.34)$.
- g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(c).
 - b. Grab sample - an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
 - 5. The term “sewage sludge” is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
 - 6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act; TWC Chapters 26, 27, and 28; and THSC Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time, and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement;
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the regional office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. unauthorized discharges as defined in Permit Condition 2(g).
 - ii. any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the regional office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the regional office, orally or by facsimile transmission within 24 hours, and both the regional office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. one hundred micrograms per liter (100 µg/L);
 - ii. two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

- b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. five hundred micrograms per liter (500 µg/L);
 - ii. one milligram per liter (1 mg/L) for antimony;
 - iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

- a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;
- b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
- c. for the purpose of this paragraph, adequate notice shall include information on:
 - i. the quality and quantity of effluent introduced into the POTW; and
 - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. violation of any terms or conditions of this permit;
 - ii. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment,

revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC §7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or
 - ii. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
 - iii. the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Texas Water Code Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy.

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).
7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
 - a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:
- a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
 - f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. volume of waste and date(s) generated from treatment process;
 - ii. volume of waste disposed of on-site or shipped off-site;
 - iii. date(s) of disposal;

- iv. identity of hauler or transporter;
- v. location of disposal site; and
- vi. method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC Code Chapter 361.

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OTHER REQUIREMENTS

1. The Executive Director reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and determined that the action is consistent with the applicable CMP goals and policies.
2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 10 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 10 and Compliance Monitoring Team (MC 224):

Pollutant	MAL (mg/L)
Acenaphthene	0.010
Acenaphthylene	0.010
Acrylonitrile	0.050
Anthracene	0.010
Benzene	0.010
Benzo(a)anthracene	0.005
3,4-Benzofluoranthene (Benzo(b)fluoranthene)	0.010
Benzo(k)fluoranthene	0.005
Benzo(a)pyrene	0.005
Bis(2-Ethylhexyl) Phthalate	0.010
Carbon Tetrachloride	0.002
Chlorobenzene	0.010
Chloroethane	0.050
Chloroform	0.010
2-Chlorophenol	0.010
Chrysene	0.005
Di-n-Butyl Phthalate	0.010
1,2-Dichlorobenzene	0.010
1,3-Dichlorobenzene	0.010
1,4-Dichlorobenzene	0.010
1,1-Dichloroethane	0.010
1,2-Dichloroethane	0.010
1,1-Dichloroethylene	0.010
1,2-trans-Dichloroethylene	0.010
2,4-Dichlorophenol	0.010
1,2-Dichloropropane	0.010
1,3-Dichloropropylene	0.010
Diethyl Phthalate	0.010
2,4-Dimethylphenol	0.010
Dimethyl Phthalate	0.010
4,6-Dinitro-o-Cresol	0.050
2,4-Dinitrophenol	0.050
2,4-Dinitrotoluene	0.010
2,6-Dinitrotoluene	0.010
Ethylbenzene	0.010
Fluoranthene	0.010
Fluorene	0.010
Hexachlorobenzene	0.005
Hexachlorobutadiene	0.010
Hexachloroethane	0.020

Pollutant	MAL (mg/L)
Methylene Chloride	0.020
Methyl Chloride	0.050
Naphthalene	0.010
Nitrobenzene	0.010
2-Nitrophenol	0.020
4-Nitrophenol	0.050
Phenanthrene	0.010
Phenol	0.010
Pyrene	0.010
Tetrachloroethylene	0.010
Toluene	0.010
1,2,4-Trichlorobenzene	0.010
1,1,1-Trichloroethane	0.010
1,1,2-Trichloroethane	0.010
Trichloroethylene	0.010
Vinyl Chloride	0.010

Test methods used must be sensitive enough to demonstrate compliance with the permit effluent limitations. If an effluent limit for a pollutant is less than the minimum analytical level (MAL), then the test method for that pollutant must be sensitive enough to demonstrate compliance at the MAL. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit, with consideration given to the MAL for the pollutants specified above.

When an analysis of an effluent sample for a pollutant listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero shall be used for that measurement when making calculations for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form:

“The reported value(s) of zero for ____ [list pollutant(s)] ____ on the self-reporting form for [monitoring period date range] ____ is based on the following conditions: (1) the analytical method used had a method detection level as sensitive as the MAL specified in the permit, and (2) the analytical results contained no detectable levels above the specified MAL.”

When an analysis of an effluent sample for a pollutant indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that pollutant, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero may not be used.

3. PHASE ACTIVATION NOTIFICATION REQUIREMENTS

Reporting requirements according to 30 TAC §§ 319.1-319.12 and any additional effluent reporting requirements contained in the permit for Phases 2 and 3 are suspended from the effective date of the permit until plant startup or discharge, whichever occurs first, from the facility described by this permit. The permittee shall provide written notice to the TCEQ Region 10 Office, Applications Review and Processing Team (MC 148) of the Water Quality Division, and Compliance Monitoring Team (MC 224) at least forty-five days prior to activation of Phases 2 and 3, on Notification of Completion Form 20007.

4. DEFINITIONS:

- A. Process Wastewater – as defined in 40 CFR §401.11(q), the term process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.
- B. Utility Wastewater – the term utility wastewater includes, but is not limited to, non-contact cooling water, cooling tower blowdown, boiler blowdown, steam condensate, air compressor condensate, air conditioner condensate, and fire water. Water treatment wastes, hydrostatic test water, passivation wastewater, and system flush water are also classified as utility wastewaters.
- C. Water Treatment Wastes - the term water treatment wastes includes, but is not limited to, cold lime water treatment wastes, demineralizer backwash, filter backwash, ion exchange water treatment system wastes, membrane regeneration wastes, and reverse osmosis reject water.
- D. Hydrostatic Test Water – the term hydrostatic test water includes water used for conducting a hydrostatic test on any of the following types of vessels: 1) new vessels; 2) existing vessels that contain or previously contained or transferred raw or potable water; and/or 3) existing vessels that previously contained only elemental gases (hydrogen, oxygen, nitrogen, etc.). Water from a hydrostatic test conducted on any other type of vessel is considered process wastewater and must be handled accordingly.
- E. Stormwater – the term stormwater includes the following: stormwater [as defined at 40 CFR §122.26(b)(13)]; stormwater discharge associated with industrial activity [as defined at 40 CFR §122.26(b)(14)]; and stormwater from construction activities. See Other Requirement No. 8 for additional requirements regarding construction stormwater and allowable non-stormwater discharges.
- F. Passivation Wastewater – the term passivation wastewater means wastewater from the initial treatment of the cooling system and other metal surfaces to create a protective, corrosion-resistant layer on metal surfaces to prevent and/or reduce corrosion.
- G. System Flush Water – the term system flush water means water resulting from the flushing of the system

5. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 10 Office of any changes in the method by which the facility obtains water for cooling purposes. This notification must be submitted 30 days prior to any such change and must include a description of the planned changes. The TCEQ may, upon review of the notification, reopen the permit to include additional terms and conditions as necessary.

6. MIXING ZONE DEFINITIONS & DIFFUSER REQUIREMENTS – OUTFALL 001

The following requirements and determinations are applicable to all phases of Outfall 001.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 18.1 percent effluent at the edge of the zone of initial dilution (ZID). The ZID is defined as a volume within a radius of 50 feet from the point of discharge.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 9.3 percent effluent at the edge of the chronic aquatic life mixing zone. The chronic aquatic life mixing zone is defined as a volume within a radius of 200 feet from the point of discharge.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 8.4 percent effluent at the edge of the human health mixing zone. The human health mixing zone is defined as a volume within a radius of 400 feet from the point of discharge.

7. This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal.
8. MULTI-SECTOR GENERAL PERMIT ALLOWABLE NON-STORMWATER DISCHARGES
 - A. discharges from emergency firefighting activities, uncontaminated fire hydrant flushings, and prevention actions taken to control other dangerous high-heat conditions such as smoldering and emergency cooling of equipment (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated, and discharges are not expected to adversely affect aquatic life);
 - B. potable water sources, including overrun of clarified water produced for commissioning purposes (excluding discharges of hyper chlorinated water, unless the water is first dechlorinated, and discharge are not expected to adversely affect aquatic life);
 - C. lawn watering and similar irrigation drainage, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
 - D. water from the routine external washing of buildings, conducted without the use of detergents or other chemicals;
 - E. water from the routine washing of pavement conducted without the use of detergents or other chemicals and where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed);
 - F. uncontaminated air conditioner condensate, compressor condensate, and steam condensate, and condensate from the outside storage of refrigerated gases or liquids;
 - G. water from foundation or footing drains where flows are not contaminated with pollutants (e.g., process materials, solvents, and other pollutants);
 - H. uncontaminated water used for dust suppression;
 - I. springs and other uncontaminated ground water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents;
 - J. incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility but excluding intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
9. STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES

Stormwater discharges from construction activities and construction support activities, and allowable non-stormwater discharges described in section A. (1)-(8) below are authorized for discharge under this TPDES individual permit via all phases for Outfalls 101 and 001.

- A. Allowable non-stormwater discharges authorized for discharge are limited to the following, unless specific waste streams are identified on Pages 2, 2a, 2b, 2e, and 2f of this permit:
- (1) discharges from emergency fire-fighting activities (emergency fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, or similar activities);
 - (2) uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
 - (3) water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where solvents, detergents, and soaps are not used, where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;
 - (4) uncontaminated water used to control dust;
 - (5) potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life;
 - (6) uncontaminated air conditioning condensate;
 - (7) uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
 - (8) lawn watering and similar irrigation drainage.
- B. The permittee must implement and comply with the permit conditions and requirements outlined in the current TPDES stormwater Construction General Permit, TXR150000, effective on March 5, 2023, that are applicable for the type of operator and size of soil disturbing construction activities and construction support activities except as detailed in paragraphs (D) and (f) below. The permittee must identify and document the conditions and requirements established in TXR150000 that are applicable to its construction activities, including the development and implementation of a stormwater pollution prevention plan (SWP3) and best management practices (BMPs). The SWP3 must include justification documenting which conditions and requirements in TXR150000 are applicable to the permittee's construction activities and construction support activities.
- C. The SWP3 and any other applicable records required by TXR150000 must be kept current, maintained onsite, and made readily available to TCEQ, federal, state, or local government representatives upon request.
- D. Since stormwater discharges from construction activities and construction support activities and allowable non-stormwater discharges are authorized under this TPDES individual permit, there is no requirement for the permittee to obtain separate authorization(s) under TXR150000 by filing of a Notice of Intent (NOI) for construction activities and construction support activities performed within the permitted facility.
- E. If authorization(s) under TXR150000 for stormwater discharges from construction activities and construction support activities and allowable non-stormwater discharges at Outfalls 001 and/or 101 exists, then the permittee must terminate coverage under TXR150000 for respective outfalls (Outfalls 001 and/or 101) upon issuance of this TPDES individual permit

and notification of anticipated discharge under Other Requirement No. 3.

- F. *Final Stabilization*. Because stormwater discharges from construction and construction support activities are covered under this TPDES individual permit, the permittee does not need to submit a Notice of Termination (NOT) after final stabilization has been completed. Instead, the permittee must document in the SWP3 the dates when soil disturbing construction activities are completed, and the final stabilization conditions and requirements established in TXR150000 have been achieved on any portion of the permitted facility.
- G. Should the permittee decide to alternatively obtain coverage to discharge under TXR150000, the permittee must file an application for a minor amendment of this TPDES individual permit to remove the authorization to discharge stormwater from construction activities and construction support activities, and allowable non-stormwater discharges. Once this individual permit is modified and issued, it is the responsibility of the permittee to obtain coverage under the TXR150000 for any construction activities within the permitted facility.

The permittee is placed on notice that authorization to continue discharging stormwater from construction activities and construction support activities, and allowable non-stormwater discharges under this TPDES individual permit, this provision (Other Requirement No. 8) will be updated at the time of the next permitting action for this TPDES individual permit to require the permittee to comply with any new or revised conditions and requirements established within the current reissued and updated TXR150000.

10. The permittee must develop and implement a Stormwater Pollution Prevention Plan (SWP3) to ensure that areas of the facility that can contribute plastic pollutants to stormwater discharges (e.g. areas around containers holding plastic materials, plastic storage areas, loading docks where plastics are present, and outdoor areas where plastic materials may be present) are maintained in a clean and orderly manner. Good housekeeping measures must include measures to prevent exposure of plastics and other plastic pre-production materials to precipitation or runoff prior to their use in further processing or disposal. Plastic materials required to be addressed as stormwater pollutants at a minimum include the following: virgin and recycled plastic resin pellets, powders, flakes, powdered additives, regrind, scrap, waste, and recycling material with the potential to discharge or migrate off-site. Facilities that handle pre-production plastic must implement best management practices (BMPs) to eliminate discharges of plastic in stormwater through the implementation of control measures such as the following, where determined feasible (list not exclusive): minimizing spills, cleaning up spills promptly and thoroughly, sweeping and/or vacuuming thoroughly, and pellet capturing.

11. POND REQUIREMENTS

A wastewater pond must comply with the following requirements. A wastewater pond (or lagoon) is an earthen structure used to evaporate, hold, store, or treat water that contains a *waste* or *pollutant* or that would cause *pollution* upon *discharge* as those terms are defined in Texas Water Code § 26.001, but does not include a pond that contains only stormwater.

- A. A wastewater pond **subject to 40 CFR Part 257, Subpart D** (related to coal combustion residuals) must comply with those requirements in lieu of the requirements in B through G of POND REQUIREMENTS.
- B. An **existing** wastewater pond must be maintained to meet or exceed the original approved design and liner requirements; or, in the absence of original approved requirements, must be maintained to prevent unauthorized discharges of wastewater into or adjacent to water in the state. The permittee shall maintain copies of all liner construction and testing documents at the

facility or in a reasonably accessible location and make the information available to the executive director upon request.

- C. A **new** wastewater pond constructed after the issuance date of this permit must be lined in compliance with one of the following requirements if it will contain process wastewater as defined in 40 CFR § 122.2. The executive director will review ponds that will contain only non-process wastewater on a case-by-case basis to determine whether the pond must be lined. If a pond will contain only non-process wastewater, the owner shall notify the Industrial Permits Team (MC 148) to obtain a written determination at least 90 days before the pond is placed into service and copy the TCEQ Compliance Monitoring Team (MC 224) and regional office. The permittee must submit all information about the proposed pond contents that is reasonably necessary for the executive director to make a determination. If the executive director determines that a pond does not need to be lined, then the pond is exempt from C(1) through C(3) and D through G of POND REQUIREMENTS.

A wastewater pond that only contains domestic wastewater must comply with the design requirements in 30 TAC Chapter 217 and 30 TAC § 309.13(d) in lieu of items C(1) through C(3) of this subparagraph.

- (1) Soil liner: The soil liner must contain clay-rich soil material (at least 30% of the liner material passing through a #200 mesh sieve, liquid limit greater than or equal to 30, and plasticity index greater than or equal to 15) that completely covers the sides and bottom of the pond. The liner must be at least 3.0 feet thick. The liner material must be compacted in lifts of no more than 8 inches to 95% standard proctor density at the optimum moisture content in accordance with ASTM D698 to achieve a permeability less than or equal to 1×10^{-7} (≤ 0.0000001) cm/sec. For in-situ soil material that meets the permeability requirement, the material must be scarified at least 8 inches deep and then re-compacted to finished grade.
 - (2) Synthetic membrane: The liner must be a synthetic membrane liner at least 40 mils in thickness that completely covers the sides and the bottom of the pond. The liner material used must be compatible with the wastewater and be resistant to degradation (e.g., from ultraviolet light, chemical reactions, wave action, erosion, etc.). The liner material must be installed and maintained in accordance with the manufacturer's guidelines. A wastewater pond with a synthetic membrane liner must include an underdrain with a leak detection and collection system.
 - (3) Alternate liner: The permittee shall submit plans signed and sealed by a Texas-licensed professional engineer for any other equivalently protective pond lining method to the TCEQ Industrial Permits Team (MC 148) and copy the regional office.
- D. For a pond that must be lined according to subparagraph C (including ponds with in-situ soil liners), the permittee shall provide certification, signed and sealed by a Texas-licensed professional engineer, stating that the completed pond lining and any required underdrain with leak detection and collection system for the pond meet the requirements in subparagraph C(1) – C(3) before using the pond. The certification shall include the following minimum details about the pond lining system: (1) pond liner type (in-situ soil, amended in-situ soil, imported soil, synthetic membrane, or alternative), (2) materials used, (3) thickness of materials, and (4) either permeability test results or a leak detection and collection system description, as applicable.

The certification must be provided to the TCEQ Water Quality Assessment Team (MC 150), Industrial Permits Team (MC 148), and regional office. A copy of the liner certification and construction details (i.e., as-built drawings, construction QA/QC documentation, and post

construction testing) must be kept on-site or in a reasonably accessible location (in either hardcopy or digital format) until the pond is closed.

- E. Protection and maintenance requirements for a pond subject to subparagraph B or C (including ponds with in-situ soil liners).
- (1) The permittee shall maintain a liner to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.
 - (2) A liner must be protected from damage caused by animals. Fences or other protective devices or measures may be used to satisfy this requirement.
 - (3) The permittee shall maintain the structural integrity of the liner and shall keep the liner and embankment free of woody vegetation, animal burrows, and excessive erosion.
 - (4) The permittee shall inspect each pond liner and each leak detection system at least once per month. Evidence of damage or unauthorized discharge must be evaluated by a Texas-licensed professional engineer or Texas-licensed professional geoscientist within 30 days. The permittee is not required to drain an operating pond or to inspect below the waterline during these routine inspections.
 - a. A Texas-licensed professional engineer or Texas-licensed professional geoscientist must evaluate damage to a pond liner, including evidence of an unauthorized discharge without visible damage.
 - b. Pond liner damage must be repaired at the recommendation of a Texas-licensed professional engineer or Texas-licensed professional geoscientist. If the damage is significant or could result in an unauthorized discharge, then the repair must be documented and certified by a Texas-licensed professional engineer. Within 60 days after a repair is completed, the liner certification must be provided to the TCEQ Water Quality Assessments Team (MC 150) and regional office. A copy of the liner certification must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.
 - c. A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, including evidence that the actual permeability exceeds the design permeability, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.
- F. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall have a Texas-licensed professional engineer perform an evaluation of each pond that requires a liner at least once every five years. The evaluation must include: (1) a physical inspection of the pond liner to check for structural integrity, damage, and evidence of leaking; (2) a review of the liner documentation for the pond; and (3) a review of all documentation related to liner repair and maintenance performed since the last evaluation. For the purposes of this evaluation, evidence of leaking also includes evidence that the actual permeability exceeds the design permeability. The permittee is not required to drain an operating pond or to inspect below the waterline during the evaluation. A copy of the engineer's evaluation report must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

- G. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall maintain at least 2.0 feet of freeboard in the pond except when:
- (1) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;
 - (2) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity to be used for treatment for a limited period of time; or
 - (3) the pond was not required to have at least 2.0 feet of freeboard according to the requirements at the time of construction.

12. TPDES PERMIT NO. WQ0005288000

TPDES Permit No. WQ0005288000 receives post-first flush stormwater as described below:

Stormwater flows for the inside storage battery limit area are routed to the Stormwater Diversion Box, which is sized to receive the first flush, then routed to the First Flush Pond. The First Flush Pond includes a First Flush Pond Wet Well that is equipped with screens. Stormwater is then pumped to equalization tanks for biological treatment in the wastewater treatment system.

Once the first flush capacity in the Stormwater Division Box is reached, the system routes the remainder of the stormwater (post-first flush) through an underflow and overflow weir to the outside battery limit (OSBL) Pond prior to discharge under TPDES Permit No. WQ0005288000.

The routing of any other wastewaters generated at this facility to be discharged via TPDES Permit No. WQ0005288000 is not authorized by this permit.

13. EFFLUENT TESTING REQUIREMENTS

Wastewater discharged via all phases of Outfall 001 must be sampled and analyzed as directed below. For Phase 1 Tables 1, 2, and 4 of Attachment A of this permit are required. For Phases 2 and 3 all tables (Tables 1, 2, 3, 4, 5, 6, 7, and 8) of Attachment A of this permit are required. Analytical testing must be completed within 60 days of initial discharge of the respective phase.

Results of the analytical testing must be submitted within 90 days of initial discharge of the respective phase to the TCEQ Industrial Permits Team (MC 148) and Region 10 Office. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations, monitoring requirements, or both.

Tables 1-3: Analysis is required for all pollutants in Tables 1, 2, and 3. Wastewater must be sampled and analyzed for those parameters listed in Tables 1, 2, and 3 for a minimum of four sampling events that are each at least one week apart.

Table 4: For all pollutants listed in Table 4, the permittee shall indicate whether each pollutant is believed to be present or absent in the discharge. Sampling and analysis must be conducted for each pollutant believed present for a minimum of one sampling event.

Tables 5-8: Analysis is required for all pollutants in Tables 5, 6, 7, and 8. Wastewater must be sampled and analyzed for those parameters listed in Table 1 for a minimum of four sampling events that are each at least one week apart.

The permittee shall report the flow at Outfall 001 in MGD in the attachment. The permittee shall indicate on each table whether the samples are composite (C) or grab (G) by checking the appropriate box.

Attachment A**Table 1 – Conventional and Non-conventionals**

Outfall No.:	<input type="checkbox"/> C <input type="checkbox"/> G	Effluent Concentration (mg/L)					
Pollutant		Samp.	Samp.	Samp.	Samp.	Average	
Flow (MGD)							
BOD (5-day)							
CBOD (5-day)							
Chemical Oxygen Demand							
Total Organic Carbon							
Dissolved Oxygen							
Ammonia Nitrogen							
Total Suspended Solids							
Nitrate Nitrogen							
Total Organic Nitrogen							
Total Phosphorus							
Oil and Grease							
Total Residual Chlorine							
Total Dissolved Solids							
Sulfate							
Chloride							
Fluoride							
Total Alkalinity (mg/L as CaCO ₃)							
Temperature (°F)							
pH (Standard Units; min/max)							

Table 2 – Metals

Pollutant	Effluent Concentration (µg/L) ¹					MAL ² (µg/L)
	Samp.	Samp.	Samp.	Samp.	Average	
Aluminum, Total						2.5
Antimony, Total						5
Arsenic, Total						0.5
Barium, Total						3
Beryllium, Total						0.5
Cadmium, Total						1
Chromium, Total						3
Chromium, Hexavalent						3
Chromium, Trivalent						N/A
Copper, Total						2
Cyanide, Free						10
Lead, Total						0.5
Mercury, Total						0.005
Nickel, Total						2
Selenium, Total						5
Silver, Total						0.5
Thallium, Total						0.5
Zinc, Total						5.0

¹ Indicate units if different than µg/L.

² Minimum Analytical Level

Table 3 – Toxic Pollutants with Water Quality Criteria

Outfall No.:	<input type="checkbox"/> C <input type="checkbox"/> G	Samp. 1 (µg/L) ³	Samp. 2 (µg/L) ³	Samp. 3 (µg/L) ³	Samp. 4 (µg/L) ³	Avg. (µg/L) ³	MAL (µg/L)
Pollutant							
Acrolein							0.7
Acrylonitrile							50
Anthracene							10
Benzene							10
Benzidine							50
Benzo(a)anthracene							5
Benzo(a)pyrene							5
Bis(2-chloroethyl)ether							10
Bis(2-ethylhexyl) phthalate							10
Bromodichloromethane							10
Bromoform							10
Carbon Tetrachloride							2
Chlorobenzene							10
Chlorodibromomethane							10
Chloroform							10
Chrysene							5
Cresols							10
1,2-Dibromoethane							10
<i>m</i> -Dichlorobenzene							10
<i>o</i> -Dichlorobenzene							10
<i>p</i> -Dichlorobenzene							10
3,3'-Dichlorobenzidine							5
1,2-Dichloroethane							10
1,1-Dichloroethylene							10
Dichloromethane							20
1,2-Dichloropropane							10
1,3-Dichloropropylene							10
2,4-Dimethylphenol							10
Di- <i>n</i> -Butyl Phthalate							10
Epichlorohydrin							1,000
Ethylbenzene							10
Ethylene Glycol							—
Fluoride							500
Hexachlorobenzene							5
Hexachlorobutadiene							10
Hexachlorocyclopentadiene							10
Hexachloroethane							20
4,4'-Isopropylidenediphenol [bisphenol A]							—

³ Indicate units if different than µg/L.

Outfall No.:	<input type="checkbox"/> C <input type="checkbox"/> G	Samp. 1 (µg/L) ³	Samp. 2 (µg/L) ³	Samp. 3 (µg/L) ³	Samp. 4 (µg/L) ³	Avg. (µg/L) ³	MAL (µg/L)
Pollutant							
Methyl Ethyl Ketone							50
Methyl <i>tert</i> -butyl ether [MTBE]							—
Nitrobenzene							10
<i>N</i> -Nitrosodiethylamine							20
<i>N</i> -Nitroso-di- <i>n</i> -Butylamine							20
Nonylphenol							333
Pentachlorobenzene							20
Pentachlorophenol							5
Phenanthrene							10
Polychlorinated Biphenyls (PCBs) ⁴							0.2
Pyridine							20
1,2,4,5-Tetrachlorobenzene							20
1,1,2,2-Tetrachloroethane							10
Tetrachloroethylene							10
Toluene							10
1,1,1-Trichloroethane							10
1,1,2-Trichloroethane							10
Trichloroethylene							10
2,4,5-Trichlorophenol							50
TTHM (Total Trihalomethanes)							10
Vinyl Chloride							10

⁴ Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016. If all values are non-detects, enter the highest non-detect preceded by a "<" symbol.

Table 4

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Believed Present	Believed Absent	Average Conc. (mg/L)	Maximum Conc. (mg/L)	No. of Samples	MAL (mg/L)
Pollutant							
Bromide							0.400
Color (PCU)							—
Nitrate-Nitrite (as N)							—
Sulfide (as S)							—
Sulfite (as SO ₃)							—
Surfactants							—
Boron, total							0.020
Cobalt, total							0.0003
Iron, total							0.007
Magnesium, total							0.020
Manganese, total							0.0005
Molybdenum, total							0.001
Tin, total							0.005
Titanium, total							0.030

Table 5 – Volatile Compounds

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Average (µg/L) ⁵	Maximum (µg/L) ⁵	No. of Samples	MAL (µg/L)
Pollutant					
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2- <i>trans</i> -dichloroethylene [1,2- <i>trans</i> -dichloroethene]					10
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethylene [Trichloroethene]					10
Vinyl chloride					10

⁵ Indicate units if different than µg/L.

Table 6 – Acid Compounds

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Average (µg/L) ⁶	Maximum (µg/L) ⁶	No. of Samples	MAL (µg/L)
Pollutant					
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro- <i>o</i> -cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
<i>p</i> -Chloro- <i>m</i> -cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

⁶ Indicate units if different than µg/L.

Table 1 – Base/Neutral Compounds

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Average (µg/L) ⁷	Maximum (µg/L) ⁷	No. of Samples	MAL (µg/L)
Pollutant					
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					10
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl) phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [<i>o</i> -Dichlorobenzene]					10
1,3-Dichlorobenzene [<i>m</i> -Dichlorobenzene]					10
1,4-Dichlorobenzene [<i>p</i> -Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3- <i>cd</i>)pyrene					5
Isophorone					10
Naphthalene					10

⁷ Indicate units if different than µg/L.

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Average (µg/L) ⁷	Maximum (µg/L) ⁷	No. of Samples	MAL (µg/L)
Pollutant					
Nitrobenzene					10
N-Nitrosodimethylamine					50
N-Nitrosodi- <i>n</i> -propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

Table 8 – Pesticides

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Average (µg/L) ⁸	Maximum (µg/L) ⁸	No. of Samples	MAL (µg/L)
Pollutant					
Aldrin					0.01
<i>alpha</i> -BHC [<i>alpha</i> -Hexachlorocyclohexane]					0.05
<i>beta</i> -BHC [<i>beta</i> -Hexachlorocyclohexane]					0.05
<i>gamma</i> -BHC [<i>gamma</i> -Hexachlorocyclohexane]					0.05
<i>delta</i> -BHC [<i>delta</i> -Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

⁸ Indicate units if different than µg/L.

BIOMONITORING REQUIREMENTS**CHRONIC BIOMONITORING REQUIREMENTS: MARINE**

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing and begin upon date of activation of Phase 2 (see Other Requirement No. 3).

1. **Scope, Frequency and Methodology**

- a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival or growth of the test organisms.
- b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified below and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms," third edition (EPA-821-R-02-014) or its most recent update:
 - 1) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Americamysis bahia*) (Method 1007.0). A minimum of eight replicates with five organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.
 - 2) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*) (Method 1006.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 4%, 5%, 7%, 9%, and 12% effluent. The critical dilution, defined as 9% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, a chemical-specific limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.
- e. **Testing Frequency Reduction**
 - 1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

- 2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:
 - 1) a control mean survival of 80% or greater;
 - 2) a control mean dry weight of surviving mysid shrimp of 0.20 mg or greater;
 - 3) a control mean dry weight for surviving unpreserved inland silverside of 0.50 mg or greater and 0.43 mg or greater for surviving preserved inland silverside.
 - 4) a control coefficient of variation percent (CV%) between replicates of 40 or less in the growth and survival tests;
 - 5) a critical dilution CV% of 40 or less in the growth and survival endpoints for either growth and survival test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;
 - 6) a percent minimum significant difference of 37 or less for mysid shrimp growth; and
 - 7) a percent minimum significant difference of 28 or less for inland silverside growth.
- b. Statistical Interpretation
 - 1) For the mysid shrimp and the inland silverside larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b.
 - 2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.
 - 3) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

- 4) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is herein defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).
- 5) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 2.
- 6) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Part 1.b. will be used when making a determination of test acceptability.
- 7) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

- 1) Dilution water used in the toxicity tests must be the receiving water collected as close to the point of discharge as possible but unaffected by the discharge.
- 2) Where the receiving water proves unsatisfactory as a result of preexisting instream toxicity (i.e., fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;
 - b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.
- 3) The synthetic dilution water shall consist of standard, reconstituted seawater. Upon approval, the permittee may substitute other dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

- 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.

- 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th, for biomonitoring conducted during the previous calendar quarter.
 - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the mysid shrimp, Parameter TLP3E, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the mysid shrimp, Parameter TOP3E, report the NOEC for survival.
 - 3) For the mysid shrimp, Parameter TXP3E, report the LOEC for survival.

- 4) For the mysid shrimp, Parameter TWP3E, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
 - 5) For the mysid shrimp, Parameter TPP3E, report the NOEC for growth.
 - 6) For the mysid shrimp, Parameter TYP3E, report the LOEC for growth.
 - 7) For the inland silverside, Parameter TLP6J, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 8) For the inland silverside, Parameter TOP6J, report the NOEC for survival.
 - 9) For the inland silverside, Parameter TXP6J, report the LOEC for survival.
 - 10) For the inland silverside, Parameter TWP6J, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
 - 11) For the inland silverside, Parameter TPP6J, report the NOEC for growth.
 - 12) For the inland silverside, Parameter TYP6J, report the LOEC for growth.
- d. Enter the following codes for retests only:
- 1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this part apply only when a test demonstrates a significant effect at the critical dilution. Significant effect and significant lethality were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth at the critical dilution when compared to the growth of the test organism in the control.

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE Action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.
- d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.
- e. Regardless of whether retesting for lethal or sublethal effects or a combination of the two, no more than one retest per month is required for a species.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE Action Plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled, "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
 - 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-

- specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation which identifies the pollutant and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
 - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are herein defined as proactive

efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond their control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.
- h. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and to specify a chemical-specific limit.
- i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

Dates and Times No. 1 FROM: _____ Date Time TO: _____ Date Time
 Composites
 Collected No. 2 FROM: _____ TO: _____
 No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

MYSID SHRIMP SURVIVAL

Percent Effluent	Percent Survival in Replicate Chambers								Mean Percent Survival			CV%*
	A	B	C	D	E	F	G	H	24h	48h	7 day	
0%												
4%												
5%												
7%												
9%												
12%												

* Coefficient of Variation = standard deviation x 100/mean

DATA TABLE FOR GROWTH OF MYSID SHRIMP

Replicate	Mean dry weight in milligrams in replicate chambers					
	0%	4%	5%	7%	9%	12%
A						
B						
C						
D						
E						

TABLE 1 (SHEET 2 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

DATA TABLE FOR GROWTH OF MYSID SHRIMP (Continued)

Replicate	Mean dry weight in milligrams in replicate chambers					
	0%	4%	5%	7%	9%	12%
F						
G						
H						
Mean Dry Weight (mg)						
CV%*						
PMSD						

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (9%): _____ YES _____ NO

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to non-lethal effects?

CRITICAL DILUTION (9%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

a.) NOEC survival = _____ % effluent

b.) LOEC survival = _____ % effluent

c.) NOEC growth = _____ % effluent

d.) LOEC growth = _____ % effluent

TABLE 1 (SHEET 3 OF 4)

INLAND SILVERSIDE MINNOW LARVAL SURVIVAL AND GROWTH TEST

Dates and Times No. 1 FROM: _____ Date Time TO: _____ Date Time
 Composites
 Collected No. 2 FROM: _____ TO: _____
 No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

INLAND SILVERSIDE SURVIVAL

Percent Effluent	Percent Survival in Replicate Chambers					Mean Percent Survival			CV%*
	A	B	C	D	E	24h	48h	7 days	
0%									
4%									
5%									
7%									
9%									
12%									

* Coefficient of Variation = standard deviation x 100/mean

TABLE 1 (SHEET 4 OF 4)

INLAND SILVERSIDE LARVAL SURVIVAL AND GROWTH TEST

INLAND SILVERSIDE GROWTH

Percent Effluent	Average Dry Weight in milligrams in replicate chambers					Mean Dry Weight (mg)	CV%*
	A	B	C	D	E		
0%							
4%							
5%							
7%							
9%							
12%							
PMSD							

Weights are for: ____ preserved larvae, or ____ unpreserved larvae

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (9%): _____ YES _____ NO

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to non-lethal effects?

CRITICAL DILUTION (9%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC/LOEC below:

a.) NOEC survival = _____% effluent

b.) LOEC survival = _____% effluent

c.) NOEC growth = _____% effluent

d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: MARINE

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing and begin upon date of activation of Phase 2 (see Other Requirement No. 3).

1. Scope, Frequency, and Methodology

- a. The permittee shall test the effluent for lethality in accordance with the provisions in this Section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
 - 1) Acute 24-hour static toxicity test using the mysid shrimp (*Americamysis bahia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
 - 2) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, then repeat, an invalid test during the same reporting period. The repeat test shall include the control and all effluent dilutions and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in Part 2.b., the control and dilution water shall consist of standard, synthetic, reconstituted seawater.
- d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, additional toxicity testing, and other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water - In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, reconstituted seawater.
- c. Samples and Composites
 - 1) The permittee shall collect one composite sample from Outfall 001.

- 2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required of this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the mysid shrimp, Parameter TIE3E, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
 - 2) For the inland silverside, Parameter TII6J, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
 - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, here defined as a mean mortality of 50% or greater to organisms exposed to the 100% effluent concentration after 24-hours.

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These additional effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5 of this Section.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
 - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism.
- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, the permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

- i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and to specify a chemical specific limit.
- j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)
MYSID SHRIMP SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC₅₀ below:

24-hour LC₅₀ = _____% effluent

TABLE 2 (SHEET 2 OF 2)

INLAND SILVERSIDE SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC₅₀ below:

24-hour LC₅₀ = _____% effluent

CMP THRESHOLD REVIEW SHEET
INDUSTRIAL WASTEWATER DISCHARGE PERMITS

TPDES PERMIT NUMBER:	<u>Golden Triangle Polymers Company LLC</u>
CLASSIFIED SEGMENT:	<u>WQ0005432000</u>
NAME:	<u>Sabine River Tidal</u>
NUMBER:	<u>0501</u>
COUNTY:	<u>Orange</u>

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

- | | |
|--------------------------|---|
| <input type="checkbox"/> | 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). |
| <input type="checkbox"/> | 2. The IOM from standards states that "no loss of designated uses is anticipated." |
| <input type="checkbox"/> | 3. The draft permit complies with all applicable provisions of 30 TAC 307, 309, and 319. |

Michael Sunderlin
PERMIT WRITER

February 28, 2025
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

INDUSTRIAL EPA REVIEW CHECKLIST

Permittee Name: Golden Triangle Polymers Company LLC

Permittee Number: WQ0005432000

IS THIS A MINOR AMENDMENT WITHOUT RENEWAL?

- ☐ **EPA review is waived per the MOA**, because this is a minor amendment without renewal. SKIP TO THE END.

For all other application types, check all that apply:

Yes No

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge to territorial seas (within 3 miles of the coastline) of the United States? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge or sewage sludge management may affect another state or the Republic of Mexico? For sewage sludge management, "may affect" means accepts sewage sludge from another state or Mexico. For discharge, it means a discharge within 3 miles of a boundary with another state or Mexico. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge of uncontaminated cooling tower blowdown with a permitted daily average flow >500 MGD? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from a designated major facility? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge from a categorical industry as listed in 40 CFR Part 122, Appendix A? (see Attachment A) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from source other than a categorical industry as listed in 40 CFR Part 122, Appendix A with a permitted daily average flow >0.5 MGD, except for facilities that discharge non-process wastewater? Non-process wastewater is water that (during manufacturing or processing) does not come into direct contact with, or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | minor facility discharge to critical concern species watersheds (see WQ Standards review) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (Prior to a final TMDL) discharge from a new or expanding facility to a 303(d) listed segment which has the potential to discharge any pollutant which is causing or contributing to the impairment of the segment? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) discharge from a new or expanding discharge to a 303(d) listed segment where the TMDL does not allocate the loadings described in the draft permit? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) a permit with effluent limits which allow loadings in excess of those prescribed by the TMDL for the segment? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) permit allows a three-year compliance schedule for limits based on the TMDL allocations? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the main purpose of the facility to desalinate either seawater or salty ground water? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other: _____ |

Per the screening above, choose one:

- ☒ **Yes, EPA review is required.** ☐ No, EPA review is not required.

Michael Sunderlin

Permit Writer's Name

February 28, 2025

Date

ATTACHMENT A

PRIMARY INDUSTRIAL CATEGORIES

Adhesives and sealants.....	N/A
Aluminum forming.....	Part 467
Auto and other laundries.....	N/A
Battery and manufacturing.....	Part 461
Coal mining.....	Part 434
Coil coating.....	Part 465
Copper forming.....	Part 468
Electrical and electronic components.....	Part 469
Electroplating.....	Part 413
Explosives manufacturing.....	Part 457
Foundries.....	N/A
Gum and wood chemicals.....	Part 454
Inorganic chemicals manufacturing.....	Part 415
Iron and steel manufacturing.....	Part 420
Leather tanning and finishing.....	Part 425
Mechanical products manufacturing.....	N/A
Nonferrous metals manufacturing.....	Part 421
Ore mining.....	Part 440
Organic chemicals manufacturing.....	Part 414
Paint and ink formulation.....	Part 446
Pesticides.....	Part 455
Petroleum refining.....	Part 419
Pharmaceutical preparation.....	Part 439
Photographic equipment and supplies.....	Part 459
Plastics processing.....	Part 463
Plastic and synthetic material manufacturing.....	Part 414
Porcelain enameling.....	Part 466
Printing and publishing.....	N/A
Pulp and paper mills.....	Part 430
Rubber processing.....	Part 428
Soap and detergent manufacturing.....	Part 417
Steam electric power plants.....	Part 423
Textile mills.....	Part 410
Timber products processing.....	Part 429

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005432000

NPDES No.: TX0144690

Facility Name: Golden Triangle Polymers Company LLC

City/County: Orange/ Orange

Receiving Water (Name/Segment No.): Sabine River Tidal / 0501

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (no cooling pond/lake).
2. A nuclear power plant.
3. Cooling water discharge greater than 25% of the receiving waters 7Q2 flow rate.

☐ YES (score is 600, stop here).
☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES (score is 700, stop here).
☒ NO (continue)

FACTOR 1: Toxic Pollutant Potential

Primary SIC Code: 2821

Other SIC Codes: 2869 4226 _____

Industrial Subcategory Code _____

Determine the Toxicity potential from Appendix A of [Major-Minor Rating Instructions](#). Be sure to use the TOTAL toxicity potential column and check one.

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	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input checked="" type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

CODE NUMBER CHECKED 9
TOTAL POINTS FACTOR 1: 45

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or B; check only one)

SECTION A - Wastewater Flow Only Considered

	Code	Points
Type I:		
Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50	<input type="checkbox"/> 14	30
Type II:		
Flow <1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow 5 to 10 MGD	<input checked="" type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III		
Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

SECTION B - Wastewater & Stream Flow Considered

	Percent Effluent @ Mixing Zone	Code	Points
Type I/III:	< 10%	<input type="checkbox"/> 41	0
	10% to 50%	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	< 10%	<input type="checkbox"/> 51	0
	10% to 50%	<input type="checkbox"/> 52	20
	> 50%	<input type="checkbox"/> 53	30

CODE NUMBER CHECKED 23
TOTAL POINTS FACTOR 2: 30

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005432000

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 checked="" 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 checked="" 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 <u>2</u>		B <u>3</u>		C <u>----</u>	
A <u>5</u>	+	B <u>15</u>	+	C <u>0</u>	= <u>20</u> 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:

0

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005432000

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?*

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

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

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

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

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

CODE NUMBER CHECKED

POINT FACTOR 5:

A	<u>2</u>		B	<u>1</u>		C	<u>2</u>	
A	<u>0</u>	+	B	<u>0</u>	+	C	<u>0</u>	= <u>0</u> Total

FACTOR 6: Proximity to Near Coastal Waters

Base Score: Enter flow code here (from Factor 2): 23

Enter the multiplication factor that corresponds to the flow code: 0.60

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

HPRI code checked: 3

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

Base Score: (HPRI Score) 30 X (Multiplication Factor) 0.6 = 18 (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 and [National Estuary Program Map viewer](#))?

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

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

CODE NUMBER CHECKED

POINT FACTOR 6:

A	<u>3</u>		B	<u>2</u>		C	<u>----</u>	
A	<u>18</u>	+	B	<u>0</u>	+	C	<u>----</u>	= <u>18</u> Total

TPDES PERMIT RATING WORK SHEET

TPDES No.: WQ0005432000

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	45
2	Flow/Streamflow Volume	30
3	Conventional Pollutants	20
4	Public Health Impacts	0
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	18
	TOTAL (Factors 1 through 6)	113

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

Michael Sunderlin
Permit Reviewer

512-239-4523
Phone Number

February 28, 2025
Date Reviewed

NEW SOURCE DETERMINATION WORKSHEET

PERMITTEE:	Golden Triangle Polymers Company LLC
TPDES PERMIT NUMBER:	WQ0005432000
NPDES PERMIT NUMBER:	TX0144690
TYPE OF INDUSTRIAL ACTIVITY:	An integrated polymers production facility
SIC CODE:	2821, 2869, & 4226
CATEGORICAL GUIDELINES:	40 CFR Part 414

A. NEW SOURCE DETERMINATION - SCREENING

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

- 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.
- 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.
- 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.

Michael Sunderlin
REVIEWER

February 28, 2025
DATE

ATTACHMENT 1**EPA - REGION 6**
NPDES PERMIT CERTIFICATION CHECKLIST

In accordance with the MOA established between the State of Texas and the United States Environmental Protection Agency, Region 6, the Texas Commission on Environmental Quality submits the following draft Texas Pollutant Discharge Elimination System (TPDES) permit for Agency review.

Major ☐ **Minor** ☒

POTW ☐ **Private Domestic** ☐ **Non-POTW** ☒

Facility Name	Golden Triangle Polymers Company LLC		
SIC Code	2821, 2869, & 4226		
Type of operation	An integrated polymers production facility		
NPDES Permit No.	TX0144690	TPDES Permit No.	WQ0005432000
Segment No.	0501	Basin	Sabine River Basin
Receiving Water	Sabine River Tidal		

Permit Action:	New	<input checked="" type="checkbox"/>
	Renewal WITH changes	<input type="checkbox"/>
	Renewal w/out changes (permit and WQS)	<input type="checkbox"/>
	Major Amendment with Renewal	<input type="checkbox"/>
	Amendment/Modification WITHOUT renewal, proceed directly to question 26 below	<input type="checkbox"/>

Answer the following:	Yes	No	N/A
1. Are there known or potential interstate water issues associated with this permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is there known or potential third-party interest/environmental concern regarding this permit action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Does this facility discharge to a 303(d) listed waterbody/segment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If YES , does the facility discharge any of the pollutant(s) of concern identified in the 303(d) listing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Is this permit consistent with the approved WQMP?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Are discharges continuous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Does the facility discharge or propose to discharge process wastewaters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are discharges DIRECTLY to a classified waterbody segment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Does the facility discharge to a water body segment which has a finalized TMDL?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If YES , does the permit implement the TMDL consistent with the WLAs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Does the Statement of Basis document the rationale for the inclusion/omission of permit conditions for each 303(d) listed pollutant of concern or TMDL pollutant?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Has a priority watershed of critical concern been identified by the U. S. Fish and Wildlife Service for this segment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Answer the following:		Yes	No	N/A
11.	Is there a thermal component to discharges from this facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Does this permit authorize ammonia discharges > 4.0 mg/L at the edge of the mixing zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.	Does this permit require testing for Whole Effluent Toxicity in accordance with the state's standard practices and implementation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If YES , were there any toxicity failures within the previous three years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.	If this facility has completed and implemented a Toxicity Reduction Evaluation (TRE), has any subsequent toxicity been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15.	Does this permit propose to grant a variance request (<i>WQS, FDF, etc.</i>) or does it incorporate a proposed or final approval of a variance request?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16.	If a POTW is ≥ 5 MGD, does it have an approved Pretreatment Program?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.	Since the last permit issuance, has the POTW had a new Pretreatment Program approved or a Pretreatment Program modification approved?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18.	Does this permit contain authorization for wet weather-related peak-flow discharges?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19.	Does this permit include a bypass of any treatment unit or authorize overflows in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20.	Does this permit include provisions for effluent trading?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21.	Does this permit contain specific issues on which EPA and the state are not in agreement regarding the permitting approach?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22.	Is this facility subject to a national effluent limitations' guideline? Please specify: 40 CFR Part 414 Subparts D, F, & I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	Does this permit contain "first-time" implementation of a new federal guideline, policy, regulation, etc.? Please specify:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24.	Is this a new facility or an expansion of an existing facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	For an EXISTING facility, if any limits have been removed or are less stringent than those in the previous permit, is it in accordance with the anti-backsliding regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25.	Does this permit incorporate any exceptions to the standards or regulations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26.	Is this a permit modification/amendment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Please specify:				

Name: Michael Sunderlin

Date: February 28, 2025

TOXIC RATING WORKSHEET

TPDES Permit No.:	WQ0005432000
NPDES Permit No.:	TX0144690
Permittee:	Golden Triangle Polymers Company LLC
Facility:	Golden Triangle Polymers Plant
SIC Codes:	1. 2821 2. 2869 3. 4226 4.
40 CFR Section:	40 CFR Part 414
Toxic Rating for Facility:	3
Permit Writer:	Michael Sunderlin Date: 2/28/2025

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	3	300
Total =			300

Toxic Rating for Facility = Total/100 = 3 (round to nearest whole #)

OUTFALL NO.: 001

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
Process Wastewater	13.6	6	81.6
Utility Wastewater	74.7	2	150.4
Stormwater	11.7	3	35.1
Total <u>100</u>			Total: <u>267.1</u>

Toxic Rating for Outfall = Total/100 = 3 (round to nearest whole #)

OUTFALL CONTAMINATION DETERMINATION

Permittee Name: Golden Triangle Polymers Company LLC

Permittee Number: WQ0005432000

Use this worksheet to make a determination for each internal and external Outfall. Enter the determination (i.e., contaminated or uncontaminated) into the space provided for each outfall.

If any box is checked "YES", the outfall is classified as "CONTAMINATED" for billing and PARIS. If no boxes are checked "YES", the outfall is classified as "UNCONTAMINATED" for billing and PARIS.

Outfall No.: 001

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	toxic rating is greater than or equal to three
<input type="checkbox"/>	<input checked="" type="checkbox"/>	discharge requires limits based on water quality factors of the receiving stream
<input checked="" type="checkbox"/>	<input type="checkbox"/>	discharge is greater than 10% (or more than 1 MGD) process wastewater
<input type="checkbox"/>	<input checked="" type="checkbox"/>	discharge requires monitoring and reporting or limits for radioactive materials
<input type="checkbox"/>	<input checked="" type="checkbox"/>	other: (provide explanation)

Outfall Determination: Contaminated

Outfall No.: _____

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	toxic rating is greater than or equal to three
<input type="checkbox"/>	<input type="checkbox"/>	discharge requires limits based on water quality factors of the receiving stream
<input type="checkbox"/>	<input type="checkbox"/>	discharge is greater than 10% (or more than 1 MGD) process wastewater
<input type="checkbox"/>	<input type="checkbox"/>	discharge requires monitoring and reporting or limits for radioactive materials
<input type="checkbox"/>	<input type="checkbox"/>	other: (provide explanation)

Outfall Determination: Choose an item.

Outfall No.: _____

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	toxic rating is greater than or equal to three
<input type="checkbox"/>	<input type="checkbox"/>	discharge requires limits based on water quality factors of the receiving stream
<input type="checkbox"/>	<input type="checkbox"/>	discharge is greater than 10% (or more than 1 MGD) process wastewater
<input type="checkbox"/>	<input type="checkbox"/>	discharge requires monitoring and reporting or limits for radioactive materials
<input type="checkbox"/>	<input type="checkbox"/>	other: (provide explanation)

Outfall Determination: Choose an item.

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Matthew Kennington, Team Leader
Industrial Permits Team, Wastewater Permitting Section

DATE: February 28, 2025

Thru: Peer Reviewer: Chris Linendoll, E.I.T. _____

From: Michael Sunderlin, Permit Writer
Industrial Permits Team, Wastewater Permitting Section

Subject:

Applicant:	Golden Triangle Polymers Company LLC			
Facility Name:	Golden Triangle Polymers Plant			
<input checked="" type="checkbox"/> TPDES	<input type="checkbox"/> TCEQ	WQ0005432000	EPA ID. No.	TX0144690
Industrial:	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Major		
Toxic Rating:	3	Stream Segment:	0501	
Received:	6/29/2023	Admin Complete:	8/07/2023	
Assigned:	7/23/2024	To Team Leader:	2/28/2025	
Tech Complete:	3/19/2025			

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 checked="" type="checkbox"/>	Federal Guidelines:	40 CFR Part 414 Subparts D, F, & I
<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: Mr. Gopal Periapattanam, Environmental Engineer

Phone #: 832-416-3060

Email: periag@cpchem.com

Known Opposition: ☐ Yes ☒ No

If yes, briefly explain: _____

Comments: _____

☒ **Permit is reclassified per the major/minor determination worksheet. ARP Team to be notified during ED Sub.**

QuickSave Buttons

You can click the buttons below to automatically save your draft permit and its pieces (e.g., the caption) in the appropriate folders.

IMPORTANT NOTE:

If you have trouble emailing a permit document:

- save it as a .docx file and send the .docx file
- **or** send the ERC and Region Permits folder version (it will be in .docx format already).

Save as Tech Complete

Save Permit at ED Sub