

**Equistar Chemicals, LP
Channelview Complex
TPDES WQ0000391000 Application 2023**

Application Contents

Administrative Report 1.0
Administrative Report 1.1
Supplemental Permit Information Form (SPIF)
Plain Language Summary
Technical Report 1.0
Worksheet 4 Receiving Waters
Outfalls 003, 003A, 003B, 003C, 004

Attachments

	Cross-reference to Application Item
SPIF-1 USGS Map	SPIF-8
A-1 Core Data Form	AR1.0-4.a
A-2 Delegation of Authority	AR1.0-13
A-3 USGS Map	AR1.0-11.b
A-4 Landowner Information	AR1.1
A-4-1 Landowner Map (Figures 1 and 2)	AR1.1-1.a
A-4-2 Landowner List	AR1.1-1.b
A-4-3 Landowner Mailing Labels	AR1.1-1.b
A-5 Outfall Photos	AR1.1-3
A-6 Public Involvement Plan	AR1.0-9.g
A-7 HCFCF Approval Letter	AR1.0-11.h
Figure 1. Wastewater Flow Balance	TR-2.b
Figure 2. Wastewater Flow Diagram	TR-2.b
T-2 Amendment Requests	TR-13
Attachment 1 - Aluminum Source Study Report	TR-13
T-3-1 Facility Map	TR-1.d
T-3-2 Storm Water Outfall Map	TR-1.d

Reference Key

AR1.0 Administrative Report 1.0
AR1.1 Administrative Report 1.1
TR Technical Report
SPIF Supplemental Permit Information Form
W# Worksheet #

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TCEQ INDUSTRIAL WASTEWATER PERMIT APPLICATION

INDUSTRIAL ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report

Item 1. Application Information and Fees (Instructions, Page 25)

- a. Complete each field with the requested information, if applicable.

Applicant Name: Equistar Chemicals, LP EPA ID No.: TX0003531

Permit No.: WQ0000391000 Expiration Date: March 25, 2026

- b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

- c. Check the box next to the appropriate facility status.

☒ Active

☐ Inactive

- d. Check the box next to the appropriate permit type.

☒ TPDES Permit

☐ TLAP

- e. Check the box next to the appropriate application type.

☐ New

☐ Renewal with changes

☐ Renewal without changes

☐ Major amendment with renewal

☒ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: 1) Outfalls 003, 003A, 003B, 003C - remove monitoring and daily maximum concentration limit for total aluminum; 2) Outfalls 003, 003A, 003B, 003C - remove monitoring for total zinc; and 3) Outfall 004 - remove monitoring and daily maximum concentration limit for total zinc

- g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ¹	<input checked="" type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

For TCEQ Use Only

¹ All facilities are designated as minors until formally classified as a major by EPA.

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____

h. Payment Information

Mailed

Check or money order No.: N/A Check or money order amt.: N/A

Named printed on check or money order: N/A

Epay

Voucher number: 609803, 609804, 609805 Copy of voucher attachment: See voucher information below.

=====

Voucher: 609803
Trace Number: 582EA000520789
Date: 01/10/2023 11:05 AM
Payment Method: CC - Authorization 0000056639 Voucher Amount: \$2,000.00 Fee Paid: WW PERMIT - MAJOR INDUSTRIAL FACILITY - MAJOR AMENDMENT Site Name: EQUISTAR CHEMICAL COMPANY Site Address: 8280 SHELTON RD, CHANNELVIEW, TX 77530 Site Location: 8280 SHELTON RD CHANNELVIEW TEXAS 77530 Customer Name: RAYANN BUTLER Customer Address: 8280 SHELTON RD, CHANNELVIEW, TX 77530 Program Area ID: 0000391000

Voucher: 609804
Trace Number: 582EA000520789
Date: 01/10/2023 11:05 AM
Payment Method: CC - Authorization 0000056639 Voucher Amount: \$50.00 Fee Paid: 30 TAC 305.53B WQ NOTIFICATION FEE

Voucher: 609805
Trace Number: 582EA000520789
Date: 01/10/2023 11:05 AM
Payment Method: CC - Authorization 0000056639 Voucher Amount: \$50.00 Fee Paid: ADDITIONAL 30 TAC 305.53B WQ NOTIFICATION FEE Site Name: EQUISTAR CHEMICAL COMPANY Site Address: 8280 SHELTON RD, CHANNELVIEW, TX 77530 Site Location: 8280 SHELTON RD CHANNELVIEW TX 77530 Customer Name: RAYANN BUTLER

=====

Item 2. Applicant Information (Instructions, Pages 25)

- a. Customer Number, if applicant is an existing customer: CN600124705

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)².

- b. Legal name of the entity (applicant) applying for this permit: Equistar Chemicals, LP

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☒ Mr. ☐ Ms. First/Last Name: Anthony Wood

Title: Site Manager

for application signatory

Credential: Attachment A-2 Delegation of Authority

- d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

² <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

Item 3. Co-applicant Information (Instructions, Page 26)

☒ Check this box if there is no co-applicant.; otherwise, complete the below questions.

a. Legal name of the entity (co-applicant) applying for this permit: N/A

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

b. Customer Number (if applicant is an existing customer): CN N/A

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☐ Mr. ☐ Ms. First/Last Name: N/A

Title: N/A

Credential: N/A

d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 26)

a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: A-1 Core Data Form

Item 5. Application Contact Information (Instructions, Page 26)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

a. ☒ Administrative Contact . ☒ Technical Contact

☒ Mr. ☐ Ms. Full Name (First and Last): Joseph A. Reza

Title: Sr. Environmental Engineer Credential: N/A

Organization Name: Equistar Chemicals, LP

Mailing Address: P.O. Bo 777

City: Channelview State: TX Zip Code: 77530

Phone No: 281-457-8032

Fax No: N/A

Email: Joseph.Reza@lyondellbasell.com

b. ☐ Administrative Contact . ☐ Technical Contact

☐ Mr. ☐ Ms. Full Name (First and Last): N/A

Title: Click to enter text. Credential: Click to enter text.

Organization Name: Click to enter text.

Mailing Address: Click to enter text.

City: Click to enter text. State: Click to enter text. Zip Code: Click to enter text.

Phone No: Click to enter text. Fax No: Click to enter text. Email: Click to enter text.

Attachment: N/A

Item 6. Permit Contact Information (Instructions, Pages 26)

Provide two names of individuals that can be contacted throughout the permit term.

- a. ☒ Mr. ☐ Ms. Full Name (First and Last): Joseph A. Reza
Title: Sr. Environmental Engineer Credential: N/A
Organization Name: Equistar Chemicals, LP
Mailing Address: P.O. Box 777
City: Channelview State: TX Zip Code: 77530
Phone No: 281-457-8032 Fax No: N/A Email: Joseph.Reza@lyondellbasell.com
- b. ☐ Mr. ☒ Ms. Full Name (First and Last): Nancy Ross
Title: Environmental Team Lead Credential: N/A
Organization Name: Equistar Chemicals, LP
Mailing Address: P.O. Box 777
City: Channelview State: TX Zip Code: 77530
Phone No: 281-452-8722 Fax No: N/A Email: Nancy.Ross@lyondellbasell.com
Attachment: N/A

Item 7. Billing Contact Information (Instructions, Page 27)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for permits **in effect on September 1 of each year**. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

- ☒ Mr. ☐ Ms. Full Name (First and Last): Joseph A. Reza
Title: Sr. Environmental Engineer Credential: N/A
Organization Name: Equistar Chemicals, LP
Mailing Address: P.O. Box 777
City: Channelview State: TX Zip Code: 77530
Phone No: 281-457-8032 Fax No: N/A Email: Joseph.Reza@lyondellbasell.com

Item 8. DMR/MER Contact Information (Instructions, Page 27)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

- ☒ Mr. ☐ Ms. Full Name (First and Last): Joseph A. Reza
Title: Sr. Environmental Engineer Credential: N/A
Organization Name: Equistar Chemicals, LP
Mailing Address: P.O. Box 777
City: Channelview State: TX Zip Code: 77530
Phone No: 281-457-8032 Fax No: N/A Email: Joseph.Reza@lyondellbasell.com

Item 9. NOTICE INFORMATION (Instructions, Pages 27

a. Individual Publishing the Notices

☒ Mr. ☐ Ms. Full Name (First and Last): Joseph A. Reza

Title: Sr. Environmental Engineer Credential: N/A

Organization Name: Equistar Chemicals, LP

Mailing Address: P.O. Box 777

City: Channelview State: TX Zip Code: 77530

Phone No: 281-457-8032

Fax No: N/A

Email: Joseph.Reza@lyondellbasell.com

b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)

☒ E-mail: Joseph.Reza@lyondellbasell.com

☐ Fax: N/A

☐ Regular Mail (USPS)

Mailing Address: N/A

City: N/A

State: N/A

Zip Code: N/A

c. Contact in the Notice

☒ Mr. ☐ Ms. Full Name (First and Last): Joseph A. Reza

Title: Sr. Environmental Engineer Credential: N/A

Organization Name: Equistar Chemicals, LP

Phone No: 281-457-8032

Fax No: N/A

Email: Joseph.Reza@lyondellbasell.com

d. Public Viewing Location Information

Note: If the facility or outfall is located in more than one county, provide a public viewing place for each county.

Public building name: North Channel Harris County Library
Reference Desk

Location within the building:

Physical Address of Building: 15741 Wallisville Road, Houston, TX 77049

City: Houston

County: Harris

e. Bilingual Notice Requirements

This information is required for new, major amendment, minor amendment or minor modification, and renewal applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

☒ Yes ☐ No

If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.)

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?
☒ Yes ☐ No
3. Do the students at these schools attend a bilingual education program at another location?
☐ Yes ☒ No
4. Would the school be required to provide a bilingual education program, but the school has waived out of this requirement under 19 TAC §89.1205(g)?
☐ Yes ☒ No ☐ N/A
5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish
- f. Plain Language Summary Template – Complete the Plain Language Summary at the end of this application.
- g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: A-6 Public Involvement Plan

Item 10. Regulated Entity and Permitted Site Information (Instructions Pages 28-30)

- a. TCEQ issued Regulated Entity Number (RN), if available: RN100542281
Note: If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ's Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.
- b. Name of project or site (the name known by the community where located): Equistar Chemicals Channelview Complex
- c. Is the location address of the facility in the existing permit the same?
☒ Yes ☐ No ☐ N/A (new permit)
Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.
- d. Owner of treatment facility:
☐ Mr. ☐ Ms. Full Name (First and Last): N/A
 or Organization Name: Equistar Chemicals, LP
 Mailing Address: P.O. Box 777
 City: Channelview State: TX Zip Code: 77530
 Phone No: 281-862-5026 Fax No: N/A Email: Anthony.Wood@lyondellbasell.com
- e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal
- f. Owner of land where treatment facility is or will be:
☐ Mr. ☐ Ms. Full Name (First and Last): N/A
 or Organization Name: Equistar Chemicals, LP
 Mailing Address: P.O. Box 777
 City: Channelview State: TX Zip Code: 77530

Phone No: 281-862-5026

Fax No: N/A

Email: Anthony.Wood@lyondellbasell.com

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: N/A

- g. Owner of effluent TLAP disposal site (if applicable): N/A

☐ Mr. ☐ Ms. Full Name (First and Last): N/A

or Organization Name: N/A

Mailing Address: N/A

City: N/A

State: N/A

Zip Code: N/A

Phone No: N/A

Fax No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

- h. Owner of sewage sludge disposal site (if applicable):

☐ Mr. ☐ Ms. Full Name (First and Last): N/A

or Organization Name: N/A

Mailing Address: N/A

City: N/A

State: N/A

Zip Code: N/A

Phone No: N/A

Fax No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Pages 30-32)

- a. Is the facility located on or does the treated effluent cross Native American Land?

☐ Yes ☒ No

- b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.

☒ One-mile radius

☒ Three-miles downstream information

☒ Applicant's property boundaries

☒ Treatment facility boundaries

☒ Labeled point(s) of discharge

☒ Highlighted discharge route(s)

☐ Effluent disposal site boundaries

☒ All wastewater ponds

☐ Sewage sludge disposal site

☐ New and future construction

Attachment: A-3 USGS Map

- c. Is the location of the sewage sludge disposal site in the existing permit accurate? N/A

☐ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- e. Are the discharge route(s) in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: N/A

f. City nearest the outfall(s): Channelview

g. County in which the outfalls(s) is/are located: Harris

h. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☒ Yes ☐ No

If yes, indicate by a check mark if: ☒ Authorization granted ☐ Authorization pending

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: A-7 HCFCFCD Approval Letter

For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: Harris, Galveston, Chambers, Brazoria, Jefferson

i. For TLAPs, is the location of the effluent disposal site in the existing permit accurate? N/A

☐ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

j. City nearest the disposal site: N/A

k. County in which the disposal site is located: N/A

l. Disposal Site Latitude: N/A Longitude: N/A

m. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: N/A

n. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

Item 12. MISCELLANEOUS INFORMATION (Instructions, Page 32)

a. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes ☒ No

If yes, list each person: N/A

b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the account no.: N/A and total amount due: N/A

c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the enforcement order no.: N/A and amount due: N/A

Item 13. SIGNATURE PAGE (Instructions, Pages 32-33)

Permit No: WQ0000391000

Applicant Name: Equistar Chemicals, LP

Certification: I, Anthony Wood, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Anthony Wood

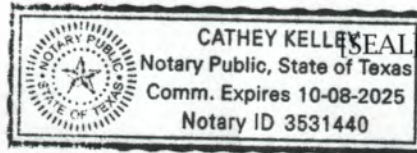
Signatory title: Site Manager

Signature:  Date: 02/15/23
(Use blue ink)

Subscribed and Sworn to before me by the said Anthony Wood
on this fifteenth day of February, 2023.
My commission expires on the Eight day of October, 2025.

Cathy Kelley
Notary Public

Harris
County, Texas



Note: If co-applicants are necessary, each entity must submit an original, separate signature page.

INDUSTRIAL ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. AFFECTED LANDOWNER INFORMATION (Instructions, Pages 34-35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
 - ☒ The facility site boundaries within the applicant's property boundaries.
 - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - ☒ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - ☐ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☐ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: A-4-1 Landowner Map (Figures 1 and 2)

- b. Check the box next to the format of the landowners list:

☒ Readable/Writeable CD ☐ Four sets of labels

Attachment: A-4-2 Landowner List, A-4-3 Landowner Mailing Labels (on CD)

- d. Provide the source of the landowners' names and mailing addresses: Harris County Appraisal District

- e. As required by Texas Water Code § 5.115, is any permanent school fund land affected by this application?

☐ Yes ☒ No

If yes, provide the location and foreseeable impacts and effects this application has on the land(s):
N/A

Item 2. Public Involvement Plan Form (Instructions, Page 36)

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.

See Attachment A-6 Public Involvement Plan

Item 3. ORIGINAL PHOTOGRAPHS (Instructions, Page 36)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site.
- ☒ A plot plan or map showing the location and direction of each photograph.

Attachment: A-5 Outfall Photos (Note: There are no photos of Outfall 007 [stormwater from concrete batch plant] because it has not been started up and also because its location is variable, depending on where a construction project is located.)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

**FOR AGENCIES REVIEWING INDUSTRIAL
TPDES WASTEWATER PERMIT APPLICATIONS**

TCEQ USE ONLY:

Application type: ____ Renewal ____ Major Amendment ____ Minor Amendment ____ New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission

_____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department

_____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 36)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee Name: Equistar Chemicals, LP
2. Permit No.: WQ0000391000 EPA ID No.: TX0003531
3. Address of the project (location description that includes street/highway, city/vicinity, and county):
8280 Sheldon Road, Channelview, Harris County, Texas 77530
4. Provide the name, address, phone and fax number, and email address of an individual that can be contacted to answer specific questions about the property.

Full Name (First and Last): Joseph A. Reza

Organization Name: Equistar Chemicals, LP Mailing Address: P.O. Box 777

City: Channelview State: TX Zip Code: 77530

Phone No: 281-457-8032

Fax No: N/A

Email: Joseph.Reza@lyondellbasell.com

5. List the county in which the facility is located: Harris
6. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property: N/A
7. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge

to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number: Via Outfalls 001, 002, and 004 to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05; thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

8. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report.) Attachment: SPIF-1 USGS Map
9. Provide original photographs of any structures 50 years or older on the property. Attachment: The original facility was constructed in 1957. Several of the tanks, drums, exchangers, and towers that were originally constructed are still in use today. Also, five of the original field houses are still in use as office buildings and warehouses. As manufacturing processes change at the site, older structures have been modified or removed. Photos can be provided of the buildings upon request.
10. Does your project involve any of the following? Check all that apply.

N/A

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future
- ☐ Sealing caves, fractures, sinkholes, other karst features
- ☐ Disturbance of vegetation or wetlands

11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features): There is no construction project associated with this TPDES amendment request.
12. Describe existing disturbances, vegetation, and land use: Land use is industrial. Ground cover throughout consists of stabilized road base, concrete, and grass.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

13. List construction dates of all buildings and structures on the property: Initial construction at the site was in 1957. Additional buildings and process units were added in subsequent years.
14. Provide a brief history of the property, and name of the architect/builder, if known: The facility was initially constructed by Texas Butadiene Chemical Corporation in 1957.

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Equistar Chemicals, LP (CN600124705) operates the Equistar Chemicals Channelview Complex (RN100542281), which manufactures organic chemicals and thermoplastic resins. The facility is located at 8280 Sheldon Road, in Channelview, Harris County, Texas 77530. The application is to amend TPDES Permit No. WQ0000391000 to remove monitoring and the daily maximum concentration limit for total aluminum and monitoring for total zinc for Outfalls 003/003A/003B/003C, and to remove monitoring and the daily maximum concentration limit for total zinc for Outfall 004. Outfalls 003/003A/003B/003C and Outfall 004 discharge stormwater and other non-process wastewaters at an intermittent and flow-variable rate. Pollutants that are expected in the discharges include oil and grease, suspended solids, aluminum, and zinc. Other pollutants that may be present in the discharges are listed in Worksheet 2 of the 2019 TPDES application. Waters discharged from the outfalls do not require treatment before discharge.

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES
NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP**

AGUAS RESIDUALES INDUSTRIALES/AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso.

Equistar Chemicals, LP (CN600124705) opera el Equistar Chemicals Channelview Complex (RN100542281), que fabrica productos químicos orgánicos y resinas termoplásticas. La instalación está situada en 8280 Sheldon Road, en Channelview, Condado de Harris, Texas 77530. La solicitud es para modificar el Permiso TPDES No. WQ0000391000 para eliminar el monitoreo y el límite de concentración máxima diaria para aluminio total y el monitoreo para zinc total para las puntas de descarga 003/003A/003B/003C, y para eliminar el monitoreo y el límite de concentración máxima diaria para zinc total para la punta de descarga 004. Las puntas de descarga 003/003A/003B/003C y 004 descargan aguas pluviales y otras aguas residuales no procesadas de forma intermitente y con caudal variable. Entre los contaminantes que se esperan en los vertidos se incluyen aceites y grasas, sólidos en suspensión, aluminio y zinc. Otros contaminantes que pueden estar presentes en las descargas se enumeran en Worksheet 2 de la solicitud TPDES 2019. Las aguas descargadas por las puntas de descarga no requieren tratamiento antes de la descarga.

TECHNICAL REPORT 1.0

INDUSTRIAL

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For additional information or clarification on the requested information, refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

1. FACILITY/SITE INFORMATION (Instructions, Pages 39-40)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

The Equistar Chemicals, LP Channelview North Complex produces bulk and commodity organic chemicals and thermoplastic resins. Applicable SIC codes are 2813, 2821, 2822, and 2869.

- b. Describe all wastewater-generating processes at the facility.

The following is a description of Outfalls 003 and 004, which are the subject of this permit amendment.

Outfalls 003, 003A, 003B, and 003C are four separate stormwater outfalls that are located in close proximity to each other in the southwest corner of the site (see Attachment A-3 USGS Map). For the purpose of discharge monitoring reports (DMRs), the TPDES permit requires that the highest value for total organic carbon, oil and grease, and total zinc, and the highest and lowest pH from the combined outfall data be reported in the DMR under Outfall 003. All four “003” outfalls discharge primarily stormwater, but they are also authorized to discharge utility wastewaters and de minimis wastewaters from spill cleanups. Outfall 003 discharges to an unnamed drainage ditch along Sheldon Road on the west side of the facility. Outfalls 003A, 003B, and 003C discharge to an unnamed drainage ditch along Wallisville Road on the south side of the facility. The two ditches merge at the intersection of Sheldon and Wallisville Roads, then flow to Harris County Flood Control District (HCFCD) Ditch G103-03-02, thence to San Jacinto River Tidal.

Outfall 004 is primarily a stormwater outfall. Other wastewaters that may be discharged include utility wastewaters and de minimis wastewaters from spill cleanups. Outfall 004 discharges in close proximity to the Outfall 001 discharge and both discharges commingle in the same unnamed drainage ditch, which flows to Wallisville Gully, and thence to San Jacinto River Tidal.

¹ https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

- c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
N/A. Not related to amendment requests.		

Attachment: N/A.

- d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: T-3-1 Facility Map, T-3-2 Storm Water Outfall Map

- e. Is this a new permit application for an existing facility?

☐ Yes ☒ No

If **yes**, provide background discussion: N/A

- f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: 48201C0730M

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: N/A

Attachment: N/A

- g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☐ Yes ☒ No ☐ N/A (renewal only)

- h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

☐ Yes ☐ No

If **yes**, provide the permit number: N/A

If **no**, provide an approximate date of application submittal to the USACE: N/A

2. TREATMENT SYSTEM (Instructions, Page 40)

- a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Outfalls 003 and 004 do not include any treatment processes.

- b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

3. IMPOUNDMENTS (Instructions, Pages 40-42)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

☒ Yes ☐ No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a – 3.e.

a. Complete the table with the following information for each existing, new, or proposed impoundment:

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter Y for yes. Otherwise, enter N for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter Y for yes. Otherwise, enter N for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter Y for yes. Otherwise, enter N for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

N/A – Not related to amendment request

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)				
Associated Outfall Number				
Liner Type (C) (I) (S) or (A)				
Alt. Liner Attachment Reference				
Leak Detection System, Y/N				
Groundwater Monitoring Wells, Y/N				
Groundwater Monitoring Data Attachment				
Pond Bottom Located Above The Seasonal High-Water Table, Y/N				
Length (ft)				
Width (ft)				
Max Depth From Water Surface (ft), Not Including Freeboard				

Parameter	Pond #	Pond #	Pond #	Pond #
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				
40 CFR Part 257, Subpart D, Y/N				
Date of Construction				

Impoundment Information

Attachment: N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

- b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

- i. Liner data

☐ Yes ☐ No ☐ Not yet designed

- ii. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

- iii. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

NOTE: Item b.iii is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A – Not related to amendment request

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

- c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within 1/2-mile of the impoundments.

Attachment: N/A – Not related to amendment request

- d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: N/A – Not related to amendment request

- e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: N/A – Not related to amendment request

4. OUTFALL/DISPOSAL METHOD INFORMATION (Instructions, Pages 42-43)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge operations, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. **E1** for evaporation pond 1, **I2** for irrigation area No. 2, etc.).

Outfall Latitude and Longitude

Outfall Number	Latitude-decimal degrees	Longitude-decimal degrees
001	29.833441	-95.106399
101	29.833636	-95.115921
201	29.834005	-95.107723
002	29.830115	-95.107521
003	29.823203	-95.126175
003A	29.821787	-95.124312
003B	29.822350	-95.122517
003C	29.824416	-95.120143
004	29.833444	-95.106398
005	29.816470	-95.098278
006	29.839109	-95.114685
Outfall 006 is currently authorized under MSGP TXRo5BR93. The outfall is also authorized but not activated under TPDES WQ0000391000, and Equistar requests that this option be retained in WQ0000391000.		
007	N/A. This outfall is for stormwater from a concrete batch plant (none currently active) associated with construction activities and its location would vary by construction project.	

Outfall Location Description

Outfall Number	Location Description
001	Where commingled wastewaters are discharged prior to entering the on-site, unnamed drainage ditch
101	At the exit of the septic chlorinators and prior to commingling with other wastewaters
201	At the exit of the septic chlorinators and prior to commingling with other wastewaters
002	In the plant drainage ditch (on the west side of the sludge lagoons) where groundwater seepage, stormwater runoff, and other authorized wastewaters are discharged
003	At the southwest section of the plant, adjacent to Sheldon Road
003A	At the southwest section of the plant, adjacent to Wallisville Road
003B	At the southwest section of the plant, east of Outfall 003A and adjacent to Wallisville Road
003C	At the southwest section of the plant, east of Outfall 003B and adjacent to Wallisville Road
004	Where intermittent discharges to an unnamed drainage ditch occur near the northeast corner of the plant site, adjacent to Outfall 001
005	Where intermittent discharges occur from the barge dock area
006	At the outlet (48-inch drain) of the stormwater impoundment at the HTC
007	At the discharge point of stormwater runoff from the concrete batch plant located in the construction area and prior to combining with other stormwater runoff or wastewaters

Description of Sampling Points (if different from Outfall location)

Outfall Number	Description of Sampling Point
All outfalls	Same as outfall location

Outfall Flow Information – Permitted and Proposed

Outfall Number	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	8.9	N/A (Report)	8.9	N/A (Report)	N/A
101	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
201	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
002	Intermittent and flow-variable	Intermittent and flow-variable	Flow-variable	Flow-variable	N/A
003	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
003A	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
003B	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
003C	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
004	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
005	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
006	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
007	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A

Outfall Discharge – Method and Measurement

Outfall Number	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N	Y	Bowlus flume
101	Y	N	Estimate / Open channel flume
201	Y	N	Estimate / Coriolis flow meter
002	N	Y	Estimate
003	N	Y	Estimate
003A	N	Y	Estimate
003B	N	Y	Estimate
003C	N	Y	Estimate
004	N	Y	Estimate
005	N	Y	Estimate
006	N	Y	Estimate
007	N	Y	Estimate

Outfall Discharge – Flow Characteristics

Outfall Number	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	N	Y	N	24	31	12
101	Y	N	N	Variable	Variable	Variable
201	Y	N	N	Variable	Variable	Variable
002	N	Y	N	24	31	12
003	Y	N	N	Variable	Variable	Variable
003A	Y	N	N	Variable	Variable	Variable
003B	Y	N	N	Variable	Variable	Variable
003C	Y	N	N	Variable	Variable	Variable
004	Y	N	N	Variable	Variable	Variable
005	Y	N	N	Variable	Variable	Variable
006	Y	N	N	Variable	Variable	Variable
007	Y	N	N	Variable	Variable	Variable

Wastestream Contributions**Outfall No.: 003/003A/003B/003C, 004**

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Stormwater, construction stormwater, utility wastewater, de minimis quantities from spill cleanups	Intermittent and flow-variable	100%

Outfall No.: N/A**Outfall No.: N/A****Attachment: N/A**

5. BLOWDOWN AND ONCE-THROUGH COOLING WATER DISCHARGES (Instructions, Page 44)

- a. Does the facility use/propose to use any cooling towers which discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

NOTE: If the facility uses or plans to use cooling towers, Item 12 **is required**.

- b. Does the facility use or plan to use any boilers that discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

- c. Does or will the facility discharge once-through cooling water to the outfall(s)?

☐ Yes ☒ No

NOTE: If the facility uses or plans to use once-through cooling water, Item 12 **is required**.

- d. If **yes** to Items 5.a, 5.b, **or** 5.c, attach the SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

Attach a summary of this information in addition to the submittal of the SDS for each specific wastestream and the associated chemical additives and specify which outfalls are affected.

Attachment: N/A – not related to amendment requests.

- e. Cooling Towers and Boilers

If **yes** to either Item 5.a **or** 5.b, complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Dly Avg Blowdown (gallons/day)	Dly Max Blowdown (gallons/day)
Cooling Towers	N/A – not related to amendment requests		
Boilers	N/A – not related to amendment requests		

6. STORMWATER MANAGEMENT (Instructions, Page 44)

Are there any existing/proposed outfalls which discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

☒ Yes ☐ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in some manner which may result in exposure of the activities or materials to stormwater: See Item 1.b.

7. DOMESTIC SEWAGE, SEWAGE SLUDGE, AND SEPTAGE MANAGEMENT AND DISPOSAL (Instructions, Page 45)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
 - ☐ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. **Complete Item 7.b.**
 - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. **Complete Item 7.b.**
 - ☐ Domestic and industrial treatment sludge **ARE commingled** prior to use or disposal.
 - ☒ Industrial wastewater and domestic sewage are treated separately, and the respective sludge **IS NOT commingled** prior to sludge use or disposal. **Complete Worksheet 5.0.**
 - ☐ Facility is a POTW. **Complete Worksheet 5.0.**
 - ☐ Domestic sewage is not generated on-site.
 - ☒ Other (e.g., portable toilets), specify and **Complete Item 7.b:** Some domestic wastewater is collected in on-site portable toilets during construction/maintenance work and transported off-site for treatment.
- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
N/A – not related to amendment requests	

8. IMPROVEMENTS OR COMPLIANCE/ENFORCEMENT REQUIREMENTS (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
 - ☒ Yes ☐ No
- b. Has the permittee completed or planned for any improvements or construction projects?
 - ☐ Yes ☒ No
- c. If **yes** to either 8.a **or** 8.b, provide a brief summary of the requirements and a status update: Other Requirement No. 16 of TPDES permit no. WQ0000391000 includes a 3-year compliance schedule to meet permit limits for Outfall 003 (total aluminum) and Outfall 004 (total zinc). This application includes amendment requests to remove these limits. See Attachment T-2 Amendment Requests for more information.

9. TOXICITY TESTING (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

☒ Yes ☐ No

If **yes**, identify the tests and describe their purposes: Routine biomonitoring tests and reporting are required for Outfall 001 in the current TPDES permit.

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA.

Attachment: N/A – all test resulted have been submitted

10. OFF-SITE/THIRD PARTY WASTES (Instructions, Page 45)

a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?

☒ Yes ☐ No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).
- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

Attachment: N/A – not related to permit amendment requests.

c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

☐ Yes ☒ No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: N/A

d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☒ No

If **yes**, **Worksheet 6.0** of this application **is required**.

11. RADIOACTIVE MATERIALS (Instructions, Pages 46)

a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material	Concentration (pCi/L)
N/A	

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material	Concentration (pCi/L)
NORM can be present in equipment used to manage gases such as natural gas, ethylene, and propylene. Radium 226 and Radium 228 can be present in the NORM equipment. NORM accumulates on the sides of vessels (e.g., elbows, valves) as scale. If the vessel/pipe is taken out of service and tests positive for NORM, it is removed and replaced with new material. If the equipment will be reused (e.g., a pump), it will be sent off-site for cleaning and service. No NORM is intentionally washed down to wastewater treatment.	N/A

12. COOLING WATER (Instructions, Pages 46-47)

- a. Does the facility use or propose to use water for cooling purposes?

☒ Yes ☐ No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

- b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

☐ Yes ☒ No

If **yes**, stop here. If **no**, continue.

- c. Cooling Water Supplier

- i. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID	Intakes on Lake Houston (S1010013C, S1010013D, S1010013E – IDs in TCEQ's PWS database
Owner	City of Houston
Operator	Coastal Water Authority

- ii. Cooling water is/will be obtained from a Public Water Supplier (PWS)

☒ Yes ☐ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. TX1010013

- iii. Cooling water is/will be obtained from a reclaimed water source?

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: _____

iv. Cooling water is/will be obtained from an Independent Supplier

☐ Yes ☐ No

If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes to the facility and proceed: _____

If **no**, proceed to Item 12.d.

d. 316(b) General Criteria

i. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

☐ Yes ☐ No

ii. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

iii. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

☐ Yes ☐ No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: _____

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

e. The facility does not meet the minimum requirements to be subject to the full requirements of Section 316(b) **and uses/proposes to use cooling towers**.

☐ Yes ☐ No

If **yes**, stop here. If **no**, complete Worksheet 11.o, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

i. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

☐ Yes ☐ No

If **yes**, continue. If **no**, skip to Item 12.g.

ii. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

☐ Yes ☐ No

If **yes**, complete Worksheet 11.o, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.iii.

g. Compliance Phase and Track Selection

i. Phase I – New facility subject to 40 CFR Part 125, Subpart I

☐ Yes ☐ No

If **yes**, check the box next to the facility's compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

- ☐ Track I – AIF greater than 2 MGD, but less than 10 MGD
 - Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.
- ☐ Track I – AIF greater than 10 MGD
 - Attach information required by *40 CFR § 125.86(b)*.
- ☐ Track II
 - Attach information required by *40 CFR § 125.86(c)*.

Attachment:

ii. Phase II – Existing facility subject to 40 CFR Part 125, Subpart J

☐ Yes ☐ No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

iii. Phase III – New facility subject to 40 CFR Part 125, Subpart N

☐ Yes ☐ No

If **yes**, check the box next to the facility's compliance track selection and provide the requested information.

- ☐ Track I – Fixed facility
 - Attach information required by *40 CFR § 125.136(b)* and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.
- ☐ Track I – Not a fixed facility
 - Attach information required by *40 CFR § 125.136(b)* and complete Worksheet 11.0, Item 2 (except the CWIS latitude and longitude under Item 2.a).
- ☐ Track II – Fixed facility
 - Attach information required by *40 CFR § 125.136(c)* and complete Worksheet 11.0, Items 2 and 3.

Attachment:

NOTE: Item 13 is required only for existing permitted facilities.

13. PERMIT CHANGE REQUESTS (Instructions, Pages 49-50)

a. Is the facility requesting a **major amendment** of an existing permit?

☒ Yes ☐ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

1) Outfall 003 – Remove monitoring and daily maximum concentration limit for total aluminum

2) Outfall 003 – Remove monitoring for total zinc

3) Outfall 004 – Remove monitoring and daily maximum concentration limit for total zinc

b. Is the facility requesting any **minor amendments** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

N/A

c. Is the facility requesting any **minor modifications** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

N/A

WORKSHEET 4.0 RECEIVING WATERS

This worksheet **is required** for all TPDES permit applications.

1. DOMESTIC DRINKING WATER SUPPLY (Instructions, Page 81)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

☐ Yes ☒ No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

i. The legal name of the owner of the drinking water supply intake: N/A

v. The distance and direction from the outfall to the drinking water supply intake: N/A

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

☐ Check this box to confirm the above requested information is provided.

2. DISCHARGE INTO TIDALLY INFLUENCED WATERS (Instructions, Page 81)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: N/A feet

- b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: N/A

- c. Are there sea grasses within the vicinity of the point of discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: N/A

3. CLASSIFIED SEGMENT (Instructions, Page 81)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

☐ Yes ☒ No

If **yes**, stop here. It is not necessary to complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

4. DESCRIPTION OF IMMEDIATE RECEIVING WATERS (Instructions, Page 82)

a. Name of the immediate receiving waters: 1) Outfalls 003/003A/003B/003C – unnamed drainage ditch along Sheldon Road (Outfall 003), unnamed drainage ditch along Wallisville Road (Outfalls 003A, 003B, 003C); 2) Outfall 004 – unnamed drainage ditch.

b. Check the appropriate description of the immediate receiving waters:

- | | |
|--|---|
| <input type="checkbox"/> Lake or Pond | <input checked="" type="checkbox"/> Man-Made Channel or Ditch |
| • Surface area (acres): <u>N/A</u> | <input type="checkbox"/> Stream or Creek |
| • Average depth of the entire water body (feet): <u>N/A</u> | <input type="checkbox"/> Freshwater Swamp or Marsh |
| • Average depth of water body within a 500-foot radius of the discharge point (feet): <u>N/A</u> | <input type="checkbox"/> Tidal Stream, Bayou, or Marsh |
| | <input type="checkbox"/> Open Bay |
| | <input type="checkbox"/> Other, specify: <u>N/A</u> |

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c – 4.g below:

c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

- ☒ Intermittent (dry for at least one week during most years)
- ☐ Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
- ☐ Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

- ☐ USGS flow records
- ☒ personal observation
- ☐ historical observation by adjacent landowner(s)
- ☒ other, specify: 2020 TCEQ TPDES Fact Sheet

d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: 1) Outfalls 003/003A/003B/003C – San Jacinto River Tidal; 2) Outfall 004 – Wallisville Gully, thence to San Jacinto River Tidal.

e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).

- ☒ Yes ☐ No

If **yes**, describe how: 1) Outfalls 003/003A/003B/003C – the relatively narrow unnamed drainage ditches flow in Harris County Flood Control Ditch G103-03-02, thence into the much wider San Jacinto River Tidal; 2) Outfall 004 – The relatively narrow unnamed drainage ditch and Wallisville Gully flow into the much wider San Jacinto River Tidal.

f. General observations of the water body during normal dry weather conditions: 1) Outfalls 003/003A/003B/003C – the drainage ditches were dry; 2) Outfall 004 – water present in the drainage ditch.

Date and time of observation: 1) Outfalls 003/003A/003B/003C – 11/4/2019 1:30 PM; 2) Outfall 004 – 11/4/2019 1:30 PM.

- g. The water body was influenced by stormwater runoff during observations.

☐ Yes ☒ No

If **yes**, describe how: N/A

5. GENERAL CHARACTERISTICS OF WATER BODY (Instructions, Page 82)

- a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

<input type="checkbox"/> oil field activities	<input type="checkbox"/> septic tanks
<input type="checkbox"/> agricultural runoff	<input checked="" type="checkbox"/> other, specify: <u>1) Outfalls 003/003A/003B/003C - stormwater runoff; 2) Outfall 004 – there is no channel upstream of the outfall, the point of discharge is essentially the beginning of the unnamed drainage ditch.</u>
<input type="checkbox"/> upstream discharges	
<input type="checkbox"/> urban runoff	

- b. Uses of water body observed or evidence of such uses (check all that apply):

<input type="checkbox"/> livestock watering	<input type="checkbox"/> industrial water supply	<input checked="" type="checkbox"/> other, specify: <u>1) Outfalls 003/003A/003B/003C – stormwater drainage</u>
<input type="checkbox"/> non-contact recreation	<input type="checkbox"/> irrigation withdrawal	
<input type="checkbox"/> domestic water supply	<input type="checkbox"/> navigation	
<input type="checkbox"/> contact recreation	<input type="checkbox"/> picnic/park activities	
<input type="checkbox"/> fishing		

- c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

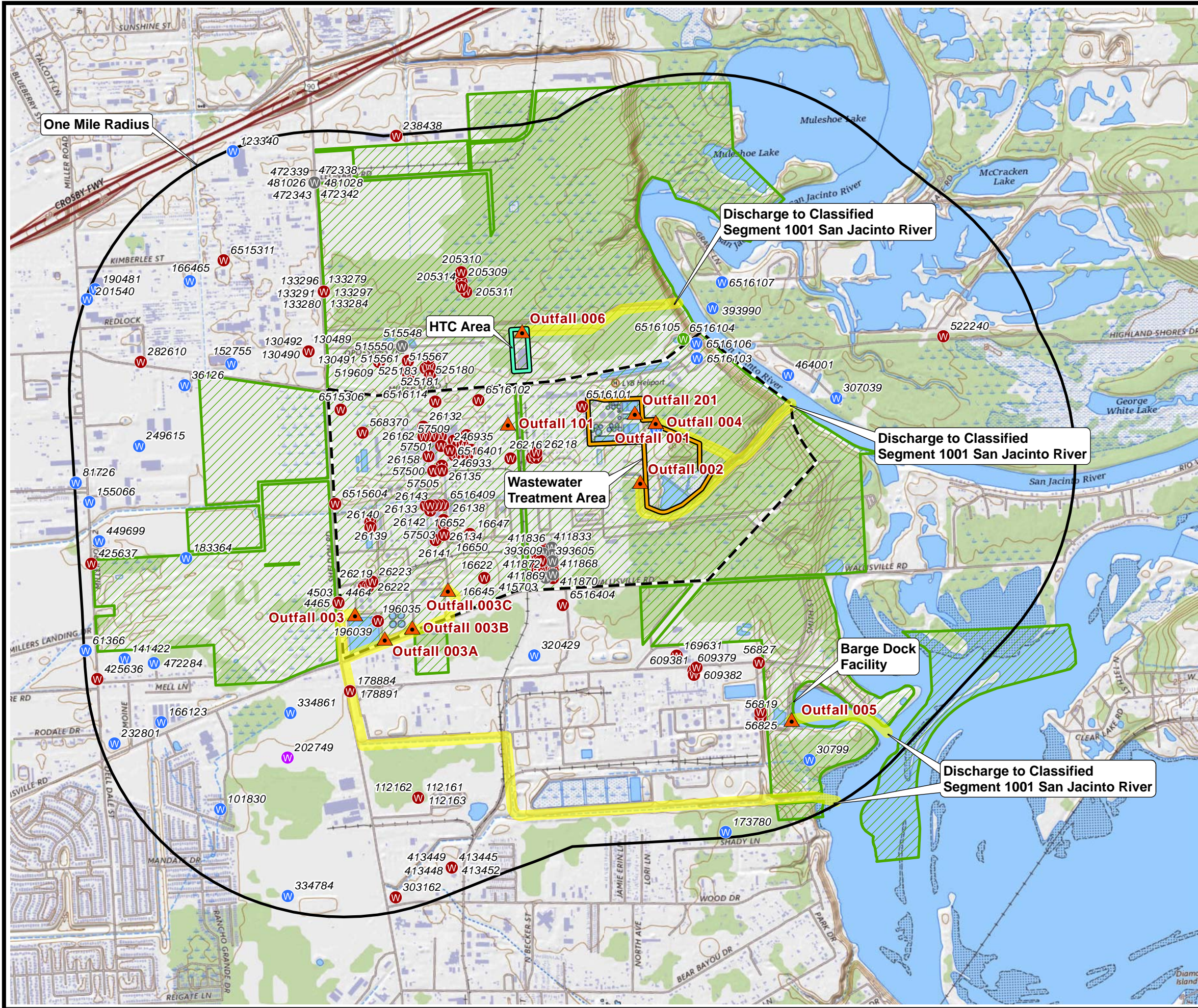
☐ **Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional

☐ **Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored

☒ **Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid

☐ **Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

J:\P\Equistar\Channelview\North Complex TPDES 2023



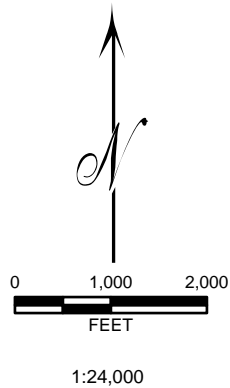
LEGEND

- Facility Boundary, Equistar Chemicals, LP
- Equistar Chemicals Property Boundary
- Wastewater Treatment Area
- HTC (Houston Technology Center) Area
- Outfall Location
- Discharge Route
- One Mile Radius

TWDB Wells

- Domestic; Public Supply
- Industrial; Monitor; Environmental Soil Boring
- Irrigation
- Rig Supply
- Test Well

Sources:
1. USGS Topographic Quadrangles 7.5 minute series:
Jacinto City, TX; Highlands, TX
2. Wells: Texas Water Development Board (TWDB) GIS data



EQUISTAR CHEMICALS, LP
CHANNELVIEW NORTH COMPLEX
CHANNELVIEW, TEXAS

ATTACHMENT SPIF-1
USGS MAP

DRAWN BY:	L WILSON	SCALE:	AS NOTED	PROJ. NO.	TPDES 2023
CHECKED BY:	D KOCUREK	DATE PRINTED:	1/18/2023	FILE NO.	Project.aprx
APPROVED BY:	D KOCUREK				
DATE:	January 2023				



EC 00035



ATTACHMENT A-1

TCEQ Core Data Form

TCEQ Use Only

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other TPDES AMENDMENT
2. Customer Reference Number (if issued)		3. Regulated Entity Reference Number (if issued)
CN 600124705		RN 100542281

[Follow this link to search for CN or RN numbers in Central Registry**](#)

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		1/20/2023	
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				If new Customer, enter previous Customer below:	
EQUISTAR CHEMICALS, LP					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0010258111		17605504814		10. DUNS Number (if applicable) 96-955-7263	
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited	
12. Number of Employees				13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:					
PO BOX 777					
City: CHANNELVIEW State: TX ZIP: 77530 ZIP + 4:					
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	
(281) 862-5026				() -	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If "New Regulated Entity" is selected, a new permit application is also required.)	
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	

EC 00036

23. Street Address of the Regulated Entity: (No PO Boxes)	8280 SHELDON ROAD							
	City	CHANNELVIEW	State	TX	ZIP	77530	ZIP + 4	
24. County	HARRIS							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:									
26. Nearest City	CHANNELVIEW				State	TX		Nearest ZIP Code	77530
Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).									
27. Latitude (N) In Decimal:	29.832777				28. Longitude (W) In Decimal:	-95.118055			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds				
29	49	58	-95	07	05				
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)				
2869	2821		325199		325211				
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)									
ORGANIC CHEMICAL MFG									
34. Mailing Address:	PO BOX 777								
	City	CHANNELVIEW	State	TX	ZIP	77530	ZIP + 4		
35. E-Mail Address:									
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)						
(281) 862-5026			() -						

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

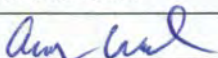
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
WQ0000391000				

SECTION IV: Preparer Information

40. Name:	JOSEPH A. REZA		41. Title:	SR. ENVIRONMENTAL ENGINEER	
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(281) 457-8032		() -	JOSEPH.REZA@LYONDELLBASELL.COM		

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	EQUISTAR CHEMICALS, LP		Job Title:	SITE MANAGER	
Name (In Print):	ANTHONY WOOD			Phone:	(281) 862- 5026
Signature:				Date:	02/15/23



DATE: February 7, 2022

FROM: Michael D. Van DerSnick – Sr. Vice President, Americas Manufacturing

TO: Site Managers of Equistar Chemicals, LP; Lyondell Chemical Company; LyondellBasell Acetyls LLC; and Houston Refining LP

SUBJECT: **Delegation of Signatory Authority for Permit Applications and Other Similar Documents**

Pursuant to certain portions of the Standing Resolutions Adopted by: Equistar Chemicals, LP (Equistar); Lyondell Chemical Company (Lyondell); LyondellBasell Acetyls LLC (Acetyls); and Houston Refining LP (Refining), I am authorizing all Site Managers to sign and deliver on behalf of the individual plants and on behalf of Equistar, Lyondell, Acetyls and Refining all permit applications and other similar documents in conformity with the laws and regulations of environmental control agencies of any local, state or federal government body. This authorization includes the following sites:

EQUISTAR CHEMICALS, LP	Current Site Manager
Bayport, TX	Shawn Cullen
Channelview, TX	Christopher Cain
Chocolate Bayou, TX	Lawrence Moreaux
Clinton, IA	Yarelis Hernandez
Corpus Christi, TX	Mike Middleton
Edison, NJ	Armando Lara
Equistar Pipelines	Rose Luvaas
Fairport Harbor, OH	Thaddeus S. Cudak
Lake Charles, LA	Gregory Gray

LYONDELLBASELL ACETYL, LLC	Current Site Manager
LaPorte, TX	Stephen Goff

EQUISTAR CHEMICALS, LP	Current Site Manager
LaPorte, TX	Stephen Goff
Markham, TX	Rose Luvaas
Matagorda, TX	Mark Bookmyer
Mont Belvieu	Rose Luvaas
Morris, IL	Randy Tatum
Newark, NJ	Armando Lara
Tuscola, IL	Joe Hoinkis
Victoria, TX	Amy Caldwell

LYONDELL CHEMICAL CO.	Current Site Manager
Bayport, TX	Shawn Cullen
Channelview, TX	Christopher Cain
Lake Charles, LA	Gregory Gray

HOUSTON REFINING LP	Current Site Manager
Houston, TX	Greg Nevermann

LOUISIANA INTEGRATED POLYETHYLENE JV LLC operated by EQUISTAR CHEMICALS, LP	Current Site Manager
Lake Charles JV, LA	Tony Wood

This authorization will apply to each manager's successor unless specifically revoked.

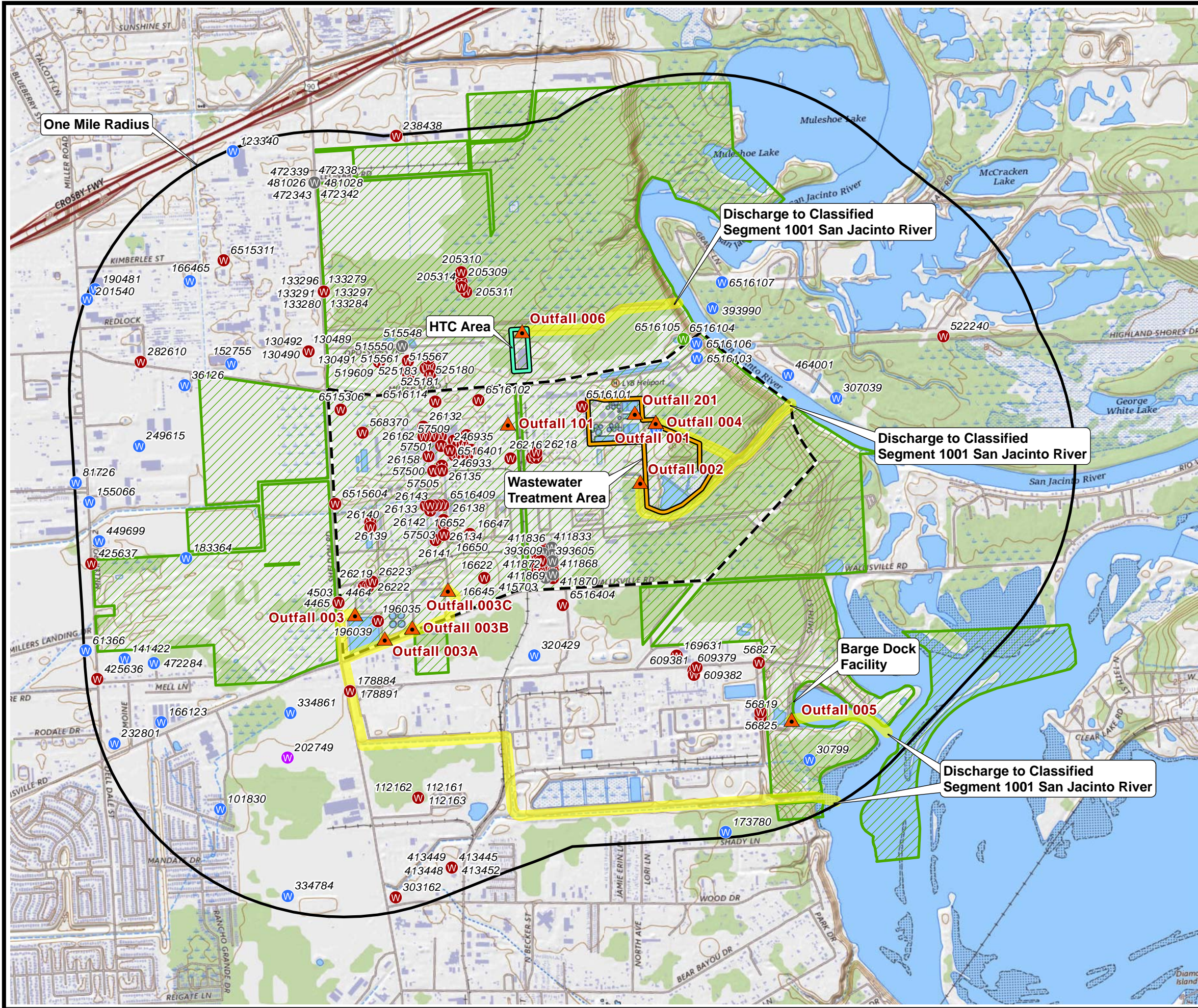
Each manager must assure that the information in these documents is accurate and truthful and in compliance with all applicable government regulations. If you have any questions, please seek assistance from the Legal Department.

If you have any questions, please feel free to contact me at 713-309-3809.

Michael D. Van Der Snick

cc: Jeffrey Kaplan – Chief Legal Officer
 Julie Solmer Stine – Lead Counsel, HSES
 Cheryl-Lynne Davis – Sr. Counsel, HSES
 Liz Campbell – Assistant Corporate Secretary

J:\P\Equistar\Channelview\North Complex TPD05 2023



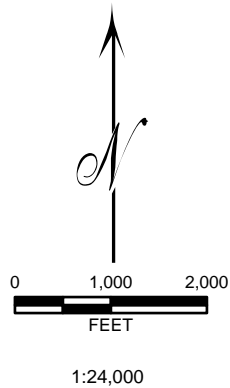
LEGEND

- Facility Boundary, Equistar Chemicals, LP
- Equistar Chemicals Property Boundary
- Wastewater Treatment Area
- HTC (Houston Technology Center) Area
- Outfall Location
- Discharge Route
- One Mile Radius

TWDB Wells

- Domestic; Public Supply
- Industrial; Monitor; Environmental Soil Boring
- Irrigation
- Rig Supply
- Test Well

Sources:
1. USGS Topographic Quadrangles 7.5 minute series:
Jacinto City, TX; Highlands, TX
2. Wells: Texas Water Development Board (TWDB) GIS data



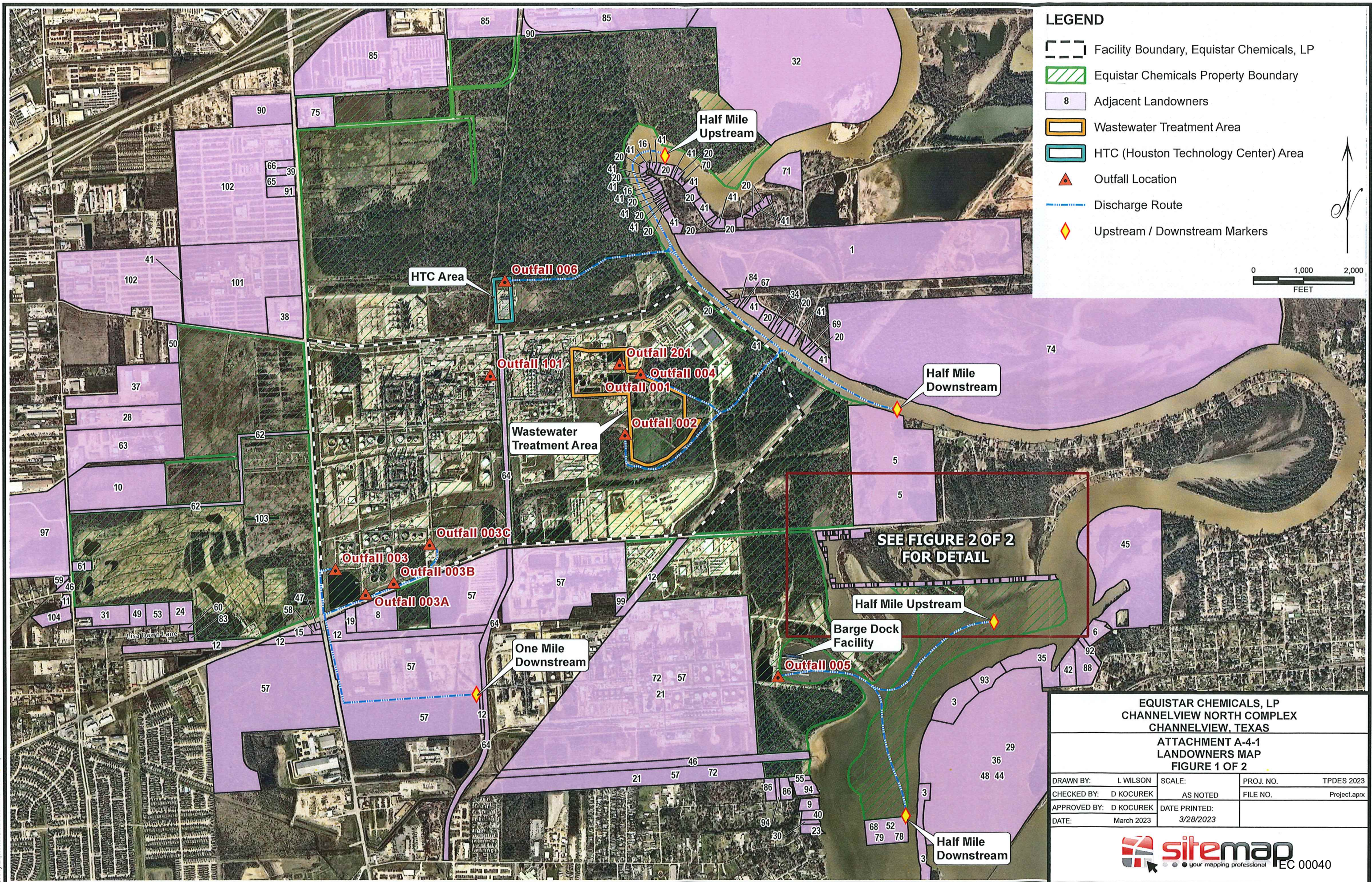
EQUISTAR CHEMICALS, LP
CHANNELVIEW NORTH COMPLEX
CHANNELVIEW, TEXAS

ATTACHMENT A-3 USGS MAP

DRAWN BY:	L WILSON	SCALE:	AS NOTED	PROJ. NO.	TPDES 2023
CHECKED BY:	D KOCUREK	DATE PRINTED:	1/18/2023	FILE NO.	Project.aprx
APPROVED BY:	D KOCUREK				
DATE:	January 2023				







EC 00039



J:\P\Equistar\Channelview\North Complex TPDES 2023



LEGEND

-  Equistar Chemicals Property Boundary
-  8 Adjacent Landowners
-  Discharge Route
-  Upstream / Downstream Markers

0 200 400
FEET

EQUISTAR CHEMICALS, LP
CHANNELVIEW NORTH COMPLEX
CHANNELVIEW, TEXAS

ATTACHMENT A-4-1 LANDOWNERS MAP FIGURE 2 OF 2

DRAWN BY: L WILSON	SCALE: AS NOTED	PROJ. NO. TPDES 2023
CHECKED BY: D KOCUREK	DATE PRINTED: 1/18/2023	FILE NO. Project.aprx
APPROVED BY: D KOCUREK	DATE: January 2023	

ATTACHMENT A-4-2
Landowner List
Equistar Chemicals WQ0000391000

MAP ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
1	ADLOY LLC	623 W TEXAS AVE	BAYTOWN	TX	77520-4755
2	ALBIN E	3427 VINEYARD DR	HOUSTON	TX	77082-1325
3	B D DEV	PO BOX 8450	HOUSTON	TX	77288-8450
4	B H KELLEY	ADDRESS UNKNOWN		TX	
5	BALKE THOMAS E & MARY RENEE	18803 WALLISVILLE RD	HOUSTON	TX	77049-5036
6	BLANC & HAMMER CONSTRUCTION EXPERTS LLC	9301 SOUTHWEST FRWY STE 110	HOUSTON	TX	77074-1533
7	CALVIN C C	ADDRESS UNKNOWN	HOUSTON	TX	77059
8	CAMO CHEMICAL PROPERTIES LLC	16950 WALLISVILLE RD	HOUSTON	TX	77049-5014
9	CARDEN KENNETH D	1620 PARK DR	CHANNELVIEW	TX	77530-2720
10	CARL & LOS MITTEM FAMILY	2501 MUSEUM WAY APT 717	FORT WORTH	TX	76107-8006
11	CASTILLO JOSE I & NOHELIA	16226 MILLERS LANDING LN	HOUSTON	TX	77049-4842
12	CENTERPOINT ENERGY HOU ELE	PO BOX 1475	HOUSTON	TX	77251-1475
13	CLARK H C	ADDRESS UNKNOWN	UNKNOWN		
14	COLGLAZIER MARY C MD	ADDRESS UNKNOWN	UNKNOWN		
15	COLLINS ALLEN T	27415 E FAIRWAY OAKS DR	HUFFMAN	TX	77336-3778
16	CONWELL WILLIAM	PO BOX 15810	HOUSTON	TX	77220-5810
17	COULSON W J JR	4814 KNICKERBOCKER ST	HOUSTON	TX	77035-3428
18	COULSON WILLIAM JR ESTATE % MARGARET COULSON	4946 HEATHERGLEN DR	HOUSTON	TX	77096-4214
19	WILLIAMS FIELD SERVICES GULF	ONE WILLIAMS CENTER	TULSA	OK	74172-0140
20	COUNTY OF HARRIS	PO BOX 1525	HOUSTON	TX	77251-1525
21	COVESTRO LLC ATTN: TAX DEPARTMENT	1 COVESTRO CIR	PITTSBURGH	PA	15205-9723
22	CRAMER GRETA B ET AL	974 ENCHANTED WAY	PACIFIC PALISADES	CA	90272-2823
23	CURRENT OWNER	1612 PARK DR	CHANNELVIEW	TX	77530-2720
24	CURRENT OWNER	2220 18TH ST	GALENA PARK	TX	77547-2111
25	CURRENT OWNER	ADDRESS UNKNOWN	HOUSTON	TX	
26	CURRENT OWNER	ADDRESS UNKNOWN	HOUSTON	TX	
27	CURRENT OWNER	ADDRESS UNKNOWN	HOUSTON	TX	77087
28	D I B MILLER PROPERTY LTD	PO BOX 1425	CROSBY	TX	77532-1425
29	DAY HARRIET LAVERN	PO BOX 920546	HOUSTON	TX	77292-0546
30	DELCAPIO JULIO & DAMARIS	1614 PARK DR	CHANNELVIEW	TX	77530-2720
31	DESTINED ENTERPRISES LLC	6606 MILLER ROAD 2	HOUSTON	TX	77049-4834
32	DOAN ROSA NGUYEN & QUANG NHUT	7827 GULFTON ST	HOUSTON	TX	77036-2813
33	FLEMING W A	ADDRESS UNKNOWN	HOUSTON	TX	
34	FLORIO VINCENT L JR	2619 SHOREWICK DR	BAYTOWN	TX	77521-
35	GANZE ADA ET AL	PO BOX 924267	HOUSTON	TX	77292-4267
36	GANZE ADA JANE JOHNSON	3414 FLEMING DR	BAYTOWN	TX	77521-9226
37	GREENWOOD 7450 INDUSTRIAL INVESTMENT HOLDINGS LLC	7450 MILLER RD 2	HOUSTON	TX	77049-4818
38	GROENDYKE TRANSPORT INC	PO BOX 632	ENID	OK	73702-0632
39	GS3 ENTERPRISES LLC	4150 CAIRO RD	PADUCAH	KY	42001-9179
40	HARRELSON DARREL & MARTHA	1618 PARK DR	CHANNELVIEW	TX	77530-2720
41	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY	HOUSTON	TX	77092-8601
42	HOUSTONHOUSEBUYERS COM LLC	11451 KATY FWY STE 360	HOUSTON	TX	77079-2009
43	JELSON GEORGE A	11018 WOODLAND AVE NE	ALBUQUERQUE	NM	87112-1683
44	JOHNSON HARRY KEENE III	20626 HANNINGTON LN	KATY	TX	77450-5034
45	JONES BURNEY W	PO BOX 472	GREENVILLE	TX	75403-0472
46	JUAREZ EMILY A	17231 SUNSHINE ST	HOUSTON	TX	77049-1125
47	JUBILEE VENTURES INIC	6533 SHELTON RD	HOUSTON	TX	77049-3105
48	KELLAM JACUELIN KEENE	155 PRIMROSE LN	FREDERICKSBURG	TX	78624-7221
49	KNAPICK PAMELA & JOHN	16435 LISA DAWN LN	HOUSTON	TX	77049-4909
50	LABUFF JAMES & RHONDA	687 COUNTY ROAD 2230	CLEVELAND	TX	77327-9251
51	LAMAR J L	207 S MAGNOLIA ST	HIGHLANDS	TX	77562-3755
52	LEA RAE CARR TITUS ESTATE C/O RON MYLIUS CO-EXECUTOR	PO BOX 713	FREDERICKSBURG	TX	78624-0713
53	LEGER MARK A & LORIE A	16519 LISA DAWN LN	HOUSTON	TX	77049-4911
54	LOGAN JAMES A	ADDRESS UNKNOWN		TX	
55	LOPEZ RACHEL H	16920 SHADY LN	CHANNELVIEW	TX	77530-2749
56	LUN Z M MRS	ADDRESS UNKNOWN	HOUSTON	TX	
57	LYONDELL CHEMICAL CO	PO BOX 3646	HOUSTON	TX	77253-3646
58	MAKNOJIA ABDUL	6706 APSLEY CREEK LN	SUGAR LAND	TX	77479-4375
59	MARTINEZ FELIPE	7334 ANZAC ST	HOUSTON	TX	77020-5412
60	MARTINEZ RICARDO	434 TERMINAL ST	HOUSTON	TX	77020-5634
61	MEDRANO GERARDO	6830 MILLER ROAD 2	HOUSTON	TX	77049-4830
62	MIDCON TEXAS PIPELINE CORP PROPERTY TAX DEPT	PO BOX 4372	HOUSTON	TX	77210-4372
63	MILLER ROAD INDUSTRIAL PARK LP	7410 MILLER ROAD NO 2	HOUSTON	TX	77049
64	MISSOURI PACIFIC RAILROAD COMPANY UNION PACIFIC RAILROAD CO	1400 DOUGLAS ST STOP 1640	OMAHA	NE	68179-1001
65	MIZELL SHEILA K	2625 HARMONY PARK XING APT 2021	SPRING	TX	77386-4478
66	MJF PRINCIPAL HOLDING SLLC	3209 SALISBURY CT	FRIENDSWOOD	TX	77546-2532
67	MORAIDA EDWARD	3802 NICOLE DR	PASADENA	TX	77503-1859
68	MYLIUS LYNN A	PO BOX 713	FREDERICKSBURG	TX	78624-0713
69	NGC HOLDING CO INC ET AL	13430 NORTHWEST FWY STE 1200	HOUSTON	TX	77040-6052
70	NGUYEN HUONG THI THU	PO BOX 1442	HIGHLANDS	TX	77562-1442
71	NGUYEN MINH P	PO BOX 1442	HIGHLANDS	TX	77562-1442
72	OPTIM ENERGY ALTURA COGEN LLC COGENTRIX ENERGY POWER MANAGEMENT LLC	13860 BALLANTYNE CORPORATE PLACE STE 300	CHARLOTTE	NC	28277-3167
73	OWNER UNKNOWN	ADDRESS UNKNOWN	UNKNOWN		
74	PORT OF HOUSTON AUTHORITY	111 EAST LOOP N	HOUSTON	TX	77029-4326
75	PORT SERV USA INC	9002 SHELTON RD	HOUSTON	TX	77049-1811
76	REED GEORGE M	PO BOX 345	LA MARQUE	TX	77568-0345
77	REED ROSE OLIN MRS	907 N MARSHALL DR	OKLAHOMA CITY	OK	73110-5336
78	RENFRO BARRY L	415 MILL PLACE CT	SUGAR LAND	TX	77498-2678
79	RENFRO MARY C/O RON MYLIUS CO-EXECUTOR	PO BOX 713	FREDERICKSBURG	TX	78624-0713
80	RIVAS ANTONIO P	1518 E FORDYCE AVE	KINGSVILLE	TX	78363-6074
81	ROACH FRANK	7720 BOWEN ST	HOUSTON	TX	77051-1612

ATTACHMENT A-4-2
Landowner List
Equistar Chemicals WQ0000391000

MAP ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
82	ROBERTS DANIEL	ADDRESS UNKNOWN	HOUSTON	TX	
83	ROBLEDO DAVID	16618 LISA DAWN LN	HOUSTON	TX	77049-4906
84	ROSALES RUBIN O	5521 GLENMONT ST	HOUSTON	TX	77081-1891
85	SEAH STEEL USA LLC	16952 LEONARD RD	HOUSTON	TX	77049-1800
86	SELLERS RANDY L & JAN M	16919 SHADY LN	CHANNELVIEW	TX	77530-2748
87	SETTLE FORESTLINE H	ADDRESS UNKNOWN	HOUSTON	TX	
88	SINGH SOLUTIONS LLC	11001 THORNWOOD DR	LA PORTE	TX	77571-4489
89	SMITH R V	ADDRESS UNKNOWN		TX	
90	SOUTHERN PACIFIC RAILROAD COMPANY UNION PACIFIC RAILROAD CO	1400 DOUGLAS ST STOP 1640	OMAHA	NE	68179-1001
91	SOUTHVIEW LOGISTICS INC	13410 HOLLYPARK DR	HOUSTON	TX	77015-2901
92	STARNES RANDLE	1332 CLEAR LAKE RD	HIGHLANDS	TX	77562-3533
93	STATE OF TEXAS	PO BOX 1386	AUSTIN	TX	78767-1386
94	STEWART DOUGLAS R & JOYCE	16916 SHADY LN	CHANNELVIEW	TX	77530-2749
95	T W I DEV CO	1323 CHIPPENDALE RD	HOUSTON	TX	77018-5257
96	TAYLOR THOMAS N	7017 PASEO BLVD	KANSAS CITY	MO	64132-3109
97	TC TERMINALS LLC	PO BOX 2168	HOUSTON	TX	77252-2168
98	TEXAN LAND & CATTLE CO	PO BOX 130979	HOUSTON	TX	77219-0979
99	THORP PETROLEUM CORPORATION	1001 MCKINNEY ST STE 2200	HOUSTON	TX	77002-6418
100	UNKNOWN	ADDRESS UNKNOWN	HOUSTON	TX	77030
101	V & M STAR	1500 S DAIRY ASHFORD STE 190	HOUSTON	TX	77077-3861
102	VARCO LP	10000 RICHMOND AVE STE 600	HOUSTON	TX	77042-4393
103	VASTAR RESOURCES INC	PO BOX 941709	HOUSTON	TX	77094-8709
104	VAZQUEZ ROLANDO & CRISTINA E	6627 MILLER ROAD 2	HOUSTON	TX	77049-4833
105	WALLACE AGNES	ADDRESS UNKNOWN		TX	

ATTACHMENT A-4-3

**Landowner Mailing Labels
(on CD)**

ATTACHMENT A-5

Outfall Photos



1. Outfall 001 discharge structure (upper center), discharge and channel in foreground



2. Outfall 001 looking downstream from sample point

ATTACHMENT A-5 Outfall Photos



3. Outfall 002 discharge structure at sample point



4. Outfall 002 looking downstream from discharge structure

ATTACHMENT A-5

Outfall Photos



5. Outfall 003 discharge point



6. Outfall 003 looking downstream from outfall structure

ATTACHMENT A-5

Outfall Photos



7. Outfall 003A discharge point



8. Outfall 003A looking downstream, outfall structure bottom center

ATTACHMENT A-5 Outfall Photos



9. Outfall 003B discharge point



10. Outfall 003B looking downstream, outfall structure in bottom center

ATTACHMENT A-5 Outfall Photos



11. Outfall 003C discharge structure (center)



12. Outfall 003C looking downstream, outfall discharge valve lower left.

ATTACHMENT A-5 Outfall Photos



13. Outfall 004 discharge point



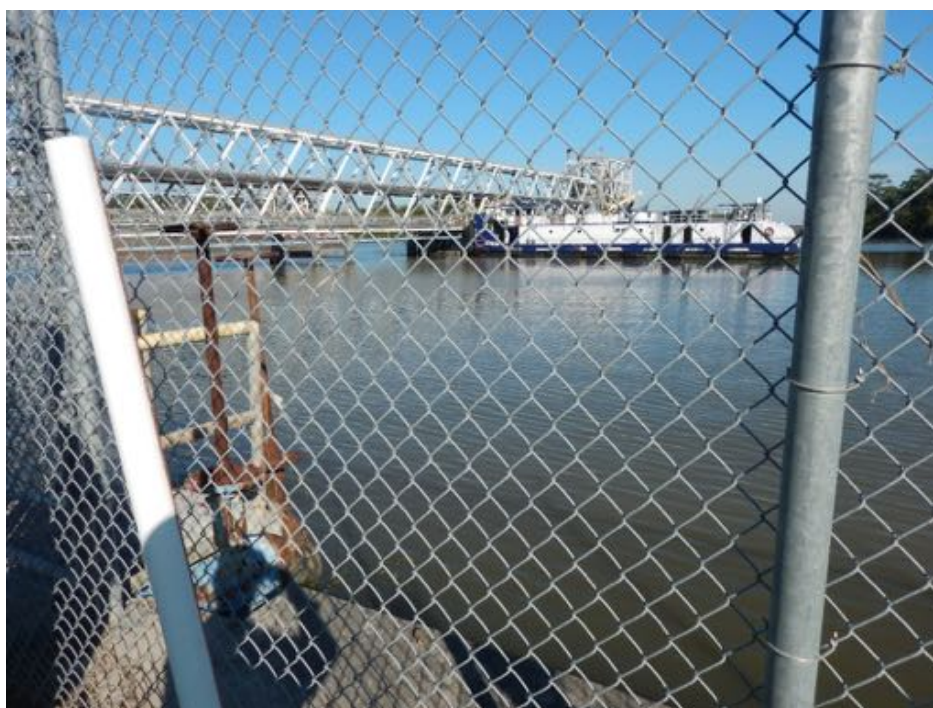
14. Outfall 004 looking downstream from discharge structure

ATTACHMENT A-5

Outfall Photos



15. Outfall 005 at Barge Dock Pond, bottom center



16. Outfall 005 discharge point into barge area, discharge valve on left

ATTACHMENT A-5

Outfall Photos



17. Outfall 006 HTC Pond



18. Outfall 006 stairs to discharge pipe, HCFCD ditch past stairs, photo center

ATTACHMENT A-5 Outfall Photos



19. Outfall 101 septic chlorinator



20. Outfall 201 septic chlorinator

ATTACHMENT A-5 Outfall Photos



Outfall Aerial Map



Photo Location Map 1

ATTACHMENT A-5 Outfall Photos



Photo Location Map 2



Photo Location Map 3

ATTACHMENT A-6



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

- ☐ New Permit or Registration Application
☒ New Activity - modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, a Public Involvement Plan is not necessary. Completion of the remaining sections not required.

Section 2. Secondary Screening

- ☒ Requires public notice,
☐ Considered to have significant public interest, **and**
☒ Located within any of the following geographical locations:
- Austin
 - Dallas
 - Fort Worth
 - Houston
 - Other geographical locations should be decided on a case-by-case basis
 - San Antonio
 - West Texas
 - Texas Panhandle
 - Along the Texas/Mexico Border

If all of the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2.

- ☒ Public Involvement Plan not applicable to this application. Provide **brief** explanation.
Previous TPDES applications have not involved significant public interest.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste
 ☐ Radioactive Materials Licensing ☐ Underground Injection Controls

ATTACHMENT A-7



March 11, 2020

Certified Mail
7015 0640 0002 0784 9184

Ms. Adriene C. McClarron
Water Quality Division (MC-148)
Applications Review and Processing Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Equistar Chemicals, LP (CN600124705)
Equistar Chemicals Channelview Complex (RN100542281)
Renewal/Amendment Application TPDES WQ0000391000 (EPA ID TX0003531)

Ms. McClarron:

On February 20, 2020 Equistar Chemicals, LP responded to your letter dated January 30, 2020 requesting additional information for the TPDES renewal/amendment application for the Channelview North Complex (CVON). Item #2 on the additional information request letter stated *Item 9.g on page 8 of the administrative report: Please provide a copy of the correspondence sent to the owner of the ditch requesting the authorization and upon receipt, the approval letter.* In Equistar's response, we provided the application submitted to Harris County Flood Control District (HCFCD) to discharge into ditch G103-02-03. On February 24, 2020 HCFCD provided an approval letter to discharge Outfalls 003, 003A, 003B, and 003C to HCFC owned channel G103-02-03. Attached is the approval letter as well as some additional details communicated via email with the HCFCD Project Manager.

Outfalls 003, 003A, 003B, and 003C are strictly stormwater outfalls and do not discharge industrial wastewater, domestic wastewater, or treated stormwater. Since there are no sources of bacteria at these outfalls other than what is naturally occurring from local wildlife, Equistar requests that a bacteria limit not be included in TPDES Permit WQ0000391000.

If you have any questions regarding this response please contact Nancy Ross at (281) 452-8722 or at Nancy.Ross@lyondellbasell.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Mayo", with a large, stylized loop at the end.

Scott Mayo
Environmental Manager – Waste & Water

Enclosure

CVON File No. 300-160-045

February 24, 2020

Mr. Scott Mayo
Equistar Chemicals, LP
8280 Sheldon Road
Channelview, TX 77530



9900 Northwest Freeway
Houston, Texas 77092
386-286-4000
www.hcfcd.org

SENT VIA ELECTRONIC MAIL: NO HARD COPY TO FOLLOW

RE: Stormwater Discharge from Equistar Chemicals, LP
Discharge of Rain Dependent Volume
TCEQ Discharge Permit: WQ0000391000
HCFCD Unit G103-00-00

Dear Mr. Mayo:

The Harris County Flood Control District (HCFCD) has received your application for discharge into a Flood Control or County facility. The subsequent flow path from outfall 001, 002, 004, 006, 005, 101, and 201, is to immediately adjacent property that HCFCD does not own or operate and therefore cannot authorize a discharge into property HCFCD does not own. The discharge from these outfalls appears to flow to the San Jacinto River and this drainage is not owned or operated by HCFCD.

The flow path of outfall 003, 003A, 003B, and 003C, is to property that HCFCD owns, and thence to HCFCD owned channel G103-02-03. HCFCD will accept discharge into G103-02-03 from the flow path indicated. Harris County's waterways are impaired for bacteria (*E. coli*); therefore, HCFCD requests discharges from Equistar Chemicals, LP Facility be monitored for bacteria (*E. coli*) at effluent limits of 63 MPN mg/l with the other required parameters. Your application is being processed and we have no objection at this time to the discharge of treated stormwater flows into or toward HCFCD G103-02-03, if copies of discharge monitoring reports for bacteria (*E. coli*) and Permit effluent limits are submitted to HCFCD.

Please note this does not authorize the discharge of Wastewater into or towards G103-02-03 as the indicated application only requests the discharge of rain dependent stormwater. If Equistar Chemicals, LP wishes you discharge wastewater from outfalls 003, 003A, 003B, and 003C, that a separate request for discharge should be submitted for approval with the appropriate effluent limits listed in the existing WQ0000391000 wastewater permit.

February 24, 2020
Mr. Scott Mayo
Equistar Chemicals, LP
Page 2

Please note if this will involve new construction that construction plans designed in accordance with Harris County Flood Control District's criteria and other adopted policies must be submitted for review to the Watershed Management Department.

If you have any questions or need additional information, please feel free to call me at 386-684-4063.

Sincerely,



Roberto J. Vega,
Stormwater Quality Design Project Manager
Environmental Quality Section

RV:rop

Attachment: Copy of Application

cc: David Saha, HCFCD
Jeremy Phillips, HCFCD
Project File 450

S:\Planningdiv\Environmental Services\Environmental Quality\Programs\Water Quality\WWTP_Response Letters\20-L2-21Mayo G103-00-00 Equistar Chemicals Stormwater Discharge Approval Ltr.Docx

Ross, Nancy J

From: Vega, Roberto (Flood Control) <Roberto.Vega@hcfcd.hctx.net>
Sent: Tuesday, March 03, 2020 4:20 PM
To: Ross, Nancy J
Subject: RE: Waste Water Discharge Application; 20-L2-24Mayo G103-00-00 Equistar Chemicals Stormwater Discharge Approval Letter

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.
Nancy -

The Bacteria statement is a partnership "request" to help HCFCFCD comply with the Bacteria reduction plan managed by HGAC and is not a Harris County or Harris County Flood Control regulatory requirement. In the Bacteria Reduction Plan the stakeholders (known as the Bacteria Implementation Group "BIG") agreed that partners would request from TCEQ monitoring of Bacteria at the 63 MPN/mL. Usually TCEQ will not require that effluent monitoring on any of their permits that do not discharge wastewater from the outfall pipes. If you plan to discharge wastewater from your outfall pipes I will assume that TCEQ will update your effluent limit to meet the request.

This particular approach was targeted since initial studies conducted by the BIG and TMDLs set in the region listed wastewater as a major factor in bacteria impairments.

I included the request since the application did list your wastewater permit ID. You will only be required to monitor effluent limits in your TCEQ issued permit since HCFCD and HC does not regulate effluent discharge limits.

If you'd like additional clarification I'm available Thursday (3/5) 3:00pm

From: Ross, Nancy J <Nancy.Ross@lyondellbasell.com>
Sent: Tuesday, March 3, 2020 4:05 PM
To: Vega, Roberto (Flood Control) <Roberto.Vega@hcfcd.hctx.net>
Subject: RE: Waste Water Discharge Application; 20-L2-24Mayo G103-00-00 Equistar Chemicals Stormwater Discharge Approval Letter

Good afternoon Roberto.

My manager and I would like to schedule a conference call with you to discuss the bacteria monitoring requirement and effluent limit referenced in the attached approval letter. We would like an opportunity to explain where the discharge from these outfalls originate and to get a better understanding of where the bacteria limits are coming from (regulation or study). Would one of the following dates/times work for you:

Wednesday (3/4) 3:30pm
Thursday (3/5) 3:00pm
Tuesday (3/10) 9:00am

Thank you.

Nancy Ross
Environmental Engineer
LyondellBasell Channelview
8280 Sheldon Road
Channelview, TX 77530

(281) 452-8722

Nancy.Ross@lyondellbasell.com

lyondellbasell
Advancing Possible

From: Vega, Roberto (Flood Control) <Roberto.Vega@hcfcd.hctx.net>

Sent: Tuesday, February 25, 2020 8:49 AM

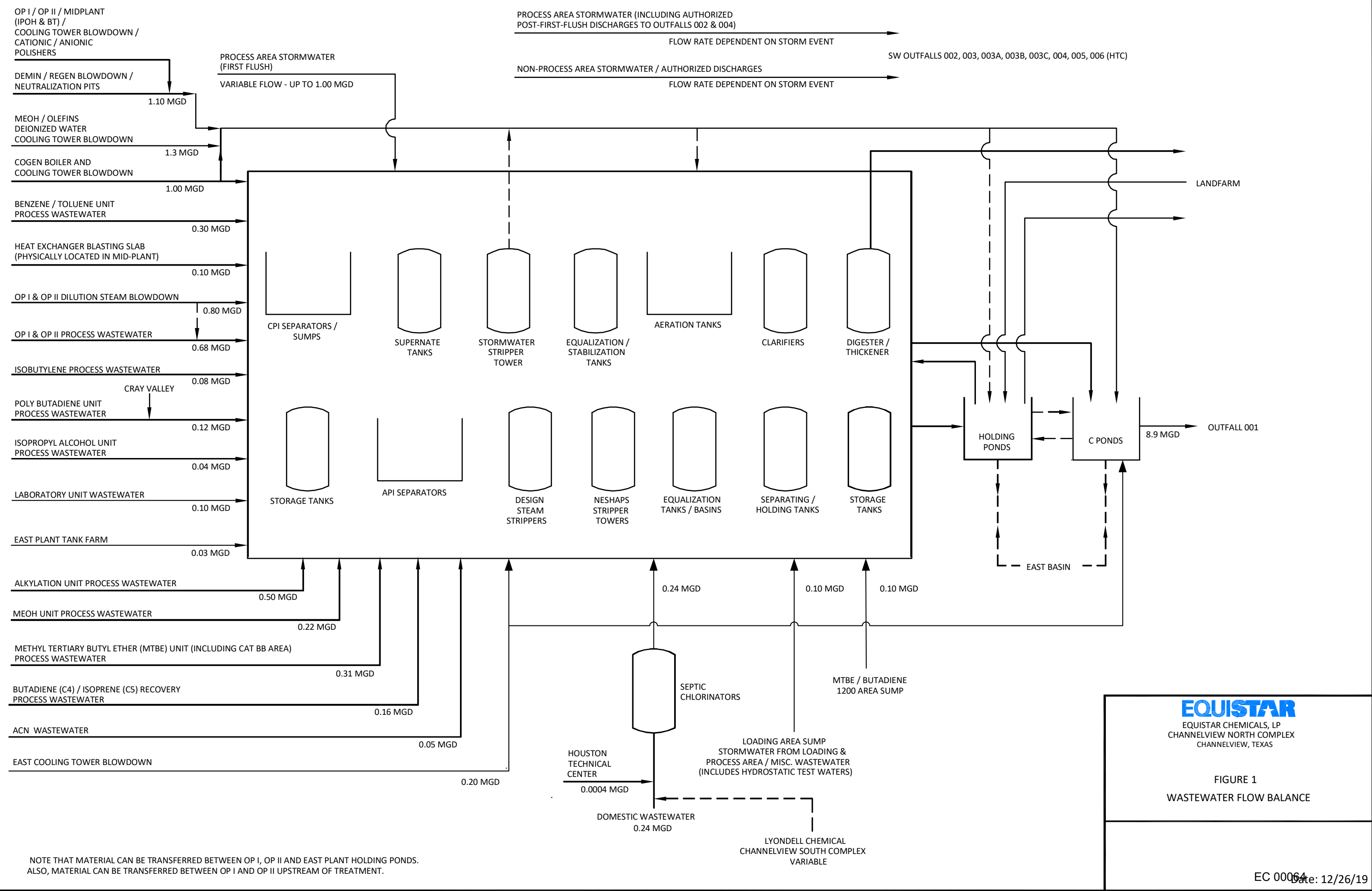
To: Ross, Nancy J <Nancy.Ross@lyondellbasell.com>

Subject: Waste Water Discharge Application; 20-L2-24Mayo G103-00-00 Equistar Chemicals Stormwater Discharge Approval Letter

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender. Please see attached response to the discharge application submitted on February 6, 2020 please let me know if you have any additional information requests.

Roberto J. Vega III,
Stormwater Quality Design Project Manager
Environmental Services Section
Harris County Flood Control District
13105 NW Freeway| Houston, Texas 77040
346-286-4000 (main) | 346-286-4063 (direct)
Roberto.Vega@hcfcd.hctx.net | www.hcfcd.org

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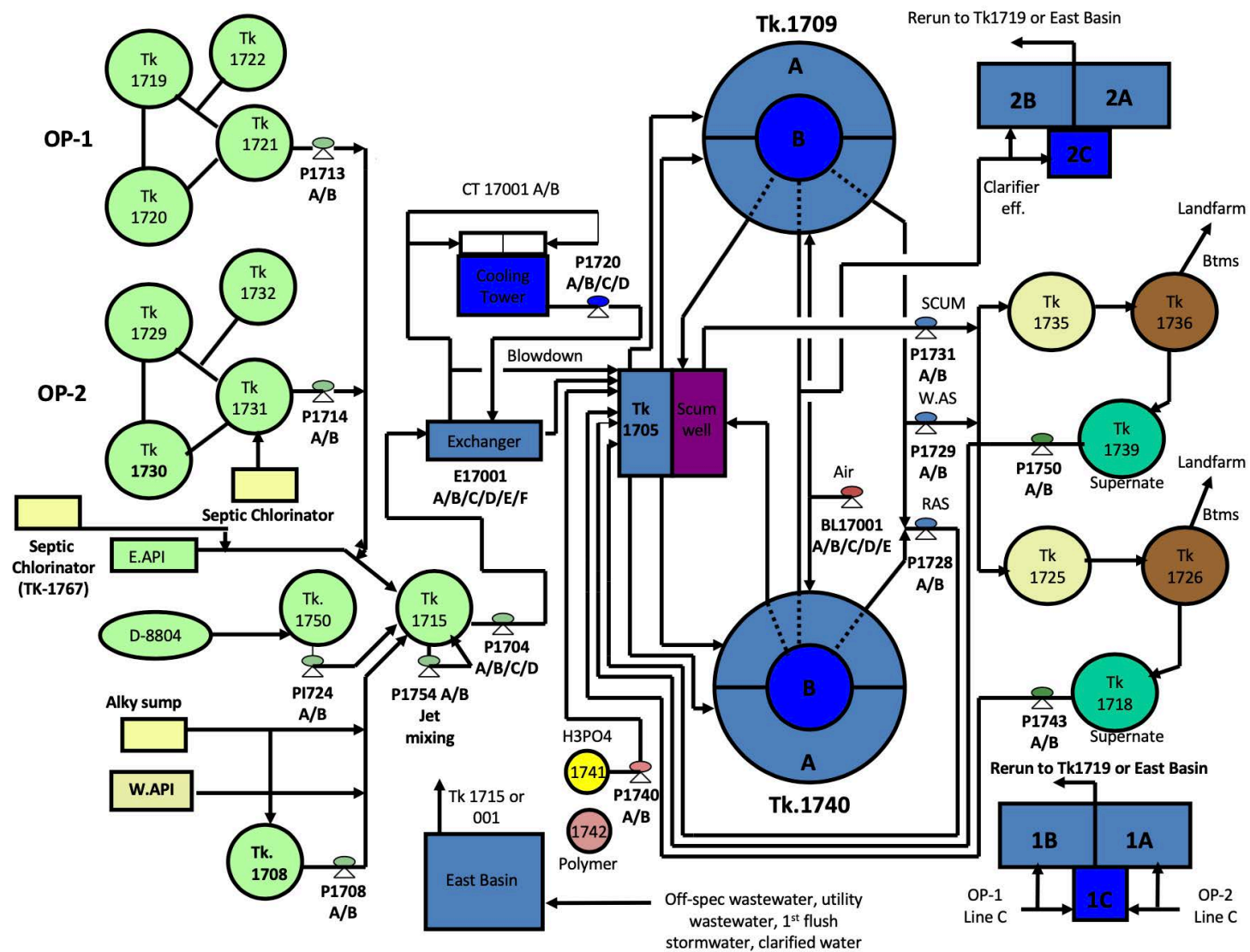


FIGURE 2. WASTEWATER FLOW DIAGRAM

ATTACHMENT T-2

AMENDMENT REQUESTS EQUISTAR CHEMICALS, LP CHANNELVIEW NORTH COMPLEX

OUTFALL 003 – REMOVE MONITORING AND LIMIT FOR TOTAL ALUMINUM	2
OUTFALL 003 – REMOVE MONITORING FOR TOTAL ZINC	3
OUTFALL 004 – REMOVE MONITORING AND LIMIT FOR TOTAL ZINC	3

ATTACHMENT 1 - ALUMINUM SOURCE STUDY REPORT

AMENDMENT REQUESTS EQUISTAR CHEMICALS, LP CHANNELVIEW NORTH COMPLEX

Equistar Chemicals, LP (Equistar) requests the following amendments to TPDES Permit WQ0000391000 for the Channelview North Complex.

1. Outfall 003 – Remove monitoring and daily maximum concentration limit for total aluminum
2. Outfall 003 – Remove monitoring for total zinc
3. Outfall 004 – Remove monitoring and daily maximum concentration limit for total zinc

Outfall 003 – Remove Monitoring and Limit for Total Aluminum

Equistar requests that the monitoring and daily maximum concentration limit for total aluminum for Outfall 003 be removed from the permit.

When the TPDES permit for the facility was renewed by the Texas Commission on Environmental Quality (TCEQ) on March 25, 2021, a monitoring requirement was added to Outfall 003 for total aluminum (once per quarter) with a daily maximum limit of 1.765 milligrams per liter (mg/L) to become effective three years after permit issuance.

Outfall 003 discharges primarily stormwater with potentially only minor contributions of utility wastewaters. During 2017-2019, the facility investigated the usability of a site-specific partition coefficient for total aluminum, but the results indicated that it would not be sufficient to ensure compliance with the future limit. In October 2021, the facility proposed conducting a WER study to the TCEQ, but after discussion with the TCEQ, it was determined instead that a source study would be a feasible and simpler option. A source study is an investigation into the sources of aluminum in the discharge to demonstrate that the significant sources of aluminum in the discharge are naturally occurring from soil particulates carried in the stormwater. The facility conducted the source study, based on the requirements in the TCEQ's Implementation Procedures,¹ and was able to demonstrate that the aluminum in the Outfall 003 discharge is due to soil particulates in stormwater rather than being contributed by industrial processes in the drainage area. The facility submitted the source study report to the TCEQ on January 11, 2022. Mr. Michael Pfeil of the TCEQ Water Quality Division completed his review of the study report and concurred that the aluminum in the Outfall 003 discharge was from soil carried in the stormwater and that the facility could submit a TPDES permit amendment application to remove the aluminum limit.² A copy of the study report is included as an attachment.

¹ *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194, June 2010)

² Email from Michael Pfeil (TCEQ) to Nancy Ross (LyondellBasell), January 18, 2022.

Outfall 003 – Remove Monitoring for Total Zinc

Equistar requests that the monitoring of total zinc for Outfall 003 be removed from the permit.

Monitoring for total zinc for Outfall 003 has been in the TPDES permit since at least 2008, but as a report-only requirement without a permit limit. The TCEQ will normally include a monitoring requirement in a permit if the average concentration in the discharge is more than 70% of the daily average water quality-based effluent limit (WQBEL). For Outfall 003, the daily average WQBEL is 0.207 mg/L, and 70% of the WQBEL is 0.145 mg/L. Discharge monitoring report (DMR) data for total zinc for Outfall 003 for the last two years (January 2021 – December 2022) show that the average concentration for Outfall 003 was 0.138 mg/L, which is 66% of the daily average WQBEL. Given that the average is less than 70% of the WQBEL, Equistar requests removal of the monitoring requirement.

Outfall 004 – Remove Monitoring and Limit for Total Zinc

Equistar requests that the monitoring and the daily maximum concentration limit for total zinc for Outfall 004 be removed from the permit.

Monitoring for total zinc for Outfall 004 has been in the TPDES permit since at least 2008; it was a report-only requirement until the permit was renewed in 2021 with a daily maximum concentration limit of 0.439 mg/L, to become effective in March 2024. The TCEQ will normally include a limit in a permit if the average concentration in the discharge is more than 85% of the daily average WQBEL, and monitoring only if it is between 70%-85%. For Outfall 004, the daily average WQBEL is 0.207 mg/L, and 70% and 85% of the WQBEL are 0.145 mg/L and 0.176 mg/L, respectively.

As shown in the table below, DMR data for total zinc for Outfall 004 for the last two years (April 2021 – January 2023) show that the average concentration for Outfall 004 was 0.194 mg/L, which is 94% of the daily average WQBEL. Although the outfall average is very near the WQBEL, it is heavily skewed by two high values (0.669 mg/L, 0.731 mg/L) that occurred in 2022 after a period of severe drought. Extremely dry conditions during the drought could have produced dusty soil conditions such that rainfalls immediately following carried much higher loads of soil particulates. Zinc is naturally occurring in the area soils.

Outfall 004 Zinc Concentration	
Sample Date	Total Zinc (mg/L)
4/1/21	0.0266
7/1/21	0.0283
10/1/21	0.108
1/6/22	0.0292
5/25/22	0.669
7/1/22	0.731
10/28/22	0.076
11/1/22	0.064
11/24/22	0.155
1/8/23	0.0514

With more regular rains following the 2022 drought, zinc levels in the Outfall 004 discharge have been almost 10 times lower, an average of 0.087 mg/L. Equistar intends to analyze additional outfall samples in 2023 for the TCEQ to consider for this permit amendment request. Additional data may show that the two high values were abnormal and that normal levels pass the WQBEL screening levels.

Attachment 1



January 11, 2022

OFFICIAL COPY SUBMITTED ELECTRONICALLY

Texas Commission on Environmental Quality
Water Quality Assessment Section, MC-150
Attn: Michael Pfeil
Michael.pfeil@tceq.texas.gov
P.O. Box 13087
Austin, TX 78711-3087

Re: Aluminum Source Study
Equistar Chemicals, LP Channelview Complex
TPDES Permit WQ0000391000, EPA I.D. TX0003531

Dear Mr. Pfeil:

The attached report presents the results of a source study for aluminum in the discharge of Outfall 003 at the Equistar Chemicals, LP Channelview North Plant (Equistar). Equistar is authorized to discharge stormwater, utility wastewater, and de minimis flows from spill cleanups via Outfall 003 which is a combination of four discrete sampling locations (003, 003A, 003B, 003C) authorized under TPDES wastewater permit WQ0000391000. This report demonstrates that the significant sources of aluminum in the discharge are naturally occurring from soil particulates carried in the storm water. Equistar requests your review and approval of the aluminum source study in order to remove the aluminum effluent limits at Outfall 003.

Please contact Nancy Ross at (281) 452-8722 or via email at nancy.ross@lyondellbasell.com if you need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Warnement", written over a horizontal line.

Thomas Warnement
Environmental Manager

File Number: CVON 300-080-084

Equistar Chemicals, LP
8280 Sheldon Road
Channelview, TX 77530
P.O. Box 777 (77530-0777)
USA

Tel +1 281 862 4000
lyb.com

a LyondellBasell company

EC 00070

Attachment 1, Page 1 of 9

ALUMINUM SOURCE STUDY
OUTFALL 003
EQUISTAR CHEMICALS, LP
CHANNELVIEW NORTH PLANT
TPDES WQ0000391000

INTRODUCTION	2
OUTFALL DESCRIPTION	3
STUDY REQUIREMENTS.....	3
STUDY WORK PLAN	4
DISCUSSION OF RESULTS.....	4
REVIEW OF FACILITY PROCESSES AND ACTIVITIES	4
CHARACTERIZATION OF OUTFALL STORM WATER	5
CONCLUSION.....	6

TABLE 1. RESULTS FROM OUTFALL 003 PARTITION COEFFICIENT STUDY (JUNE 2017 - SEPTEMBER 2019)

FIGURE 1. OUTFALL 003 AREA

FIGURE 2. OUTFALL 003 DISCHARGE ROUTE

ALUMINUM SOURCE STUDY
OUTFALL 003
EQUISTAR CHEMICALS, LP
CHANNELVIEW NORTH PLANT
TPDES WQ0000391000

INTRODUCTION

This report presents the results of a source study for aluminum in the discharge of Outfall 003 at the Equistar Chemicals, LP Channelview North Plant (CVON). Outfall 003 is authorized under TPDES WQ0000391000 to discharge storm water, utility wastewaters, and de minimis flows from spill cleanups. Outfall 003 discharges to drainage ditches, thence to Harris County Flood Control District (HCFCD) Ditch G103-03-02, thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

When the TPDES wastewater permit for the facility was renewed by the Texas Commission on Environmental Quality (TCEQ) on March 25, 2021, a monitoring requirement was added to Outfall 003 for total aluminum (once per quarter) with a daily maximum limit of 1.765 milligrams per liter (mg/L) to become effective three years after permit issuance.

The TCEQ identifies the ditches as freshwater and San Jacinto River Tidal as saltwater. The TCEQ sets different water quality standards for freshwater and saltwater; however, for aluminum, there is only a freshwater standard for acute aquatic toxicity. The TCEQ derives the daily maximum WQBEL for total aluminum from this standard.

Outfall 003 data for aluminum show that levels are sometimes greater than the daily maximum water quality-based effluent limit (WQBEL) of 1.765 mg/L. The daily maximum WQBEL of 1.765 mg/L is the default value used by the TCEQ where the discharge is into an intermittent freshwater receiving stream with no flow upstream of the effluent discharge (100% effluent instream). The TCEQ allows WQBELs to be adjusted for site-specific conditions and this is typically done by an adjustment factor that is based on either a partition coefficient (PC) or WER study.

The facility investigated the usability of a site-specific partition coefficient for Outfall 003 by evaluating total and dissolved aluminum in effluent samples from June 2017 – September 2019; however, the data indicated that the partition coefficient by itself would be insufficient to demonstrate that permit limits would not be required for the outfall. In October 2021, the facility proposed conducting a WER study, but after discussion with the TCEQ it was determined that a source study was a feasible and simpler option. A source study is an investigation into the sources of aluminum in the discharge to demonstrate that the significant sources of aluminum in the discharge are naturally occurring from soil particulates carried in the storm water.

OUTFALL DESCRIPTION

The drainage area for Outfall 003 is divided into four sections with individual sampling locations in the TPDES permit (003, 003A, 003B, 003C). The locations of the four sample points are listed below and shown on the area map in Figure 1.

- Outfall 003 – at the southwest section of the plant adjacent to Sheldon Road
- Outfall 003A – at the southwest section of the plant adjacent to Wallisville Road
- Outfall 003B – at the southwest section of the plant, east of Outfall 003A, adjacent to Wallisville Road
- Outfall 003C – at the southwest section of the plant, east of Outfall 003B, adjacent to Wallisville Road

Because there are multiple sampling points, the permit requires that the highest total aluminum result among the four sample points be reported in the monthly discharge monitoring report (DMR). The four discharge points flow into unnamed ditches along Sheldon Road and Wallisville Road, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, and thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin (see Figure 2).

Because the discharge is storm water dependent, flow is intermittent, and the volume varies with rainfall amounts. If storm water runoff is light, there may not be a discharge at every sample point.

STUDY REQUIREMENTS

The TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194, June 2010) (IP) allow for a study to demonstrate that the source of aluminum in the discharge is storm water rather than facility processes.

The IP has the following requirements for an aluminum source study.

1. Clearly demonstrate that aluminum is not used in the facility's processes or added to the facility's waste streams.
2. If storm water is commingled with facility wastewater, collect samples of storm water alone to demonstrate that aluminum levels in the storm water are directly responsible for aluminum levels reported in the commingled discharge. The number of data points needed for this demonstration will be determined on a case-by-case basis.
3. Determine the ratio of the dissolved aluminum concentration to the total recoverable aluminum concentration for the facility. The ratio for the outfall should be less than 50%. The number of data points necessary will be determined on a case-by-case basis.

In February 2017, Equistar submitted a combined work plan to the TCEQ for a partition coefficient study and source study for Outfall 003.¹ Although outfall analyses for the partition coefficient study were completed in September 2019, Equistar did not request a site-specific partition

¹ "Aluminum Partitioning Coefficient and Source Study Work Plan, Equistar Chemicals, LP, Channelview North Plant, TPDES WQ0000391000," February 2017.

coefficient for Outfall 003 because it was not sufficient in itself to demonstrate that permit limits were not needed. Instead, these data have been incorporated into the source study.

STUDY WORK PLAN

After discussing the IP source study requirements with TCEQ, Equistar revised the original work plan for the source study as follows.

Review of Facility Processes and Activities in the Drainage Area

- Identify any industrial processes or activities discharging to the Outfall 003 collection system and evaluate whether they contribute any significant sources of aluminum to the outfall discharge.
- Review safety data sheets (SDS) for any water treatment or other chemicals used with waters that may be discharged through the outfall to determine if they are significant sources of aluminum in the discharge.

Collection of Storm Water Samples

- Review the samples collected during the partition coefficient study and identify those sample events, in any, where facility wastewaters may have been commingled with storm water in the outfall discharge.
- Using the storm water-only sample events from the partition coefficient study, summarize the characteristics of the outfall discharge for dissolved and total aluminum, and total suspended solids (TSS).
- Compare the total aluminum content of the TSS in the storm water samples to that of area soils.

Ratio of Dissolved to Total Aluminum in the Outfall Discharge

- Using the storm water-only sample events from the partition coefficient study, evaluate the relationship between dissolved aluminum concentration to total recoverable aluminum concentration in the outfall discharge. Determine if the ratio of dissolved to total aluminum meets the IP target of less than 50%.

DISCUSSION OF RESULTS

Review of Facility Processes and Activities

The Outfall 003 drainage area includes a surface water treatment facility, storage tanks for hydrocarbon feedstock and product, a flare area, a laydown yard, and a hydrocarbon treating facility, as shown in Figure 1.

The water treatment facility treats raw water from Lake Houston to produce water of suitable quality for CVON operations. The water treatment processes include coagulation/flocculation, clarification, and multi-media filtration. Treatment chemicals used include a coagulant (KLARAD PC1192) and sodium hypochlorite. The SDS for the coagulant does not list any aluminum-based components. There is no wastewater discharge from the water treatment facility. Sludge from the clarifiers is thickened and then dewatered in a filter press. The sludge cake is disposed of by landfill. Filtrate from the filter press and decant from the sludge thickening tank are routed back to the clarifier splitter box.

The hydrocarbon storage tanks contain feedstock and product material. The flare burns process-related hydrocarbons. These hydrocarbons are not aluminum-based materials.

The laydown yard is used for temporary storage of facility equipment and is not known to store any materials that would be a significant source of aluminum when exposed to storm water.

Located south of the 003C sample point is a hydrocarbon treatment facility operated Linde/Praxair, which cleans a tailgas from CVON to produce hydrogen. The tailgas is a hydrocarbon stream and not an aluminum-based material.

Characterization of Outfall Storm Water

After review of facility processes and activities in the Outfall 003 drainage area, it was determined that there are no continuous or significant sources of facility wastewater in the Outfall 003 collection system. Although the outfall is authorized to discharge utility and de minimis waters from spill cleanups, these types of discharges were not observed during facility reviews and walk-throughs. If they are discharged, they would be infrequent and minor quantities in comparison to the storm water flows discharged through Outfall 003. Therefore, it was concluded that all of the sample events during the partition coefficient study were representative of storm water only.

During the partition coefficient study, approximately 40 samples were collected from each of the four Outfall 003 sample points from June 2017 through September 2019. Total and dissolved aluminum were analyzed by Environmental Chemistry, Inc.² and TSS was analyzed by CVON's on-site laboratory. A summary of the analytical results is presented in Table 1, including the ratio of dissolved to total aluminum. Ratios were not calculated for a few sample pairs where the analytical result for dissolved aluminum was greater than the total aluminum.

When a site-specific partition coefficient is the study objective, the IP requires that the coefficient be calculated as the 85th percentile of the dissolved to total aluminum ratios, ranked lowest to highest. For a source study, however, the IP does not prescribe how to compare the data to the 50% dissolved aluminum target. For this source study, the 85th percentile value was selected as a conservative approach comparable to a partition coefficient study. The 85th percentile partition coefficients for each sample location are shown in Table 1 and are as follows: 003 – 0.398, 003A – 0.483, 003B – 0.432, and 003C – 0.298. Therefore, all of the sample points for Outfall 003 met the 50% dissolved aluminum target.

² Environmental Chemistry, Inc., 2525 West Bellfort, Suite 175, Houston, Texas 77054

As shown in Table 1, the correlation coefficient between TSS and total aluminum is quite high for all of the four sample points (0.62-0.96). This is what would be expected if particulates from natural soils that contain aluminum are carried in the storm water. Table 1 also includes the aluminum content of the TSS in the samples in milligrams per kilogram (mg/kg). The median value of the four sample points ranges from 31,600-38,600 mg/kg, which is comparable to the 30,000 mg/kg median background concentration value that the TCEQ uses for the Texas Risk Reduction Program (30 TAC 350.51(m)). CVON did collect two soil samples on-site that it considered to be representative of background soils; a sample collected in 2009 had 1,260 mg/kg of aluminum and a sample in 2017 had 11,600 mg/kg. Although these two samples had lower values than the median of the Outfall 003 sample points, they are comparable, given the variability in the data and the limited soil samples.

CONCLUSION

- All of the TCEQ's requirements for demonstrating that the aluminum in the Outfall 003 discharge is due to soil particulates in storm water have been met by this source study. Specifically,
 - A review of facility processes and activities in the Outfall 003 drainage area determined that there are no continuous or significant sources of facility wastewater in the outfall collection system.
 - The aluminum content of solids in storm water samples are consistent with values for background soils, indicating that natural soils are the only significant source of aluminum in the Outfall 003 discharge.
 - The percentage of aluminum that was in the dissolved fraction in the storm water samples was less than 50%.

Table 1. Results from Outfall 003 Partition Coefficient Study (June 2017 - September 2019)

	Sample Point 003			Sample Point 003A			Sample Point 003B			Sample Point 003C		
	Total Aluminum $\mu\text{g/L}$	Dissolved Aluminum $\mu\text{g/L}$	Dissolved/ Total	Total Aluminum $\mu\text{g/L}$	Dissolved Aluminum $\mu\text{g/L}$	Dissolved/ Total	Total Aluminum $\mu\text{g/L}$	Dissolved Aluminum $\mu\text{g/L}$	Dissolved/ Total	Total Aluminum $\mu\text{g/L}$	Dissolved Aluminum $\mu\text{g/L}$	Dissolved/ Total
count	41	41	41	38	37	37	38	38	38	41	41	41
average	2,297	243	0.197	2,216	331	0.249	1,328	169	0.238	2,439	242	0.149
median	1,450	112	0.085	1,170	98	0.156	801	97	0.181	1,950	132	0.085
min	153	24	0.002	42	26	0.006	65	35	0.007	249	21	0.012
max	15,100	2,060	0.943	21,300	2,860	1.033	12,700	794	0.886	7,980	1,220	0.636
85th percentile			0.398			0.483			0.432			0.298
	Total Aluminum/ TSS			Total Aluminum/ TSS			Total Aluminum/ TSS			Total Aluminum/ TSS		
	mg/L	mg/kg		mg/L	mg/kg		mg/L	mg/kg		mg/L	mg/kg	
count	35	33		33	31		33	31		35	34	
average	80	39,710		56	44,870		51	44,508		73	48,692	
median	41	31,300		30	38,579		22	37,857		50	33,498	
min	6	6,594		3	7,230		2	5,062		6	6,453	
max	725	145,000		414	137,500		484	86,429		276	380,000	
correlation total aluminum:TSS		0.86			0.96			0.62			0.67	



Figure 1. Outfall 003 Area

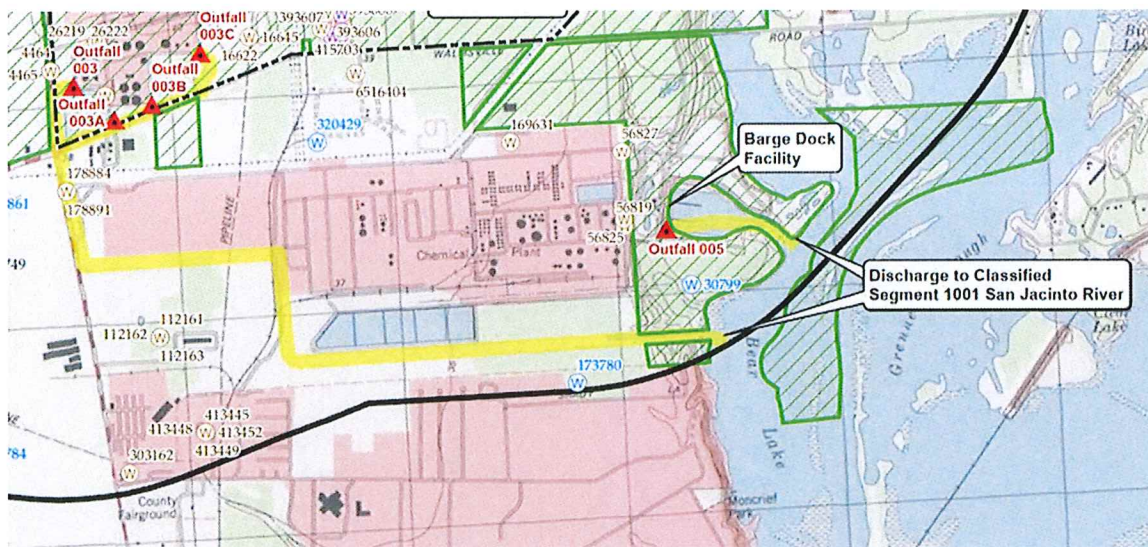
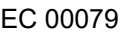
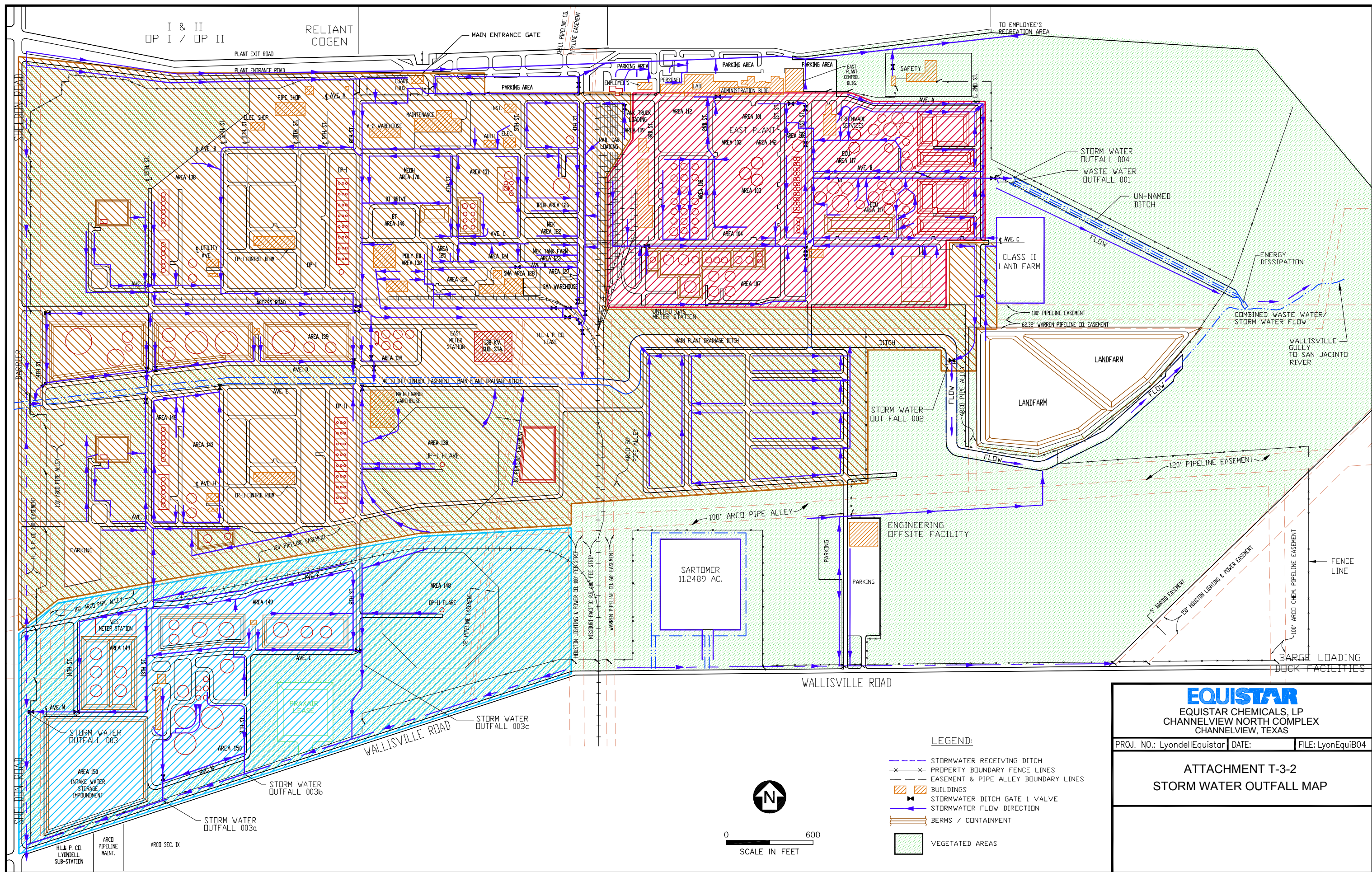


Figure 2. Outfall 003 Discharge Route






FW: Application to Amend Permit No. WQ0000391000, Equistar Chemicals, LP - Notice of Deficiency Letter

Reza, Joseph A <Joseph.Reza@lyondellbasell.com>

Mon 3/20/2023 10:17 AM

To: Dianna Kocurek (dianna@tkee.com) <dianna@tkee.com>; Ross, Nancy J <Nancy.Ross@lyondellbasell.com>

 4 attachments (290 KB)

WQ0000391000 NOD Letter.pdf; Industrial and Stormwater TPDES and TLAP PLS Form.docx; Industrial and Stormwater TPDES and TLAP PLS Form (Spanish).docx; Industrial Discharge Amendment Spanish NORI.docx;

The response from the TCEQ on the application.

From: Abesha Michael <Abesha.Michael@tceq.texas.gov>

Sent: Friday, March 17, 2023 12:05 PM

To: Reza, Joseph A <joseph.reza@lyondellbasell.com>

Subject: Application to Amend Permit No. WQ0000391000, Equistar Chemicals, LP - Notice of Deficiency Letter

You don't often get email from abesha.michael@tceq.texas.gov. [Learn why this is important](#)

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.

Dear Mr. Reza:

The attached Notice of Deficiency (NOD) letter dated March 17, 2023, requests additional information needed to declare the application administratively complete. Please email and mail an original and two copies (with two copies of the cover letter) of the complete response to my attention by March 31, 2023.

Please Note: the new alternative language requirements addressed in the attached letter include new items that can either be sent by email attachment if physical copies of the response are mailed.

Please let me know if you have any questions, and please take care and fill out our online customer satisfaction survey at your convenience. Thank you for your attention to this matter.

Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912; c: 346-802-8446
Email: abesha.michael@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Erin E. Chancellor, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 17, 2023

VIA EMAIL

Mr. Joseph A. Reza
Senior Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Re: Application to Amend Permit No. WQ0000391000 (EPA I.D TX0003531)
Issued to Equistar Chemicals, LP
CN600124705, RN100542281

Dear Mr. Reza:

We have received the application for the above referenced permit, and it is currently under review. Your attention to the following items is requested before we can declare the application administratively complete. Please submit one original and two copies (including a cover letter) of the complete response.

1. Section 1, Affected Landowner Information on page 10 of Administrative Report: 1.1:
Thank you for submitting the affected landowner map. However, the map submitted is insufficient, there are 2 parcels which is not labeled, and the owner of the land and the mailing label not identified. Please identify the landowners:
 - a. Between #60 and #83 on Figure 1 of 2 on the southeast side of the map on Figure 1 of 2;
 - b. On the north of #12 and east of #64 and south of applicant property or near to Outfall 003C on the map on Figure 1 of 2. Please update the affected landowners mailing list and labels accordingly.
2. The following is a portion of the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which owns a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 (EPA I.D. No. TX0003531) to authorize remove monitoring and daily maximum concentration limit for total aluminum from Outfalls 003, 003A, 003B, 003C; remove monitoring for total zinc from Outfalls 003, 003A, 003B, 003C, and remove monitoring and daily maximum concentration limit for total zinc from Outfall 004.

Mr. Joseph A. Reza
Page 2
March 17, 2023
Permit No. WQ0000391000

The facility is located at 8082 Sheldon Road, Channelview, in Harris County, Texas 77530. The discharge route is from the plant site via Outfalls 001, 002 and 004 is to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to San Jacinto River Tidal, via Outfalls 003 to an unnamed drainage ditch, thence to Harris County Flood Control District ditch, thence to San Jacinto River Tidal; and via Outfall 006 to Harris County Flood Control ditch, thence to San Jacinto River Tidal. TCEQ received this application on March 03, 2023. The permit application will be available for viewing and copying at North Channel Harris County Library, 15741 Wallisville Road, Houston, 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=-95.118055,29.832777&level=18>

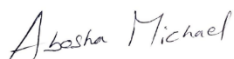
Further information may also be obtained from Equistar Chemicals, LP at the address stated above or by calling Mr. Joseph A. Reza, Senior Environmental Engineer, at 281-457-8032.

New rule requirements under Title 30 Texas Administrative Code (TAC) Chapter 39 relating to public notices have been implemented. The deficiencies listed below are new items that need to be provided to meet the alternative language requirements.

3. Please use the attached Plain Language Summary (PLS) Template to provide a plain language summary in English. Please provide the PLS in a **Microsoft Word document**.
4. Section 8, Item E.5 on page 6 of Administrative Report 1.0 indicates that public notices in Spanish are required. Please use the attached PLS Spanish template to translate the plain language summary into Spanish. Please provide the translated Spanish PLS in a **Microsoft Word document**.
5. Section 8, Item E.5 on page 6 of Administrative Report 1.0 indicates that public notices in Spanish are required. After confirming the portion of the English NORI contained in item No. 2 of this letter does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a **Microsoft Word document**.

Please submit the complete response, addressed to my attention by March 31, 2023. If you should have any questions, please do not hesitate to call me at (512) 239-4912.

Sincerely,



Abesha H. Michael
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

EC 00083

Mr. Joseph A. Reza
Page 3
March 17, 2023
Permit No. WQ0000391000

Enclosure(s)
Attachment 1 - Industrial TPDES and TLAP PLS Form
Attachment 2 - Industrial TPDES and TLAP PLS Form (Spanish)
Attachment 3 - Industrial Discharge/Disposal Spanish NORI

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by [30 Texas Administrative Code Chapter 39 Subchapter H](#). Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the blanks below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in [30 Texas Administrative Code §39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package.** For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

1. Enter applicant's name here. (2. Enter Customer Number here (i.e., CN6#####).)
3. Choose from the drop-down menu. 4. Enter name of facility here. 5. Enter Regulated Entity Number here (i.e., RN1#####). 6. Choose from the drop-down menu. 7. Enter facility description here.. The facility 8. Choose from the drop-down menu. located 9. Enter location here. , in 10. Enter city name here., 11. Enter county name here. County, Texas 12. Enter zip code here..

13. Enter summary of application request here.<<For TLAP applications include the following sentence, otherwise delete:>> This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain 14. List all expected pollutants here.. 15. Enter types of wastewater discharged here. 16. Choose from the drop-down

menu. treated by 17. Enter a description of wastewater treatment used at the facility here..

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Example

Individual Industrial Wastewater Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred as “previously monitored effluents” (low volume wastewater, metal cleaning waste, and stormwater (from diked oil storage area yards, and storm drains)) via Outfall 001. Low volume waste sources, metal cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low volume waste and metal cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam. Low volume wastewater from blowdown of boiler Units 1 and 2 and metal cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal cleaning waste from equipment cleaning is generally disposed of off-site.

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES
NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP**

AGUAS RESIDUALES INDUSTRIALES/AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso.

1. Introduzca el nombre del solicitante aquí. (2. Introduzca el número de cliente aquí (es decir, CN6 #####).) 3. Elija del menú desplegable. 4. Introduzca el nombre de la instalación aquí. 5. Introduzca el número de entidad regulada aquí (es decir, RN1 #####). 6. Elija del menú desplegable. 7. Introduzca la descripción de la instalación aquí. . La instalación 8. Elija del menú desplegable. ubicado 9. Introduzca la ubicación aquí. , en 10. Introduzca el nombre de la ciudad aquí. , Condado de 11. Introduzca el nombre del condado aquí. , Texas 12. Introduzca el código postal aquí. . 13. Introduzca el resumen de la petición de solicitud aquí. <<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>> Este permiso no autorizará una descarga de contaminantes en el agua en el estado. Se espera que las descargas de la instalación contengan 14. Liste todos los contaminantes esperados aquí. . 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable. tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí. .

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECIBO DE LA SOLICITUD E INTENCION DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA MODIFICACION

PERMISO NO. WQoo_____

SOLICITUD. _____ *[Applicant's name and address]* ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No.WQoo_____ del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de _____ *[daily average flow in gallons per day]* galones por día. La planta está ubicada _____ *[plant site location]* en el Condado de _____ *[County]*, Texas. La TCEQ recibió esta solicitud el día _____ *[date application received by TCEQ]*. La solicitud para el permiso estará disponible para leerla y copiarla en _____ *[street address of public place where the application is available in the county]* antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. *[Insert web link from English notice]*

Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does not meet the above description or a renewal without such a major amendment, do not include the sentence: El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar **comentarios públicos o pedir una reunión pública sobre esta solicitud.** El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada

anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y por qué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del _____ *[name of applicant]* a la dirección indicada arriba o llamando a _____ *[name of applicant's representative]* al _____ *[applicant's telephone number]*.

Fecha de emisión _____ *[Date notice issued]*



March 31, 2023

Certified Mail
7016 0600 0000 4311 2405

Ms. Abesha H. Michael
Water Quality Division (MC-148)
Applications Review and Processing Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Equistar Chemicals, LP (CN600124705)
Equistar Chemicals Channelview Complex (RN100542281)
Application to amend TPDES Permit No. WQ0000391000 (EPA ID TX0003531)
Response to letter dated March 17, 2023

Dear Ms. Michael:

Equistar Chemicals, LP is in receipt of your March 17, 2023 letter, which requested additional information for the TPDES amendment application for the Equistar Chemicals Channelview Complex that was submitted on March 1, 2023. Below are responses to the requested information. Paper copies (original, two copies) will be sent to you in addition to emailing our response.

TCEQ Item 1

1. Section 1, Affected Landowner Information on page 10 of Administrative Report: 1.1: Thank you for submitting the affected landowner map. However, the map submitted is insufficient, there are 2 parcels that are not labeled, and the owner of the land and the mailing label not identified. Please identify the landowners:
 - a. Between #60 and #83 on Figure 1 of 2 on the southeast side of the map on Figure 1 of 2.
 - b. On the north of #12 and east of #64 and south of applicant property or near to Outfall 003C on the map on Figure 1 of 2. Please update the affected landowners mailing list and labels accordingly.

Response to Item 1

Item 1.a – The area between tracts 60 and 83 is a public street. The street name (Lisa Dawn Lane) has been added to the map.

Equistar Chemicals, LP
8280 Sheldon Road
Channelview, TX 77530
P.O. Box 777 (77530-0777)
USA

Tel +1 281 862 4000
lyb.com

a LyondellBasell company

EC 00092

Item 1.b – The tract in question was missing a number label (57), which has been added to the map. This landowner has other tracts on the map; therefore, the landowner mailing list does not need to be updated.

The revised landowner map is attached (Attachment A-4-1 Landowner Map, Figure 1 of 2).

TCEQ Item 2

The following is a portion of the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit, which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

Response to Item 2

Please make the revisions highlighted below in the text (additions - bolded/underlined; deletions – crossed and greyed out). Please note that in one edit we have changed the date the application was received by the TCEQ to March 1, 2023, which is consistent with the date shown in TCEQ's online application database as well as the delivery receipt.

“APPLICATION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530... located at ~~8082~~ **8280** Sheldon Road, Channelview, in Harris County, Texas 77530. The discharge route is from the plant site via... ~~Outfalls~~ **Outfall** 003 to an unnamed drainage ditch... TCEQ received this application on March ~~03~~ **01**, 2023.”

TCEQ Items 3-5

New rule requirements under Title 30 Texas Administrative Code (TAC) Chapter 39 relating to public notices have been implemented. The deficiencies listed below are new items that need to be provided to meet the alternative language requirements.

3. Please use the attached Plain Language Summary (PLS) Template to provide a plain language summary in English. Please provide the PLS in a Microsoft Word document.
4. Section 9, Item E.5 on page 6 of Administrative Report 1.0 indicates that public notices in Spanish are required. Please use the attached PLS Spanish template to translate the plain language summary into Spanish. Please provide the translated Spanish PLS in a Microsoft Word document.
5. Section 9, Item E.5 on page 6 of Administrative Report 1.0 indicates that public notices in Spanish are required. After confirming the portion of the English NORI contained in item No. 1 of this letter does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Response to Items 3-4

The Plain Language Summaries were provided in the original paper and pdf versions of the application as part of the Administrative Report. We understand that you are now asking for a version in Microsoft Word format. The Word files (English, Spanish) are included in our email with this response letter.

Response to Item 5

The translated Spanish NORI in Word format is included in our email with this response letter. It includes the corrections noted in the Response to Item 2 above.

Please do not hesitate to contact Joseph Reza at me at 281-457-8032 or joseph.reza@lyondellbasell.com if you have any questions.

Sincerely,

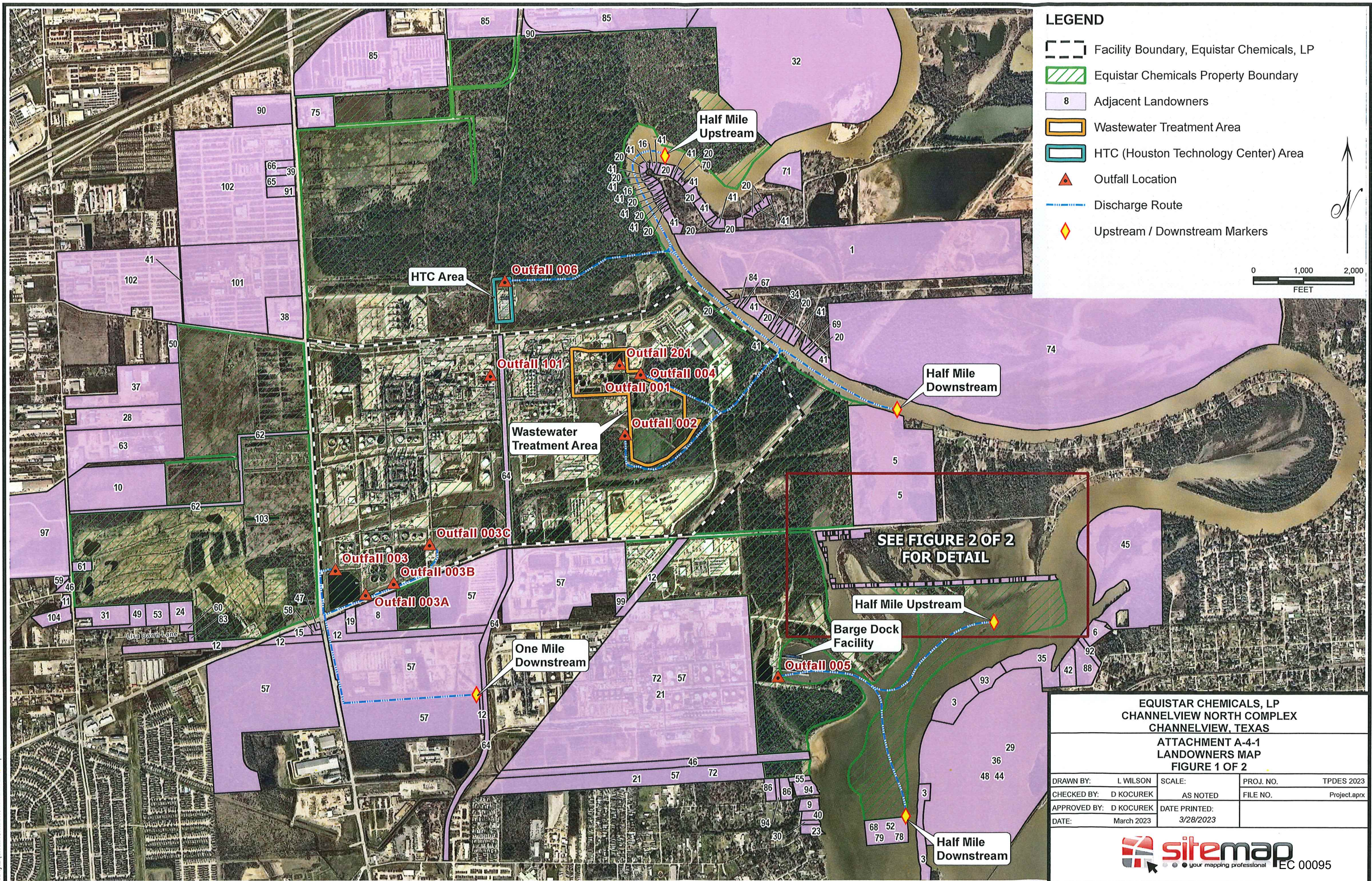


Nancy Ross
Environmental Team Lead

Enclosures

Attachment A-4-1 Landowner Map (Figure 1 of 2)
Plain Language Summaries (English/Spanish)
Spanish NORI

File No: CVON 300-160-047



Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Equistar Chemicals, LP (CN600124705) operates the Equistar Chemicals Channelview Complex (RN100542281), which manufactures organic chemicals and thermoplastic resins. The facility is located at 8280 Sheldon Road, in Channelview, Harris County, Texas 77530. The application is to amend TPDES Permit No. WQ0000391000 to remove monitoring and the daily maximum concentration limit for total aluminum and monitoring for total zinc for Outfalls 003/003A/003B/003C, and to remove monitoring and the daily maximum concentration limit for total zinc for Outfall 004. Outfalls 003/003A/003B/003C and Outfall 004 discharge stormwater and other non-process wastewaters at an intermittent and flow-variable rate. Pollutants that are expected in the discharges include oil and grease, suspended solids, aluminum, and zinc. Other pollutants that may be present in the discharges are listed in Worksheet 2 of the 2019 TPDES application. Waters discharged from the outfalls do not require treatment before discharge.

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES
NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP**

AGUAS RESIDUALES INDUSTRIALES/AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso.

Equistar Chemicals, LP (CN600124705) opera el Equistar Chemicals Channelview Complex (RN100542281), que fabrica productos químicos orgánicos y resinas termoplásticas. La instalación está situada en 8280 Sheldon Road, en Channelview, Condado de Harris, Texas 77530. La solicitud es para modificar el Permiso TPDES No. WQ0000391000 para eliminar el monitoreo y el límite de concentración máxima diaria para aluminio total y el monitoreo para zinc total para las puntas de descarga 003/003A/003B/003C, y para eliminar el monitoreo y el límite de concentración máxima diaria para zinc total para la punta de descarga 004. Las puntas de descarga 003/003A/003B/003C y 004 descargan aguas pluviales y otras aguas residuales no procesadas de forma intermitente y con caudal variable. Entre los contaminantes que se esperan en los vertidos se incluyen aceites y grasas, sólidos en suspensión, aluminio y zinc. Otros contaminantes que pueden estar presentes en las descargas se enumeran en Worksheet 2 de la solicitud TPDES 2019. Las aguas descargadas por las puntas de descarga no requieren tratamiento antes de la descarga.

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECIBO DE LA SOLICITUD E INTENCION DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA MODIFICACION

PERMISO NO. WQ00_____

SOLICITUD. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, que posee una planta de producción de resinas termoplásticas y productos químicos orgánicos a granel y básicos, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0000391000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) (EPA I.D. No. TX0003531) para autorizar la eliminación del control y del límite de concentración máxima diaria de aluminio total de las puntas de descarga 003, 003A, 003B, 003C; la eliminación del control del zinc total de las puntas de descarga 003, 003A, 003B, 003C, y la eliminación del control y del límite de concentración máxima diaria de zinc total de la punta de descarga 004. La planta está ubicada en 8280 Sheldon Road, Channelview, en el Condado de Harris, Texas 77530. La ruta de descarga es desde el sitio de la planta a través de Outfalls 001, 002 y 004 es a zanjas de drenaje sin nombre, de ahí a Wallisville Gully, de ahí a San Jacinto River Tidal; a través de Outfall 005 directamente a la marea del río San Jacinto, a través de Outfall 003 a una zanja de drenaje sin nombre, de ahí a la zanja del distrito de control de inundaciones del condado de Harris, de ahí a la marea del río San Jacinto; y a través de Outfall 006 a la zanja de control de inundaciones del condado de Harris, de ahí a la marea del río San Jacinto. La TCEQ recibió esta solicitud el día 01 de marzo de 2023. La solicitud para el permiso estará disponible para leerla y copiarla en North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.118055,29.832777&level=18>

Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México

as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does not meet the above description or a renewal without such a major amendment, do not include the sentence: El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a

la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envíe por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede

llamar al 1-800-687-4040.

También se puede obtener información adicional de Equistar Chemicals, LP a la dirección indicada arriba o llamando a Sr. Joseph A. Reza, Senior Environmental Engineer, al 281-457-8032.

Fecha de emisión _____ *[Date notice issued]*


RE: Additional Info Needed for WQ0000391000

Reza, Joseph A <Joseph.Reza@lyondellbasell.com>

Fri 4/14/2023 4:03 PM

To: Sarah Johnson <Sarah.Johnson@Tceq.Texas.Gov>

Cc: Mike Lindner <Mike.Lindner@tceq.texas.gov>; Dianna Kocurek (dianna@tkee.com) <dianna@tkee.com>; Ross, Nancy J <Nancy.Ross@lyondellbasell.com>

 3 attachments (755 KB)

Soil Sampling East of PMDI 05-10-17.pdf; 03-21-17 Background Soil Sample Results.pdf; Upstream 003B 6-29-22.jpg;

Good afternoon-

Below are the responses to your items requiring further attention.

1. Technical Report 1.0, Outfall info (page 6)-You indicated that Outfall 006 is authorized under both the MSGP and the individual permit WQ0000391000. Please be advised that TCEQ has a policy of one authorization per outfall. Please pick which authorization you want for Outfall 006; either MSGP TXR05BR93 or TPDES WQ0000391000. **Outfall 006 is included in TPDES WQ0000391000 permit, but the authorization has not been activated. The 006 outfall is currently authorized under MSGP TXR05BR93. If Outfall 006 authorization were to be activated under the TPDES, a MSGP NOT would be submitted first. The Facility would prefer to keep Outfall 006 in the TPDES permit in the event authorization needs to change. Keeping the outfall in the permit would prevent from having to submit a permit amendment to add the Outfall 006.**
2. Major Amendment Requests to remove WQBELS: Thank you for the aluminum source study in support of the request to remove water quality- based effluent limits for total aluminum at Outfall 003. The study mentions soil sampling results. Please provide a copy of the laboratory results sheets for the soil sampling events to confirm the aluminum present in the soil is comparable to the discharge concentrations reported. **Attached is the 2017 aluminum soil results. Attached are some additional background aluminum sample results collected at two locations in CVOS March 2017.**

At present, there is not enough data to support removal of total zinc requirements at Outfall 003 and Outfall 004. Looking at the DMR data reported for March 2018-December 2022 yields the following:

	70% Daily Avg. Value mg/L	85% Daily Avg. Value	Max of Max DMR	Average of Daily Max. DMR	Max of Max Application	Average of Max. Application
003	0.145 mg/L	0.176 mg/L	0.324 mg/L	0.1204	-	-
004	0.145 mg/L	0.176 mg/L	0.73 mg/L	0.240 mg/L	0.731 mg/L	0.1938 mg/L

However, the last three quarters of reporting at Outfall 003 indicate a more recent increase in total zinc levels.

	June 2022	Sept. 2022	Dec. 2022	Avg. Concentration
Total Zinc	0.252 mg/L	0.324 mg/L	0.092 mg/L	0.227 mg/L

If using the standard approach of averaging four grab samples of application data for WQBEL screening, total zinc requirements are still indicated. Can you provide any additional information as to the cause for the recent increase in total zinc at Outfall 003? Do you have any additional sample data beyond the DMR data to support removal of total zinc monitoring at Outfall 003? Have any likely sources of total zinc been identified? While removal of total zinc monitoring may not possible at this time, there could be justification for making the existing requirements at Outfall 003 expire with permit expiration. This would provide a mechanism to remove monitoring at the next permit renewal without requiring a major amendment should the future DMR data prove sufficient to

EC 00102

justify removal. The Facility conducted a ditch cleaning effort that began April 2022 and lasted approximately three weeks. As a result of this effort grass was removed and fresh soil was exposed. These were the first rain event samples since the ditch cleaning efforts began. The naturally occurring aluminum and zinc in this freshly exposed soil affected our outfall samples. Attached is a picture that was taken in June 2022 that shows an example of the exposed soil upstream of outfall 003B.

For Outfall 004, the DMR data does not support removal of total zinc requirements. The DMR data accessed via EPA's ICIS does not include the last four samples provided in the application (10/28/2022 thru 01/08/2023). As of the date of this email, the DMR for 12/22 is listed as NODI=E and 3/23 as "Not reported". Using the last four samples provided in the application (0.076 mg/L, 0.064 mg/L, 0.155 mg/L, and 0.0514 mg/L) yields an average of 0.0866 mg/L. You imply that total zinc is present in the soil at the site and that drought conditions lead to 'dusty soil' and increased zinc when stormwater runoff did occur. Do you have any soil analysis data to support this?

Please provide data to support that presence of zinc in the discharge is not from the facility's waste streams or activities. Since a numeric WQBEL was applied in the permit for Outfall 004, more support is needed to justify removal than just the most recent four quarterly samples. The zinc results for the first quarter of 2023 are 0.0514 mg/L and 0.0601 mg/L.

Please let me know if you have any questions.



Joseph A. Reza
Sr Environmental Engineer
8280 Sheldon Road
Channelview, Tx 77530
O: +1 281.457.8032 M: +1 469.471.5898
www.lyondellbasell.com

From: Sarah Johnson <Sarah.Johnson@Tceq.Texas.Gov>
Sent: Friday, March 31, 2023 5:07 PM
To: Reza, Joseph A <joseph.reza@lyondellbasell.com>
Cc: Mike Lindner <Mike.Lindner@tceq.texas.gov>
Subject: Additional Info Needed for WQ0000391000

You don't often get email from sarah.johnson@tceq.texas.gov. [Learn why this is important](#)

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.

Good afternoon-

I am a permit writer on the industrial permits team and have been assigned the application for **Equistar Chemicals Channelview Complex (WQ0000391000)** for a preliminary review. The following items require further attention:

1. Technical Report 1.0, Outfall info (page 6)-You indicated that Outfall 006 is authorized under both the MSGP and the individual permit WQ0000391000. Please be advised that TCEQ has a policy of one authorization per outfall. Please pick which authorization you want for Outfall 006; either MSGP TXR05BR93 or TPDES WQ0000391000.
2. Major Amendment Requests to remove WQBELS: Thank you for the aluminum source study in support of the request to remove water quality- based effluent limits for total aluminum at Outfall 003. The study mentions soil sampling results. Please provide a copy of the laboratory results sheets for the soil sampling events to confirm the aluminum present in the soil is comparable to the discharge concentrations reported.

EC 00103

At present, there is not enough data to support removal of total zinc requirements at Outfall 003 and Outfall 004. Looking at the DMR data reported for March 2018-December 2022 yields the following:

	70% Daily Avg. Value mg/L	85% Daily Avg. Value	Max of Max DMR	Average of Daily Max. DMR	Max of Max Application	Average of Max. Application
003	0.145 mg/L	0.176 mg/L	0.324 mg/L	0.1204	-	-
004	0.145 mg/L	0.176 mg/L	0.73 mg/L	0.240 mg/L	0.731 mg/L	0.1938 mg/L

However, the last three quarters of reporting at Outfall 003 indicate a more recent increase in total zinc levels.

	June 2022	Sept. 2022	Dec. 2022	Avg. Concentration
Total Zinc	0.252 mg/L	0.324 mg/L	0.092 mg/L	0.227 mg/L

If using the standard approach of averaging four grab samples of application data for WQBEL screening, total zinc requirements are still indicated. Can you provide any additional information as to the cause for the recent increase in total zinc at Outfall 003? Do you have any additional sample data beyond the DMR data to support removal of total zinc monitoring at Outfall 003? Have any likely sources of total zinc been identified? While removal of total zinc monitoring may not be possible at this time, there could be justification for making the existing requirements at Outfall 003 expire with permit expiration. This would provide a mechanism to remove monitoring at the next permit renewal without requiring a major amendment should the future DMR data prove sufficient to justify removal.

For Outfall 004, the DMR data does not support removal of total zinc requirements. The DMR data accessed via EPA's ICIS does not include the last four samples provided in the application (10/28/2022 thru 01/08/2023). As of the date of this email, the DMR for 12/22 is listed as NODI=E and 3/23 as "Not reported". Using the last four samples provided in the application (0.076 mg/L, 0.064 mg/L, 0.155 mg/L, and 0.0514 mg/L) yields an average of 0.0866 mg/L. You imply that total zinc is present in the soil at the site and that drought conditions lead to 'dusty soil' and increased zinc when stormwater runoff did occur. Do you have any soil analysis data to support this? Please provide data to support that presence of zinc in the discharge is not from the facility's wastestreams or activities. Since a numeric WQBEL was applied in the permit for Outfall 004, more support is needed to justify removal than just the most recent four quarterly samples.

Please send the requested information to me via email no later than **April 14. Please let me know if you have any questions.**

Sarah A. Johnson, Ph. D.

Environmental Permit Specialist
Water Quality Division
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. F, Room 2101
Austin, TX 78753
Office Phone: 512-239-4649



[Customer Satisfaction Survey](#)

EC 00104

CERTIFICATE OF ANALYSIS

Equistar Chemicals, L.P.- Channelview
P. O. Box 777
Channelview, Texas 77530-0777
Attention: Nancy Ross

Project: CVON Background Soil

P. O. 4402885255

Job: **171495**

Received: 05/12/17

Reported: 05/17/17


Technical Director



T104704226-16-15

Analyses for accredited analytes are performed in accordance with NELAP requirements unless noted by exception in this report.

+ The state of Texas does not offer accreditation for this method/matrix/analyte combination.

++ The laboratory is not accredited for this method/matrix/analyte combination. The laboratory may be accredited for similar analytes by the same method or the same analyte in an alternate matrix. An exact list of current accreditation status may be found at http://www.ecilab.com/dls/ECI_NELAP_Cert_with_Fields.pdf

Specific comments (if applicable) about the results of quality control samples are included in the QC report. Unless noted, results are reported on an "as-received", wet weight basis. Results below the Sample Reporting Limit (SRL) are reported as ND. The results in this report apply only to the samples tested.

Page SP-1 End of SP This report consists of the following sections: Signature Page (SP), Analytical Report (AR), Report Summary (RS), Quality Control (QC), Sample Receipt Report (SR), and Chain of Custody.

ANALYTICAL REPORT

Equistar Chemicals, L.P.- Channelview
P. O. Box 777
Channelview, Texas 77530-0777
Attention: Nancy Ross

Job: **171495**
Received: 05/12/17
Reported: 05/17/17
P. O. 4402885255

Project: CVON Background Soil

171495-1

E. PMDI

Collected: 5/10/2017 1350 by Ronnie Antley

<u>Analyte</u>	<u>Result</u>	<u>Qual</u>	<u>Dilution</u>	<u>SRL</u>	<u>Method</u>
Metals by ICP-MS, Total, Soil/Solid					6020A
Aluminum mg/Kg	11,600		400	2020	

METHODS, ANALYSIS DATES, AND HOLDING TIMES

Job: **171495**

<u>Test</u>	<u>Sampled</u>	<u>Started</u>	<u>Completed</u>	<u>By/Batch</u>	<u>QC Batch</u>	<u>Days</u>	<u>Hold time</u>
ICPMSS Metals by ICP-MS, Total, Soil/Solid by 6020A, SW-846; 200.8, EPA600							
Holding time, days: 180 Calculated from MDIGMS							
171495- 1 E. PMDI	05/10/17 1350	05/16/17	05/16/17	GXS-1	ICPMSS 20170515-GXR-1	1	Met
MDIGMS Digestion for Metals, Total, Soil/Solid by 3050B, SW-846;							
Holding time, days: 28							
171495- 1 E. PMDI	05/10/17 1350	05/15/17	05/15/17	GXR-1	MDIGMS 20170515-GXR-1	5	Met

QUALITY CONTROL REPORT

Job: 171495

ICPMSS Metals by ICP-MS, Total, Soil/Solid

Batch 20170515-GXR-1
Units ug/Kg

Method Blank:

		<u>Result</u>	<u>SRL</u>	<u>Qualifiers</u>
Aluminum	SDIGBLK1, 20X	ND	101000	
Antimony	SDIGBLK1, 20X	ND	1000	
Arsenic	SDIGBLK1, 20X	ND	500	
Barium	SDIGBLK1, 20X	ND	1000	
Beryllium	SDIGBLK1, 20X	ND	1000	
Cadmium	SDIGBLK1, 20X	ND	80	
Chromium	SDIGBLK1, 20X	ND	500	
Copper	SDIGBLK1, 20X	ND	1000	
Lead	SDIGBLK1, 20X	ND	40	
Mercury	SDIGBLK1, 20X	ND	100	
Nickel	SDIGBLK1, 20X	ND	1000	
Selenium	SDIGBLK1, 20X	ND	1000	
Silver	SDIGBLK1, 20X	ND	1000	
Thallium	SDIGBLK1, 20X	ND	1000	
Vanadium	SDIGBLK1, 20X	ND	1000	
Zinc	SDIGBLK1, 20X	ND	1000	

Lab Control Sample Duplicate:

		<u>LCS</u>	<u>LCSD</u>	<u>RPD</u>	<u>Limit</u>	<u>Qualifiers</u>
Aluminum	LCS2D	518000	518000	0	20	
Antimony	LCS2D	52000	51400	1	20	
Arsenic	LCS2D	48800	48700	0	20	
Barium	LCS2D	25800	25300	2	20	
Beryllium	LCS2D	48000	48100	0	20	
Cadmium	LCS2D	50300	49400	2	20	
Chromium	LCS2D	49600	49300	1	20	
Copper	LCS2D	50400	49300	2	20	
Lead	LCS2D	52000	51000	2	20	
Mercury	LCS2D	391	387	1	20	
Nickel	LCS2D	49400	48800	1	20	
Selenium	LCS2D	50400	49000	3	20	
Silver	LCS2D	25300	25000	1	20	
Thallium	LCS2D	49700	48700	2	20	
Vanadium	LCS2D	49200	49600	1	20	
Zinc	LCS2D	50000	49100	2	20	

Lab Control Sample Recovery:

		<u>Before</u>	<u>Added</u>	<u>Spiked</u>	<u>% Rec</u>	<u>Limits</u>	<u>Qualifiers</u>
Aluminum	LCS2	ND	500000	518000	104	80 - 120	
Antimony	LCS2	ND	50000	52000	104	84 - 118	
Arsenic	LCS2	ND	50000	48800	98	82 - 119	
Barium	LCS2	ND	25000	25800	103	88 - 120	
Beryllium	LCS2	ND	50000	48000	96	81 - 120	
Cadmium	LCS2	ND	50000	50300	101	82 - 116	
Chromium	LCS2	ND	50000	49600	99	86 - 120	
Copper	LCS2	ND	50000	50400	101	85 - 120	
Lead	LCS2	ND	50000	52000	104	87 - 119	
Mercury	LCS2	ND	400	391	98	80 - 118	
Nickel	LCS2	ND	50000	49400	99	85 - 120	
Selenium	LCS2	ND	50000	50400	101	80 - 120	
Silver	LCS2	ND	25000	25300	101	90 - 118	
Thallium	LCS2	ND	50000	49700	99	85 - 115	
Vanadium	LCS2	ND	50000	49200	98	85 - 119	
Zinc	LCS2	ND	50000	50000	100	84 - 114	
Aluminum	LCS2D	ND	500000	518000	104	80 - 120	
Antimony	LCS2D	ND	50000	51400	103	84 - 118	
Arsenic	LCS2D	ND	50000	48700	97	82 - 119	
Barium	LCS2D	ND	25000	25300	101	88 - 120	
Beryllium	LCS2D	ND	50000	48100	96	81 - 120	
Cadmium	LCS2D	ND	50000	49400	99	82 - 116	
Chromium	LCS2D	ND	50000	49300	99	86 - 120	
Copper	LCS2D	ND	50000	49300	99	85 - 120	
Lead	LCS2D	ND	50000	51000	102	87 - 119	
Mercury	LCS2D	ND	400	387	97	80 - 118	
Nickel	LCS2D	ND	50000	48800	98	85 - 120	
Selenium	LCS2D	ND	50000	49000	98	80 - 120	
Silver	LCS2D	ND	25000	25000	100	90 - 118	
Thallium	LCS2D	ND	50000	48700	97	85 - 115	
Vanadium	LCS2D	ND	50000	49600	99	85 - 119	
Zinc	LCS2D	ND	50000	49100	98	84 - 114	

QUALITY CONTROL REPORT

Job: **171495**

ICPMSS Metals by ICP-MS, Total, Soil/Solid

Batch **20170515-GXR-1**
Units ug/Kg

Matrix Spike Duplicate:

		<u>MS</u>	<u>MSD</u>	<u>RPD</u>	<u>Limit</u>	<u>Qualifiers</u>
Aluminum	171474-1	501000	512000	2	20	
Antimony	171474-1	45000	45900	2	20	
Arsenic	171474-1	48800	50800	4	20	
Barium	171474-1	25300	25800	2	20	
Beryllium	171474-1	48500	48600	0	20	
Cadmium	171474-1	37500	37800	1	20	
Chromium	171474-1	49400	48700	1	20	
Copper	171474-1	16100	15300	5	20	
Lead	171474-1	20000	18700	7	20	
Mercury	171474-1	360	358	1	20	
Nickel	171474-1	47500	49000	3	20	
Selenium	171474-1	50000	50800	2	20	
Silver	171474-1	22400	23700	6	20	
Thallium	171474-1	47800	48800	2	20	
Vanadium	171474-1	47700	47100	1	20	
Zinc	171474-1	347000	342000	1	20	

Matrix Spike Recovery:

		<u>Before</u>	<u>Added</u>	<u>Spiked</u>	<u>% Rec</u>	<u>Limits</u>	<u>Qualifiers</u>
Aluminum	171474-1	ND	500000	501000	100	80 - 120	
Antimony	171474-1	ND	50000	45000	90	80 - 120	
Arsenic	171474-1	ND	50000	48800	98	80 - 120	
Barium	171474-1	ND	25000	25300	101	80 - 120	
Beryllium	171474-1	ND	50000	48500	97	80 - 120	
Cadmium	171474-1	ND	50000	37500	75*	80 - 120	M
Chromium	171474-1	ND	50000	49400	99	80 - 120	
Copper	171474-1	ND	50000	16100	32*	80 - 120	M
Lead	171474-1	ND	50000	20000	40*	80 - 120	M
Mercury	171474-1	ND	400	360	90	80 - 120	
Nickel	171474-1	ND	50000	47500	95	80 - 120	
Selenium	171474-1	ND	50000	50000	100	80 - 120	
Silver	171474-1	ND	25000	22400	90	80 - 120	
Thallium	171474-1	ND	50000	47800	96	80 - 115	
Vanadium	171474-1	ND	50000	47700	95	80 - 120	
Zinc	171474-1	188000	50000	347000	318*	80 - 120	M

M - Matrix Spike recovery outside of control limits due to matrix effect. LCS demonstrates analysis in control.

Aluminum	171474-1	ND	500000	512000	102	80 - 120	
Antimony	171474-1	ND	50000	45900	92	80 - 120	
Arsenic	171474-1	ND	50000	50800	102	80 - 120	
Barium	171474-1	ND	25000	25800	103	80 - 120	
Beryllium	171474-1	ND	50000	48600	97	80 - 120	
Cadmium	171474-1	ND	50000	37800	76*	80 - 120	M
Chromium	171474-1	ND	50000	48700	97	80 - 120	
Copper	171474-1	ND	50000	15300	31*	80 - 120	M
Lead	171474-1	ND	50000	18700	37*	80 - 120	M
Mercury	171474-1	ND	400	358	90	80 - 120	
Nickel	171474-1	ND	50000	49000	98	80 - 120	
Selenium	171474-1	ND	50000	50800	102	80 - 120	
Silver	171474-1	ND	25000	23700	95	80 - 120	
Thallium	171474-1	ND	50000	48800	98	80 - 115	
Vanadium	171474-1	ND	50000	47100	94	80 - 120	
Zinc	171474-1	188000	50000	342000	308*	80 - 120	M

M - Matrix Spike recovery outside of control limits due to matrix effect. LCS demonstrates analysis in control.

After Digestion Spike:

		<u>Before</u>	<u>Added</u>	<u>Spiked</u>	<u>% Rec</u>	<u>Limits</u>	<u>Qualifiers</u>
Aluminum	171474-1A	ND	1100000	1130000	103	80 - 120	
Antimony	171474-1A	ND	100000	101000	101	80 - 120	
Arsenic	171474-1A	ND	100000	98900	99	80 - 120	
Barium	171474-1A	ND	100000	101000	101	80 - 120	
Beryllium	171474-1A	ND	100000	98000	98	80 - 120	
Cadmium	171474-1A	ND	100000	98500	98	80 - 120	
Chromium	171474-1A	ND	100000	98100	98	80 - 120	
Copper	171474-1A	ND	100000	102000	102	80 - 120	
Lead	171474-1A	ND	100000	102000	102	80 - 120	
Mercury	171474-1A	ND	400	406	102	80 - 120	
Nickel	171474-1A	ND	100000	99400	99	80 - 120	
Selenium	171474-1A	ND	100000	101000	101	80 - 120	
Thallium	171474-1A	ND	100000	101000	101	80 - 120	
Vanadium	171474-1A	ND	100000	98800	99	80 - 120	
Zinc	171474-1A	188000	100000	305000	117	80 - 120	



SAMPLE CONDITION REPORT

Equistar Chemicals, L.P.- Channelview
P. O. Box 777
Channelview, Texas 77530-0777
Attention: Nancy Ross

Job **171495**
Received: 5/12/2017
P. O. 4402885255

Project: CVON Background Soil

Chain of Custody received?	Yes	Cooler Temperature (Celsius)	1.4
Transfer of Custody to ECI intact?	Yes	Thermometer ID	TM217
Custody seals on cooler intact?	N/A	All samples received within holding times?	Yes
Custody seals on containers intact?	N/A	Samples in proper containers?	Yes
Agreement between COC and labels?	Yes	Samples properly preserved for analyses?	Yes
Containers in good condition?	Yes	Sufficient sample volume for all tests?	Yes
Bottle count on COC matches bottles received?	Yes	VOA vial(s) with zero headspace?	N/A
Samples chilled?	Yes	All sterile containers provided by ECI?	N/A
Temperature of cooler >0 and <=6 degrees C?	Yes	Soil samples submitted in accordance with 5035 protocol?	N/A
Checked by MLG on 5/15/2017			

Issues closed on 5/15/2017 9:23:38 AM by MLG



EQCV 171495



8087

Client Name: Equistar Chemicals, L.P. - Channelview
 Address: P. O. Box 777 Channelview, Texas 77530-0777
 Report To: Nancy Ross
 Invoice To: PTM Disbursements
 Project: CVON Background Soil
 P.O. Number: 4402885255 Date Results Requested: Std. T/A
 Sampled By: Ronnie Antley TRRP Reporting Package: ☐ Yes ☒ No
 Rush ☐ Yes ☒ No Surcharge Authorized ☐ Yes ☐ No

 A
R
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E
D
A Total Aluminum

B

C

D

E

F

G

H

Comments:

Preservation Code

Container Type

C

G

Container Type

V - VOA

G - GLASS

P - PLASTIC

Preservation Codes

C - Cool, 4° C. N - HNO₃H - HCl, 4° C. S - H₂SO₄

O - Other

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	MATRIX	NUMBER OF CONTAINERS	A	B	C	D	E	F	G	H	LABORATORY IDENTIFICATION
E.PMDI	5-10-17/1350	Soil	1	X								171495-1

MULTIPLE CONTAINERS OF THE SAME SAMPLE MAYBE RECORDED ON A SINGLE LINE.

Relinquished by (Signature) 1) <u>[Signature]</u>	Company <u>LYB</u>	Date/Time <u>5-10-17 14:00</u>	Received by (Signature) 1) <u>[Signature]</u>	Company <u>LYB</u>
Relinquished by (Signature) 2) <u>[Signature]</u>	Company <u>LYB</u>	Date/Time <u>5/12/17 12:00</u>	Received by (Signature) 2) <u>[Signature]</u>	Company <u>CHARTERDA 5/12/17 12:00</u>
Relinquished by (Signature) 3) <u>[Signature]</u>	Company <u>CHARTERDA</u>	Date/Time <u>5/24/17 14:05</u>	Received by Lab (Signature) 3) <u>[Signature]</u>	Company <u>ECI 5/24/17 14:05</u>

 Sealed by [Signature] Date/Time 5/24/17 Custody Seal ☐ Y ☒ N Present/Intact ☐ Y ☐ N Temp 1.4 °C Pg 1 of 1

EC 00112

CERTIFICATE OF ANALYSIS

Lyondell Chemical Company, Channelview
P.O. Box 30
Channelview, Texas 77530
Attention: Nancy Ross

Job: **170896**
Received: 03/22/17
Reported: 03/28/17

Project: Aluminum Partitioning Coefficient Study-CVOS

P. O. 4402885255


Technical Director



T104704226-16-15

Analyses for accredited analytes are performed in accordance with NELAP requirements unless noted by exception in this report.

+ The state of Texas does not offer accreditation for this method/matrix/analyte combination.

++ The laboratory is not accredited for this method/matrix/analyte combination. The laboratory may be accredited for similar analytes by the same method or the same analyte in an alternate matrix. An exact list of current accreditation status may be found at http://www.ecilab.com/dls/ECI_NELAP_Cert_with_Fields.pdf

Specific comments (if applicable) about the results of quality control samples are included in the QC report. Unless noted, results are reported on an "as-received", wet weight basis. Results below the Sample Reporting Limit (SRL) are reported as ND. The results in this report apply only to the samples tested.

Page SP-1 End of SP This report consists of the following sections: Signature Page (SP), Analytical Report (AR), Report Summary (RS), Quality Control (QC), Sample Receipt Report (SR), and Chain of Custody.

ANALYTICAL REPORT

Lyondell Chemical Company, Channelview
P.O. Box 30
Channelview, Texas 77530
Attention: Nancy Ross

Job: **170896**
Received: 03/22/17
Reported: 03/28/17
P. O. 4402885255

Project: Aluminum Partitioning Coefficient Study-CVOS

170896-1 West of Landfarm
Collected: 3/21/2017 1030 by Ronnie Antley

<u>Analyte</u>	<u>Result</u>	<u>Qual</u>	<u>Dilution</u>	<u>SRL</u>	<u>Method</u>
Metals by ICP-MS, Total, Soil/Solid					6020A
Aluminum mg/Kg	15,400		100	505	

170896-2 South of Service Center
Collected: 3/21/2017 1057 by Ronnie Antley

<u>Analyte</u>	<u>Result</u>	<u>Qual</u>	<u>Dilution</u>	<u>SRL</u>	<u>Method</u>
Metals by ICP-MS, Total, Soil/Solid					6020A
Aluminum mg/Kg	16,800		100	505	

METHODS, ANALYSIS DATES, AND HOLDING TIMES

Job: **170896**

<u>Test</u>	<u>Sampled</u>	<u>Started</u>	<u>Completed</u>	<u>By/Batch</u>	<u>QC Batch</u>	<u>Days</u>	<u>Hold time</u>
ICPMSS Metals by ICP-MS, Total, Soil/Solid by 6020A, SW-846; 200.8, EPA600							
Holding time, days: 180 Calculated from MDIGMS							
170896- 1 West of Landfarm	03/21/17 1030	03/27/17	03/27/17	EEA-1	ICPMSS 20170324-GXR-1	3	Met
170896- 2 South of Service Center	03/21/17 1057	03/27/17	03/27/17	EEA-1	20170324-GXR-1	3	Met
MDIGMS Digestion for Metals, Total, Soil/Solid by 3050B, SW-846;							
Holding time, days: 28							
170896- 1 West of Landfarm	03/21/17 1030	03/24/17	03/24/17	GXR-1	MDIGMS 20170324-GXR-1	3	Met
170896- 2 South of Service Center	03/21/17 1057	03/24/17	03/24/17	GXR-1	20170324-GXR-1	3	Met

QUALITY CONTROL REPORT

Job: **170896**

ICPMSS Metals by ICP-MS, Total, Soil/Solid

Batch **20170324-GXR-1**
Units **ug/Kg**

Method Blank:

		<u>Result</u>	<u>SRL</u>	<u>Qualifiers</u>
Aluminum	SDIGBLK1, 20X	ND	101000	
Antimony	SDIGBLK1, 20X	ND	1000	
Arsenic	SDIGBLK1, 20X	ND	1000	
Barium	SDIGBLK1, 20X	ND	1000	
Beryllium	SDIGBLK1, 20X	ND	1000	
Cadmium	SDIGBLK1, 20X	ND	1000	
Chromium	SDIGBLK1, 20X	ND	1000	
Lead	SDIGBLK1, 20X	ND	1000	
Mercury	SDIGBLK1, 20X	ND	100	
Nickel	SDIGBLK1, 20X	ND	1000	
Selenium	SDIGBLK1, 20X	ND	1000	
Silver	SDIGBLK1, 20X	ND	1000	
Thallium	SDIGBLK1, 20X	ND	1000	
Vanadium	SDIGBLK1, 20X	ND	1000	

Lab Control Sample Duplicate:

		<u>LCS</u>	<u>LCSD</u>	<u>RPD</u>	<u>Limit</u>	<u>Qualifiers</u>
Aluminum	LCS1D	536000	563000	5	20	
Antimony	LCS1D	50700	53100	5	20	
Arsenic	LCS1D	48600	53400	9	20	
Barium	LCS1D	28500	29800	4	20	
Beryllium	LCS1D	50300	52200	4	20	
Cadmium	LCS1D	47800	50300	5	20	
Chromium	LCS1D	51500	53500	4	20	
Lead	LCS1D	52000	53300	2	20	
Mercury	LCS1D	397	404	2	20	
Nickel	LCS1D	53200	54900	3	20	
Selenium	LCS1D	49900	54600	9	20	
Silver	LCS1D	27800	29400	6	20	
Thallium	LCS1D	50100	51900	4	20	
Vanadium	LCS1D	50600	52600	4	20	

Lab Control Sample Recovery:

		<u>Before</u>	<u>Added</u>	<u>Spiked</u>	<u>% Rec</u>	<u>Limits</u>	<u>Qualifiers</u>
Aluminum	LCS1	ND	500000	536000	107	80 - 120	
Antimony	LCS1	ND	50000	50700	101	84 - 118	
Arsenic	LCS1	ND	50000	48600	97	82 - 119	
Barium	LCS1	ND	25000	28500	114	88 - 120	
Beryllium	LCS1	ND	50000	50300	101	81 - 120	
Cadmium	LCS1	ND	50000	47800	96	82 - 116	
Chromium	LCS1	ND	50000	51500	103	86 - 120	
Lead	LCS1	ND	50000	52000	104	87 - 119	
Mercury	LCS1	ND	400	397	99	80 - 118	
Nickel	LCS1	ND	50000	53200	106	85 - 120	
Selenium	LCS1	ND	50000	49900	100	80 - 120	
Silver	LCS1	ND	25000	27800	111	90 - 118	
Thallium	LCS1	ND	50000	50100	100	85 - 115	
Vanadium	LCS1	ND	50000	50600	101	85 - 119	
Aluminum	LCS1D	ND	500000	563000	113	80 - 120	
Antimony	LCS1D	ND	50000	53100	106	84 - 118	
Arsenic	LCS1D	ND	50000	53400	107	82 - 119	
Barium	LCS1D	ND	25000	29800	119	88 - 120	
Beryllium	LCS1D	ND	50000	52200	104	81 - 120	
Cadmium	LCS1D	ND	50000	50300	101	82 - 116	
Chromium	LCS1D	ND	50000	53500	107	86 - 120	
Lead	LCS1D	ND	50000	53300	107	87 - 119	
Mercury	LCS1D	ND	400	404	101	80 - 118	
Nickel	LCS1D	ND	50000	54900	110	85 - 120	
Selenium	LCS1D	ND	50000	54600	109	80 - 120	
Silver	LCS1D	ND	25000	29400	118	90 - 118	
Thallium	LCS1D	ND	50000	51900	104	85 - 115	
Vanadium	LCS1D	ND	50000	52600	105	85 - 119	

Matrix Spike Duplicate:

		<u>MS</u>	<u>MSD</u>	<u>RPD</u>	<u>Limit</u>	<u>Qualifiers</u>
Aluminum	170903-1	9460000	11200000	17	20	
Antimony	170903-1	23100	22100	4	20	
Arsenic	170903-1	63000	61800	2	20	
Barium	170903-1	94900	86600	9	20	
Beryllium	170903-1	53500	56600	6	20	
Cadmium	170903-1	54200	54800	1	20	
Chromium	170903-1	75600	82400	9	20	

QUALITY CONTROL REPORT

Job: **170896**

ICPMSS Metals by ICP-MS, Total, Soil/Solid

Batch **20170324-GXR-1**
Units **ug/Kg**

Matrix Spike Duplicate:

		<u>MS</u>	<u>MSD</u>	<u>RPD</u>	<u>Limit</u>	<u>Qualifiers</u>
Lead	170903-1	59800	61500	3	20	
Mercury	170903-1	424	425	0	20	
Nickel	170903-1	67900	65600	3	20	
Selenium	170903-1	57200	57500	1	20	
Silver	170903-1	30300	30700	1	20	
Thallium	170903-1	51700	52600	2	20	
Vanadium	170903-1	70700	68400	3	20	

Matrix Spike Recovery:

		<u>Before</u>	<u>Added</u>	<u>Spiked</u>	<u>% Rec</u>	<u>Limits</u>	<u>Qualifiers</u>
Aluminum	170903-1	6400000	500000	9460000	612*	80 - 120	E,MA
Antimony	170903-1	ND	50000	23100	46*	80 - 120	M
Arsenic	170903-1	6750	50000	63000	112	80 - 120	
Barium	170903-1	57000	25000	94900	152*	80 - 120	M
Beryllium	170903-1	ND	50000	53500	107	80 - 120	
Cadmium	170903-1	ND	50000	54200	108	80 - 120	
Chromium	170903-1	20700	50000	75600	110	80 - 120	
Lead	170903-1	6970	50000	59800	106	80 - 120	
Mercury	170903-1	ND	400	424	106	80 - 120	
Nickel	170903-1	5690	50000	67900	124*	80 - 120	ML
Selenium	170903-1	1280	50000	57200	112	80 - 120	
Silver	170903-1	ND	25000	30300	121*	80 - 120	ML
Thallium	170903-1	ND	50000	51700	103	80 - 115	
Vanadium	170903-1	9740	50000	70700	122*	80 - 120	ML

E - Estimated value - result not within calibration range

MA - MS/MSD recovery was not evaluated because the amount spiked is too low relative to amount found in sample and/or the dilution factor upon analysis.

ML - Result was outside of lab's calculated QC limits but was within method performance specifications.

Aluminum	170903-1	6400000	500000	11200000	960*	80 - 120	E,MA
Antimony	170903-1	ND	50000	22100	44*	80 - 120	M
Arsenic	170903-1	6750	50000	61800	110	80 - 120	
Barium	170903-1	57000	25000	86600	118	80 - 120	
Beryllium	170903-1	ND	50000	56600	113	80 - 120	
Cadmium	170903-1	ND	50000	54800	110	80 - 120	
Chromium	170903-1	20700	50000	82400	123*	80 - 120	ML
Lead	170903-1	6970	50000	61500	109	80 - 120	
Mercury	170903-1	ND	400	425	106	80 - 120	
Nickel	170903-1	5690	50000	65600	120	80 - 120	
Selenium	170903-1	1280	50000	57500	112	80 - 120	
Silver	170903-1	ND	25000	30700	123*	80 - 120	ML
Thallium	170903-1	ND	50000	52600	105	80 - 115	
Vanadium	170903-1	9740	50000	68400	117	80 - 120	

E - Estimated value - result not within calibration range

MA - MS/MSD recovery was not evaluated because the amount spiked is too low relative to amount found in sample and/or the dilution factor upon analysis.

ML - Result was outside of lab's calculated QC limits but was within method performance specifications.

M - Matrix Spike recovery outside of control limits due to matrix effect. LCS demonstrates analysis in control.

After Digestion Spike:

		<u>Before</u>	<u>Added</u>	<u>Spiked</u>	<u>% Rec</u>	<u>Limits</u>	<u>Qualifiers</u>
Aluminum	170903-1A	6400000	5500000	13600000	131*	80 - 120	DT
Antimony	170903-1A	ND	100000	92900	93	80 - 120	
Arsenic	170903-1A	6750	100000	102000	95	80 - 120	
Barium	170903-1A	57000	100000	149000	92	80 - 120	
Beryllium	170903-1A	ND	100000	93500	94	80 - 120	
Cadmium	170903-1A	ND	100000	95100	95	80 - 120	
Chromium	170903-1A	20700	100000	114000	93	80 - 120	
Lead	170903-1A	6970	100000	101000	94	80 - 120	
Mercury	170903-1A	ND	400	357	89	80 - 120	
Nickel	170903-1A	5690	100000	106000	100	80 - 120	
Selenium	170903-1A	1280	100000	95800	95	80 - 120	
Thallium	170903-1A	ND	100000	94600	95	80 - 120	
Vanadium	170903-1A	9740	100000	104000	94	80 - 120	

DT - Serial dilution test failed due to matrix interference.



SAMPLE CONDITION REPORT

Lyondell Chemical Company, Channelview
P.O. Box 30
Channelview, Texas 77530
Attention: Nancy Ross

Job **170896**
Received: 3/22/2017
P. O. 4402885255

Project: Aluminum Partitioning Coefficient Study-CVOS

Chain of Custody received?	Yes	Cooler Temperature (Celsius)	1.4
Transfer of Custody to ECI intact?	Yes	Thermometer ID	TM217
Custody seals on cooler intact?	N/A	All samples received within holding times?	Yes
Custody seals on containers intact?	N/A	Samples in proper containers?	Yes
Agreement between COC and labels?	Yes	Samples properly preserved for analyses?	Yes
Containers in good condition?	Yes	Sufficient sample volume for all tests?	Yes
Bottle count on COC matches bottles received?	Yes	VOA vial(s) with zero headspace?	N/A
Samples chilled?	Yes	All sterile containers provided by ECI?	N/A
Temperature of cooler >0 and <=6 degrees C?	Yes	Soil samples submitted in accordance with 5035 protocol?	N/A
Checked by MLG on 3/22/2017			

Issues closed on 3/22/2017 1:48:14 PM by MLG



Rush ☐ Yes ☒ No Surcharge Authorized ☐ Yes ☐ No

H

1708910-2

8499

EC 00119

Sealed by _____ Date/Time _____ Custody Seal ☐ Y ☒ N Present/Intact ☐ Y ☐ N Temp 1.4, TM212 Pg. 1 of 1



Major Amendment for WQ0000391000

Sarah Johnson <Sarah.Johnson@Tceq.Texas.Gov>

Wed 4/26/2023 4:40 PM

To: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>

Cc: Dianna Kocurek (dianna@tkee.com) <dianna@tkee.com>; Ross, Nancy J <Nancy.Ross@lyondellbasell.com>

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.

Good afternoon-

Thank you for the meeting this afternoon to discuss the pending major amendment request for WQ0000391000. Please see notes below:

1. Outfall 006. Existing Other Requirement No. 9 will be revised to clarify existing coverage under the MSGP. The revised language will state after activating Outfall 006 in the individual permit, the permittee must then terminate coverage under the MSGP.
2. The information provided to support the removal of total aluminum requirements at Outfall 003 is sufficient. Request approved.
3. The permittee will provide additional justification for the removal of total zinc requirements at Outfall 003, such as additional/recent sample results for total zinc and a brief summary of the source waters in the final discharge.
4. The data for Outfall 004 does indicate spikes of total zinc, though infrequent. In addition, my initial Grubb's test was erroneous. I had indicated that sample result 0.7310 mg/L was a statistically significant outlier. However, I had accidentally entered result 0.669 mg/L as 0.0669 mg/L. Once corrected (and with the 0.0601 mg/L sample for 2023), the sample result of 0.7310 mg/L though furthest from the rest, is not a statistically significant outlier. Therefore, more data or information will be needed to support removal of total zinc requirements. Some options include: soil sampling for total zinc, additional effluent sampling, or source identification study for total zinc. Another option would be to include self-expiring, monthly total zinc monitoring and reporting instead of a complete removal of total zinc requirements. Then at the next renewal, total zinc monitoring can be removed (if below the 70% value) without a major amendment.

There is no deadline at this time. However, I anticipate the pending application will complete Water Quality Assessment review and be assigned for drafting in approximately 4-6 weeks. Please submit any additional information for consideration by late May/early June.

Regards,

Sarah A. Johnson, Ph. D.

Environmental Permit Specialist
Water Quality Division
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. F, Room 2101
Austin, TX 78753
Office Phone: 512-239-4649



[Customer Satisfaction Survey](#)

From: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>

Sent: Friday, April 14, 2023 4:03 PM

To: Sarah Johnson <Sarah.Johnson@Tceq.Texas.Gov>

Cc: Mike Lindner <Mike.Lindner@tceq.texas.gov>; Dianna Kocurek (dianna@tkee.com) <dianna@tkee.com>; Ross, Nancy J <Nancy.Ross@lyondellbasell.com>

Subject: RE: Additional Info Needed for WQ0000391000

Good afternoon-

Below are the responses to your items requiring further attention.

1. Technical Report 1.0, Outfall info (page 6)-You indicated that Outfall 006 is authorized under both the MSGP and the individual permit WQ0000391000. Please be advised that TCEQ has a policy of one authorization per outfall. Please pick which authorization you want for Outfall 006; either MSGP TXR05BR93 or TPDES WQ0000391000. Outfall 006 is included in TPDES WQ0000391000 permit, but the authorization has not been activated. The 006 outfall is currently authorized under MSGP TXR05BR93. If Outfall 006 authorization were to be activated under the TPDES, a MSGP NOT would be submitted first. The Facility would prefer to keep Outfall 006 in the TPDES permit in the event authorization needs to change. Keeping the outfall in the permit would prevent from having to submit a permit amendment to add the Outfall 006.
2. Major Amendment Requests to remove WQBELS: Thank you for the aluminum source study in support of the request to remove water quality- based effluent limits for total aluminum at Outfall 003. The study mentions soil sampling results. Please provide a copy of the laboratory results sheets for the soil sampling events to confirm the aluminum present in the soil is comparable to the discharge concentrations reported. Attached is the 2017 aluminum soil results. Attached are some additional background aluminum sample results collected at two locations in CVOS March 2017.

At present, there is not enough data to support removal of total zinc requirements at Outfall 003 and Outfall 004. Looking at the DMR data reported for March 2018-December 2022 yields the following:

	70% Daily Avg. Value mg/L	85% Daily Avg. Value	Max of Max DMR	Average of Daily Max. DMR	Max of Max Application	Average of Max. Application
003	0.145 mg/L	0.176 mg/L	0.324 mg/L	0.1204	-	-
004	0.145 mg/L	0.176 mg/L	0.73 mg/L	0.240 mg/L	0.731 mg/L	0.1938 mg/L

However, the last three quarters of reporting at Outfall 003 indicate a more recent increase in total zinc levels.

	June 2022	Sept. 2022	Dec. 2022	Avg. Concentration
Total Zinc	0.252 mg/L	0.324 mg/L	0.092 mg/L	0.227 mg/L

If using the standard approach of averaging four grab samples of application data for WQBEL screening, total zinc requirements are still indicated. Can you provide any additional information as to the cause for the recent increase in total zinc at Outfall 003? Do you have any additional sample data beyond the DMR data to support removal of total zinc monitoring at Outfall 003? Have any likely sources of total zinc been identified? While removal of total zinc monitoring may not possible at this time, there could be justification for making the existing requirements at Outfall 003 expire with permit expiration. This would provide a mechanism to remove monitoring at the next permit renewal without requiring a major amendment should the future DMR data prove sufficient to justify removal. The Facility conducted a ditch cleaning effort that began April 2022 and lasted approximately three weeks. As a result of this effort grass was removed and fresh soil was exposed. These were the first rain

EC 00122

event samples since the ditch cleaning efforts began. The naturally occurring aluminum and zinc in this freshly exposed soil affected our outfall samples. Attached is a picture that was taken in June 2022 that shows an example of the exposed soil upstream of outfall 003B.

For Outfall 004, the DMR data does not support removal of total zinc requirements. The DMR data accessed via EPA's ICIS does not include the last four samples provided in the application (10/28/2022 thru 01/08/2023). As of the date of this email, the DMR for 12/22 is listed as NODI=E and 3/23 as "Not reported". Using the last four samples provided in the application (0.076 mg/L, 0.064 mg/L, 0.155 mg/L, and 0.0514 mg/L) yields an average of 0.0866 mg/L. You imply that total zinc is present in the soil at the site and that drought conditions lead to 'dusty soil' and increased zinc when stormwater runoff did occur. Do you have any soil analysis data to support this?

Please provide data to support that presence of zinc in the discharge is not from the facility's waste streams or activities. Since a numeric WQBEL was applied in the permit for Outfall 004, more support is needed to justify removal than just the most recent four quarterly samples. The zinc results for the first quarter of 2023 are 0.0514 mg/L and 0.0601 mg/L.

Please let me know if you have any questions.



Joseph A. Reza
Sr Environmental Engineer
8280 Sheldon Road
Channelview, Tx 77530
O: +1 281.457.8032 M: +1 469.471.5898
www.lyondellbasell.com

From: Sarah Johnson <Sarah.Johnson@Tceq.Texas.Gov>

Sent: Friday, March 31, 2023 5:07 PM

To: Reza, Joseph A <joseph.reza@lyondellbasell.com>

Cc: Mike Lindner <Mike.Lindner@tceq.texas.gov>

Subject: Additional Info Needed for WQ0000391000

You don't often get email from sarah.johnson@tceq.texas.gov. [Learn why this is important](#)

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Good afternoon-

I am a permit writer on the industrial permits team and have been assigned the application for **Equistar Chemicals Channelview Complex (WQ0000391000)** for a preliminary review. The following items require further attention:

1. Technical Report 1.0, Outfall info (page 6)-You indicated that Outfall 006 is authorized under both the MSGP and the individual permit WQ0000391000. Please be advised that TCEQ has a policy of one authorization per outfall. Please pick which authorization you want for Outfall 006; either MSGP TXR05BR93 or TPDES WQ0000391000.
2. Major Amendment Requests to remove WQBELS: Thank you for the aluminum source study in support of the request to remove water quality- based effluent limits for total aluminum at Outfall 003. The study mentions soil sampling results. Please provide a copy of the laboratory results sheets for the soil sampling events to confirm the aluminum present in the soil is comparable to the discharge concentrations reported.

At present, there is not enough data to support removal of total zinc requirements at Outfall 003 and Outfall 004. Looking at the DMR data reported for March 2018-December 2022 yields the following:

	70% Daily Avg. Value mg/L	85% Daily Avg. Value	Max of Max DMR	Average of Daily Max. DMR	Max of Max Application	Average of Max. Application
003	0.145 mg/L	0.176 mg/L	0.324 mg/L	0.1204	-	-
004	0.145 mg/L	0.176 mg/L	0.73 mg/L	0.240 mg/L	0.731 mg/L	0.1938 mg/L

However, the last three quarters of reporting at Outfall 003 indicate a more recent increase in total zinc levels.

	June 2022	Sept. 2022	Dec. 2022	Avg. Concentration
Total Zinc	0.252 mg/L	0.324 mg/L	0.092 mg/L	0.227 mg/L

If using the standard approach of averaging four grab samples of application data for WQBEL screening, total zinc requirements are still indicated. Can you provide any additional information as to the cause for the recent increase in total zinc at Outfall 003? Do you have any additional sample data beyond the DMR data to support removal of total zinc monitoring at Outfall 003? Have any likely sources of total zinc been identified? While removal of total zinc monitoring may not possible at this time, there could be justification for making the existing requirements at Outfall 003 expire with permit expiration. This would provide a mechanism to remove monitoring at the next permit renewal without requiring a major amendment should the future DMR data prove sufficient to justify removal.

For Outfall 004, the DMR data does not support removal of total zinc requirements. The DMR data accessed via EPA's ICIS does not include the last four samples provided in the application (10/28/2022 thru 01/08/2023). As of the date of this email, the DMR for 12/22 is listed as NODI=E and 3/23 as "Not reported". Using the last four samples provided in the application (0.076 mg/L, 0.064 mg/L, 0.155 mg/L, and 0.0514 mg/L) yields an average of 0.0866 mg/L. You imply that total zinc is present in the soil at the site and that drought conditions lead to 'dusty soil' and increased zinc when stormwater runoff did occur. Do you have any soil analysis data to support this? Please provide data to support that presence of zinc in the discharge is not from the facility's wastestreams or activities. Since a numeric WQBEL was applied in the permit for Outfall 004, more support is needed to justify removal than just the most recent four quarterly samples.

Please send the requested information to me via email no later than **April 14. Please let me know if you have any questions.**

Sarah A. Johnson, Ph. D.

Environmental Permit Specialist
Water Quality Division
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. F, Room 2101
Austin, TX 78753
Office Phone: 512-239-4649



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NORI PACKET FOR PERMIT NO. WQ0000391000, Equistar Chemicals, LP

Abesha Michael <Abesha.Michael@tceq.texas.gov>

Fri 6/16/2023 1:34 PM

To: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>

 6 attachments (420 KB)

equistarchemicalslp-equistarchemicalchannelviewcomplex-wq0000391000-nori-letter.pdf; NORI INSTRUCTIONS.docx; equistarchemicalslp-equistarchemicalchannelviewcomplex-wq0000391000-nori-eng.docx; Public Notice Verification Comp.docx; equistarchemicalslp-equistarchemicalchannelviewcomplex-wq0000391000-affidavits.docx; equistarchemicalslp-equistarchemicalchannelviewcomplex-wq0000391000-nori-esp.docx;

You don't often get email from abesha.michael@tceq.texas.gov. [Learn why this is important](#)

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Dear Mr. Reza:

Applicants are required to publish the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit within 30 days of the application being declared administratively complete.

Attached is:

- ☐ Letter of Declaration of Administrative Completeness
- ☐ Instructions of Public Notice
- ☐ Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (for all districts)
- ☐ Affidavit of Publication
- ☐ Public Notice Verification Form
- ☐ Notice of Receipt of Application and Intent to Obtain a Water Quality Permit in Spanish

The original documents will be sent by our Chief Clerk's Office via regular mail.

Best regards,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912; c: 346-802-8446
Email: abesha.michael@tceq.texas.gov

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Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 16, 2023

Mr. Joseph A. Reza
Sr. Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

RE: Declaration of Administrative Completeness
Applicant Name: Equistar Chemicals, LP (CN600124705)
Permit No.: WQ0000391000 (EPA I.D. No. TX0003531)
Site Name: Equistar Chemicals Channelview Complex (RN100542281)
Type of Application: Major Amendment

Dear Mr. Reza:

The executive director has declared the above referenced application, received on March 1, 2023 administratively complete on June 16, 2023.

You are now required to publish notice of your proposed activity and make a copy of the application available for public review. The following items are included to help you meet the regulatory requirements associated with this notice:

- Instructions for Public Notice
- Notice for Newspaper Publication
- Public Notice Verification Form
- Publisher's Affidavits

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. Publish the enclosed notice within **30 calendar days** after your application is declared administratively complete. (See this letter's first paragraph for the declaration date.) **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, place a copy of your permit application in a public place in the county where the facility is or will be located. This copy must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place throughout the comment period.
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 Abesha Michael at (512) 239-4912.

Sincerely,



Jennifer E. Bowers, Section Manager
Water Quality Division Support
Office of Water
Texas Commission on Environmental Quality

JEB/ahm

Enclosures

Texas Commission on Environmental Quality
Instructions for Public Notice for a Water Quality Permit
Notice of Receipt of Application and Intent to Obtain Permit (NORI)

Your application has been declared administratively complete. You must comply with the following instructions. There are seven (7) steps involved in publishing notice. Complete each step.

1. REVIEW THE NOTICE FOR ACCURACY

Read the enclosed notice carefully and notify the Application Review and Processing Team at 512-239-4671 immediately if it contains any errors or omissions. You are responsible for ensuring the accuracy of all information published. Do not change the text or formatting of the notice or affidavit of publication without prior approval from the TCEQ. Changing the text or formatting of the notice may require new publication at your expense and delay processing of your application.

2. PUBLISH THE NOTICE IN THE NEWSPAPER

You must publish the enclosed notice within 30 days after the date of administrative completeness. Refer to the cover letter for the date of administrative completeness.

You must publish the enclosed notice at your expense, at least once in the newspaper of largest circulation within each county where the facility and discharge point are located or will be located. If the facility and discharge point are located or will be located in a municipality, the enclosed notice must be published at least once in a newspaper of general circulation in the municipality. These requirements may be satisfied by one publication if the newspaper meets all of the above requirements.

The bold text of the enclosed notice must be printed in the newspaper in a font style or size that distinguishes it from the rest of the notice (i.e., bold, italics). Failure to do so may require re-notice.

3. PUBLISH THE NOTICE IN AN ALTERNATIVE LANGUAGE

You must publish notice in an alternative language IF: either the elementary or middle school nearest to the facility or proposed facility is required to provide a “bilingual education program” (BEP) as required by Texas Education Code (TEC), Chapter 29, Subchapter B, and 19 Tex. Admin. Code §89.1205(a) AND one of the following conditions is met:

- students are enrolled in a program at that school;
- students from that school attend a bilingual education program at another location; or
- the school that otherwise would be required to provide a bilingual education program has been granted an exception from the requirements to provide the program as provided for in 19 Tex. Admin. Code §89.1207(a).

A “bilingual education program” is different from an “English as a second language program” (ESL). An ESL program alone, will not require public notice in an alternative language.

If triggered, you must publish the notice in a newspaper or publication primarily published in the alternative language taught in the bilingual education program. Publication in an alternative language section or insert within a large publication which is not printed primarily in that alternative language does not satisfy these requirements. The newspaper or publication must be of general circulation in the county in which the facility and discharge point are located or proposed to be located. If the facility and discharge point are located or proposed to be located in a municipality, and there exists a newspaper or publication of general circulation in the municipality, you must publish the notice only in the newspaper or publication in the municipality.

You must demonstrate a good faith effort to identify a newspaper or publication in the required language. If there is no general circulation newspaper or publication printed in such language, then publishing in that language is not required. You have the burden to demonstrate compliance with these requirements.

If you are required to publish notice in Spanish, you must translate the site-specific information in the notice that is specific to your application, at your own expense. You may then insert the Spanish translation of your site-specific information into a Spanish template developed by the TCEQ. The Spanish templates are available on the TCEQ website at http://www.tceq.texas.gov/permitting/wastewater/review/wqspanish_nori.html. If you are required to publish notice in a language other than Spanish, you must translate the entire public notice, at your own expense.

4. PUT THE APPLICATION IN A PUBLIC PLACE

You must put a copy of the administratively complete application in the public place identified in the enclosed notice.

This copy must be accessible to the public for review and copying beginning on the first day of newspaper publication and remain in place for the publication's designated comment period.

During the technical review, you must update the publicly available application so that it includes all application revisions within 10 business days from the date the revision is transmitted to the TCEQ.

For confidential information contained in the application, you must indicate which specific portions of the application cannot be made available to the public. These portions of the application must be accompanied with the following statement: "Any request for portions of this application that are marked as confidential must be submitted in writing, pursuant to the Public Information Act, to the TCEQ Public Information Coordinator, MC 197, P.O. Box 13087, Austin, Texas 78711-3087."

5. PROVIDE PROOF OF PUBLICATION

For each newspaper in which you published, you must submit proof of publication. Proof of publication must include the following:

- a completed Publisher's Affidavit (enclosed); and
- a copy of the published notice which shows the notice, the date published, and the newspaper name. The copy must be on standard-size 8½ x 11" paper and must show the actual size of the published notice. Do not reduce the

image when making copies. Published notices longer than 11" must be copied onto multiple 8½ x 11" pages. Or you can submit the original newspaper clipping.

If you are required to publish notice in an alternative language and are unable to do so, complete and submit the Alternative Language Exemption form (enclosed).

6. PROVIDE PROOF OF APPLICATION VIEWING LOCATION

You must submit a completed Public Notice Verification Form (enclosed) which certifies that the administratively complete application was placed at the public place identified in the enclosed notice.

7. SUBMIT PROOFS TO TCEQ

The proof of publication documents (Step 5) and the completed Public Notice Verification Form (Step 6) must be submitted to TCEQ within 30 days of publication.

By email to: PROOFS@tceq.texas.gov

OR by mail at:
TCEQ
Office of the Chief Clerk, MC 105
Attn: Notice Team
P.O. Box 13087
Austin, Texas 78711-3087

NOTE: If proofs are submitted by email, you do not have to mail in the original documents.

Additional Information

If you fail to publish the notice or submit proofs within the timeframes noted above, the TCEQ may suspend further processing on your application or take other actions in accordance with 30 Tex. Admin. Code §39.405(a).

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 Wastewater Permitting Section at 512-239-4671. When contacting TCEQ regarding this application, please refer to the permit number at the top of the enclosed notice.

If you wish to obtain an electronic copy of the notice, please visit our web site at http://www.tceq.texas.gov/agency/cc/cc_db.html or <http://www.tceq.texas.gov/agency/cc/eda.html>. Please be aware that formatting codes may be lost and that any notices downloaded from these web sites must be reformatted by you so that your downloaded copy looks like the notice document you received from us.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT AMENDMENT

PERMIT NO. WQ0000391000

APPLICATION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which owns a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 (EPA I.D. No. TX0003531) to authorize removal of monitoring and daily maximum concentration limit for total aluminum from Outfalls 003, 003A, 003B, 003C; removal of monitoring for total zinc from Outfalls 003, 003A, 003B, 003C, and removal of monitoring and daily maximum concentration limit for total zinc from Outfall 004. The facility is located at 8280 Sheldon Road, Channelview, in Harris County, Texas 77530. The discharge route is from the plant site via Outfalls 001, 002 and 004 is to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to San Jacinto River Tidal, via Outfall 003 to an unnamed drainage ditch, thence to a Harris County Flood Control District ditch, thence to San Jacinto River Tidal; and via Outfall 006 to a Harris County Flood Control ditch, thence to San Jacinto River Tidal. TCEQ received this application on March 1, 2023. The permit application will be available for viewing and copying at North Channel Harris County Library, 15741 Wallisville Road, Houston, 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=-95.118055,29.832777&level=18>

The application is subject to the goals and policies of the Texas Coastal Management Program and must be consistent with the applicable Coastal Management Program goals and policies.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. 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 submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing.** A contested case hearing is a legal proceeding similar to a civil trial in 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.**

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 placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be

placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at 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://www14.tceq.texas.gov/epic/eComment/>, 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 www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Equistar Chemicals, LP at the address stated above or by calling Mr. Joseph A. Reza, Senior Environmental Engineer, at 281-457-8032.

Issuance Date: June 16, 2023



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Public Notice Verification Form
Notice of Receipt of Application and Intent to Obtain Permit
(NORI)
Water Quality Permit

All applicants must complete this page.

Applicant Name: _____

Site or Facility Name: _____

Water Quality Permit Number: _____

Regulated Entity Number: RN _____ Customer Number: CN _____

PUBLIC VIEWING LOCATION

I certify that a copy of the complete water quality application, and all revisions, were placed at the following public place for public viewing and copying. I understand that the copy will remain available at the public place from the 1st day of publication of the NORI until the end of the designated comment period. I further understand that the copy will be updated with any revisions to the application.

Name of Public Place: _____

Address of Public Place: _____

Applicant or Applicant Representative Signature: _____

Title: _____ Date: _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Public Notice Verification Form
Notice of Receipt of Application and Intent to Obtain Permit
(NORI)
Water Quality Permit

Complete this page only if you are required to publish in an alternative language and are not able to do so.

Applicant Name: _____

Site or Facility Name: _____

Water Quality Permit Number: _____

Regulated Entity Number: RN _____ Customer Number: CN _____

ALTERNATIVE LANGUAGE EXEMPTION

I certify that I have conducted a diligent search for a newspaper or publication of general circulation in both the municipality and county in which the facility is located or proposed to be located and was unable to publish the notice in the required alternative language because:

☐

A newspaper or publication could not be found in any of the alternative languages in which notice is required.

☐

The publishers of the newspapers listed below refused to publish the notice as requested, and another newspaper or publication in the same language and of general circulation could not be found in the municipality or county in which the facility is located or proposed to be located.

Newspaper Name: _____

Language: _____

Applicant or Applicant Representative Signature: _____

Title: _____ Date: _____

TCEQ-OFFICE OF THE CHIEF CLERK

MC-105 Attn: Notice Team
P.O. BOX 13087
AUSTIN, TX 78711-3087

Applicant Name: Equistar Chemicals,
LP
Permit No.: WQ0000391000

**PUBLISHER'S AFFIDAVIT
FOR WATER QUALITY PERMITS**

STATE OF TEXAS §
COUNTY OF _____ §

Before me, the undersigned authority, on this day personally appeared

_____ who being by me duly sworn, deposes
(name of person representing newspaper)

and says that **(s)**he is the _____
(title of person representing newspaper)

of the _____; that this newspaper is a newspaper of
(name of newspaper)

largest circulation in _____ County, Texas or is
(name of county)

a newspaper of general circulation in _____,
(name of municipality)

Texas; and that the enclosed notice was published in said newspaper on the following
date**(s)**:

(newspaper representative's signature)

Subscribed and sworn to before me this the _____ day of _____,

20____.

(Seal)

Notary Public in and for the State of Texas

Print or Type Name of Notary Public

My Commission Expires _____

MC-105 Attn: Notice Team
P.O. BOX 13087
AUSTIN, TX 78711-3087

Applicant Name: Equistar Chemicals, LP
Permit No.: WQ0000391000

STATE OF TEXAS §
COUNTY OF _____ §

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECIBO DE LA SOLICITUD E INTENCION DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA MODIFICACION

PERMISO NO. WQ0000391000

SOLICITUD. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, que posee una planta de producción de resinas termoplásticas y productos químicos orgánicos a granel y básicos, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0000391000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) (EPA I.D. No. TX0003531) para autorizar la eliminación del control y del límite de concentración máxima diaria de aluminio total de las puntas de descarga 003, 003A, 003B, 003C; la eliminación del control del zinc total de las puntas de descarga 003, 003A, 003B, 003C, y la eliminación del control y del límite de concentración máxima diaria de zinc total de la punta de descarga 004. La planta está ubicada en 8280 Sheldon Road, Channelview, en el Condado de Harris, Texas 77530. La ruta de descarga es desde el sitio de la planta a través de Outfalls 001, 002 y 004 es a zanjas de drenaje sin nombre, de ahí a Wallisville Gully, de ahí a San Jacinto River Tidal; a través de Outfall 005 directamente a la marea del río San Jacinto, a través de Outfall 003 a una zanja de drenaje sin nombre, de ahí a la zanja del distrito de control de inundaciones del condado de Harris, de ahí a la marea del río San Jacinto; y a través de Outfall 006 a la zanja de control de inundaciones del condado de Harris, de ahí a la marea del río San Jacinto. La TCEQ recibió esta solicitud el día 01 de marzo de 2023. La solicitud para el permiso estará disponible para leerla y copiarla en North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.118055,29.832777&level=18>

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar **comentarios públicos o pedir una reunión pública sobre esta solicitud.** El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada

anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y por qué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional de Equistar Chemicals, LP a la dirección indicada arriba o llamando a Sr. Joseph A. Reza, Senior Environmental Engineer, al 281-457-8032.


Fecha de emisión 16 de junio de 2023

RE: NORI PACKET FOR PERMIT NO. WQ0000391000, Equistar Chemicals, LP

Abesha Michael <Abesha.Michael@tceq.texas.gov>

Thu 6/29/2023 8:55 AM

To: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>

 2 attachments (216 KB)

equistarchemicalslp-equistarchemicalchannelviewcomplex-wq0000391000-amended-nori-letter.pdf; equistarchemicalslp-equistarchemicalchannelviewcomplex-wq0000391000-amended-nori-esp.docx;

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.

Good Morning Mr. Reza,
I corrected and attached as requested.
Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912; c: 346-802-8446
Email: abesha.michael@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

From: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Sent: Wednesday, June 28, 2023 5:25 PM
To: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Subject: NORI PACKET FOR PERMIT NO. WQ0000391000, Equistar Chemicals, LP

Abesha,

Attached is the Spanish notice with the changes underlined. The changes will maintain consistency with the English notice and previously published Spanish notices for the site. With your approval I will publish the Spanish noticed attached. The newspaper has given me until 11 am tomorrow morning to make the July 12th deadline. Let me know your thoughts.

lyondellbasell
Advancing Possible

Joseph A. Reza
Sr Environmental Engineer
8280 Sheldon Road
Channelview, TX 77530
O: +1 281.457.8032
www.lyondellbasell.com

Information contained in this email is subject to the Disclaimer and Privacy Notice found by clicking on the following link: http://www.lyb.com/en/about-

EC 00142

9/11/24, 11:40 AM

RE: NORI PACKET FOR PERMIT NO. WQ0000391000, Equistar Chemicals, LP - Hassan, Rebecca - Outlook

[us/disclaimer](#)

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 29, 2023

Mr. Joseph A. Reza
Sr. Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

RE: Declaration of Administrative Completeness
Applicant Name: Equistar Chemicals, LP (CN600124705)
Permit No.: WQ0000391000 (EPA I.D. No. TX0003531)
Site Name: Equistar Chemicals Channelview Complex (RN100542281)
Type of Application: Major Amendment

Dear Mr. Reza:

The executive director has declared the above referenced application, received on March 1, 2023 administratively complete on June 16, 2023.

You are now required to publish notice of your proposed activity and make a copy of the application available for public review. The following items are included to help you meet the regulatory requirements associated with this notice:

- Instructions for Public Notice
- Notice for Newspaper Publication
- Public Notice Verification Form
- Publisher's Affidavits

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. Publish the enclosed notice within **30 calendar days** after your application is declared administratively complete. (See this letter's first paragraph for the declaration date.) **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, place a copy of your permit application in a public place in the county where the facility is or will be located. This copy must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place throughout the comment period.
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 Abesha Michael at (512) 239-4912.

Sincerely,



Jennifer E. Bowers, Section Manager
Water Quality Division Support
Office of Water
Texas Commission on Environmental Quality

JEB/ahm

Enclosures

Comisión de Calidad Ambiental del Estado de Texas



MODIFICADO AVISO DE RECIBO DE LA SOLICITUD E INTENCION DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA MODIFICACION

PERMISO NO. WQ0000391000

SOLICITUD. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, que posee una planta de producción de resinas termoplásticas y productos químicos orgánicos a granel y básicos, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0000391000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) (EPA I.D. No. TX0003531) para autorizar la eliminación del control y del límite de concentración máxima diaria de aluminio total de las Desagües 003, 003A, 003B, 003C; la eliminación del control del zinc total de las Desagües 003, 003A, 003B, 003C, y la eliminación del control y del límite de concentración máxima diaria de zinc total de la punta de descarga 004. La planta está ubicada en 8280 Sheldon Road, Channelview, en el Condado de Harris, Texas 77530. La ruta de descarga es desde el sitio de la planta a través de Desagües 001, 002 y 004 es a zanjas de drenaje sin nombre, de ahí al Barranco de Wallisville (Wallisville Gully, en inglés) de ahí a la marea del río San Jacinto (San Jacinto River Tidal, en inglés); a través de Desagües 005 directamente a la marea del río San Jacinto, a través de Desagües 003 a una zanja de drenaje sin nombre, de ahí a la zanja del distrito de control de inundaciones del condado de Harris (Harris County Flood Control District ditch, en inglés), de ahí a la marea del río San Jacinto; y a través de Desagües 006 a la zanja de control de inundaciones del condado de Harris, de ahí a la marea del río San Jacinto. La TCEQ recibió esta solicitud el día 01 de marzo de 2023. La solicitud para el permiso estará disponible para leerla y copiarla en North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.118055,29.832777&level=18>

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la

planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la **Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087.** Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional de Equistar Chemicals, LP a la dirección indicada arriba o llamando a Sr. Joseph A. Reza, Ingeniero Ambiental Senior, al 281-457-8032.

Fecha de emisión 29 de junio de 2023



July 21, 2023

Certified Mail
7021 1970 0000 2697 2342

Texas Commission on Environmental Quality
Office of the Chief Clerk, MC 105
Attn: Notice Team
P.O. Box 13087
Austin, TX 78711-3087

Re: Equistar Chemicals, LP – Channelview Complex
Public Notice Verification
Permit No WQ0000391000
RN 100542281; CN 600124705

Public Notice Team:

Please find enclosed the Public Notice Verification form, original Publisher's Affidavit for Water Quality Permits and the original newspaper clippings of the published notices for the Equistar Chemicals, LP Channelview Complex TPDES Permit Amendment application.

If you have any questions or require additional information, please contact Mr. Joseph A. Reza at (281) 457-8032.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Warnement". The signature is fluid and cursive, with a large, sweeping initial 'T'.

Tom Warnement
Environmental Manager

Enclosures

File: CVON 300-160-047

Equistar Chemicals, LP
8280 Sheldon Road
Channelview, TX 77530
P.O. Box 777 (77530-0777)
USA

Tel +1 281 862 4000
lyb.com

EC 00149



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Public Notice Verification Form
Notice of Receipt of Application and Intent to Obtain Permit
(NORI)
Water Quality Permit

All applicants must complete this page.

Applicant Name: Equistar Chemicals, LP

Site or Facility Name: Equistar Chemicals Channelview Complex

Water Quality Permit Number: WQ0000391000


Regulated Entity Number: RN 100542281 Customer Number: CN 600124705

PUBLIC VIEWING LOCATION

I certify that a copy of the complete water quality application, and all revisions, were placed at the following public place for public viewing and copying. I understand that the copy will remain available at the public place from the 1st day of publication of the NORI until the end of the designated comment period. I further understand that the copy will be updated with any revisions to the application.

Name of Public Place: North Channel Harris County Library

Address of Public Place: 15741 Wallisville Road, Houston, Texas 77049

Applicant or Applicant Representative Signature: 

Title: Senior Environmental Engineer Date: July 11, 2023

TCEQ-OFFICE OF THE CHIEF CLERK

MC-105 Attn: Notice Team
P.O. BOX 13087
AUSTIN, TX 78711-3087

Applicant Name: Equistar Chemicals, LP
Permit No.: WQ0000391000

**PUBLISHER'S AFFIDAVIT
FOR WATER QUALITY PERMITS**

STATE OF TEXAS §
COUNTY OF Harris §

Before me, the undersigned authority, on this day personally appeared

Victoria Bond who being by me duly sworn, deposes
(name of person representing newspaper)

and says that (s)he is the AIR Clerk
Houston Chronicle (title of person representing newspaper)

of the Pasadena Citizen; that this newspaper is a newspaper of
(name of newspaper)

largest circulation in Harris County, Texas or is
(name of county)

a newspaper of general circulation in Channelview,
(name of municipality)

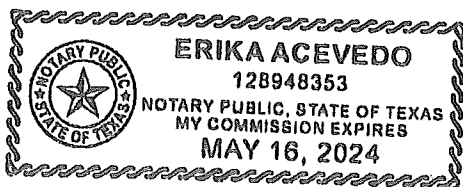
Texas; and that the enclosed notice was published in said newspaper on the following date(s):

July 12, 2023, Ad # 34283274

Victoria Bond
(newspaper representative's signature)

Subscribed and sworn to before me this the 13 day of July,
20 23

(Seal)



Erika Acevedo
Notary Public in and for the State of Texas

ERIKA ACEVEDO
Print or Type Name of Notary Public

My Commission Expires MAY 16, 2024

NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT
AMENDMENT

PERMIT NO. WQ0000391000

APPLICATION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which owns a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 (EPA I.D. No. TX0003531) to authorize removal of monitoring and daily maximum concentration limit for total aluminum from Outfalls 003, 003A, 003B, 003C; removal of monitoring for total zinc from Outfalls 003, 003A, 003B, 003C, and removal of monitoring and daily maximum concentration limit for total zinc from Outfall 004. The facility is located at 8280 Sheldon Road, Channelview, in Harris County, Texas 77530. The discharge route is from the plant site via Outfalls 001, 002 and 004 is to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to San Jacinto River Tidal, via Outfall 003 to an unnamed drainage ditch, thence to a Harris County Flood Control District ditch, thence to San Jacinto River Tidal; and via Outfall 006 to a Harris County Flood Control ditch, thence to San Jacinto River Tidal. TCEQ received this application on March 1, 2023. The permit application will be available for viewing and copying at North Channel Harris County Library, 15741 Wallisville Road, Houston, 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=-95.118055,29.832777&level=18> The application is subject to the goals and policies of the Texas Coastal Management Program and must be consistent with the applicable Coastal Management Program goals and policies.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. 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 submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing. A contested case hearing is a legal proceeding similar to a civil trial in 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.

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 placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at 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://www14.tceq.texas.gov/epic/eComment/>, 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 www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Equistar Chemicals, LP at the address stated above or by calling Mr. Joseph A. Reza, Senior Environmental Engineer, at 281-457-8032.

Issuance Date: June 16, 2023

TCEQ-OFFICE OF THE CHIEF CLERK

MC-105 Attn: Notice Team
P.O. BOX 13087
AUSTIN, TX 78711-3087

Applicant Name: Equistar Chemicals, LP
Permit No.: WQ0000391000

**ALTERNATIVE LANGUAGE
PUBLISHER'S AFFIDAVIT**

STATE OF TEXAS §
COUNTY OF Harris §

Before me, the undersigned notary public, on this day personally appeared
Victoria Bond, who being by me duly sworn, deposes
(name of person representing newspaper)

and says that (s)he is the Alt Clerk of the
(title of person representing newspaper)

Houston Chronicle; that said newspaper is
(name of newspaper)

generally circulated in Harris County, Texas and
(same county as proposed facility)

is published primarily in Spanish language; that the
(alternative language)

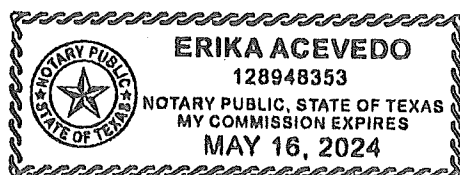
enclosed notice was published in said newspaper on the following date(s):

July 12, 2023, Ad #34283451

Subscribed and sworn to before me this the 13 day of July,

2023, by Victoria Bond
(newspaper representative's signature)

(Seal)



Erika Acevedo
Notary Public in and for the State of Texas

ERIKA ACEVEDO
Print or Type Name of Notary Public

My Commission Expires MAY 16, 2024

**MODIFICADO AVISO DE RECIBO DE LA SOLICITUD E
INTENCION DE OBTENER PERMISO PARA
LA CALIDAD DEL AGUA MODIFICACION
PERMISO NO. WQ0000391000**

SOLICITUD. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, que posee una planta de producción de resinas termoplásticas y productos químicos orgánicos a granel y básicos, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0000391000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) (EPA I.D. No. TX0003531) para autorizar la eliminación del control y del límite de concentración máxima diaria de aluminio total de las Desagües 003, 003A, 003B, 003C; la eliminación del control del zinc total de las Desagües 003, 003A, 003B, 003C, y la eliminación del control y del límite de concentración máxima diaria de zinc total de la punta de descarga 004. La planta está ubicada en 8280 Sheldon Road, Channelview, en el Condado de Harris, Texas 77530. La ruta de descarga es desde el sitio de la planta a través de Desagües 001, 002 y 004 es a zanjas de drenaje sin nombre, de ahí al Barranco de Wallisville (Wallisville Gully, en inglés) de ahí a la marea del río San Jacinto (San Jacinto River Tidal, en inglés); a través de Desagües 005 directamente a la marea del río San Jacinto, a través de Desagües 003 a una zanja de drenaje sin nombre, de ahí a la zanja del distrito de control de inundaciones del condado de Harris (Harris County Flood Control District ditch, en inglés), de ahí a la marea del río San Jacinto; y a través de Desagües 006 a la zanja de control de inundaciones del condado de Harris, de ahí a la marea del río San Jacinto. La TCEQ recibió esta solicitud el día 01 de marzo de 2023. La solicitud para el permiso estará disponible para leerla y copiarla en North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.118055,29.832777&level=18>

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.

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OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todos los comentarios públicos esenciales, pertinentes, o significativos. A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso. Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en

disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y por qué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo. Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040. También se puede obtener información adicional de Equistar Chemicals, LP a la dirección indicada arriba o llamando a Sr. Joseph A. Reza, *Ingeniero Ambiental Senior*, al 281-457-8032.

Fecha de emisión 16 de junio de 2023

Hassan, Rebecca

From: Reza, Joseph A
Sent: Wednesday, December 6, 2023 5:41 PM
To: Hassan, Rebecca; Walsh, Michael W.; Riojas, Francisco R. (Frank)
Subject: FW: WQ0000391000 Equistar Chemicals, LP
Attachments: WQ0000391000.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Attached is the draft permit for CVON. Comments are due by December 13th.

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>
Sent: Wednesday, December 6, 2023 4:14 PM
To: Reza, Joseph A <joseph.reza@lyondellbasell.com>
Cc: Cole Gray <Cole.Gray@tceq.texas.gov>
Subject: WQ0000391000 Equistar Chemicals, LP

You don't often get email from shemica.wilford@tceq.texas.gov. [Learn why this is important](#)

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.
To whom it may concern,

Attached for your review, is the letter, DRAFT permit, NAPD, and statement of basis/technical summary, for Permit WQ0000391000 Equistar Chemicals, LP.

Alternative language notice in Spanish is available
at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices> El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>

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

Please submit any **comments and/or approval** no later than, **Wednesday, December 13, 2023**. If the comments and/ or approval are not received by the given deadline, it may cause significant delays in the permit process. Please contact Cole Gray with your comments and/ or approval to: Cole.Gray@tceq.texas.gov .

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)

Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wiflord@tceq.texas.gov

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Mr. Joseph A. Reza, Senior Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Re: Equistar Chemicals, LP
Draft TPDES Permit No. WQ0000391000, EPA ID No. TX0003531
(CN600124705), (RN100542281)

Dear Mr. Reza:

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, because there are changes from the existing permit.** 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 June 16, 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.

Mr. Joseph A. Reza, Senior Environmental Engineer
Page 2

If you have comments or questions, please contact me before the comment deadline at (512) 239-4736, by e-mail at cole.gray@tceq.texas.gov, or, if by correspondence, include "MC 148" following my name in the letterhead address.

Sincerely,

Cole Gray
Cole Gray, DrPH
Wastewater Permitting Section
Water Quality Division

CMG

Enclosure

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
AMENDMENT**

PERMIT NO. WQ0000391000

APPLICATION AND PRELIMINARY DECISION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 to authorize the removal of a monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; removal of a monitoring and reporting requirement for total zinc at Outfall 003; and removal of a monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004. The draft permit authorizes the discharge of treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, construction stormwater, and process area stormwater from the adjacent co-generation facility at a daily average flow not to exceed 8,900,000 gallons per day via Outfall 001; process wastewater, stormwater, sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; *de minimis* quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 (003A, 003B, 003C) and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007. The TCEQ received this application on March 1, 2023.

The facility is located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530. 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=-95.118055,29.832777&level=18>

The effluent is discharged via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-02-03, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The designated uses for Segment No. 1001 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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The 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 the North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

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 Equistar Chemicals, LP at the address stated above or by calling Mr. Joseph Reza, Senior Environmental Engineer, at 281-457-8032.

Issued:

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000, U.S. Environmental Protection Agency (EPA) ID No. TX0003531, to discharge to water in the state

Issuing Office: Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, Texas 78711-3087

Applicant: Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Prepared By: Cole Gray, DrPH
Wastewater Permitting Section
Water Quality Division
(512) 239-4736

Date: October 19, 2023

Permit Action: Major amendment without renewal to authorize the removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; TPDES Permit No. WQ0000391000

The permittee has requested a major amendment without renewal to authorize the removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by the amendment request were considered during the drafting of this permit. Otherwise, the existing Statement of Basis/Technical Summary for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

I. 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 retains the current expiration date of March 25, 2026.

II. APPLICANT ACTIVITY

The applicant currently operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility.

III. DISCHARGE LOCATION

The facility is located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530. Discharge is via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-02-03, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

IV. RECEIVING STREAM USES

The unclassified water uses are minimal aquatic life use for the unnamed drainage ditches and Wallisville Gully and limited aquatic life use for HCFCD ditch G103-07-05 and HCFCD ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period September 2018 through September 2023. The “average of daily average” values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The “maximum of daily maximum” values presented in the following table are the individual maximum values for the reporting period for each pollutant. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU). Bacteria levels are expressed in colony forming units (cfu) or most probable number (MPN) per 100 mL.

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	5.42	7.10
101	Intermittent	0.055	2.21
201	Intermittent	0.003	0.026
002	Intermittent	1.57	75
003	Intermittent	1.62	4.94
004	Intermittent	0.328	2.22
005	Intermittent	0.110	0.950

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	CBOD ₅	208	-	6958	-
	NH ₃ -N	18.1	-	454	-
	TSS	835	-	71,812	-
	Chemical Oxygen Demand (COD)	3,851	-	19,834	-
	Oil and grease	229	-	296	-
	Chromium, Total	0.198	-	0.270	-
	Copper, Total	0.754	-	1.01	-
	Lead, Total	0.030	-	0.120	-
	Nickel, Total	0.598	-	1.00	-
	Zinc, Total	0.851	-	1.39	-
	Acenaphthene	0.00	-	0.00	-
	Acenaphthylene	0.00	-	0.00	-
	Acrylonitrile	0.00	-	0.00	-

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Anthracene	0.00	-	0.00	-
	Benzene	0.00	-	0.00	-
	Benzo(a)anthracene	0.00	-	0.00	-
	3,4-Benzofluoranthene	0.00	-	0.00	-
	Benzo(k)fluoranthene	0.00	-	0.00	-
	Benzo(a)pyrene	0.00	-	0.00	-
	Bis(2-ethylhexyl)phthalate	0.00	-	0.00	-
	Carbon Tetrachloride	0.00	-	0.00	-
	Chlorobenzene	0.00	-	0.00	-
	Chloroethane	0.00	-	0.00	-
	Chloroform	0.326	-	0.490	-
	2-Chlorophenol	0.00	-	0.00	-
	Chrysene	0.00	-	0.00	-
	Di-n-butyl phthalate	0.00	-	0.00	-
	1,2-Dichlorobenzene	0.00	-	0.00	-
	1,3-Dichlorobenzene	0.00	-	0.00	-
	1,4-Dichlorobenzene	0.00	-	0.00	-
	1,1-Dichloroethane	0.00	-	0.00	-
	1,2-Dichloroethane	0.00	-	0.00	-
	1,1-Dichloroethylene	0.00	-	0.00	-
	1,2-trans Dichloroethylene	0.00	-	0.00	-
	2,4-Dichlorophenol	0.00	-	0.00	-
	1,2-Dichloropropane	0.00	-	0.00	-
	1,3-Dichloropropylene	0.00	-	0.00	-
	Diethyl phthalate	0.00	-	0.00	-
	2,4-Dimethylphenol	0.00	-	0.00	-
	Dimethyl phthalate	0.00	-	0.00	-
	4,6-Dinitro-o-cresol	0.00	-	0.00	-
	2,4-Dinitrophenol	0.00	-	0.00	-
	2,4-Dinitrotoluene	0.00	-	0.00	-
	2,6-Dinitrotoluene	0.00	-	0.00	-
	Ethylbenzene	0.00	-	0.00	-
	Fluoranthene	0.00	-	0.00	-
	Fluorene	0.00	-	0.00	-
	Hexachlorobenzene	0.00	-	0.00	-
	Hexachlorobutadiene	0.00	-	0.00	-
	Hexachloroethane	0.00	-	0.00	-
	Methyl Chloride	0.00	-	0.00	-
	Methylene Chloride	0.00	-	0.00	-
	Naphthalene	0.00	-	0.00	-
	Nitrobenzene	0.00	-	0.00	-
	2-Nitrophenol	0.00	-	0.00	-
	4-Nitrophenol	0.00	-	0.00	-
	Phenanthrene	0.00	-	0.00	-
	Phenol	0.00	-	0.00	-
	Pyrene	0.00	-	0.00	-

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Tetrachloroethylene	0.00	-	0.00	-
	Toluene	0.00	-	0.00	-
	1,2,4-Trichlorobenzene	0.00	-	0.00	-
	1,1,1-Trichloroethane	0.00	-	0.00	-
	1,1,2-Trichloroethane	0.00	-	0.00	-
	Trichloroethylene	0.00	-	0.00	-
	Vinyl Chloride	0.00	-	0.00	-
	pH	4.2 SU (min)		9.1 SU (max)	
	pH range excursions, > 60 minutes	0			
	pH range excursions, monthly total accumulative	5			
101	Enterococci (CFU or MPN per 100 mL)	4.13		160	
	Chlorine Residual, monthly minimum	-	1.00 (min)	-	-
201	Enterococci (CFU or MPN per 100 mL)	4.22		268	
	Chlorine Residual, minimum	-	1.40 (min)	-	-
002	Total Organic Carbon (TOC)	-	-	-	28.0
	Oil and grease	-	-	-	5.00
	pH	6.4 SU (min)		8.8 SU (max)	
	Zinc, Total	-	0.050	-	0.440
003	TOC	-	-	-	22.0
003A	Oil and grease	-	-	-	5.00
003B	Aluminum, Total	-	-	-	23.2
003C	Zinc, Total	-	-	-	0.324
	pH	6.3 SU (min)		8.6 SU (max)	
004	TOC	-	-	-	44.0
	Oil and grease	-	-	-	5.00
	Zinc, Total	-	-	-	0.731
	pH	6.6 SU (min)		8.5 SU (max)	
005	TOC	-	-	-	17.0
	Oil and grease	-	-	-	5.00
	pH	6.5 SU (min)		8.8 SU (max)	

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

D. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	CBOD (lbs/day)	10/2019	-	-	1,914	6,958
	CBOD (lbs/day)	2/2020	-	-	1,914	4,005
	CBOD (lbs/day)	6/2023	957	1,076	1,914	5,295

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

D. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	Nitrogen, ammonia total (lbs/day)	6/2023	-	-	434	454
	COD (lbs/day)	6/2023	-	-	17,825	19,834
	TSS (lbs/day)	2/2022	2,971	8,444	9,070	71,812
101	Enterococci (CFU or MPN per 100 mL)	3/2023	-	-	104	160
201	Enterococci (CFU or MPN per 100 mL)	11/2022	-	-	104	268
	Enterococci (CFU or MPN per 100 mL)	6/2023	-	-	104	136

The draft permit was not changed to address these effluent limit violations because they did not occur with enough frequency to indicate an ongoing pattern of noncompliance at the permitted facility.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as follows:

Outfall	Pollutant	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Flow	8.9 MGD		Report, MGD	
	CBOD ₅	957	-	1,914	-
	NH ₃ -N	217	-	434	-
	TSS	2,971	-	9,070	-
	COD	10,101	-	17,825	-
	Oil and grease	595	-	891	-
	Chromium, Total	1.02	-	2.54	-
	Copper, Total	1.77	-	3.75	-
	Lead, Total	7.84	-	16.6	-
	Nickel, Total	6.40	-	15.0	-
	Zinc, Total	4.73	-	11.75	-
	Acenaphthene	0.741	-	1.98	-
	Acenaphthylene	0.741	-	1.98	-
	Acrylonitrile	3.23	-	8.15	-
	Anthracene	0.741	-	1.98	-
	Benzene	1.24	-	4.58	-
	Benzo(a)anthracene	0.063	-	0.134	-
	3,4-Benzofluoranthene	0.775	-	2.05	-
	Benzo(k)fluoranthene	0.741	-	1.98	-
	Benzo(a)pyrene	0.0063	-	0.0134	-
	Bis(2-ethylhexyl)phthalate	3.47	-	9.40	-
	Carbon Tetrachloride	0.606	-	1.28	-
	Chlorobenzene	0.505	-	0.944	-
	Chloroethane	3.50	-	9.03	-
	Chloroform	0.708	-	1.55	-
	2-Chlorophenol	1.04	-	3.30	-

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Chrysene	0.741	-	1.98	-
	Di-n-butyl phthalate	0.910	-	1.92	-
	1,2-Dichlorobenzene	2.59	-	5.49	-
	1,3-Dichlorobenzene	1.04	-	1.48	-
	1,4-Dichlorobenzene	0.505	-	0.944	-
	1,1-Dichloroethane	0.741	-	1.98	-
	1,2-Dichloroethane	2.29	-	7.11	-
	1,1-Dichloroethylene	0.539	-	0.842	-
	1,2-trans Dichloroethylene	0.708	-	1.82	-
	2,4-Dichlorophenol	1.31	-	3.77	-
	1,2-Dichloropropane	5.15	-	7.75	-
	1,3-Dichloropropylene	0.977	-	1.48	-
	Diethyl phthalate	2.73	-	6.84	-
	2,4-Dimethylphenol	0.606	-	1.21	-
	Dimethyl phthalate	0.640	-	1.58	-
	4,6-Dinitro-o-cresol	2.62	-	9.33	-
	2,4-Dinitrophenol	2.39	-	4.14	-
	2,4-Dinitrotoluene	3.80	-	9.60	-
	2,6-Dinitrotoluene	8.59	-	21.6	-
	Ethylbenzene	1.07	-	3.64	-
	Fluoranthene	0.842	-	2.29	-
	Fluorene	0.741	-	1.98	-
	Hexachlorobenzene	0.002	-	0.004	-
	Hexachlorobutadiene	0.558	-	1.18	-
	Hexachloroethane	0.708	-	1.82	-
	Methyl Chloride	2.89	-	6.40	-
	Methylene Chloride	1.34	-	3.00	-
	Naphthalene	0.741	-	1.98	-
	Nitrobenzene	0.910	-	2.29	-
	2-Nitrophenol	1.38	-	2.32	-
	4-Nitrophenol	2.42	-	4.18	-
	Phenanthrene	0.741	-	1.67	-
	Phenol	0.505	-	0.876	-
	Pyrene	0.842	-	2.25	-
	Tetrachloroethylene	0.741	-	1.88	-
	Toluene	0.876	-	2.69	-
	1,2,4-Trichlorobenzene	2.29	-	4.71	-
	1,1,1-Trichloroethane	0.708	-	1.82	-
	1,1,2-Trichloroethane	0.708	-	1.82	-
	Trichloroethylene	0.708	-	1.82	-
	Vinyl Chloride	3.50	-	9.03	-
		pH	6.0 SU (min)		9.0 SU (max)
101	Flow	Report, MGD		Report, MGD	
	Enterococci (CFU or MPN per 100 mL)	35		104	
	Chlorine Residual, minimum	1.0 mg/L (min)			
201	Flow	Report, MGD		Report, MGD	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
201	Enterococci (CFU or MPN per 100 mL)	35		104	
	Chlorine Residual, minimum	1.0 mg/L (min)			
002	Flow	Report, MGD		Report, MGD	
	TOC	-	-	-	75
	Oil and grease	-	-	-	15
	pH	6.0 SU (min)		9.0 SU (max)	
003 (003A 003B 003C)	Flow	Report, MGD		Report, MGD	
	TOC	-	-	-	75
	Oil and grease	-	-	-	15
	Zinc, Total	-	-	-	Report
	pH	6.0 SU (min)		9.0 SU (max)	
004	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	75
	Oil and grease	-	N/A	-	15
	Zinc, Total ¹	-	N/A	-	Report
	Zinc, Total ²	-	N/A	-	0.439
	pH	6.0 SU (min)		9.0 SU (max)	
005	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	75
	Oil and grease	-	N/A	-	15
	pH	6.0 SU (min)		9.0 SU (max)	
006	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	75
	Oil and grease	-	N/A	-	15
	pH	6.0 SU (min)		9.0 SU (max)	
007	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	100
	Oil and grease	-	N/A	-	15
	pH	6.0 SU (min)		9.0 SU (max)	

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.833583 N	95.107181 W
002	29.8304 N	95.10715 W
003	29.824703 N	95.126414 W
003A	29.8215861 N	95.1244889 W
003B	29.8221583 N	95.1223778 W
003C	29.82435 N	95.120452778 W
004	29.833411 N	95.106332 W
005	29.816261 N	95.098182 W

¹ Beginning upon the date of permit issuance and lasting for two years and 364 days.

² Beginning three years from the date of permit issuance and lasting until the date of permit expiration.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

006	29.838328 N	95.114848 W
007 ³	See Footnote	See Footnote

VIII. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested the following amendments that the executive director did not grant:

1. Removal of the monitoring and reporting requirement for total zinc from Outfall 003 (003A, 003B, 003C).

The permittee requested the removal of the monitoring and reporting requirement for total zinc from Outfall 003. This request was made based on recent DMR data indicating that the average concentration of total zinc in the discharge from Outfall 003 over the previous two years was below 70% of the calculated daily average water quality-based effluent limitation. DMR data, however, is not sufficient to exempt a permittee from anti-backsliding regulations under CWA 402(o)(2). Therefore, this request was not granted.

2. Removal of the monitoring requirement and daily maximum concentration limit for total zinc from Outfall 004.

The permittee requested the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total zinc from Outfall 004 based on recent DMR data. DMR data, however, is not sufficient to exempt a permittee from anti-backsliding regulations under CWA 402(o)(2). Therefore, this request was not granted.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following amendments that the Executive Director recommends granting:

1. Removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum from Outfall 003 (003A, 003B, 003C).

The permittee requested the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum from Outfall 003. This request was made based on the findings of an aluminum source study conducted by the permittee which demonstrated that significant sources of aluminum in the discharge are naturally occurring from soil particles carried in by stormwater. This study was submitted to TCEQ on January 11, 2022, and approved on March 3, 2023.

In accordance with anti-backsliding in CWA 402(o)(2)(b)(i), a permit may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

³ Outfall 007 is authorized in the current permit to discharge stormwater from a concrete batch plant. The latitude and longitude of the concrete batch plant change based on locations of construction projects at the facility. The concrete batch plant is not active, and therefore, latitude and longitude for Outfall 007 have not been designated.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

The following additional changes have been made to the draft permit:

1. Other Requirement No. 15 was removed from the draft permit as the aluminum partitioning coefficient study and source evaluation study were completed and submitted to TCEQ. Other Requirements No. 16 – 18 were renumbered accordingly.
2. Aluminum (Total) was removed from Other Requirement No. 3.
3. TMDL Project No. 1 and the associated waste load allocation is no longer applicable to this facility's discharge.
4. Added Outfall 007 longitude and latitude footnote to the Outfall Locations table.
5. Mixing zone language in Other Requirement No. 4 was updated based on the Critical Conditions memo, dated July 20, 2023.

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a major amendment to Permit No. WQ0000391000 to authorize removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003; removal of the monitoring and reporting requirement for total zinc at Outfall 003; and removal of the monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004. The existing permit authorizes the discharge of treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, construction stormwater, and process area stormwater from the adjacent co-generation facility at a daily average flow not to exceed 8,900,000 gallons per day via Outfall 001; process wastewater, stormwater, sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfalls 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; *de minimis* quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 (003A, 003B, and 003C) and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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.

B. WATER QUALITY SUMMARY**Discharge Routes**

The discharge route is via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 (003A, 003B, 003C) to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-02-03, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The unclassified water uses are minimal aquatic life use for the unnamed drainage ditches and Wallisville Gully and limited aquatic life use for HCFCD ditch G103-07-05 and HCFCD ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review

The discharge from this permit action 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 program (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. 1001 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 dioxin in edible

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

tissue and polychlorinated biphenyls (PCBs) in edible tissue from Lake Houston Dam to IH 10 (AUs 1001_01 and 1001_02).

The permittee has indicated that dioxins and PCBs are not expected to be present in the discharge from Outfalls 003 and 004. The major amendment request does not include increased flow or increased loading of these pollutants of concern. Therefore, the draft permit is not anticipated to contribute to the impairment of the receiving segment.

Completed Total Maximum Daily Loads (TMDLs)

Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System (TMDL Project No. 1) has been withdrawn and is no longer applicable to this segment. As such, there are no completed TMDLs for Segment No. 1001.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS1. GENERAL COMMENTS

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.

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. It does not include changes to the authorized wastestreams, or the wastewater treatment system. Therefore, the information provided in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

2. CALCULATIONS

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The calculations for technology-based effluent limitations in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

3. 316(B) COOLING WATER INTAKE STRUCTURES

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Technical review of 316(B) cooling water intake structure requirements is not within the scope of the amendment requests, therefore no technical review with regards to 316(B) cooling water intake structure requirements was performed. The review conducted

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (IPs) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The calculations for water quality-based effluent limitations in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

2. AQUATIC LIFE CRITERIAa. SCREENING

Water quality-based effluent limitations are calculated from saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfall 003 (003A, 003B, 003C)

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

drafting of this permit. The screening for aquatic life criteria in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge. The following critical effluent percentages are being used:

Acute Effluent % 100% Chronic Effluent % 100 %

General Screening Procedures

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA for Outfall 003, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include segment-specific values for TSS, pH, hardness, and chloride according to the *IPs*. The segment values are 12 mg/L for TSS was used for the unnamed ditch, The segment value of 8 mg/L for TSS for Segment No. 1001 was used for the saltwater portion of the discharge route. A site-specific hardness (as calcium carbonate, CaCO_3) of 147 mg/L was used. The site-specific value was developed for Lyondell's Channelview Complex-South (WQ0002927000) which discharges to a drainage ditch similar to the unnamed ditches included in this Fact Sheet and are more representative of the immediate receiving water bodies than Segment No. 1016. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

b. PERMIT ACTION FOR OUTFALL 003

As discussed in Section IX of this document, the existing water quality-based monitoring requirements and effluent limits for total aluminum have been removed from the draft permit based on the results of an aluminum source study submitted by the permittee. This removal is in accordance with anti-backsliding regulations in CWA 402(o)(2)(b)(i).

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Whole effluent toxicity criteria established in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Aquatic organism toxicity criteria in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Aquatic organism bioaccumulation criteria in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

6. DRINKING WATER SUPPLY PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Screening for drinking water supply protection in the existing Fact Sheet for the permit

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Screening for TDS, chloride, or sulfate in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

8. PROTECTION OF pH STANDARDS

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The pH screening in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

9. DISSOLVED OXYGEN PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The dissolved oxygen screening in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

10. BACTERIA STANDARDS PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The bacteria screening in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. 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 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, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. 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 proceeding.

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.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For additional information about this application, contact Cole Gray, DrPH at (512) 239-4736.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0000391000 issued on March 25, 2021.

B. APPLICATION

TPDES wastewater permit application received on March 1, 2023.

C. 40 CFR CITATION(S)

40 CFR Part 414 (BPT).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

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).

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).

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).

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).

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).

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).

TCEQ Interoffice Memorandum dated June 27, 2023, from Jenna Lueg of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated July 20, 2023, from Brian Christman of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Critical Conditions Memo).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

TCEQ Interoffice Memorandum dated July 21, 2023, from Josi Robertson of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated August 3, 2023, from Brad Caston of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Biomonitoring Memo).

E. MISCELLANEOUS

The State of Texas 2022 Integrated Report – Texas 303(d) List (Category 5), TCEQ, July 7, 2022.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 1, 2018, as approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not yet approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not yet approved by EPA Region 6.

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).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.

Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix A
Calculated Technology-Based Effluent Limits

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix A in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B
Calculated Water Quality-Based Effluent Limits

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix B in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

Appendix C pH Screening

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix C in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and are provided in Attachment 1 of this document.

Appendix D

Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix D in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document. Only those sections affected by the major amendment request are updated herein.

The following table is a summary of technology-based effluent limitations calculated/assessed in the draft permit (Technology-Based), calculated/assessed water quality-based effluent limitations (Water Quality-Based), and effluent limitations in the existing permit (Existing Permit). Effluent limitations appearing in bold are the most stringent of the three and are included in the draft permit.

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
003	Aluminum, Total ¹	-	-	-	1.765	-	1.765

¹ Although the removal of the daily maximum limit for total aluminum makes the proposed draft permit less stringent than the existing permit, the permittee submitted an aluminum source study to TCEQ which demonstrated that the significant sources of aluminum in their discharge are naturally occurring from soil particulates carried in the stormwater. This source study was approved by TCEQ. As such, the removal of the daily maximum limit for total aluminum is in compliance with anti-backsliding in CWA 402(o)(2)(b)(i).

Appendix E
Calculations of Single Grab Limits for Outfall 001

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix E in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000, U.S. Environmental Protection Agency (EPA) ID No. TX0003531, to discharge to water in the state

Issuing Office: Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, Texas 78711-3087

Applicant: Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Prepared By: Sarah A. Johnson
Wastewater Permitting Section
Water Quality Division
(512) 239-4649

Date: September 2, 2020; Revised October 19, 2020

Permit Action: Major amendment with renewal of TPDES Permit No. WQ0000391000 to authorize a reduction in the monitoring frequency for Outfall 002 for flow, total organic carbon (TOC), oil and grease, and pH; a reduction in the monitoring frequency for Outfalls 004 and 005 for oil and grease; the addition of process wastewater and stormwater to Outfall 101; the addition of construction stormwater and utility wastewaters to Outfall 001; and the removal of provisions in Other Requirements Nos. 9, 10, 15, and 16.

I. 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 Texas Administrative Code (TAC) §305.127(1)(C)(i).

II. APPLICANT ACTIVITY

The applicant currently operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility.

III. DISCHARGE LOCATION

As described in the application, the facility is located at 8280 Sheldon Road, in Channelview, Harris County, Texas 77530. Discharge is via Outfalls 001, 002, and 004 to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05; thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

IV. RECEIVING STREAM USES

The unclassified receiving water uses are minimal aquatic life use for the unnamed ditches and Wallisville Gully and limited aquatic life use for HCFCD ditch G103-07-05 and HCFCD ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period May 2015 through April 2020. The "average of daily average" values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The "maximum of daily maximum" values presented in the following table are the individual maximum values for the reporting period for each pollutant. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU). Outfalls 006 and 007 are not yet active.

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	5.28	9.60
101	Intermittent	0.08	0.52
201	Intermittent	0.0039	0.0700
002	Intermittent	1.44	33.60
003 ¹	Intermittent	0.80	9.20
004	Intermittent	0.22	4.10
005	Intermittent	0.16	0.95

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		lbs/day	lbs/day
001	Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD ₅)	179.9	6,958
	Ammonia Nitrogen (NH ₃ -N)	14.31	364
	Total Suspended Solids (TSS)	701.8	6,269
	Chemical Oxygen Demand (COD)	3,816	12,420
	Oil and grease	219.4	272.0

¹ Outfalls 003, 003A, 003B, and 003C are in close proximity to each other and discharge to the same immediate receiving water. The existing permit requires the permittee to sample and monitor at each outfall, but report only the highest value for flow, TOC, oil and grease, and zinc and the highest and lowest pH values across all sampling points for Outfall 003 in the monthly discharge monitoring report.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		lbs/day	lbs/day
001	Sulfate ²	47,126	68,550
	Chlorine Residual, minimum	N/A	1.10 mg/L (min)
	Chromium, Total	0.38	0.70
	Copper, Total	1.32	3.77
	Lead, Total	0.03	0.06
	Nickel, Total	0.48	0.85
	Zinc, Total	1.92	5.26
	Acenaphthene	0	0
	Acenaphthylene	0	0
	Acrylonitrile	0	0
	Anthracene	0	0
	Benzene	0	0
	Benzo(a)anthracene	0	0
	3,4-Benzofluoranthene	0	0
	Benzo(k)fluoranthene	0	0
	Benzo(a)pyrene	0	0
	Bis(2-ethylhexyl)phthalate	0	0
	Carbon Tetrachloride	0	0
	Chlorobenzene	0	0
	Chloroethane	0	0
	Chloroform	0.25	0.40
	2-Chlorophenol	0	0
	Chrysene	0	0
	Di-n-butyl phthalate	0	0
	1,2-Dichlorobenzene	0	0
	1,3-Dichlorobenzene	0	0
	1,4-Dichlorobenzene	0	0
	1,1-Dichloroethane	0	0
	1,2-Dichloroethane	0	0
	1,1-Dichloroethylene	0	0
	1,2-trans Dichloroethylene	0	0
	2,4-Dichlorophenol	0	0
	1,2-Dichloropropane	0	0
	1,3-Dichloropropylene	0	0
	Diethyl phthalate	0	0
	2,4-Dimethylphenol	0	0
	Dimethyl phthalate	0	0
	4,6-Dinitro-o-cresol	0	0
	2,4-Dinitrophenol	0	0
	2,4-Dinitrotoluene	0	0
	2,6-Dinitrotoluene	0	0
	Ethylbenzene	0	0

² Sulfate monitoring data is from September 2016 through March 2020. Monitoring requirements expired April 1, 2020.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		lbs/day	lbs/day
001	Fluoranthene	0	0
	Fluorene	0	0
	Hexachlorobenzene	0	0
	Hexachlorobutadiene	0	0
	Hexachloroethane	0	0
	Methyl Chloride	0	0
	Methylene Chloride	0	0
	Naphthalene	0	0
	Nitrobenzene	0	0
	2-Nitrophenol	0	0
	4-Nitrophenol	0	0
	Phenanthrene	0	0
	Phenol	0	0
	Pyrene	0	0
	Tetrachloroethylene	0	0
	Toluene	0	0
	1,2,4-Trichlorobenzene	0	0
	1,1,1-Trichloroethane	0	0
	1,1,2-Trichloroethane	0	0
	Trichloroethylene	0	0
	Vinyl Chloride	0	0
	pH	5.7 SU (min)	13.2 SU (max)
	pH range excursions, > 60 minutes	0	
	pH range excursions, monthly total accum	0	

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
101	Enterococci (CFU or MPN per 100 mL)	6.40	160
	Chlorine Residual, minimum	N/A	1.70 mg/L (min)
201	Enterococci (CFU or MPN per 100 mL)	5.79	72
	Chlorine Residual, minimum	N/A	1.10 mg/L (min)
002	TOC	N/A	23.0
	Oil and grease	N/A	5.0
	Zinc, Total	0.06	0.58
	pH	6.0 SU (min)	8.80 SU (max)
003	TOC	N/A	22.0
	Oil and grease	N/A	5.0
	Zinc, Total	N/A	0.57
	pH	6.50 SU (min)	8.70 SU (max)
004	TOC	N/A	44.0
	Oil and grease	N/A	5.0
	Zinc, Total	N/A	1.02
	pH	6.80 SU (min)	8.60 SU (max)
005	TOC	N/A	19.0

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
	Oil and grease	N/A	5.0
	pH	7.0 SU (min)	8.70 Su (max)

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

C. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	CBOD ₅ (lbs/day)	Oct. 2019			1,914	6,958
		Feb. 2020				4,005
	Copper, total (lbs/day)	Aug. 2015			3.75	3.77
	pH (SU)	April 2016			9.0	13.2
		May 2016				13.2
		Mar. 2020	6.0 (min)	5.7		

The draft permit was not changed to address these effluent limit violations because these violations are infrequent and uncommon and do not represent a pattern of chronic non-compliance. These violations may be reviewed by the Office of Compliance and Enforcement during the next records review.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as follows:

Outfall	Pollutant	Daily Average	Daily Maximum
		lbs/day	lbs/day
001	Flow	8.9 MGD	Report
	CBOD ₅	957	1,914
	NH ₃ -N	217	434
	TSS	2,971	9,070
	COD	10,101	17,825
	Oil and grease	595	891
	Chromium, Total	1.02	2.54
	Copper, Total	1.77	3.75
	Lead, Total	7.84	16.6
	Nickel, Total	6.40	15.0
	Zinc, Total	4.73	11.75
	Acenaphthene	0.741	1.98
	Acenaphthylene	0.741	1.98
	Acrylonitrile	3.23	8.15
	Anthracene	0.741	1.98
	Benzene	1.24	4.58
	Benzo(a)anthracene	0.063	0.134
	3,4-Benzofluoranthene	0.775	2.05
	Benzo(k)fluoranthene	0.741	1.98
	Benzo(a)pyrene	0.0063	0.0134

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Daily Average	Daily Maximum
		lbs/day	lbs/day
001	Bis(2-ethylhexyl)phthalate	3.47	9.40
	Carbon Tetrachloride	0.606	1.28
	Chlorobenzene	0.505	0.944
	Chloroethane	3.50	9.03
	Chloroform	0.708	1.55
	2-Chlorophenol	1.04	3.30
	Chrysene	0.741	1.98
	Di-n-butyl phthalate	0.910	1.92
	1,2-Dichlorobenzene	2.59	5.49
	1,3-Dichlorobenzene	1.04	1.48
	1,4-Dichlorobenzene	0.505	0.944
	1,1-Dichloroethane	0.741	1.98
	1,2-Dichloroethane	2.29	7.11
	1,1-Dichloroethylene	0.539	0.842
	1,2-trans Dichloroethylene	0.708	1.82
	2,4-Dichlorophenol	1.31	3.77
	1,2-Dichloropropane	5.15	7.75
	1,3-Dichloropropylene	0.977	1.48
	Diethyl phthalate	2.73	6.84
	2,4-Dimethylphenol	0.606	1.21
	Dimethyl phthalate	0.640	1.58
	4,6-Dinitro-o-cresol	2.62	9.33
	2,4-Dinitrophenol	2.39	4.14
	2,4-Dinitrotoluene	3.80	9.60
	2,6-Dinitrotoluene	8.59	21.6
	Ethylbenzene	1.07	3.64
	Fluoranthene	0.842	2.29
	Fluorene	0.741	1.98
	Hexachlorobenzene	0.002	0.004
	Hexachlorobutadiene	0.558	1.18
	Hexachloroethane	0.708	1.82
	Methyl Chloride	2.89	6.40
	Methylene Chloride	1.34	3.00
	Naphthalene	0.741	1.98
	Nitrobenzene	0.910	2.29
	2-Nitrophenol	1.38	2.32
	4-Nitrophenol	2.42	4.18
	Phenanthrene	0.741	1.67
	Phenol	0.505	0.876
	Pyrene	0.842	2.25
	Tetrachloroethylene	0.741	1.88
	Toluene	0.876	2.69
	1,2,4-Trichlorobenzene	2.29	4.71
	1,1,1-Trichloroethane	0.708	1.82
	1,1,2-Trichloroethane	0.708	1.82
	Trichloroethylene	0.708	1.82
	Vinyl Chloride	3.50	9.03

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Daily Average	Daily Maximum
		lbs/day	lbs/day
	pH	6.0 SU (min)	9.0 SU (max)

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
101 and 201	Flow (MGD)	Report	Report
	Enterococci (CFU or MPN per 100 mL)	35	104
	Chlorine Residual, minimum	1.0 mg/L (min)	
002	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)
003, 003A, 003B, 003C	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	Aluminum, Total ³	N/A	1.765
	Zinc, Total	N/A	Report
	pH	6.0 SU (min)	9.0 SU (max)
004	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	Zinc, Total ³	N/A	0.439
	pH	6.0 SU (min)	9.0 SU (max)
005	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)
006	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)
007	Flow (MGD)	Report	Report
	TSS	N/A	100
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.833583 N	95.107181 W
002	29.8304 N	95.10715 W
003	29.824703 N	95.126414 W
003A	29.8215861 N	95.1244889 W

³ Numerical effluent limitations begin upon completion of a three-year compliance period.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Latitude	Longitude
003B	29.8221583 N	95.1223778 W
003C	29.82435 N	95.120452778 W
004	29.833411 N	95.106332 W
005	29.816261 N	95.098182 W
006	29.838328 N	95.114848 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

A. The applicant requested the following amendments that the executive director did not grant:

1. Reduction in the monitoring frequency for Outfall 002 for flow, total organic carbon (TOC), and pH to quarterly, and for oil and grease to annually; a reduction in the monitoring frequency for Outfalls 004 and 005 for oil and grease to annually.

The least frequent monitoring frequency recommended in *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits* (TCEQ Document No. 98-001.000-OWR-WQ, May 1998) for industrial facilities is once per week for flow and pH; and once per two weeks for TOC and oil and grease. The existing permit's monitoring frequency is at or below the lowest frequency recommended for industrial facilities, with the exception of TOC and oil and grease at Outfall 002. Therefore, the draft permit includes a reduced monitoring frequency from once per week to once per two weeks for TOC and oil and grease at Outfall 002 only. All other monitoring frequency reduction requests are declined.

The permittee has a satisfactory compliance history rating for both the customer and facility site. There have been no effluent violations for TOC or oil and grease at Outfall 002 during the period of review. The effluent limitations for TOC and oil and grease remain the same as the existing permit. No antibacksliding justification is required.

B. The following changes have been made from the application that make the draft permit more stringent:

1. A water quality-based effluent limitation for the protection of aquatic life has been added for total aluminum at Outfall 003. See Section X.D of this fact sheet. An interim three-year compliance period is included in the draft permit for total aluminum at Outfall 003 in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to identify sources of the aforementioned pollutant, develop mitigation strategies and treatment options, and attain the water quality-based limits.
2. Water quality-based effluent limitations have been added for total zinc at Outfall 004. An interim three-year compliance period is included in the draft permit for total zinc at Outfall 004 in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to identify sources of the pollutant, develop mitigation strategies and treatment options, and attain the water quality-based limits.
3. Water quality-based effluent limits for the protection of human health are more stringent than the existing permit limits for benzo(a)anthracene, benzo(a)pyrene, hexachlorobenzene, and hexachlorobutadiene at Outfall 001. The draft permit includes the more stringent water quality-based effluent limits for these pollutants.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

No compliance period is included because the permittee's discharge monitoring reports indicate no detectable concentrations present in the effluent.

4. Technology-based effluent calculations for TSS at Outfall 001 are more stringent than the existing permit and are included in the draft permit. This discrepancy is due to differences in the production percentages used to calculate the conventional pollutants in Appendix A of this fact sheet.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

- A. The permittee requested the following amendments that the executive director recommends granting:

1. Addition of process wastewater and stormwater from the Houston Technology Center (HTC) complex to internal Outfall 101.

Internal Outfall 101 discharges via Outfall 001, which currently authorizes process wastewater and process area stormwater. The addition of these wastestreams to the internal Outfall 101 does not alter the nature of the discharge via Outfall 001. No antibacksliding justification is required. Effluent limitations for process wastewater and stormwater contributed by Outfall 101 are incorporated at Outfall 001.

2. Addition of construction stormwater and utility wastewaters (as defined in existing Other Requirement No. 13) and cooling tower and boiler maintenance wastewaters, water treatment wastewaters, and water from landfarm to Outfall 001.

The existing permit authorizes the discharge of construction stormwater via Outfalls 002, 003, and 004, which share the same immediate receiving water body as Outfall 001. EPA guidelines for stormwater recommend effluent limitations of TOC or COD, oil and grease, and pH. The existing permit includes limits for COD, TSS, oil and grease, and pH at Outfall 001.

The Fact Sheet and Executive Director's Preliminary Decision for the existing permit includes pollutant allocations for utility wastewater at Outfall 001. Other Requirement No. 13 of the existing permit defines *utility wastewater* as including, among others, steam condensate and blowdown, hydrotest water, demineralized water, raw and well water, and groundwater seepage. The existing permit authorizes the discharge of steam condensate and blowdown, demineralization regeneration blowdown, hydrostatic test water, groundwater from monitoring and recovery wells at Outfall 001. The addition of *utility wastewater* cooling tower and boiler maintenance wastewaters, water treatment wastewaters, and water from landfarm at Outfall 001 is similar to, if not the same as, wastestreams currently authorized by the existing permit. Therefore, the authorization of these additional wastestreams at Outfall 001 does not alter the nature of the discharge.

The major amendment request does not include a request to increase the total flow authorized at Outfall 001 or to recalculate the effluent limits to include increased loadings for the additional wastestreams. No antibacksliding justification is required.

3. Removal of total zinc monitoring requirements at Outfall 002.

Monitoring requirements have been included in the permit since at least 2006.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Monitoring requirements are included in a permit to provide a more detailed data set for use in determining the need for a numerical limit. The average total zinc concentration for Outfall 002 reported for May 2015 through April 2020 is 0.06 mg/L. This is below the 70% of the calculated daily average water quality-based effluent limitation for aquatic life protection (see Appendix B of this Fact Sheet). The permittee has demonstrated that the effluent discharged via Outfall 002 does not contain total zinc in concentrations necessitating monitoring requirements. This constitutes information that was not available at the time of permit issuance in accordance with 40 CFR § 122.44(l)(2)(i)(B)(1).

San Jacinto River Tidal is currently attaining water quality standards for total zinc, which satisfies the requirements of Clean Water Act (CWA) §§402(o)(1) and 303(d)(4). In compliance with CWA §402(o)(3), the revision complies with any applicable effluent guidelines (of which there are none for this outfall) and water quality standards.

For all these reasons, the removal of total zinc monitoring requirements at Outfall 002 meets anti-backsliding requirements.

4. Removal or revision of Other Requirements Nos. 8, 9, 10, 15, and 16.

Other Requirement No. 8 pertains to stormwater from landfarm cells. The permittee has requested clarification that stormwater from inactive landfarm cells may be diverted to Outfalls 002 or 004. This clarification does not alter the effluent quality from these outfalls and does not represent a change in the permit limits for the outfalls. Other Requirement No. 9 pertains to notification of start-up for Outfalls 006, 007, 101 and 201. The permittee submitted notification for internal Outfalls 101 and 201. Other Requirement No. 9 has been updated accordingly. Other Requirement No. 10, pertaining to pollutant analysis, has been fulfilled and is no longer necessary. It has been removed and replaced with a requirement pertaining to cooling water. Other Requirement No. 15 pertains to the development of an aluminum partitioning coefficient for Outfalls 002 and 003. The final report for Outfall 002 was submitted on August 6, 2020 and is currently under review by the TCEQ. This requirement has been updated. Other Requirement No. 16 pertains to a compliance schedule for the attainment of water quality-based effluent limits at Outfall 001. While the compliance period for the existing permit limits has been completed, this requirement has been retained but revised to address the water quality-based limits in the draft permit for Outfalls 001, 003, and 004.

The removal of completed or expired requirements, or the revision of requirements for accuracy and correctness does not constitute a relaxation of the permit. No antibacksliding justification is required.

B. The following additional changes have been made to the draft permit:

1. The single grab limitations were revised for several pollutants at Outfall 001. Single grab limits were calculated as discussed in Appendix E of this fact sheet.
2. Pages 3-13 were updated (January 2016 version).
3. Other Requirement No. 3 was updated to include minimum analytical level for total aluminum.
4. Other Requirement No. 10 was added to the draft permit to address cooling water intake structure requirements under CWA §316(b). Although CWA §316(b) does not

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

currently apply to this facility, the applicant would be required to notify the TCEQ if there is a change in how the facility obtains cooling water.

5. Other Requirement No. 17 was added to the draft permit to allow the TCEQ to amend the permit regarding plastic pellets, flake, or powder following the adoption of any new requirements on plastics.
6. The Other Requirements section has been renumbered and revised as follows:

Existing Permit	Draft Permit
1	1
2	2
3	3 (revised)
4	4
5	5
6	6
7	7
8	8 (revised)
9	9 (revised)

Existing Permit	Draft Permit
10	10 (replaced)
11	11
12	12
13	13
14	14
15	15 (revised)
16	16 (revised)
17	18
	17 (new)

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a major amendment to Permit No. WQ0000391000 to authorize a reduction in the monitoring frequency for Outfall 002 for flow, TOC, and pH to quarterly, and for oil and grease to annually; a reduction in the monitoring frequency for Outfalls 004 and 005 for oil and grease to annually; the addition of process wastewater and stormwater to Outfall 101; the addition of construction stormwater and utility wastewaters to Outfall 001; and the removal of provisions in Other Requirements Nos. 9, 10, 15, and 16. The existing permit authorizes the discharge of treated organic chemical manufacturing process wastewater, HTC wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, landfarm runoff, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, and process area stormwater from the adjacent co-generation facility at a daily average flow not exceed 8,900,000 gallons per day via Outfall 001; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfalls 101 and 201; de minimis quantities from spill cleanups, utility wastewater, construction water,

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; de minimis quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007.

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.

B. WATER QUALITY SUMMARY

Discharge Routes

The discharge route is via Outfalls 001, 002, and 004 to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to HCFCD ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05; thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The unclassified receiving water uses are minimal aquatic life use for the unnamed ditches and Wallisville Gully and limited aquatic life use for HCFCD ditch G103-07-05 and HCFCD ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

Antidegradation Review

In accordance with 30 TAC § 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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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's) biological opinion on the State of Texas authorization of the 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's

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

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. 1001 is currently listed on the state's inventory of impaired and threatened waters, the 2018 Clean Water Act Section 303(d) list. The listing is for dioxin and polychlorinated biphenyls (PCBs) in edible tissue in the reach from Interstate Highway 10 upstream to the Lake Houston Dam (AUs 1001_1 and 1001_02). The permittee indicated that dioxin is not expected to be present in the effluent and reported non-detectable levels of PCBs at Outfalls 001 through 005. The discharge is not expected to contribute to the impairments for dioxin and PCBs in edible tissue.

Completed Total Maximum Daily Loads (TMDLs)

Segment No. 1001 is included in the agency's document *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System* (TMDL Project No. 1). The discharge authorized in this draft permit was considered during the development of the TMDL and included in the waste load allocation. The TMDL indicates that the water quality criteria for dissolved nickel are generally being met in the Houston Ship Channel and the existing limit of 6.40 lbs/day Nickel for Outfall 001 is consistent with the TMDL and the TMDL Implementation Plan.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS**1. GENERAL COMMENTS**

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.

The draft permit authorizes the discharge of treated organic chemical manufacturing process wastewater, HTC wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), construction stormwater, process area stormwater runoff, and process area stormwater from the adjacent co-generation facility at a daily average flow not exceed 8,900,000 gallons per day via Outfall 001; sanitary wastewater associated with a septic chlorinator, process wastewater, and stormwater on an intermittent and flow-variable basis via Outfall 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; de minimis quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; de minimis quantities from spill cleanups, utility wastewater, construction water, and

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007.

The discharge of sanitary wastewater via Outfall 001 is subject to federal effluent limitation guidelines at 40 CFR Part 133-Secondary Treatment Regulation and 30 TAC Chapter 309. The discharge of process wastewater via Outfall 001 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 414. A new source determination was performed, and the discharge of sanitary wastewater and process wastewater is not a new source as defined at 40 CFR §122.2. Therefore, new source performance standards (NSPS) are not required for these discharges.

The discharge of HTC wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm stormwater, hydrostatic test water, maintenance wastewater, and groundwater from monitoring and recovery wells (onsite and offsite) via Outfall 001 are not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on BPJ.

The discharge of *de minimis* quantities from spill cleanups, utility wastewater (which includes potable water, vehicle rinse water, firewater [which has not come into direct contact with raw material, intermediate product, finished product, by-product, or waste product, and is not the result of a fire], hydrotest water, clarified water, demineralized water, steam condensate and blowdown, non-contact once-through cooling water, *de minimis* amounts of cooling tower water, raw and well water, groundwater seepage, condensate, and analyzer instrumentation drain wastewaters), construction water (which includes stormwater associated with construction activities), non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff via Outfalls 002 and 004 are not subject to federal effluent limitation guidelines, and any technology-based effluent limitations are based on BPJ.

The discharge of HTC-area stormwater via Outfall 006 and the discharge of *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff via Outfalls 003 and 005 are also not subject to federal effluent limitation guidelines, and any technology-based effluent limitations are based on BPJ.

The discharge of stormwater associated with construction activities from a concrete batch plant via Outfall 007 is not subject to federal effluent limitation guidelines, and any technology-based effluent limitations are based on BPJ and the Construction General Stormwater Permit (TXR150000).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

The Channelview North Complex produces bulk, commodity and specialty organic chemicals and thermoplastic resins. Chemicals are produced by high temperature cracking of various petroleum-based feedstocks. Chemicals are compressed, fractionated, and then recovered in downstream units. The primary waste streams are process wastewaters subject to 40 CFR Part 414 – Organic Chemicals, Plastics, and Synthetic Fibers, Subparts D (Thermoplastic Resins), F (Commodity Organic Chemicals), G (Bulk Organic Chemicals), and I (Direct Discharge Point Sources that Use End-of-Pipe Biological Treatment). These process wastewaters are routed to the wastewater treatment system prior to discharge via Outfall 001.

The following additional waste streams are also sent to the wastewater treatment system: first flush of stormwater runoff from production units (process area), auto shop wastewater, laboratory wastewater, HTC wastewater, utility wastewater, cooling tower blowdown, sanitary wastewater (including sanitary wastewater from the adjacent Lyondell Chemical Channelview South Plant), loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, non-contact cooling water during maintenance activities, demineralization regeneration blowdown, methanol neutralization sump wastewater, boiler blowdown, hydrostatic test water, maintenance wastewater, landfarm runoff, groundwater from monitoring and recovery wells (both on-site and off-site), and process area stormwater from an adjacent co-generation facility.

The wastewater system at the Channelview Complex begins with pretreatment, which may consist of separation, neutralization, and/or steam stripping. Pretreatment is accomplished in the operation units prior to routing to the wastewater treatment facility. The wastewater treatment facility employs activated sludge bio-treatment systems operated in parallel (OPI, OPII, and the East Plant). The wastewater treatment systems consist of equalization, stabilization, filtration, activated sludge biological treatment, clarification, and settling. Sanitary wastewater is collected separately, chlorinated, and then mixed with the industrial wastewater prior to routing to the biological unit. Treated wastewater is discharged via Outfall 001.

Wastewaters discharged via Outfalls 002, 003, 004, and 005 and proposed Outfalls 006 and 007 typically will not receive treatment.

2. CALCULATIONS

See Appendix A of this fact sheet for calculations and further discussion of technology-based effluent limitations proposed in the draft permit.

Technology-based effluent limitations for acenaphthene, acenaphthylene, acrylonitrile, anthracene, benzene, 3,4-benzofluoranthene, benzo(*k*)fluoranthene, bis(2-ethylhexyl) phthalate, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, 2-chlorophenol, chrysene, di-*n*-butyl phthalate, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, 1,2- trans-dichloroethylene, 2,4-dichlorophenol, 1,2-dichloropropane, 1,3-dichloropropylene, diethyl phthalate, 2,4-dimethyphenol, dimethyl phthalate, 4,6-dinitro-*o*-cresol, 2,4-dinitrophenol,

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

2,4-dinitrotoluene, 2,6-dinitrotoluene, ethylbenzene, fluoranthene, fluorene, hexachloroethane, methyl chloride, methylene chloride, naphthalene, nitrobenzene, 2-nitrophenol, 4-nitrophenol, phenanthrene, phenol, pyrene, tetrachloroethylene, toluene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, vinyl chloride, total chromium, total nickel, total zinc, and pH at Outfall 001 are continued from the existing permit.

Technology-based effluent limitations for chlorine residual at Outfalls 101 and 201; TOC, oil and grease, and pH at Outfalls 002, 003, 004, 005, and 006; and TSS, oil and grease, and pH at Outfall 007 are continued from the existing permit.

The technology-based limitation for certain pollutants calculated in Appendix A is slightly less stringent than the existing permit. This discrepancy is likely due to differences in rounding or truncation. The existing limit is continued in the draft permit as indicated with an asterisk in this table. The following technology-based effluent limitations are proposed in the draft permit:

Outfall	Pollutant	Daily Average, lbs/day	Daily Maximum, lbs/day
001	TSS	2,971	9,070
	COD	10,101	17,825
	Oil and Grease	595	891
	Chromium, total	1.02	2.54
	Nickel, total	6.40	15.0
	Zinc, total	4.73	11.75
	Acenaphthene	0.741 *	1.98
	Acenaphthylene	0.741 *	1.98
	Acrylonitrile	3.23	8.15
	Anthracene	0.741 *	1.98
	Benzene	1.24	4.58
	3,4-Benzofluoranthene	0.775	2.05
	Benzo(k)fluoranthene	0.741 *	1.98
	Bis(2-Ethylhexyl) Phthalate	3.47	9.40
	Carbon Tetrachloride	0.606 *	1.28
	Chlorobenzene	0.505 *	0.944
	Chloroethane	3.50	9.03
	Chloroform	0.708	1.55
	2-Chlorophenol	1.04	3.30
	Chrysene	0.741 *	1.98
	Di-n-butyl Phthalate	0.910	1.92
	1,2-Dichlorobenzene (ortho)	2.59	5.49
	1,3-Dichlorobenzene (meta)	1.04	1.48
	1,4-Dichlorobenzene (para)	0.505 *	0.944
	1,1-Dichloroethane	0.741 *	1.98
	1,2-Dichloroethane	2.29	7.11
	1,1-Dichloroethylene	0.539	0.843
	1,2-trans-Dichloroethylene	0.708	1.82
	2,4-Dichlorophenol	1.31	3.77
	1,2-Dichloropropane	5.15	7.75
	1,3-Dichloropropylene	0.977 *	1.48

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Daily Average, lbs/day	Daily Maximum, lbs/day
001	Diethyl Phthalate	2.73	6.84
	2,4-Dimethylphenol	0.606 *	1.21
	Dimethyl Phthalate	0.640 *	1.58
	4,6-Dinitro-o-cresol	2.62 *	9.33
	2,4-Dinitrophenol	2.39	4.14
	2,4-Dinitrotoluene	3.80 *	9.60
	2,6-Dinitrotoluene	8.59	21.6
	Ethylbenzene	1.07	3.64
	Fluoranthene	0.842 *	2.29
	Fluorene	0.741 *	1.98
	Hexachloroethane	0.708	1.82
	Methyl Chloride	2.89	6.40
	Methylene Chloride	1.34	3.00
	Naphthalene	0.741 *	1.98
	Nitrobenzene	0.910	2.29
	2-Nitrophenol	1.38	2.32
	4-Nitrophenol	2.42	4.18
	Phenanthrene	0.741 *	1.98
	Phenol	0.505 *	0.877
	Pyrene	0.842 *	2.25
	Tetrachloroethylene	0.741 *	1.88
	Toluene	0.876 *	2.69
	1,2,4-Trichlorobenzene	2.29	4.71 *
	1,1,1-Trichloroethane	0.708	1.82
	1,1,2-Trichloroethane	0.708	1.82
	Trichloroethylene	0.708	1.82
	Vinyl Chloride	3.50	9.03
	pH	6.0-9.0 SU	

Outfall	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
101, 201	Chlorine residual	1.0 (min)	
002, 003,	TOC	N/A	75
004, 005	Oil and Grease	N/A	15
006	pH	6.0-9.0 SU	
007	TSS	N/A	100
	Oil and Grease	N/A	15
	pH	6.0-9.0 SU	

3. 316(B) COOLING WATER INTAKE STRUCTURES

a. SCREENING

The facility obtains water from the City of Houston, a public water system (PWS No. TX1010013), 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

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

b. PERMIT ACTION

The Other Requirement No. 10 in the draft permit has been revised to require 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.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards (IPs)* is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls. A comparison of technology-based effluent limits and calculated water quality-based effluent limits can be found in Appendix D of this fact sheet.

2. AQUATIC LIFE CRITERIA

a. SCREENING

Water quality-based effluent limitations are calculated from saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfalls 001, 002, 003, 003A, 003B, 003C, and 004

There is no mixing zone or zone of initial dilution (ZID) for this discharge to an unnamed drainage ditch, an intermittent stream; acute freshwater criteria apply at the end of pipe. Acute and chronic saltwater criteria are

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

applied in the bay, estuary, or wide tidal river.

For the intermittent stream, the percent effluent for acute protection of aquatic life is 100% because the seven-day, two-year low-flow (7Q2) of the intermittent stream is 0.0 cubic feet per second (cfs). TCEQ uses the EPA horizontal jet plume model to estimate dilution for discharges into sections of bays, estuaries, and wide tidal rivers that are less than 400 feet wide. General assumptions used in the horizontal jet plume model are a non-buoyant discharge, a submersed pipe, and no cross flow. Based on this analysis the following critical effluent percentages are calculated based on the two-year maximum monthly average flow of <10 MGD:

Acute Effluent % (stream)	100 %
Acute Effluent % (bay, estuary, or wide tidal river)	34 %
Chronic Effluent % (bay, estuary, or wide tidal river)	9 %

Outfall 005

Acute saltwater criteria are applied at the edge of the ZID, and chronic saltwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as a volume within a radius of 50 feet from the point where the discharge enters San Jacinto River Tidal. The aquatic life mixing zone for this discharge is defined as a volume within a radius of 200 feet from the point where the discharge enters San Jacinto River Tidal.

TCEQ practice is to establish minimum estimated effluent percentages at the edges of the ZID and aquatic life mixing zone for discharges that are 10 MGD or less into bays, estuaries, or wide tidal rivers that are at least 400 feet wide. These critical effluent percentages are as follows:

Acute Effluent %	30%	Chronic Effluent %	8%
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Outfalls 006 and 007

Outfalls 006 and 007 discharge stormwater only. Typically, critical conditions are not developed for stormwater outfalls. Water quality-based effluent limits are developed for these outfalls.

General Screening Procedures

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA for Outfalls 001, 002, 003, 003A, 003B, 003C, and 004, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

for which the WLA will never be exceeded using a selected percentile confidence level.

From the WLA for Outfall 005, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 99th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include the segment-specific value for TSS according to the *IPs*. The discharge to the unnamed drainage ditch is a freshwater body that flows into a saltwater segment. Therefore, data from a representative freshwater segment was used for screening the freshwater portion of the discharge route. The segment value of 12 mg/L for TSS for Segment No. 1016 was used for the unnamed drainage ditch. The segment value of 8 mg/L for TSS for Segment No. 1001 was used for the saltwater portion of the discharge route. A site-specific hardness of 147 mg/L of calcium carbonate was used. The site-specific value was developed for Lyondell's Channelview Complex-South (WQ0002927000) which discharges to a drainage ditch similar to the unnamed ditches included in this Fact Sheet and are more representative of the immediate receiving water bodies than Segment No. 1016. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data for Outfalls 002 and 005 do not exceed 70 percent of the calculated daily average water quality-based effluent limitation for aquatic life protection. No additional limits or monitoring and reporting requirements have been added to the draft permit at Outfalls 002 or 005.

Reported analytical data for total aluminum for Outfalls 003, 003A, 003B, and 003C and total zinc for Outfall 004 exceed 85 percent of the

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

calculated daily average water quality-based effluent limitation for aquatic life protection.

A site-specific water-effect-ratio of 1.8 was used for total copper based on TSWQS, Appendix E.

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The existing limits are still protective of aquatic life..

An interim three-year compliance period is included in the draft permit for total aluminum at Outfall 003 and total zinc at Outfall 004 in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to identify sources of the aforementioned pollutants, develop mitigation strategies and treatment options, and attain the water quality-based limits.

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA (7-DAY CHRONIC)

a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic saltwater biomonitoring requirements at Outfall 001.

In the past three years, the permittee performed 24 chronic tests, with no demonstrations of significant toxicity (i.e., failure) by the mysid shrimp and no demonstrations of significant toxicity by the inland silverside.

A reasonable potential (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 whole effluent toxicity (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.

With no demonstrations of significant toxicity during the period of record for either test species, a determination of no reasonable potential was made.

All of the test results were used for this determination.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

Based on information contained in the permit application, the TCEQ has determined that there may be pollutants present in the effluent that may

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

have the potential to cause toxic conditions in the receiving stream.

WET testing (biomonitoring) is the most direct measure of potential toxicity, which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Mysidopsis bahia*). The frequency of the testing shall be once per quarter.
- ii) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*). The frequency of the testing shall be once per quarter.

Toxicity tests shall be performed in accordance with protocols described in *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 the latest revision. The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the state water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

This permit may be reopened to require effluent limits, additional testing, or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

If none of the first four consecutive quarterly tests demonstrates significant lethal or sublethal effects, 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. If one or more of the first four consecutive quarterly tests demonstrates significant sublethal effects, the permittee is required by the permit to continue quarterly testing for that species until four consecutive quarterly tests demonstrate no significant sublethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction for that species. If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee is required by the permit to continue quarterly testing for that species until the permit is reissued.

c. DILUTION SERIES

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 4%, 5%, 7%, 9%, and 12%. The low-flow effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

concentration (critical dilution) is defined as 9% effluent.

The dilution series outlined above was calculated using a 0.75 factor applied to the critical dilution. The critical dilution is the estimated effluent dilution at the edge of the aquatic life mixing zone, which is discussed in Section X.D.2.a. of this fact sheet.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

a. SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring requirements for Outfall 001. In the past three years, the permittee has performed twelve 24-hour acute tests, with no demonstrations of significant mortality.

b. PERMIT ACTION

Twenty-four-hour 100% acute biomonitoring tests are required at Outfall 001 at a frequency of once per six months for the life of the permit.

The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Acute 24-hour static toxicity test using the mysid shrimp (*Mysidopsis bahia*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.
- ii) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

Toxicity tests shall be performed in accordance with protocols described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition (EPA-821-R-02-012) or the latest revision.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

a. SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfalls 001, 002, 003, 003A, 003C, and 004

Fish tissue bioaccumulation criteria are applied in the bay, estuary, or wide tidal river for a discharge to an intermittent stream that enters a bay, estuary, or wide tidal river within 3 miles downstream of the discharge

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

point. TCEQ practice is to establish a minimum estimated effluent percentage for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

Outfall 005

Fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into bays, estuaries and wide tidal rivers. The human health mixing zone for this discharge is defined as a volume within a radius of 400 feet from the point where the discharge enters San Jacinto River Tidal. TCEQ practice is to establish a minimum estimated effluent percentage at the edge of the human health mixing zone for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

Outfalls 006 and 007

Outfalls 006 and 007 discharge stormwater only. Typically, critical conditions are not developed for stormwater outfalls. Water quality-based effluent limits are developed for these outfalls.

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used, with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70 percent and 85 percent of the calculated daily average water quality-based effluent limitation.

b. **PERMIT ACTION**

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of human health. Reported analytical data for all outfalls does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for human health protection. No additional limits or monitoring and reporting requirements have been added to the draft permit.

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The calculated water quality-based effluent limits for benzo(a)anthracene, benzo(a)pyrene, hexachlorobenzene, and hexachlorobutadiene are more stringent than the existing limits at Outfall

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

001.

An interim three-year compliance period is not included in the draft permit for these pollutants because the permittee's discharge monitoring reports indicate the pollutants are not present in detectable concentrations.

6. DRINKING WATER SUPPLY PROTECTION

a. SCREENING

Segment No. 1001, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

b. PERMIT ACTION

None.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTION

a. SCREENING

Segment No. 1001, which receives the discharges 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.

b. PERMIT ACTION

None.

8. PROTECTION OF pH STANDARDS

a. SCREENING

The existing permit includes pH limits of 6.0 – 9.0 standard units at Outfalls 001, 002, 003, 003A, 003B, 003C, 004, 006, and 007 which discharge into unclassified water bodies. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring a discharge to an unclassified water body to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria.

The existing permit includes pH limits of 6.0 – 9.0 SU at Outfall 005, which discharges directly into San Jacinto River Tidal, Segment No. 1001. Screening was performed to ensure that these existing pH limits would not cause a violation of the 6.5-9.0 SU pH criteria for San Jacinto River

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Tidal (see Appendix C).

b. PERMIT ACTION

The existing pH limits of 6.0 – 9.0 standard units are carried forward in the draft permit at Outfalls 001, 002, 003, 003A, 003B, 003C, 004, 006, and 007. The existing effluent limits of 6.0 – 9.0 SU at Outfall 005 are adequate to ensure that the discharge will not violate the pH criteria in San Jacinto River Tidal.

9. DISSOLVED OXYGEN PROTECTION

a. SCREENING

While the ELGs at 40 CFR Part 414 include limitations for biochemical oxygen demand, five-day (BOD₅), the existing permit includes limits for CBOD₅. Limits for daily average and daily maximum loading for CBOD₅ have been included since the permit issued on September 6, 1994. While BOD₅ limits are calculated in Appendix A of this document, CBOD₅ and ammonia nitrogen limits are continued in the draft permit.

The existing effluent limits have been reviewed for consistency with the minimum treatment recommendations contained in the *Waste Load Evaluation WLE-1R for the Houston Ship Channel System* (September 2006).

A dissolved oxygen modeling analysis was previously performed for this permit on January 25, 2017 by Xiaoxia Lu, P.E. Applicable water body uses and criteria, proposed permitted flow conditions, and modeling analytical procedures pertaining to this discharge situation remain unchanged from the previous review. In addition, the amendment request did not affect the effluent limitations or the nature of the proposed discharge from the facility. Therefore, the existing effluent set of 957 lbs/day CBOD₅ and 217 lbs/day NH₃-N for Outfall 001 is applicable to this permit. Due to the intermittent nature and limited oxygen demanding constituents of the discharges via Outfalls 002-006, no significant depletion of oxygen is expected in the receiving waters due to these outfalls. No additional modeling work was performed for the current permit action.

b. PERMIT ACTION

The existing effluent set of 957 lbs/day CBOD₅ and 217 lbs/day NH₃-N for Outfall 001 is continued in the draft permit.

10. BACTERIA STANDARDS PROTECTION

a. SCREENING

Sanitary wastewater generated at the facility is authorized for discharge via Outfall 001. Current agency policy is to impose appropriate effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

limitations for Enterococci for discharges of treated domestic wastewater directly to marine receiving waters or to freshwater bodies within three miles of marine receiving waters. Protection from exposure to human pathogens is therefore required.

TCEQ rules in 30 TAC Chapter 309 include the regulatory requirements regarding effluent limitations for bacteria for domestic wastewaters.

b. PERMIT ACTION

The existing permit limits for Enterococci at Outfalls 101 and 201 of 35 CFU or MPN per 100 mL (daily average) and 104 CFU or MPN per 100 mL (daily maximum) are continued in the draft permit.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. 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 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, along with the executive director's preliminary decision, as contained in the technical summary or fact sheet, to the chief clerk. 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 proceeding.

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

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

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 Sarah A. Johnson, Ph.D., at (512) 239-4649.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0000391000 issued on September 5, 2017.

B. APPLICATION

TPDES wastewater permit application received on December 30, 2019 and additional information received on February 18, 2020, March 17, 2020, July 16, 2020, August 6, 2020, and August 18, 2020.

C. 40 CFR CITATION

40 CFR Part 414 (BPT).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

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).

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).

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).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

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).

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).

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).

TCEQ Interoffice Memoranda dated March 4, 2020 and July 7, 2020, from Jeff Paull of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated March 30, 2020, from Katie Cunningham of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Critical Conditions Memo).

TCEQ Interoffice Memorandum dated May 1, 2020 from Gunnar Dubke of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated May 29, 2020, from Brad Caston of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Biomonitoring Memo).

Electronic mail dated July 7, 2020, from Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, to Nancy Ross, Lyondell Basell, requesting pollutant analysis data.

Electronic mail dated July 16, 2020, from Manish Pawar of Lyondell Basell, to Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, providing pollutant analysis data.

Electronic mail dated August 6, 2020, from Nancy Ross of Lyondell Basell, to Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, providing aluminum partitioning coefficient final report for Outfall 002.

Electronic mail dated August 18, 2020, from Nancy Ross of Lyondell Basell, to Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, providing metal-bearing process wastewater flows.

E. MISCELLANEOUS

The State of Texas 2018 Integrated Report – Texas 303(d) List (Category 5), TCEQ, December 23, 2019.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 1, 2018, as approved by EPA Region 6.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not yet approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not yet approved by EPA Region 6.

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).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.

Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Appendix A
Calculated Technology-Based Effluent Limits

Effluent limitations guidelines (ELGs) under 40 CFR Part 414 are applicable to the Equistar Chemicals Channelview Complex. Effluent limitations calculated using the applicable ELGs, which includes Subparts D, F, G, and I, are included in the draft permit. The following calculations are based on the most recent available information and are not included in the draft permit in any instance where the calculated effluent limitations are less stringent than effluent limitations included in the existing permit. See Appendix D for a comparison of existing effluent limitations and the following calculated technology-based effluent limitations.

OUTFALL 001

Conventional Pollutants

40 CFR Part 414, Subparts D, F, and G

ELG concentrations are required to be production-proportioned in accordance with 40 CFR §414.11(i). The ELG production percentages provided by the permittee are used to calculate the plant concentrations that are subsequently used to calculate daily average and daily maximum mass loadings (in lbs/day). Best practicable control technology currently available (BPT) limits are applied for Subpart D (40 CFR §414.41), Subpart F (40 CFR §414.61), and Subpart G (40 CFR §414.71).

Biochemical Oxygen Demand, 5-day (BOD₅)

Source	%	Daily Average Guideline	Daily Maximum Guideline
Subpart D	0.2	24 mg/L x 0.002 = 0.048 mg/L	64 mg/L x 0.002 = 0.128 mg/L
Subpart F	69.5	30 mg/L x 0.695 = 20.9 mg/L	80 mg/L x 0.695 = 55.6 mg/L
Subpart G	30.3	34 mg/L x 0.303 = 10.3 mg/L	92 mg/L x 0.303 = 27.9 mg/L
Calculated Guideline		31.2 mg/L	83.6 mg/L

Total Suspended Solids (TSS)

Source	%	Daily Average Guideline	Daily Maximum Guideline
Subpart D	0.2	40 mg/L x 0.002 = 0.08 mg/L	130 mg/L x 0.002 = 0.26 mg/L
Subpart F	69.5	46 mg/L x 0.695 = 32 mg/L	149 mg/L x 0.695 = 104 mg/L
Subpart G	30.3	49 mg/L x 0.303 = 14.8 mg/L	159 mg/L x 0.303 = 48.2 mg/L
Calculated Guideline		46.9 mg/L	152 mg/L

Effluent Flows

Process wastewater: 3.04 MGD
 Process area stormwater: 1.00 MGD
 Total: 4.04 MGD
 Utility Wastewater: 4.62 MGD
 Sanitary wastewater: 0.24 MGD
Total permitted flow: 8.9 MGD

The following technology-based effluent limitations are calculated by converting the above-calculated guideline concentrations to daily average and daily maximum mass loadings (in lbs/day) by multiplying the flow by a conversion factor of 8.345 and then multiplying that product by the concentrations (in mg/L).

Process wastewater and process area stormwater flows were combined for calculating loadings. Daily mass loading allocations for utility wastewater and sanitary wastewater are included. Sources for the concentrations used to calculate daily average and daily maximum allocations include 40 CFR Part 423 for utility wastewater (low-volume wastes) and 30 TAC Chapter 309 for sanitary wastewater.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

TSS

Source	Flow	Conversion Factor	Daily Average Guideline (mg/L)	Daily Maximum Guideline (mg/L)	Daily Average Limit (lbs/day)	Daily Maximum Limit (lbs/day)
Process and process area stormwater	4.04	8.345	46.9	152	1,581	5,124
Utility	4.62	8.345	35	100	1,350	3,855
Sanitary	0.24	8.345	20	45	40	90
Total					2,971	9,070

BOD₅

Source	Flow	Conversion Factor	Daily Average Guideline (mg/L)	Daily Maximum Guideline (mg/L)	Daily Average Limit (lbs/day)	Daily Maximum Limit (lbs/day)
Process and process area stormwater	4.04	8.345	31.2	83.6	1,052	2,819
Utility	4.62	8.345	10	20	386	771
Sanitary	0.24	8.345	20	45	40	90
Total					1,477	3,680

Chemical Oxygen Demand (COD) and Oil and Grease

Calculations of mass loading for COD and oil and grease were not performed. Limitations for COD and oil and grease are recommended by the EPA for stormwater discharges associated with industrial activities. The inclusion of limits, based on best professional judgement, date at least as far back as the permit issued in 1987 by the Texas Water Commission. The major amendment request does not include a request to increase the total flow authorized at Outfall 001 or to recalculate the effluent limits to include increased loadings for the additional wastestreams. The existing COD and oil and grease effluent limitations have not been recalculated and are continued in accordance with federal anti-backsliding regulations under 40 CFR §122.44(l)(2).

pH

Effluent limitations for pH (6.0 minimum and 9.0 maximum) are technology-based and continued from the existing permit in accordance with 40 CFR §§414.41, 414.61, and 414.71 and 40 CFR §122.44(l), anti-backsliding regulations.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Toxic Pollutants

Best available technology economically achievable (BAT) limits for pollutant parameters under 40 CFR Part 414, Subpart I are presented below. Process wastewater flows (below) were calculated using process wastewater flows and the conversion factor of 8.345 used for calculated mass limitations.

[ELG concentration in µg/L/1,000] = mg/L

[ELG concentration in µg/L/1,000] x 8.345 x process wastewater flow = lbs/day

40 CFR Part 414, Subpart I

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

Total Flow from Outfall (MGD) =	8.9
Process Wastewater Flow (MGD) =	4.04
Chromium Bearing Wastewater Flow (MGD) =	0.11
Copper Bearing Wastewater Flow (MGD) =	0.54
Nickel Bearing Wastewater Flow (MGD) =	0.47
Zinc Bearing Wastewater Flow (MGD) =	0.54

Parameter	Daily Avg (µg/L)	Daily Max (µg/L)	Daily Avg (lb/day)	Daily Max (lb/day)
Chromium	1110	2770	1.02	2.54
Copper	1450	3380	6.53	15.2
Cyanide	420	1200	0.000	0.000
Lead	320	690	0.000	0.000
Nickel	1690	3980	6.63	15.6
Zinc	1050	2610	4.73	11.7
Acenaphthene	22	59	0.742	1.98
Acenaphthylene	22	59	0.742	1.98
Acrylonitrile	96	242	3.23	8.15
Anthracene	22	59	0.742	1.98
Benzene	37	136	1.24	4.58
Benzo(a)anthracene	22	59	0.742	1.98
3,4-Benzofluoranthene	23	61	0.775	2.05
Benzo(k)fluoranthene	22	59	0.742	1.98
Benzo(a)pyrene	23	61	0.775	2.05
Bis(2-ethylhexyl) phthalate	103	279	3.47	9.40
Carbon Tetrachloride	18	38	0.607	1.28
Chlorobenzene	15	28	0.506	0.944
Chloroethane	104	268	3.50	9.03
Chloroform	21	46	0.708	1.55
2-Chlorophenol	31	98	1.04	3.30
Chrysene	22	59	0.742	1.98

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Di-n-butyl phthalate	27	57	0.910	1.92
	Daily	Daily		
	Avg	Max	Daily Avg	Daily Max
Parameter	(µg/L)	(µg/L)	(lb/day)	(lb/day)
1,2-Dichlorobenzene	77	163	2.59	5.49
1,3-Dichlorobenzene	31	44	1.04	1.48
1,4-Dichlorobenzene	15	28	0.506	0.944
1,1-Dichloroethane	22	59	0.742	1.98
1,2-Dichloroethane	68	211	2.29	7.11
1,1-Dichloroethylene	16	25	0.539	0.843
1,2-trans Dichloroethylene	21	54	0.708	1.82
2,4-Dichlorophenol	39	112	1.31	3.77
1,2-Dichloropropane	153	230	5.15	7.75
1,3-Dichloropropylene	29	44	0.978	1.48
Diethyl phthalate	81	203	2.73	6.84
2,4-Dimethylphenol	18	36	0.607	1.21
Dimethyl phthalate	19	47	0.641	1.58
4,6-Dinitro-o-cresol	78	277	2.63	9.33
2,4-Dinitrophenol	71	123	2.39	4.14
2,4-Dinitrotoluene	113	285	3.81	9.60
2,6-Dinitrotoluene	255	641	8.59	21.6
Ethylbenzene	32	108	1.07	3.64
Fluoranthene	25	68	0.843	2.29
Fluorene	22	59	0.742	1.98
Hexachlorobenzene	15	28	0.506	0.944
Hexachlorobutadiene	20	49	0.674	1.65
Hexachloroethane	21	54	0.708	1.82
Methyl Chloride	86	190	2.89	6.40
Methylene Chloride	40	89	1.34	3.00
Naphthalene	22	59	0.742	1.98
Nitrobenzene	27	68	0.910	2.29
2-Nitrophenol	41	69	1.38	2.32
4-Nitrophenol	72	124	2.42	4.18
Phenanthrene	22	59	0.742	1.98
Phenol	15	26	0.506	0.877
Pyrene	25	67	0.843	2.25
Tetrachloroethylene	22	56	0.742	1.88
Toluene	26	80	0.877	2.69
1,2,4-Trichlorobenzene	68	140	2.29	4.72
1,1,1-Trichloroethane	21	54	0.708	1.82
1,1,2-Trichloroethane	21	54	0.708	1.82
Trichloroethylene	21	54	0.708	1.82
Vinyl Chloride	104	268	3.50	9.03

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

Appendix B Calculated Water Quality-Based Effluent Limits

TEXTTOX MENU #10 - INTERMITTENT FRESHWATER STREAM WITHIN 3 MILES OF A 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 Freshwater and 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:	Equistar Chemicals, LP
TPDES Permit No:	WQ0000391000
Outfall No:	001, 002, 003 (003A, 003B, 003C), and 004
Prepared by:	S. Johnson
Date:	August 3, 2020

DISCHARGE INFORMATION

<i>Intermittent Receiving Waterbody:</i>	unnamed drainage ditch
Segment No. for Freshwater Ambient Data:	1016
TSS (mg/L) (Intermittent):	12
pH (Standard Units) (Intermittent):	7.5
Hardness (mg/L as CaCO ₃) (Intermittent):	147
Chloride (mg/L) (Intermittent):	82
Effluent Flow for Aquatic Life (MGD):	<10
% Effluent for Acute Aquatic Life (Intermittent):	100
<i>Saltwater Receiving Waterbody:</i>	San Jacinto River Tidal
Segment No.:	1001
TSS (mg/L) (Bay/Tidal River):	8
% Effluent for Chronic Aquatic Life (Bay/Tidal River):	9
% Effluent for Acute Aquatic Life (Bay/Tidal River):	34
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	<10
% Effluent for Human Health (Bay/Tidal River):	4

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

<i>Stream/River 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	5.68	-0.73	78018.52	0.516		1.00	Assumed
Cadmium	6.60	-1.13	240173.56	0.258		1.00	Assumed
<i>Stream/River 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>
Chromium (total)	6.52	-0.93	328368.46	0.202		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	328368.46	0.202		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	166496.80	0.334		1.00	Assumed
Lead	6.45	-0.80	386060.17	0.178		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	118813.75	0.412		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	185542.46	0.310		1.00	Assumed
Zinc	6.10	-0.70	221092.05	0.274		1.00	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

<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	15840.73	0.888		1.80	TSWQS
Lead	6.06	-0.85	196053.01	0.389		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	155493.92	0.446		1.00	Assumed
Zinc	5.36	-0.52	77695.02	0.617		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>FW WLAa (µg/L)</i>	<i>SW WLAa (µg/L)</i>	<i>SW WLAc (µg/L)</i>	<i>FW LTAA (µg/L)</i>	<i>SW L (µg/L)</i>
Aldrin	3.0	1.3	N/A	3.00	3.82	N/A	1.72	
Aluminum	991	N/A	N/A	991	N/A	N/A	568	
Arsenic	340	149	78	658	438	867	377	
Cadmium	12.5	40.0	8.75	48.4	118	97.2	27.8	
Carbaryl	2.0	613	N/A	2.00	1803	N/A	1.15	
Chlordane	2.4	0.09	0.004	2.40	0.265	0.0444	1.38	0.0
<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>FW WLAa (µg/L)</i>	<i>SW WLAa (µg/L)</i>	<i>SW WLAc (µg/L)</i>	<i>FW LTAA (µg/L)</i>	<i>SW L (µg/L)</i>
Chlorpyrifos	0.083	0.011	0.006	0.0830	0.0324	0.0667	0.0476	0.0
Chromium (trivalent)	781	N/A	N/A	3859	N/A	N/A	2211	
Chromium (hexavalent)	15.7	1090	49.6	15.7	3206	551	9.00	1
Copper	20.4	24.3	6.48	61.2	80.5	81.1	35.1	
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Cyanide (free)	45.8	5.6	5.6	45.8	16.5	62.2	26.2	
4,4'-DDT	1.1	0.13	0.001	1.10	0.382	0.0111	0.630	0
Demeton	N/A	N/A	0.1	N/A	N/A	1.11	N/A	
Diazinon	0.17	0.819	0.819	0.170	2.41	9.10	0.0974	0
Dicofol [Kelthane]	59.3	N/A	N/A	59.3	N/A	N/A	34.0	
Dieldrin	0.24	0.71	0.002	0.240	2.09	0.0222	0.138	0
Diuron	210	N/A	N/A	210	N/A	N/A	120	
Endosulfan I (alpha)	0.22	0.034	0.009	0.220	0.100	0.1000	0.126	0.0
Endosulfan II (beta)	0.22	0.034	0.009	0.220	0.100	0.1000	0.126	0.0
Endosulfan sulfate	0.22	0.034	0.009	0.220	0.100	0.1000	0.126	0.0
Endrin	0.086	0.037	0.002	0.0860	0.109	0.0222	0.0493	0.0
Guthion [Azinphos Methyl]	N/A	N/A	0.01	N/A	N/A	0.111	N/A	
Heptachlor	0.52	0.053	0.004	0.520	0.156	0.0444	0.298	0.0
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.16	N/A	1.13	0.471	N/A	0.645	0
Lead	98	133	5.3	552	1005	151	316	
Malathion	N/A	N/A	0.01	N/A	N/A	0.111	N/A	
Mercury	2.4	2.1	1.1	2.40	6.18	12.2	1.38	
Methoxychlor	N/A	N/A	0.03	N/A	N/A	0.333	N/A	
Mirex	N/A	N/A	0.001	N/A	N/A	0.0111	N/A	
Nickel	649	118	13.1	1573	347	146	902	
Nonylphenol	28	7	1.7	28.0	20.6	18.9	16.0	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

Parathion (ethyl)	0.065	N/A	N/A	0.0650	N/A	N/A	0.0372
Pentachlorophenol	14.4	15.1	9.6	14.4	44.4	107	8.26
Phenanthrene	30	7.7	4.6	30.0	22.6	51.1	17.2
Polychlorinated Biphenyls [PCBs]	2.0	10	0.03	2.00	29.4	0.333	1.15
Selenium	20	564	136	20.0	1659	1511	11.5
Silver	0.8	2	N/A	17.8	13.2	N/A	10.2
Toxaphene	0.78	0.21	0.0002	0.780	0.618	0.00222	0.447
Tributyltin [TBT]	0.13	0.24	0.0074	0.130	0.706	0.0822	0.0745
2,4,5 Trichlorophenol	136	259	12	136	762	133	77.9
Zinc	162	92.7	84.2	593	442	1517	340

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	2875	2674	3930	8315
Aldrin	1.147E-05	0.000287	0.000267	0.000392	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benzidine	0.107	2.68	2.49	3.65	7.73
Benzo(a)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo(a)pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8
Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane [Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin	2.0E-05	0.000500	0.000465	0.000683	0.00144

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

2,4-Dimethylphenol	8436	210900	196137	288321	609986
Di- <i>n</i> -Butyl Phthalate	92.4	2310	2148	3158	6681
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000020	0.0000019	0.0000027	0.0000058
Endrin	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
Ethylene Glycol	1.68E+07	420000000	390600000	574182000	1214766000
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
<i>Fish Only</i>	<i>Criterion</i>	<i>WLAh</i>	<i>LTAh</i>	<i>Daily Avg.</i>	<i>Daily Max.</i>
<i>Parameter</i>	<i>(µg/L)</i>	<i>(µg/L)</i>	<i>(µg/L)</i>	<i>(µg/L)</i>	<i>(µg/L)</i>
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (<i>beta</i>)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	246	229	336	711
Mercury	0.025	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
Methyl Ethyl Ketone	9.92E+05	24800000	23064000	33904080	71729040
Methyl <i>tert</i> -butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di- <i>n</i> -Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2,4,5-TP [Silvex]	369	9225	8579	12611	26681
1,1,1-Trichloroethane	784354	19608850	18236231	26807258	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

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

Aquatic Life	70% of	85% of
<i>Parameter</i>	<i>Daily Avg.</i>	<i>Daily Avg.</i>
	<i>(µg/L)</i>	<i>(µg/L)</i>
Aldrin	1.25	1.52
Aluminum	584	709

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Arsenic	144	175
Cadmium	28.5	34.6
Carbaryl	1.17	1.43
Chlordane	0.0278	0.0338
Chlorpyrifos	0.0106	0.0129
Chromium (trivalent)	2275	2763
Chromium (hexavalent)	9.25	11.2
Copper	26.5	32.1
Copper (oyster waters)	N/A	N/A
Cyanide (free)	5.42	6.58
4,4'-DDT	0.00697	0.00846
Demeton	0.697	0.846
Aquatic Life	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.0139	0.0169
Diuron	123	150
Endosulfan I (<i>alpha</i>)	0.0329	0.0399
Endosulfan II (<i>beta</i>)	0.0329	0.0399
Endosulfan sulfate	0.0329	0.0399
Endrin	0.0139	0.0169
Guthion [Azinphos Methyl]	0.0697	0.0846
Heptachlor	0.0278	0.0338
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.154	0.188
Lead	94.9	115
Malathion	0.0697	0.0846
Mercury	1.41	1.71
Methoxychlor	0.209	0.254
Mirex	0.00697	0.00846
Nickel	91.3	110
Nonylphenol	6.77	8.23
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	8.50	10.3
Phenanthrene	7.45	9.05
Polychlorinated Biphenyls [PCBs]	0.209	0.254
Selenium	11.7	14.3
Silver	4.34	5.27
Toxaphene	0.00139	0.00169
Tributyltin [TBT]	0.0516	0.0626
2,4,5 Trichlorophenol	80.1	97.3
Zinc	145	176

Human Health	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Acrylonitrile	2751	3340
Aldrin	0.000274	0.000333
Anthracene	31508	38260
Antimony	25622	31113
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	13899	16878
Benzidine	2.55	3.10
Benzo(a)anthracene	0.598	0.726
Benzo(a)pyrene	0.0598	0.0726

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Bis(chloromethyl)ether	6.56	7.97
Bis(2-chloroethyl)ether	1024	1244
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	180	219
Bromodichloromethane [Dichlorobromomethane]	6579	7988
Bromoform [Tribromomethane]	25359	30793
Cadmium	N/A	N/A
Carbon Tetrachloride	1100	1336
Chlordane	0.0598	0.0726
Chlorobenzene	65480	79512
Chlorodibromomethane [Dibromochloromethane]	4378	5316
Chloroform [Trichloromethane]	184144	223604
Chromium (hexavalent)	12009	14583
Chrysene	60.2	73.2
Human Health	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Cresols [Methylphenols]	222519	270202
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0478	0.0581
4,4'-DDE	0.00311	0.00377
4,4'-DDT	0.00956	0.0116
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	11316	13741
1,2-Dibromoethane [Ethylene Dibromide]	101	123
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	53.5	65.0
1,2-Dichloroethane	8708	10574
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109
Dichloromethane [Methylene Chloride]	318982	387335
1,2-Dichloropropane	6196	7524
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457
Dicofol [Kelthane]	7.17	8.71
Dieldrin	0.000478	0.000581
2,4-Dimethylphenol	201824	245073
Di- <i>n</i> -Butyl Phthalate	2210	2684
Dioxins/Furans [TCDD Equivalents]	0.0000019	0.0000023
Endrin	0.478	0.581
Epichlorohydrin	48159	58479
Ethylbenzene	44666	54237
Ethylene Glycol	401927400	488054700
Fluoride	N/A	N/A
Heptachlor	0.00239	0.00290
Heptachlor Epoxide	0.00693	0.00842
Hexachlorobenzene	0.0162	0.0197
Hexachlorobutadiene	5.26	6.39
Hexachlorocyclohexane (<i>alpha</i>)	0.200	0.244
Hexachlorocyclohexane (<i>beta</i>)	6.22	7.55
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	8.15	9.90
Hexachlorocyclopentadiene	277	336
Hexachloroethane	55.7	67.6
Hexachlorophene	69.3	84.2
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291
Lead	235	285
Mercury	0.598	0.726
Methoxychlor	71.7	87.1

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Methyl Ethyl Ketone	23732856	28818468
Methyl <i>tert</i> -butyl ether [MTBE]	250773	304511
Nickel	27273	33117
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	44810	54412
N-Nitrosodiethylamine	50.2	61.0
N-Nitroso-di- <i>n</i> -Butylamine	100	122
Pentachlorobenzene	8.49	10.3
Pentachlorophenol	6.93	8.42
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185
Pyridine	22656	27511
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	5.74	6.97
1,1,2,2-Tetrachloroethane	630	765
Human Health	70% of	85% of
	Daily Avg.	Daily Avg.
Parameter	(µg/L)	(µg/L)
Tetrachloroethylene [Tetrachloroethylene]	6698	8134
Thallium	5.50	6.68
Toluene	N/A	N/A
Toxaphene	0.263	0.319
2,4,5-TP [Silvex]	8828	10719
1,1,1-Trichloroethane	18765081	22786170
1,1,2-Trichloroethane	3971	4822
Trichloroethylene [Trichloroethene]	1720	2088
2,4,5-Trichlorophenol	44666	54237
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	394	479

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Mass loading limits in lbs/day for Outfall 001 are calculated below for pollutant parameters in the existing permit with applicable water quality criteria. The most stringent criteria is applied for pollutants with both aquatic life and human health criteria.

$$[(\text{Concentration in } \mu\text{g/L}) / 1000] \times 8.345 \times \text{Flow MGD}$$

Pollutant	Daily Average μg/L	Daily Max μg/L	Daily Average lbs/day	Daily Max lbs/day
Copper	37.8	80.1	2.81	5.95
Cyanide, free	7.74	16.3	0.575	1.211
Lead	135	286	10.03	21.2
Nickel	130	276	9.66	20.5
Zinc	207	439	15.4	32.6
Acrylonitrile	3930	8315	292	618
Anthracene	45011	95228	3343	7073
Benzene	19857	42010	1475	3120
Benzo(a)anthracene	0.854	1.8	0.063	0.134
Benzo(a)pyrene	0.0854	0.18	0.0063	0.013
Bis(2-ethylhexyl) phthalate	258	545	19.2	40.5
Carbon Tetrachloride	1572	3326	117	247
Chlorobenzene	93543	197905	6947	14699
Chloroform	263064	556550	19538	41335
Chrysene	86.1	182	6.39	13.52
Di-n-butyl phthalate	3158	6681	235	496
1,2-Dichlorobenzene	112751	238542	8374	17717
1,3-Dichlorobenzene	20335	43022	1510	3195
1,4-Dichlorobenzene	N/A	N/A	-	-
1,2-Dichloroethane	12440	26319	924	1955
1,1-Dichloroethylene	1883658	3985155	139900	295979
1,2-Dichloropropane	8851	18727	657	1391
1,3-Dichloropropylene	4067	8604	302	639
2,4-Dimethylphenol	288231	609986	21407	45304
Ethylbenzene	63809	134998	4739	10026
Hexachlorobenzene	0.0232	0.0491	0.002	0.004
Hexachlorobutadiene	7.51	15.9	0.558	1.18
Hexachloroethane	79.6	168	5.91	12.5
Methylene Chloride	455688	964075	33844	71602
Nitrobenzene	64014	135431	4754	10059
Phenanthrene	10.6	22.5	0.787	1.67
Tetrachloroethylene	9569	20246	711	1504
Toluene	N/A	N/A	-	-
1,1,1-Trichloroethane	26807258	56714676	1990988	4212227
1,1,2-Trichloroethane	5673	12003	421	891
Trichloroethylene	2457	5198	182	386
Vinyl Chloride	563	1193	41.8	88.6

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

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:	Equistar Chemicals, LLC
TPDES Permit No:	WQ000039100
Outfall No:	005
Prepared by:	S. Johnson
Date:	August 3, 2020

DISCHARGE INFORMATION

Receiving Waterbody:	San Jacinto River Tidal
Segment No:	1001
TSS (mg/L):	8
Effluent Flow for Aquatic Life (MGD)	<10
% Effluent for Chronic Aquatic Life (Mixing Zone):	8
% Effluent for Acute Aquatic Life (ZID):	30
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	<10
% Effluent for Human Health:	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	15840.73	0.888		1.8	TSWQS, Appendix E
Lead	6.06	-0.85	196053.01	0.389		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	155493.92	0.446		1.00	Assumed
Zinc	5.36	-0.52	77695.02	0.617		1.00	Assumed

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	4.33	N/A	1.39	N/A	2.03	4.31
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	497	975	159	595	233	494
Cadmium	40.0	8.75	133	109	42.7	66.7	62.7	132
Carbaryl	613	N/A	2043	N/A	654	N/A	961	2033
Chlordane	0.09	0.004	0.300	0.0500	0.0960	0.0305	0.0448	0.0948

**FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1**

<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>
Chlorpyrifos	0.011	0.006	0.0367	0.0750	0.0117	0.0458	0.0172	0.0364
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	3633	620	1163	378	555	1176
Copper	13.5	3.6	50.7	50.7	16.2	30.9	42.9	90.8
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	18.7	70.0	5.97	42.7	8.78	18.5
4,4'-DDT	0.13	0.001	0.433	0.0125	0.139	0.00763	0.0112	0.0237
Demeton	N/A	0.1	N/A	1.25	N/A	0.763	1.12	2.37
Diazinon	0.819	0.819	2.73	10.2	0.874	6.24	1.28	2.71
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	2.37	0.0250	0.757	0.0153	0.0224	0.0474
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	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endosulfan II (<i>beta</i>)	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endosulfan sulfate	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endrin	0.037	0.002	0.123	0.0250	0.0395	0.0153	0.0224	0.0474
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.125	N/A	0.0763	0.112	0.237
Heptachlor	0.053	0.004	0.177	0.0500	0.0565	0.0305	0.0448	0.0948
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.16	N/A	0.533	N/A	0.171	N/A	0.250	0.530
Lead	133	5.3	1139	170	364	104	152	322
Malathion	N/A	0.01	N/A	0.125	N/A	0.0763	0.112	0.237
Mercury	2.1	1.1	7.00	13.8	2.24	8.39	3.29	6.96
Methoxychlor	N/A	0.03	N/A	0.375	N/A	0.229	0.336	0.711
Mirex	N/A	0.001	N/A	0.0125	N/A	0.00763	0.0112	0.0237
Nickel	118	13.1	393	164	126	99.9	146	310
Nonylphenol	7	1.7	23.3	21.3	7.47	13.0	10.9	23.2
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	50.3	120	16.1	73.2	23.6	50.0
Phenanthrene	7.7	4.6	25.7	57.5	8.21	35.1	12.0	25.5
Polychlorinated Biphenyls [PCBs]	10	0.03	33.3	0.375	10.7	0.229	0.336	0.711
Selenium	564	136	1880	1700	602	1037	884	1870
Silver	2	N/A	15.0	N/A	4.79	N/A	7.03	14.8
Toxaphene	0.21	0.0002	0.700	0.00250	0.224	0.00153	0.00224	0.00474
Tributyltin [TBT]	0.24	0.0074	0.800	0.0925	0.256	0.0564	0.0829	0.175
2,4,5 Trichlorophenol	259	12	863	150	276	91.5	134	284
Zinc	92.7	84.2	501	1707	160	1041	235	498

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	2875	2674	3930	8315
Aldrin	1.147E-05	0.000287	0.000267	0.000392	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benzidine	0.107	2.68	2.49	3.65	7.73
Benzo(a)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo(a)pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
<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>
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane [Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin	2.0E-05	0.000500	0.000465	0.000683	0.00144
2,4-Dimethylphenol	8436	210900	196137	288321	609986
Di- <i>n</i> -Butyl Phthalate	92.4	2310	2148	3158	6681
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000020	0.0000019	0.0000027	0.0000058
Endrin	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
	42000000				
Ethylene Glycol	1.68E+07	0	390600000	574182000	1214766000
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (<i>beta</i>)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	246	229	336	711

**FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1**

Mercury	0.0250	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
Parameter	Fish Only Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Methyl Ethyl Ketone	9.92E+05	24800000	23064000	33904080	71729040
Methyl tert-butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di-n-Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2,4,5-TP [Silvex]	369	9225	8579	12611	26681
1,1,1-Trichloroethane	784354	19608850	18236231	26807258	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

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

Aquatic Life Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrolein	N/A	N/A
Aldrin	1.42	1.73
Aluminum	N/A	N/A
Arsenic	163	198
Cadmium	43.9	53.3
Carbaryl	672	817
Chlordane	0.0313	0.0381
Chlorpyrifos	0.0120	0.0146
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	389	472
Copper	30.0	36.4
Copper (oyster waters)	N/A	N/A
Cyanide (free)	6.14	7.46
4,4'-DDT	0.00784	0.00952
Demeton	0.784	0.952
Diazinon	0.898	1.09
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0156	0.0190
Diuron	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.0373	0.0453
Endosulfan II (<i>beta</i>)	0.0373	0.0453

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Endosulfan sulfate	0.0373	0.0453
Endrin	0.0156	0.0190
Guthion [Azinphos Methyl]	0.0784	0.0952
Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Heptachlor	0.0313	0.0381
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.175	0.213
Lead	106	129
Malathion	0.0784	0.0952
Mercury	2.30	2.79
Methoxychlor	0.235	0.285
Mirex	0.00784	0.00952
Nickel	102	124
Nonylphenol	7.68	9.32
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	16.5	20.1
Phenanthrene	8.45	10.2
Polychlorinated Biphenyls [PCBs]	0.235	0.285
Selenium	619	751
Silver	4.92	5.98
Toxaphene	0.00156	0.00190
Tributyltin [TBT]	0.0580	0.0705
2,4,5 Trichlorophenol	94.1	114
Zinc	164	200

Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Acrylonitrile	2751	3340
Aldrin	0.000274	0.000333
Anthracene	31508	38260
Antimony	25622	31113
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	13899	16878
Benzidine	2.55	3.10
Benzo(a)anthracene	0.598	0.726
Benzo(a)pyrene	0.0598	0.0726
Bis(chloromethyl)ether	6.56	7.97
Bis(2-chloroethyl)ether	1024	1244
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	180	219
Bromodichloromethane [Dichlorobromomethane]	6579	7988
Bromoform [Tribromomethane]	25359	30793
Cadmium	N/A	N/A
Carbon Tetrachloride	1100	1336
Chlordane	0.0598	0.0726
Chlorobenzene	65480	79512
Chlorodibromomethane [Dibromochloromethane]	4378	5316
Chloroform [Trichloromethane]	184144	223604
Chromium (hexavalent)	12009	14583
Chrysene	60.2	73.2
Cresols [Methylphenols]	222519	270202
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0478	0.0581
4,4'-DDE	0.00311	0.00377
4,4'-DDT	0.00956	0.0116
2,4'-D	N/A	N/A
Danitrol [Fenpropathrin]	11316	13741

**FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1**

1,2-Dibromoethane [Ethylene Dibromide]	101	123
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
3,3'-Dichlorobenzidine	53.5	65.0
1,2-Dichloroethane	8708	10574
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109
Dichloromethane [Methylene Chloride]	318982	387335
1,2-Dichloropropane	6196	7524
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457
Dicofol [Kelthane]	7.17	8.71
Dieldrin	0.000478	0.000581
2,4-Dimethylphenol	201824	245073
Di- <i>n</i> -Butyl Phthalate	2210	2684
Dioxins/Furans [TCDD Equivalents]	0.0000019	0.0000023
Endrin	0.478	0.581
Epichlorohydrin	48159	58479
Ethylbenzene	44666	54237
Ethylene Glycol	401927400	488054700
Fluoride	N/A	N/A
Heptachlor	0.00239	0.00290
Heptachlor Epoxide	0.00693	0.00842
Hexachlorobenzene	0.0162	0.0197
Hexachlorobutadiene	5.26	6.39
Hexachlorocyclohexane (<i>alpha</i>)	0.200	0.244
Hexachlorocyclohexane (<i>beta</i>)	6.22	7.55
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	8.15	9.90
Hexachlorocyclopentadiene	277	336
Hexachloroethane	55.7	67.6
Hexachlorophene	69.3	84.2
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291
Lead	235	285
Mercury	0.598	0.726
Methoxychlor	71.7	87.1
Methyl Ethyl Ketone	23732856	28818468
Methyl <i>tert</i> -butyl ether [MTBE]	250773	304511
Nickel	27273	33117
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	44810	54412
N-Nitrosodiethylamine	50.2	61.0
N-Nitroso-di- <i>n</i> -Butylamine	100	122
Pentachlorobenzene	8.49	10.3
Pentachlorophenol	6.93	8.42
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185
Pyridine	22656	27511
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	5.74	6.97
1,1,2,2-Tetrachloroethane	630	765
Tetrachloroethylene [Tetrachloroethylene]	6698	8134
Thallium	5.50	6.68
Toluene	N/A	N/A
Toxaphene	0.263	0.319
2,4,5-TP [Silvex]	8828	10719
1,1,1-Trichloroethane	18765081	22786170
1,1,2-Trichloroethane	3971	4822

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Trichloroethylene [Trichloroethene]	1720	2088
2,4,5-Trichlorophenol	44666	54237
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	394	479

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Appendix C
pH Screening

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			Equistar Chemicals LP WQ0000391000, 005 Seg. 1001
INPUT			Notes on Data Sources
1. MIXING ZONE BOUNDARY CHARACTERISTICS			
Dilution factor at mixing zone boundary	12.500	12.500	Calculated from chronic effluent % at edge of mixing zone given in 3/30/2020 critical conditions memo. Inverse of effluent fraction (1/0.08 = 12.5).
Depth at plume trapping level (m)	2.000	2.000	Default value. Range of depths tested.
2. BACKGROUND RECEIVING WATER CHARACTERISTICS			
Temperature (deg C):	20.00	20.00	Range of temperatures tested (5 to 35 degrees C)
pH:	7.50	7.50	Ambient pH for Segment 1001 (2010 IPs).
Salinity (psu):	10.00	15.00	Range of salinity tested (5 to 30 psu)
Total alkalinity (meq/L)	44.00	44.00	Hardness from 2010 IP's used for alkalinity
3. EFFLUENT CHARACTERISTICS			
Temperature (deg C):	26.50	26.50	Range of temperatures tested (5 to 35 degrees C)
pH:	6.00	9.00	Proposed permit limit.
Salinity (psu)	5.00	5.00	Minimum salinity assumed because discharge is freshwater. However, values up to 5 ppt tested.
Total alkalinity (meq/L):	0.40	10.00	For high pH scenario, tested a range of values. For low pH scenarios, used default of 20 mg/L CaCO ₃ = 0.40 meq/L
4. CLICK THE 'calculate' BUTTON TO UPDATE OUTPUT RESULTS >>>			
OUTPUT			
CONDITIONS AT THE MIXING ZONE BOUNDARY			
Temperature (deg C):	20.52	20.52	
Salinity (psu)	9.60	14.20	
Density (kg/m ³)	1005.38	1008.86	
Alkalinity (mmol/kg-SW):	40.30	40.92	
Total Inorganic Carbon (mmol/kg-SW):	41.16	41.31	
pH at Mixing Zone Boundary:	7.49	7.55	Segment 1001 Criteria: 6.5 to 9.0
Notes:			
To convert from units of mgCaCO ₃ /L to meq/L divide by 50.044 mg/meq			
PSU refers to the Practical Salinity Scale (PSS) and is approximately equivalent to parts per thousand (ppt)			

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix D Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

The following table is a summary of technology-based effluent limitations calculated/assessed in the draft permit, calculated/ assessed water quality-based effluent limitations, and effluent limitations in the existing permit. Effluent limitations appearing in bold are included in the draft permit.

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
101 and 201	Flow	Report	Report	Report	Report	Report	Report
	Enterococci (CFU or MPN per 100 mL)	-	-	35	104	35	104
	Chlorine residual	1.0 (min)	-	-	-	1.0 (min)	N/A
002	Flow (MGD)	Report	Report	Report	Report	Report	Report
	Total Organic Carbon (TOC)	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	Zinc, total	-	-	Data does not exceed screening value		Report	Report
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
003	Flow	Report	Report	Report	Report	Report	Report
	TOC	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	Aluminum, total	-	-	N/A	1.765	-	-
	Zinc, total	-	-	N/A	Report	N/A	Report
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
004	Flow	Report	Report	Report	Report	Report	Report
	TOC	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	Zinc, total	-	-	-N/A	0.439	N/A	Report
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
005 and 006	Flow	Report	Report	Report	Report	Report	Report
	TOC	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
007	Flow	Report	Report	Report	Report	Report	Report
	TSS	-	100	-	-	N/A	100
	Oil and Grease	-	15	-	-	N/A	15
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001	Flow	Report	Report	-	-	8.9 MGD	Report
	Carbonaceous Biochemical Oxygen Demand, 5-Day (CBOD ₅)	-	-	Existing permit limits are still protective		957	1,914
	Biochemical Oxygen Demand, 5-day (BOD ₅)	1,477	3,680	-	-	-	-
	Ammonia - Nitrogen (NH ₃ -N)	-	-	Existing permit limits are still protective		217	434
	Total Suspended Solids (TSS)	2,971	9,070	-	-	3,010	9,201
	Chemical Oxygen Demand (COD)	10,101	17,825	-	-	10,101	17,825
	Oil and Grease	595	891	-	-	595	891
	Chromium, total	1.02	2.54	-	-	1.02	2.54
	Copper, total	6.53	15.2	2.81	5.95	1.77	3.75
	Lead, total	-	-	10.03	21.2	7.84	16.6
	Nickel, total	6.63	15.6	9.66	20.5	6.40	15.0
	Zinc, total	4.73	11.76	15.4	32.6	4.73	11.75
	Acenaphthene	0.742	1.98	-	-	0.741	1.98
	Acenaphthylene	0.742	1.98	-	-	0.741	1.98
	Acrylonitrile	3.23	8.15	292	618	3.23	8.15
	Anthracene	0.742	1.98	3,343	7,076	0.741	1.98
	Benzene	1.24	4.58	1,475	3,120	1.24	4.58
	Benzo(a)anthracene	0.742	1.98	0.063	0.134	0.741	1.77
	3,4-Benzofluoranthene	0.775	2.05	-	-	0.775	2.05
	Benzo(k)fluoranthene	0.742	1.98	-	-	0.741	1.98
	Benzo(a)pyrene	0.775	2.05	0.0063	0.013	0.775	1.77
	Bis(2-Ethylhexyl) Phthalate	3.47	9.40	19.2	40.5	3.47	9.40
	Carbon Tetrachloride	0.607	1.28	117	247	0.606	1.28
	Chlorobenzene	0.506	0.944	6,947	14,699	0.505	0.944
	Chloroethane	3.50	9.03	-	-	3.50	9.03
	Chloroform	0.708	1.55	19,538	41,335	0.708	1.55
	2-Chlorophenol	1.04	3.30	-	-	1.04	3.30
	Chrysene	0.742	1.98	6.39	13.5	0.741	1.98
	Di-n-butyl Phthalate	0.910	1.92	235	496	0.910	1.92
	1,2-Dichlorobenzene (ortho)	2.59	5.49	8,374	17,717	2.59	5.49
	1,3-Dichlorobenzene (meta)	1.04	1.48	1,510	3,195	1.04	1.48
	1,4-Dichlorobenzene (para)	0.506	0.944	-	-	0.505	0.944

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001	1,1-Dichloroethane	0.742	1.98	-	-	0.741	1.98
	1,2-Dichloroethane	2.29	7.11	924	1,955	2.29	7.11
	1,1-Dichloroethylene	0.539	0.843	139,900	295,979	0.539	0.842
	1,2-trans-Dichloroethylene	0.708	1.82	-	-	0.708	1.82
	2,4-Dichlorophenol	1.31	3.77	-	-	1.31	3.77
	1,2-Dichloropropane	5.15	7.75	657	1,391	5.15	7.75
	1,3-Dichloropropylene	0.978	1.48	302	639	0.977	1.48
	Diethyl Phthalate	2.73	6.84	-	-	2.73	6.84
	2,4-Dimethylphenol	0.607	1.21	21,407	45,304	0.606	1.21
	Dimethyl Phthalate	0.641	1.58	-	-	0.640	1.58
	4,6-Dinitro-o-cresol	2.63	9.33	-	-	2.62	9.33
	2,4-Dinitrophenol	2.39	4.14	-	-	2.39	4.14
	2,4-Dinitrotoluene	3.81	9.60	-	-	3.80	9.60
	2,6-Dinitrotoluene	8.59	21.6	-	-	8.59	21.6
	Ethylbenzene	1.07	3.64	4,739	10,026	1.07	3.64
	Fluoranthene	0.843	2.29	-	-	0.842	2.29
	Fluorene	0.742	1.98	-	-	0.741	1.98
	Hexachlorobenzene	0.506	0.944	0.002	0.004	0.0111	0.0245
	Hexachlorobutadiene	0.674	1.65	0.558	1.18	0.674	1.65
	Hexachloroethane	0.708	1.82	5.91	12.5	0.708	1.82
	Methyl Chloride	2.89	6.40	-	-	2.89	6.40
	Methylene Chloride	1.34	3.00	33,844	71,602	1.34	3.00
	Naphthalene	0.742	1.98	-	-	0.741	1.98
	Nitrobenzene	0.910	2.29	4,754	10,058	0.910	2.29
	2-Nitrophenol	1.38	2.32	-	-	1.38	2.32
	4-Nitrophenol	2.42	4.18	-	-	2.42	4.18
	Phenanthrene	0.742	1.98	0.787	1.67	0.741	1.67
	Phenol	0.506	0.877	-	-	0.505	0.876
	Pyrene	0.843	2.25	-	-	0.842	2.25
	Tetrachloroethylene	0.742	1.88	711	1,504	0.741	1.88
	Toluene	0.877	2.69	-	-	0.876	2.69
	1,2,4-Trichlorobenzene	2.29	4.72	-	-	2.29	4.71
	1,1,1-Trichloroethane	0.708	1.82	1,990,998	4,212,227	0.708	1.82
	1,1,2-Trichloroethane	0.708	1.82	421	891	0.708	1.82

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001	Trichloroethylene	0.708	1.82	182	386	0.708	1.82
	Vinyl Chloride	3.50	9.03	41.8	88.6	3.50	9.03
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Appendix E
Calculations of Single Grab Limits for Outfall 001

The column labeled “Single Grab Method” in the table below refers to an explanation of how the single grab limit was calculated for each pollutant. The single grab limit included in the draft permit is shown in bold type.

Pollutant (Outfall 001)	Daily Average		Daily Maximum		Calculated Single Grab	Single Grab Method	Existing Single Grab	MAL
	lbs/day	mg/L	lbs/day	mg/L	mg/L		mg/L	mg/L
CBOD ₅	957	12.9	1914	25.8	39	A	39	-
Ammonia Nitrogen	217	2.9	434	5.8	8.77	A	8.75	
TSS	2971	40.0	9070	122.1	120	A	122	-
COD	10101	136.0	17825	240.0	408	A	408	-
Oil and grease	595	8.0	891	12.0	12	D	24	
Chromium, total	1.02	-	2.54	-	0.0514	C	0.0412	0.003
Copper, total	1.77	0.0378	3.75	0.0801	0.113	A	0.0717	0.002
Lead, Total	7.84	0.1056	16.6	0.2	0.316	A	0.316	0.0005
Nickel, Total	6.40	-	15.0	-	0.315	C	0.258	0.002
Zinc, total	4.73	-	11.75	-	0.238	C	0.191	0.005
Acenaphthene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Acenaphthylene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Acrylonitrile	3.237	-	8.159	-	0.165	C	0.2190	0.05
Anthracene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Benzene	1.247	-	4.585	-	0.093	C	0.1230	0.01
Benzo(a)anthracene	0.063	0.0008540	1.9891	0.0018	0.00256	E	0.0536	0.005
3,4-Benzofluoranthene	0.775		2.057		0.042	C	0.0554	0.01
Benzo(k)fluoranthene	0.742		1.989		0.040	C	0.0536	0.005
Benzo(a)pyrene	0.0063	0.00008540	0.0134	0.0001800	0.0002562	E	0.0554	0.005
Bis(2-ethylhexyl) phthalate	3.473	-	9.406	-	0.190	C	0.2530	0.01
Carbon Tetrachloride	0.607	-	1.281	-	0.026	C	0.0345	0.002

Pollutant (Outfall 001)	Daily Average		Daily Maximum		Calculated Single Grab	Single Grab Method	Existing Single Grab	MAL
	lbs/day	mg/L	lbs/day	mg/L	mg/L		mg/L	mg/L
Chlorobenzene	0.506	-	0.944	-	0.019	C	0.0254	0.01
Chloroethane	3.506	-	9.035	-	0.182	C	0.2430	0.05
Chloroform	0.708	-	1.551	-	0.031	C	0.0418	0.01
2-Chlorophenol	1.045	-	3.304	-	0.067	C	0.0890	0.01
Chrysene	0.742	-	1.989	-	0.040	C	0.0536	0.005
Di-n-butyl phthalate	0.910	-	1.922	-	0.039	C	0.0517	0.01
1,2-Dichlorobenzene	2.596	-	5.495	-	0.111	C	0.1480	0.01
1,3-Dichlorobenzene	1.045	-	1.483	-	0.030	C	0.0399	0.01
1,4-Dichlorobenzene	0.506	-	0.944	-	0.019	C	0.0254	0.01
1,1-Dichloroethane	0.742	-	1.989	-	0.040	C	0.0536	0.01
1,2-Dichloroethane	2.293	-	7.114	-	0.144	C	0.1910	0.01
1,1-Dichloroethylene	0.539	-	0.843	-	0.017	C	0.0227	0.01
1,2-trans Dichloroethylene	0.708	-	1.821	-	0.037	C	0.0490	0.01
2,4-Dichlorophenol	1.315	-	3.776	-	0.076	C	0.1010	0.01
1,2-Dichloropropane	5.158	-	7.754	-	0.157	C	0.2080	0.01
1,3-Dichloropropylene	0.978	-	1.483	-	0.030	C	0.0399	0.01
Diethyl phthalate	2.731	-	6.844	-	0.138	C	0.1840	0.01
2,4-Dimethylphenol	0.607	-	1.214	-	0.025	C	0.0327	0.01
Dimethyl phthalate	0.641	-	1.585	-	0.032	C	0.0427	0.01
4,6-Dinitro-o-cresol	2.630	-	9.339	-	0.189	C	0.2510	0.05
2,4-Dinitrophenol	2.394	-	4.147	-	0.084	C	0.1110	0.05
2,4-Dinitrotoluene	3.810	-	9.608	-	0.194	C	0.2580	0.01
2,6-Dinitrotoluene	8.597	-	21.611	-	0.436	C	0.5810	0.01
Ethylbenzene	1.079	-	3.641	-	0.074	C	0.0980	0.01
Fluoranthene	0.843	-	2.293	-	0.046	C	0.0617	0.01
Fluorene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Hexachlorobenzene	0.0017	2.32E-05	0.0036	4.91E-05	0.0001	E	0.00077	0.005
Hexachlorobutadiene	0.558	0.00751	0.001180	0.0159	0.022	A	0.0445	0.01
Hexachloroethane	0.708	-	1.821	-	0.037	C	0.049	0.02
Methyl Chloride	2.899	-	6.406	-	0.129	C	0.172	0.05
Methylene Chloride	1.349	-	3.001	-	0.061	C	0.0808	0.02

Pollutant (Outfall 001)	Daily Average		Daily Maximum		Calculated Single Grab	Single Grab Method	Existing Single Grab	MAL
	lbs/day	mg/L	lbs/day	mg/L	mg/L		mg/L	mg/L
Naphthalene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Nitrobenzene	0.910	-	2.293	-	0.046	C	0.0617	0.01
2-Nitrophenol	1.382	-	2.326	-	0.047	C	0.0626	0.02
4-Nitrophenol	2.427	-	4.181	-	0.084	C	0.112	0.05
Phenanthrene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Phenol	0.506	-	0.877	-	0.018	C	0.0236	0.01
Pyrene	0.843	-	2.259	-	0.046	C	0.0608	0.01
Tetrachloroethylene	0.742	-	1.888	-	0.038	C	0.0508	0.01
Toluene	0.877	-	2.697	-	0.054	C	0.0726	0.01
1,2,4-Trichlorobenzene	2.293	-	4.720	-	0.095	C	0.127	0.01
1,1,1-Trichloroethane	0.708	-	1.821	-	0.037	C	0.049	0.01
1,1,2-Trichloroethane	0.708	-	1.821	-	0.037	C	0.049	0.01
Trichloroethylene	0.708	-	1.821	-	0.037	C	0.049	0.01
Vinyl Chloride	3.506	-	9.035	-	0.182	C	0.243	0.01

Note	Single grab limit =	
A	$\frac{\text{Daily Avg (lbs/day)}}{8.9 \text{ MGD}} \times 3 = \text{Daily Avg (mg/L)} \times 3$	
B	$\frac{\text{Daily Max (lbs/day)}}{8.9 \text{ MGD}} \times 2 = \text{Daily Max (mg/L)} \times 2$	
C	$\frac{\text{Daily Max (lbs/day)}}{4.04 \text{ MGD}} \times \frac{4.04 \text{ MGD}}{8.9 \text{ MGD}} \times 1.5 = \text{Daily Max (mg/L)} \times \frac{4.04 \text{ MGD}}{8.9 \text{ MGD}} \times 1.5$	
D	$\frac{\text{Daily Max (lbs/day)}}{8.9 \text{ MGD}} \times 8.345 = \text{Daily Max (mg/L)} \text{ [when sample type is grab]}$	
E	MAL	



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

Equistar Chemicals, LP

whose mailing address is

P.O. Box 777
Channelview, Texas 77530

is authorized to treat and discharge wastes from Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility (SIC 2869, 2822, 2821, 2813)

located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530

via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-02-03, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto 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 on March 25, 2026.

ISSUED DATE:

TPDES PERMIT NO.
WQ0000391000
*[For TCEQ office use only -
EPA I.D. No. TX0003531]*

This major amendment replaces
TPDES Permit No.
WQ0000391000, issued on March
25, 2021.

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, utility wastewater ¹, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, maintenance wastewater, water from landfarm, groundwater from monitoring and recovery wells (on-site and off-site), construction stormwater ², process area stormwater runoff, and process area stormwater from the adjacent co-generation facility subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 8.9 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	lbs/day	mg/L	Measurement Frequency	Sample Type
Flow	8.9 MGD	Report, MGD	N/A	Continuous	Totalizer
Carbonaceous Biochemical Oxygen Demand, 5-Day (CBOD ₅)	957	1,914	39.0	2/Week	Composite
Ammonia - Nitrogen (NH ₃ -N)	217	434	8.75	2/Week	Composite
Total Suspended Solids (TSS)	2,971	9,070	120	2/Week	Composite
Chemical Oxygen Demand (COD)	10,101	17,825	408	2/Week	Composite
Oil and Grease	595	891	12.0	1/Quarter	Grab
Chromium, total	1.02	2.54	0.0412	1/Year	Composite
Copper, total	1.77	3.75	0.0717	1/Year	Composite
Lead, total	7.84	16.6	0.316	1/Year	Composite
Nickel, total	6.40	15.0	0.258	1/Year	Composite
Zinc, total	4.73	11.75	0.191	1/Year	Composite
Acenaphthene	0.741	1.98	0.040	1/Year	Composite
Acenaphthylene	0.741	1.98	0.040	1/Year	Composite
Acrylonitrile	3.23	8.15	0.165	1/Year	Composite
Anthracene	0.741	1.98	0.040	1/Year	Composite
Benzene	1.24	4.58	0.093	1/Year	Composite
Benzo(a)anthracene	0.063	0.134	0.005	1/Year	Composite

¹ See Other Requirement No. 13

² See Other Requirement No. 18

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	lbs/day	mg/L	Measurement Frequency	Sample Type
3,4-Benzofluoranthene	0.775	2.05	0.042	1/Year	Composite
Benzo(k)fluoranthene	0.741	1.98	0.040	1/Year	Composite
Benzo(a)pyrene	0.0063	0.013	0.005	1/Year	Composite
Bis(2-Ethylhexyl) Phthalate	3.47	9.40	0.190	1/Year	Composite
Carbon Tetrachloride	0.606	1.28	0.026	1/Year	Composite
Chlorobenzene	0.505	0.944	0.019	1/Year	Composite
Chloroethane	3.50	9.03	0.182	1/Year	Composite
Chloroform	0.708	1.55	0.031	1/Year	Composite
2-Chlorophenol	1.04	3.30	0.067	1/Year	Composite
Chrysene	0.741	1.98	0.040	1/Year	Composite
Di-n-butyl Phthalate	0.910	1.92	0.039	1/Year	Composite
1,2-Dichlorobenzene (ortho)	2.59	5.49	0.111	1/Year	Composite
1,3-Dichlorobenzene (meta)	1.04	1.48	0.030	1/Year	Composite
1,4-Dichlorobenzene (para)	0.505	0.944	0.019	1/Year	Composite
1,1-Dichloroethane	0.741	1.98	0.040	1/Year	Composite
1,2-Dichloroethane	2.29	7.11	0.144	1/Year	Composite
1,1-Dichloroethylene	0.539	0.842	0.017	1/Year	Composite
1,2-trans-Dichloroethylene	0.708	1.82	0.037	1/Year	Composite
2,4-Dichlorophenol	1.31	3.77	0.076	1/Year	Composite
1,2-Dichloropropane	5.15	7.75	0.157	1/Year	Composite
1,3-Dichloropropylene	0.977	1.48	0.030	1/Year	Composite
Diethyl Phthalate	2.73	6.84	0.138	1/Year	Composite
2,4-Dimethylphenol	0.606	1.21	0.025	1/Year	Composite
Dimethyl Phthalate	0.640	1.58	0.032	1/Year	Composite
4,6-Dinitro-o-cresol	2.62	9.33	0.189	1/Year	Composite
2,4-Dinitrophenol	2.39	4.14	0.084	1/Year	Composite
2,4-Dinitrotoluene	3.80	9.60	0.194	1/Year	Composite
2,6-Dinitrotoluene	8.59	21.6	0.436	1/Year	Composite
Ethylbenzene	1.07	3.64	0.074	1/Year	Composite
Fluoranthene	0.842	2.29	0.046	1/Year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	lbs/day	mg/L	Measurement Frequency	Sample Type
Fluorene	0.741	1.98	0.040	1/Year	Composite
Hexachlorobenzene	0.002	0.004	0.005	1/Year	Composite
Hexachlorobutadiene	0.558	1.18	0.022	1/Year	Composite
Hexachloroethane	0.708	1.82	0.037	1/Year	Composite
Methyl Chloride	2.89	6.40	0.129	1/Year	Composite
Methylene Chloride	1.34	3.00	0.061	1/Year	Composite
Naphthalene	0.741	1.98	0.040	1/Year	Composite
Nitrobenzene	0.910	2.29	0.046	1/Year	Composite
2-Nitrophenol	1.38	2.32	0.047	1/Year	Composite
4-Nitrophenol	2.42	4.18	0.084	1/Year	Composite
Phenanthrene	0.741	1.67	0.040	1/Year	Composite
Phenol	0.505	0.876	0.018	1/Year	Composite
Pyrene	0.842	2.25	0.046	1/Year	Composite
Tetrachloroethylene	0.741	1.88	0.038	1/Year	Composite
Toluene	0.876	2.69	0.054	1/Year	Composite
1,2,4-Trichlorobenzene	2.29	4.71	0.095	1/Year	Composite
1,1,1-Trichloroethane	0.708	1.82	0.037	1/Year	Composite
1,1,2-Trichloroethane	0.708	1.82	0.037	1/Year	Composite
Trichloroethylene	0.708	1.82	0.037	1/Year	Composite
Vinyl Chloride	3.50	9.03	0.182	1/Year	Composite

- All sanitary wastewater shall be given complete treatment (both primary and secondary).
- The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored continuously (see Other Requirement No. 2).
- There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples shall be taken at the following location: At Outfall 001, where commingled wastewaters are discharged prior to entering the on-site, unnamed drainage ditch.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 101

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge sanitary wastewater, HTC process wastewater ¹, and HTC stormwater ¹ from a septic chlorinator subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day	Estimate
Enterococci ²	35	104	104	1/Week	Grab
Chlorine residual ³	1.0 minimum	N/A	N/A	5/Week	Grab

- ¹ Effluent limits for process wastewater and stormwater are applied at the external Outfall 001.
- ² Most probable number or colony-forming units per 100 mL (MPN or CFU /100 mL).
- ³ All sanitary wastewater shall be chlorinated sufficiently to maintain at least a 1.0 mg/L chlorine residual after at least 20 minutes of contact time (based on peak flow).
2. Effluent monitoring samples shall be taken at the following location: At Outfall 101, at the exit of the septic chlorinators and prior to commingling with other wastewaters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 201

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge sanitary wastewater associated with a septic chlorinator, subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day	Estimate
Enterococci ¹	35	104	104	1/Week	Grab
Chlorine residual ²	1.0 minimum	N/A	N/A	5/Week	Grab

¹ Most probable number or colony-forming units per 100 mL (MPN or CFU /100 mL).

² All sanitary wastewater shall be chlorinated sufficiently to maintain at least a 1.0 mg/L chlorine residual after at least 20 minutes of contact time (based on peak flow).

2. Effluent monitoring samples shall be taken at the following location: At Outfall 102, at the exit of the septic chlorinators and prior to commingling with other wastewaters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 002

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ^{1, 2}, utility wastewater ³, construction water ⁴, non-process area stormwater runoff ¹, stormwater (from secondary containment structures) ^{1, 2}, and post-first flush process area stormwater runoff ¹ subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/ week ¹	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/ two weeks ¹	Grab
Oil and Grease	N/A	15	15	1/ two weeks ¹	Grab

¹ When a stormwater discharge occurs, samples shall be collected within the first hour after the stormwater discharge begins and 1/week thereafter for the duration of the stormwater discharge. Samples shall be taken 1/week or 1/two weeks as indicated for all other discharges.

² See Other Requirement No. 5.

³ See Other Requirement No. 13.

⁴ Including stormwater associated with construction activities. See Other Requirement No. 18.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/week ¹ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following locations: At Outfall 002, in the plant drainage ditch (on the west side of the sludge lagoons) where groundwater seepage, stormwater runoff, and other authorized wastewaters are discharged.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 003 (003A, 003B, 003C)

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ¹, utility wastewater ², construction water ³, and stormwater runoff subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/ Quarter ⁴	Estimate ⁵
Total Organic Carbon (TOC)	N/A	75	75	1/ Quarter ⁴	Grab ⁵
Oil and Grease	N/A	15	15	1/ Year ⁴	Grab ⁵
Zinc, total ⁶	N/A	Report	N/A	1/ Quarter ⁴	Grab ⁵

¹ See Other Requirement No. 5.

² See Other Requirement No. 13.

³ Including stormwater associated with construction activities. See Other Requirement No. 17.

⁴ When a discharge occurs, samples shall be collected within the first hour after the discharge begins.

⁵ If more than one source is associated with this particular waste category, the highest TOC, oil and grease, and total zinc shall be reported, and the highest and lowest pH shall be reported (note the monitoring sample locations stated below).

⁶ See Other Requirement No. 3.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/quarter ^{4,5} by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following locations: Outfall 003, which is comprised of combined intermittent discharges to the road ditches along Sheldon Road and Wallisville Road. Specifically, Outfall 003 is located at the southwest section of the plant adjacent to Sheldon Road; Outfall 003A is located at the southwest section of the plant adjacent to Wallisville Road; Outfall 003B is located at the southwest section of the plant, east of Outfall 003A, adjacent to Wallisville Road; and Outfall 003C is located at the southwest section of the plant, east of Outfall 003B, adjacent to Wallisville Road.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 004

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ¹, utility wastewater ², construction water ³, non-process area stormwater runoff, stormwater (from secondary containment structures) ¹, and post-first flush process area stormwater runoff subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Quarter ⁴	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/Quarter ⁴	Grab
Oil and Grease	N/A	15	15	1/Quarter ⁴	Grab
Zinc, total ^{5, 6}	N/A	Report	N/A	1/Quarter ⁴	Grab
Zinc, total ^{5, 7}	N/A	0.439	0.439	1/Quarter ⁴	Grab

¹ See Other Requirement No. 5.

² See Other Requirement No. 13.

³ Including stormwater associated with construction activities. See Other Requirement No. 17.

⁴ When a discharge occurs, samples shall be collected within one hour after the commencement of discharge.

⁵ See Other Requirement No. 3.

⁶ Beginning upon the date of permit issuance and lasting for two years and 364 days. See Other Requirement No. 15.

⁷ Beginning three years from the date of permit issuance and lasting until the date of permit expiration.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/Quarter ⁴ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 004, where intermittent discharges to an unnamed drainage ditch occur near the northeast corner of the plant site, adjacent to Outfall 001.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 005

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ¹, utility wastewater ², construction water ³, and stormwater runoff subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Quarter ⁴	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/Quarter ⁴	Grab
Oil and Grease	N/A	15	15	1/Quarter ⁴	Grab

¹ See Other Requirement No. 5.

² See Other Requirement No. 13.

³ Including stormwater associated with construction activities. See Other Requirement No. 17.

⁴ When a discharge occurs, samples shall be collected within one hour after the commencement of discharge.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/Quarter ⁴ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 005, where intermittent discharges occur from the barge dock area.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 006

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge Houston Technology Center-area stormwater subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Month ¹	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/Month ¹	Grab
Oil and Grease	N/A	15	15	1/Month ¹	Grab

¹ When a discharge occurs, samples shall be collected within one hour after the commencement of discharge.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/month¹ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 006, at the outlet (48-inch drain) of the stormwater impoundment at the Houston Technology Center.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 007

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge stormwater associated with construction activities from a concrete batch plant ¹ subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Quarter ²	Estimate
Total Suspended Solids (TSS)	N/A	100	100	1/Quarter ²	Grab
Oil and Grease	N/A	15	15	1/Quarter ²	Grab

¹ Including stormwater associated with construction activities. See Other Requirement No. 17.

² Samples must be obtained within one hour following the commencement of discharge.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/month ² by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 007, at the discharge point of stormwater runoff from the concrete batch plant located in the construction area and prior to combining with other stormwater runoff or wastewaters.

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.

OTHER REQUIREMENTS

1. 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.
2. The permittee shall maintain the pH at Outfall 001 within the range specified on Page 2b of this permit. Excursions from the range are permitted. An excursion is an unintentional and temporary incident in which the pH value of the wastewater exceeds the range set forth on Page 2b. A pH excursion is not a violation, and a non-compliance report is not required for pH excursions, provided:
 - A. the excursion does not exceed the range of 5-11 standard pH units;
 - B. the individual excursion does not exceed 60 minutes; and
 - C. the sum of all excursions does not exceed 7 hours and 26 minutes in any 31-day period.
3. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 12 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 12 and Compliance Monitoring Team (MC 224):

Pollutant	MAL¹ (mg/L)
Chromium (Total)	0.003
Copper (Total)	0.002
Lead (Total)	0.0005
Zinc (Total)	0.005

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	0.010
(Benzo(b)fluoranthene)	
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 Minimum analytical level.

Pollutant	MAL (mg/L)
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
Methylene Chloride	0.020
Methyl Chloride	0.050
Naphthalene	0.010
Nitrobenzene	0.010
2-Nitrophenol	0.020
4-Nitrophenol	0.050
Oil and grease	5.00
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 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.

4. Mixing Zones:

Outfalls 001, 002, 003, 004 - There is no mixing zone for these discharges to an intermittent stream. Acute toxic criteria apply at the point of discharge.

Outfall 005 - The chronic aquatic life mixing zone is defined as a volume within a radius of 200 feet from the point of discharge. Chronic toxic criteria apply at the edge of the chronic aquatic life mixing zone.

5. Discharges of *de minimis* quantities from spill cleanups via Outfalls 002, 003, 004, and 005 and stormwater (from secondary containment structures) via Outfalls 002 and 004 are only authorized under the following conditions:
- The discharge must not contain process wastewater or spilled materials (process wastewater includes any water that contains or has come into direct contact with a raw material, intermediate product, by-product, final product, or waste product).
 - The discharge may contain secondary washwaters from spill cleanup; however any waters containing spilled material or primary washwaters from spill cleanup must be treated and discharged via Outfall 001 or collected and hauled off-site for treatment and/or disposal at a properly authorized facility.
6. This permit does not authorize the permittee to accept wastewaters from third party sources, nor does it prohibit acceptance of such wastewaters. This permit only provides the authorization to discharge these wastes. Should authorization to accept third party waste be required, it is the obligation of the permittee to obtain such authorization from the appropriate regulatory authority.

Wastewater received from non-adjacent (off-site) affiliates may be discharged provided that:

- the permittee demonstrates that the off-site wastewaters are generated at a facility that is subject to the same provisions in 40 CFR Part 414 as the Equistar Chemicals Channelview Complex; or the permittee demonstrates that the off-site wastewaters are of similar nature and the treatment of such wastewaters is compatible with the wastewaters produced and treated at the Equistar Chemicals Channelview Complex;
 - the volume and nature of the off-site wastewaters will not have an impact on the Equistar Chemicals Channelview Complex Wastewater Treatment Plant's ability to consistently achieve the effluent limitations specified in this permit; and
 - the permittee shall provide written pre-notification of acceptance of wastewaters from non-adjacent affiliates' activities to the TCEQ Region 12 office.
7. Monitoring results must be provided at the intervals specified in the permit. For pollutants which are monitored annually, effluent reports must be submitted by January 20th for monitoring conducted during the previous 12-month period (i.e., through December). For pollutants which

are monitored twice per year, effluent reports must be submitted by July 20th and January 20th, for monitoring conducted during the previous six-month period (i.e., through June and December, respectively). For pollutants which are monitored four times per year, effluent reports must be submitted with the discharge monitoring reports by April 20th, July 20th, October 20th, and January 20th for monitoring conducted during the previous calendar quarter (i.e., through March, June, September, and December, respectively).

8. This permit does not authorize the diversion of stormwater from active landfarm cells to Outfall 002 or 004. Such diversion shall require written notification to and approval by the TCEQ's Wastewater Permitting Section (MC-148). Additional requirements may be imposed for stormwater from active landfill cells to be approved for diversion. Stormwater from inactive landfarm cells may be diverted to Outfall 002 or Outfall 004.
9. Reporting requirements at Outfall 006 and 007 according to 30 TAC §§ 319.1-319.12 and any additional effluent reporting requirements contained in the permit 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 12 Office and the Applications Review and Processing Team (MC 148) of the Water Quality Division at least forty-five days prior to plant startup or anticipated discharge, whichever occurs first, on Notification of Completion Form 20007.

10. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 12 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.

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 Industrial Permits 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. The permittee shall notify the Executive Director in writing, at least 90 days prior to discontinuing use of any surface impoundment, pit, or basin authorized by this permit. The permittee shall, at

the request of the Executive Director, submit such information as is necessary to evaluate closure of the waste management unit(s) including, but not limited to, chemical analyses of bottom sediments, soils, and groundwater samples.

13. Utility wastewater includes, but is not limited to: potable water, vehicle rinse water, firewater (which has not come into direct contact with raw material, intermediate product, finished product, by-product, or waste product and is not the result of a fire), hydrotest water, clarified water, demineralized water, steam condensate and blowdown, non-contact once-through cooling water, *de minimis* amounts of cooling tower water, raw and well water, groundwater seepage, condensate, and analyzer instrumentation drain wastewater.
14. The permittee may transport wastewater treatment sludge from Equistar Chemicals, LP Channelview Complex, [Texas Pollutant Discharge Elimination Permit (TPDES) Permit No. WQ0000391000] to Lyondell Chemical Company [TPDES Permit No. WQ0002927000] located on adjacent contiguous property, provided all other requirements necessary for the transport of sludge have been met and contingent upon the acceptance of the sludge by the LyondellBasell Industries Channelview South Plant.
15. SCHEDULE OF COMPLIANCE FOR WATER QUALITY-BASED EFFLUENT LIMITS

The permittee shall comply with the following schedule of activities for the attainment of water quality-based final effluent limitations for total aluminum at Outfall 003 and total zinc at Outfall 004:

- A. determine exceedance cause(s);
- B. develop control options;
- C. evaluate and select control mechanisms;
- D. implement corrective action; and
- E. attain final effluent limitations no later than three years from the date of permit issuance.

The permittee shall submit quarterly progress reports in accordance with the schedule below. The requirement to submit quarterly progress reports expires three years from the date of permit issuance.

PROGRESS REPORT DATE

January 1
April 1
July 1
October 1

The quarterly progress reports must include a discussion of the interim requirements that have been completed at the time of the report and must address the progress towards attaining the water quality-based final effluent limitations for total aluminum at Outfall 003 and total zinc at Outfall 004 no later than three years from the date of permit issuance.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. All reports must be submitted to the Region 12 Office and to the Enforcement

Division (MC 224) of the TCEQ.

16. The permittee is hereby notified that this permit may be reviewed by the Texas Commission on Environmental Quality after the development of any new requirements concerning plastics in order to determine if the limitations and conditions contained herein are consistent with any new requirements. As a result of this review, the permit may be amended, pursuant to 30 TAC §305.62, to include additional requirements as necessary to protect human health and the environment.
17. STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES

Equistar Chemicals, LP (permittee) must either 1) develop a Stormwater Pollution Prevention Plan (SWP3) and follow the other conditions of this permit to authorize stormwater discharges from each construction activity performed by the permittee that results in a land disturbance of one (1) or more acres, or 2) apply under TPDES general permit TXR150000 for authorization to discharge stormwater runoff from construction activities. If the permittee opts to discharge stormwater via this permit, only discharges of stormwater runoff from construction activities that are located at the facility authorized under this TPDES permit are eligible for authorization under this permit. Discharges of stormwater from small and large (1 acre or more) construction activities and support activities, include, but are not limited to: concrete batch plants, rock crushers, asphalt batch plants, equipment staging areas, material storage yards, material borrow areas, and excavated material disposal areas, may be authorized under this permit. Also, the following non-stormwater discharges may be discharged as a result of the construction activities: water line flushing and similar potable water sources; uncontaminated pumped groundwater, including infiltrated water in trenches or other excavated areas; air conditioning condensate; and pavement, exterior building, vehicle, and equipment wash water from washing activities conducted without the use of detergents or other chemicals.

I. Construction Stormwater Discharges

The permittee shall develop and implement a stormwater pollution prevention plan (SWP3). The SWP3 must be maintained onsite and made readily available for review by the TCEQ upon request. The SWP3 must, at a minimum, include the following:

- a. a site or project description, which includes the following information:
 - 1) a description of the nature of the construction activity;
 - 2) a list of potential pollutants and their sources;
 - 3) a description of the intended schedule or sequence of activities that will disturb soils for major portions of the site;
 - 4) the total number of acres of the entire property and the total number of acres where construction activities will occur, including off-site material storage areas, overburden and stockpiles of dirt, and borrow areas;
 - 5) data describing the soil or the quality of any discharge from the site;
 - 6) a map showing the general location of the site (e.g., a portion of a city or county map);
 - 7) a detailed site map (or maps) indicating the following:
 - (a) drainage patterns and approximate slopes anticipated after major grading activities;

- (b) areas where soil disturbance will occur;
 - (c) locations of all major erosion and sediment controls and natural buffers, either planned or in place;
 - (d) locations where temporary or permanent stabilization practices are expected to be used;
 - (e) locations of construction support activities, including off-site activities, including material, waste, borrow, fill, or equipment storage areas;
 - (f) surface waters (including wetlands) either at, adjacent, or in close proximity to the site;
 - (g) locations where stormwater discharges from the site directly to a surface water body or a municipal separate storm sewer system; and
 - (h) vehicle wash areas.
- 8) the location and description of support activities such as the concrete plant, gravel washing facilities, and other activities providing support to the construction site; and
- 9) the name of receiving waters at or near the site(s) that may be disturbed or that may receive discharges from disturbed areas of the project(s).
- b. A description of the Best Management Practices (BMPs) that will be used to minimize pollution in runoff. The description must identify the general timing or sequence for implementation. At a minimum, the description must include the following components:
- 1) General Requirements
 - (a) Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.
 - (b) Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.
 - (c) Controls must be developed to minimize the offsite transport of litter, construction debris, and construction materials.
 - 2) Erosion Control and Stabilization Practices

The SWP3 must include a description of temporary and permanent erosion control and stabilization practices for the site(s), including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where it is possible.

 - (a) Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.
 - (b) The following records must be maintained and either attached to or referenced in the SWP3:
 - (i) the dates when major grading activities occur;
 - (ii) the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - (iii) the dates when stabilization measures are initiated.
 - (c) Erosion control and stabilization measures must be initiated immediately in portions of the site(s) where construction activities have temporarily ceased. Stabilization measures that provide a protective cover must be initiated

immediately in portions of the site(s) where construction activities have permanently ceased. Except as provided in (c)(i) through (c)(iii) below, these measures must be completed no more than 14 days after the construction activity in that portion of the site(s) has temporarily or permanently ceased:

- (i) Where the immediate initiation of stabilization measures after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.
- (ii) In arid areas, semi-arid areas, or drought-stricken areas where the immediate initiation of stabilization measures after construction activity has temporarily or permanently ceased or is precluded by arid conditions, erosion control and stabilization measures must be initiated as soon as practicable. Where vegetative controls are not feasible due to arid conditions, the permittee shall immediately install, and within 14 calendar days of a temporary or permanent cessation of work in any portion of the site(s) complete, non-vegetative erosion controls. If non-vegetative controls are not feasible, the permittee shall install temporary sediment controls as required in Paragraph (c)(iii) below.
- (iii) In areas where temporary stabilization measures are infeasible, the permittee may alternatively utilize temporary perimeter controls. The permittee must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site(s) to the extent practicable. The permittee must continue to inspect the BMPs for unstabilized sites.

3) Sediment Control Practices

The SWP3 must include a description of any sediment control practices used to remove eroded soils from stormwater runoff, including the general timing or sequence for implementation of controls.

(a) Sedimentation Basin(s)

- (i) A sedimentation basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin may be temporary or permanent, and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site(s) and the sediment basin. Capacity calculations shall be included in the SWP3.
- (ii) Where rainfall data is not available or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site(s).
- (iii) If a sedimentation basin is not feasible, then the permittee shall provide equivalent control measures until final stabilization of the site(s). In determining whether installing a sediment basin is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation patterns, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins.

- (b) Perimeter Controls - At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site(s) conditions.
- (c) Controls for Sites With Drainage Areas Less than Ten Acres:
 - (i) Sediment traps and sediment basins may be used to control solids in stormwater runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site(s) conditions.
 - (ii) Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided. If a calculation is performed, then the calculation shall be included in the SWP3.
- c. Description of Permanent Stormwater Controls

A description of any measures that will be installed during the construction process to control pollutants in stormwater discharges that may occur after construction operations have been completed must be included in the SWP3.
- d. Other Required Controls and BMPs
 - 1) The permittee shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and the generation of dust. The SWP3 must include a description of controls utilized to accomplish this requirement.
 - 2) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.
 - 3) The SWP3 must include a description of potential pollutant sources from areas other than construction (such as stormwater discharges from dedicated gravel washing facilities and dedicated concrete batch plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.
 - 4) The permittee shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (such as runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.
 - 5) The permittee shall design and utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site(s).
- e. Maintenance Requirements
 - 1) All protective measures identified in the SWP3 must be maintained in effective operating condition. If, through inspections or other means, the permittee determines that BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWP3 and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise

rendered ineffective must be replaced or corrected immediately upon discovery.

- 2) If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the permittee shall replace or modify the control as soon as practicable after making the discovery.
- 3) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- 4) If sediment escapes the site(s), accumulations must be removed at a frequency that minimizes offsite impacts, and prior to the next rain event, if feasible.

f. Inspections of Controls

- 1) Personnel provided by the permittee must inspect disturbed areas of the construction site(s) that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Personnel conducting these inspections must be knowledgeable of this permit, familiar with the construction site(s), and knowledgeable of the SWP3 for the site(s). Sediment and erosion control measures identified in the SWP3 must be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking. Inspections must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.
- 2) Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g., site(s) is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. During periods of drought, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater.
- 3) As an alternative to the above-described inspection schedule of once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur on a specifically defined day, regardless of whether or not there has been a rainfall event since the previous inspection.
- 4) The inspections may occur on either schedule provided that the SWP3 reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented in the SWP3 (e.g., end of "dry" season and beginning of "wet" season).
- 5) In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.
- 6) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.
- 7) The permittee shall prepare, and retain as part of the SWP3 a report summarizing the scope of the inspection, the date(s) of the inspection, and major observations relating to

the implementation of the SWP3 must be made and retained as part of the SWP3. Major observations should include: The locations of discharges of sediment or other pollutants from the site(s); locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

- 8) Actions taken as a result of inspections must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).
- 9) The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.

g. Erosion and Sediment Control Requirements

The permittee shall ensure that the discharge, achieves, at a minimum, the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology currently available (BPT).

- 1) Erosion and sediment controls - Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:
 - (a) Control stormwater volume and velocity within the site(s) to minimize soil erosion;
 - (b) Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
 - (c) Minimize the amount of soil exposed during construction activity;
 - (d) Minimize the disturbance of steep slopes;
 - (e) Minimize sediment discharges from the site(s). The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site(s);
 - (f) If earth disturbance activities are located in close proximity to a surface water, provide and maintain appropriate natural buffers if feasible and as necessary, around surface waters, depending on site-specific topography, sensitivity, and proximity to water bodies. Direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration unless unfeasible; and
 - (g) Minimize soil compaction and, unless infeasible, preserve topsoil.
 - (h) TCEQ does not consider stormwater control features (e.g., stormwater conveyance channels, storm drain inlets, sediment basins) to constitute "surface waters" for the purposes of triggering the buffer requirement in item (f) above. Also, areas that the permittee does not own or that are otherwise outside their operational control may be considered areas of undisturbed natural buffer for purposes of compliance with this requirement.
- 2) Soil stabilization - Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site(s), or temporarily ceased on any portion of the site(s) and will not resume for a period exceeding 14 calendar days. Temporary stabilization must be completed within 14 days after initiation of soil

stabilization measures, and final stabilization must be achieved prior to termination of permit coverage. In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative non-vegetative stabilization measures must be employed as soon as practicable.

- 3) Dewatering - Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited, unless managed by appropriate controls.
- 4) Pollution prevention measures - Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:
 - (a) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
 - (b) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site(s) to precipitation and to stormwater; and
 - (c) Minimize the discharge of pollutants from spills and leaks, and implement chemical spill and leak prevention and response procedures.
- 5) Prohibited discharges - The following discharges are prohibited:
 - (a) Wastewater from wash out of concrete trucks, unless managed by an appropriate control;
 - (b) Wastewater from wash out and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
 - (c) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
 - (d) Soaps or solvents used in vehicle and equipment washing.
- 6) Surface outlets - When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.

II. Concrete Batch Plant Stormwater Discharges

The permittee shall develop and implement a SWP3. The SWP3 must be maintained onsite and made readily available for review by the TCEQ upon request. The SWP3 may be a separate document for the Concrete Batch Plant or may be combined with the SWP3 developed for construction activities described above in item 8. The SWP3 must at a minimum include the following:

- a. Description of Potential Pollutant Sources - The SWP3 must provide a description of potential sources (activities and materials) that may reasonably be expected to affect the quality of stormwater discharges associated with the concrete batch plant. The SWP3 must describe practices that will be used to reduce the pollutants in these discharges to assure compliance with this permit, including the protection of water quality, and must ensure the implementation of these practices. The following must be developed, at a minimum, in support of developing this description:
 - 1) Drainage Area Site Map – The site map must include the following information:

- (a) the location of all outfalls for stormwater discharges associated with the concrete batch plant authorized under this permit;
 - (b) a depiction of the drainage area and the direction of flow to the outfall(s) and an identification of the types of pollutants that are likely to be present in the stormwater discharges from each area of the facility that generates stormwater discharges with a reasonable potential for containing significant amounts of pollutants, including sediments (for example, toxicity of the chemical, and the quantity of chemicals uses, produced, or discharged);
 - (c) structural controls (for example, ponds, vegetated buffers, and constructed stormwater pollution controls) used within the drainage area(s);
 - (d) the locations of the following areas associated with the concrete batch plant that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal of wastes; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and
 - (e) any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.
- 2) Inventory of Exposed Materials – A list of materials handled at the concrete batch plant that may be exposed to stormwater and that have a potential to affect the quality of stormwater discharges associated with the concrete batch plant.
- 3) Spills and Leaks - A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to stormwater and that drain to stormwater outfalls associated with the concrete batch plant must be developed, maintained, and updated as needed.
- 4) Sampling Data - A summary of existing stormwater discharge sampling data must be maintained as part of the SWP3.
- b. Pollution Prevention Measures and Controls - The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3's "Description of Potential Pollutant Sources" in item 9.a above, and a schedule for implementation of the measures and controls. This must include, at a minimum:
 - 1) Good Housekeeping Measures - Good housekeeping measures must be developed and implemented in the area(s) associated with the concrete batch plant.
 - (a) The permittee shall prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to stormwater. Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. The SWP3 must indicate the frequency of sweeping or other practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement, fly ash, and kiln dust or aggregate is being handled or otherwise processed in the area.

- (b) The permittee shall prevent the exposure of fine granular solids, such as cement, fly ash and kiln dust to stormwater. Where practicable, these materials must be stored in enclosed silos, hoppers or buildings, or other structure, to prevent exposure to precipitation or runoff.
- 2) Inventory Measures – A preventive maintenance program must include routine inspection and maintenance of stormwater management controls (including oil/water separators, catch basins, drip pans, berms, dikes, and other similar controls), as well as inspecting and testing facility equipment and systems to discover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and measures to ensure appropriate maintenance and performance of facility equipment and systems.
 - 3) Spill Prevention and Response Procedures - Areas where potential spills that can contribute pollutants to stormwater runoff, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment. Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.
 - 4) Inspections - The permittee shall identify qualified facility personnel (for example, a person or persons with knowledge of this permit, the concrete batch plant, and the SWP3 related to the concrete batch plant for the site) to inspect designated equipment and areas of the facility specified in the SWP3. The inspection frequency must be specified in the SWP3 based upon a consideration of the level of concrete production at the facility, but must be a minimum of once per month while the facility is in operation. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to stormwater at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection or containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections must be maintained and be made readily available for inspection upon request.
 - 5) Employee Training - An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for stormwater pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one training prior to the initiation of operation of the concrete batch plant.
 - 6) Record Keeping and Internal Reporting Procedures - A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of stormwater discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.
 - 7) Sediment and Erosion Control - The SWP3 must identify areas that have a high potential for soil erosion and identify structural or vegetative control measures or BMP to reduce or limit erosion.
 - 8) Management of Runoff - The SWP3 must contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.

BIOMONITORING REQUIREMENTS**CHRONIC BIOMONITORING REQUIREMENTS: MARINE**

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

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 (*Mysidopsis 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 as possible to the point of discharge into the perennial marine waters 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 item 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 item 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 of this Section.
- 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 TLP6B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 8) For the inland silverside, Parameter TOP6B, report the NOEC for survival.
 - 9) For the inland silverside, Parameter TXP6B, report the LOEC for survival.
 - 10) For the inland silverside, Parameter TWP6B, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
 - 11) For the inland silverside, Parameter TPP6B, report the NOEC for growth.
 - 12) For the inland silverside, Parameter TYP6B, 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.

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 (*Mysidopsis 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 TIE6B, 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

Hassan, Rebecca

From: Cole Gray <Cole.Gray@tceq.texas.gov>
Sent: Thursday, December 7, 2023 1:20 PM
To: Reza, Joseph A
Cc: Hassan, Rebecca; Dianna Kocurek (dianna@tkee.com)
Subject: RE: WQ0000391000 Equistar Chemicals, LP

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Hello Mr. Reza,

Your request for an extension has been granted.

Please let me know if you have any further questions or concerns.

Thank you,
Cole Gray, DrPH, MPH
Environmental Permit Specialist
Industrial Wastewater Permitting – MC 148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
Work #: (512) 239 – 4736

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey



From: Reza, Joseph A <joseph.reza@lyondellbasell.com>
Sent: Thursday, December 7, 2023 11:23 AM
To: Cole Gray <Cole.Gray@tceq.texas.gov>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>; Dianna Kocurek (dianna@tkee.com) <dianna@tkee.com>
Subject: FW: WQ0000391000 Equistar Chemicals, LP

Mr. Gray,

I am the Equistar Chemicals, LP representative for the Wastewater Permit. I am writing to see if we could get the comments period extended to next Friday, the 15th instead of Wednesday the 13th?



Joseph A. Reza

Senior Environmental Engineer

P.O. Box 777

8280 Sheldon RD. PMDI BLDG RM115

Channelview, Tx 77530

O: +1 281.457.8032

joseph.reza@lyondellbasell.com

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>

Sent: Wednesday, December 6, 2023 4:14 PM

To: Reza, Joseph A <joseph.reza@lyondellbasell.com>

Cc: Cole Gray <Cole.Gray@tceq.texas.gov>

Subject: WQ0000391000 Equistar Chemicals, LP

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To whom it may concern,

Attached for your review, is the letter, DRAFT permit, NAPD, and statement of basis/technical summary, for Permit WQ0000391000 Equistar Chemicals, LP.

Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices> El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>

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

Please submit any **comments and/or approval** no later than, **Wednesday, December 13, 2023**. If the comments and/ or approval are not received by the given deadline, it may cause significant delays in the permit process. Please contact Cole Gray with your comments and/ or approval to: Cole.Gray@tceq.texas.gov .

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)
Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wilford@tceq.texas.gov

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Hassan, Rebecca

From: Reza, Joseph A
Sent: Thursday, December 14, 2023 2:28 PM
To: Cole Gray
Cc: Hassan, Rebecca
Subject: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit
Attachments: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit.PDF

Mr. Gray,

Attached is the response for the December 6, 2023 draft permit. Let me know if anything else is needed.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
Channelview, Tx 77530
O: +1 281.457.8032
joseph.reza@lyondellbasell.com



Equistar Chemicals, LP
8280 Sheldon Road
Channelview, TX 77530
P.O. Box 777 (77530-0777)
USA

December 14, 2023

Mr. Cole Gray, DrPH (MC-148)
Water Quality Division, Wastewater Permitting, Industrial Permits
Texas Commission on Environmental Quality
P.O. Box 1308
Austin, Texas 78711-3087

Re: Equistar Chemical, LP (CN600124705)
Equistar Chemicals Channelview Complex (RN100542281)
TPDES Permit No. WQ0000391000 (EPA ID No. TX0003531)
Comments on 12-06-23 draft permit

Dear Mr. Gray:

Equistar Chemicals, LP appreciates the opportunity to submit these comments on the draft TPDES permit and fact sheet for the Equistar Chemicals Channelview Complex, which the TCEQ sent on 12-06-23. The comments below include the relevant page numbers of the draft permit and fact sheet. The comments are relatively minor, regarding clarifications and a few typographical errors.

Miscellaneous Edits

Outfall 003 Receiving Water ID

There are inconsistent references to the ID of the Harris County Flood Control Ditch (HCFCD) that receives discharges from Outfalls 003 (003A/003B/003C). On the cover sheet of the current permit, the ID is given as HCFCD ditch G103-03-02; however, in various places in the draft NAPD (Notice of Application and Preliminary Decision), fact sheet, and permit, the ID is shown sometimes as G103-03-02 and sometimes with the last two numbers reversed (G103-02-03).

Fact Sheet, Changes to the Draft Permit, pg. 9

The change in the routing description for Outfall 002 from “to an unnamed ditch, thence to Wallisville Gully” to directly to Wallisville Gully should be included in the list of permit changes in the fact sheet.

Also, the change in standard provisions in the draft permit from version 10/2020 to 05/2021 should be included in the list of permit changes.

Draft Permit, Other Requirement Numbering, pp. 2, 2e

The reference to Other Requirement No. 18 on pp. 2 and 2e of the draft permit should be corrected to Other Requirement No. 17.

Draft Permit, Other Requirement No. 3, MALs

The minimum analytical level (MAL) for total nickel was inadvertently removed from Other Requirement No. 3 in the draft permit and should be added back in.

Draft Permit, Other Requirement No. 15, Compliance Schedule



Equistar Chemicals , LP
8280 Sheldon Road
Channelview, TX 77530
P.O. Box 777 (77530-0777)
USA

Total aluminum at Outfall 003 should be removed from the compliance schedule in Other Requirement No. 15 of the draft permit since this parameter has been removed from the outfall requirements.

If you have any questions, please feel free to contact me at 281-457-8032 or Joseph.Reza@lyondellbasell.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Warnement'.

Tom Warnement
Environmental Team Lead

File: CVON 300-160-047

Hassan, Rebecca

From: Cole Gray <Cole.Gray@tceq.texas.gov>
Sent: Tuesday, December 19, 2023 2:57 PM
To: Reza, Joseph A
Cc: Hassan, Rebecca
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit
Attachments: WQ0000391000.docx

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Hello Joseph,

Here is the revised version of permit WQ0000391000. I believe I've addressed all of the issues you pointed out, but please let me know if there is anything else that requires my attention. If you have no further comments, please send me an email indicating that you accept the draft as it is written.

Thank you,
Cole Gray, DrPH, MPH
Environmental Permit Specialist
Industrial Wastewater Permitting – MC 148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
Work #: (512) 239 – 4736

From: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Sent: Thursday, December 14, 2023 2:28 PM
To: Cole Gray <Cole.Gray@tceq.texas.gov>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>
Subject: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

Mr. Gray,

Attached is the response for the December 6, 2023 draft permit. Let me know if anything else is needed.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
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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 12

Submitted by: Cole Gray, DrPH

E-Mail ID: cole.gray

Phone: (512) 239-4736

Date request submitted:

Comments deadline: within 7 calendar days

Date application received by TCEQ in Austin: March 1, 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: Major amendment without renewal

Team assigned: Industrial

TPDES/TLAP: TPDES

Regulated Entity No.: RN100542281

Permit No.: WQ0000391000

Company name: Equistar Chemicals, LP

Customer Reference No.: CN600124705

Facility name: Equistar Chemicals Channelview Complex

Address: 8280 Sheldon Road, Channelview, Texas 77530

Segment: 1001

County: Harris

Technical contact: Mr. Joseph A. Reza

Phone: 281-457-8032

Major/Minor: Major

Compliance rating: Customer – Satisfactory (7.79) / Site – Satisfactory (12.22)

Summary of application request: Major amendment without renewal to authorize the removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; removal of the monitoring and reporting requirement for total zinc at Outfall 003; and removal of the monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004.

Permit writer comments: The amendment request to remove the monitoring and reporting requirements and the daily maximum concentration limit for total aluminum at Outfall 003 has been granted. The amendment requests to remove monitoring and reporting requirement for total zinc at Outfall 003 and remove the monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004 have not been granted. See the “Summary of Changes from the Existing Permit” in the Technical Summary for additional information.

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

TO: **Permit Writer, Cole Gray**

FROM:

Region:

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

COMPANY NAME: Equistar Chemicals, LP

PERMIT NO.: WQ0000391000

REGULATED ENTITY NO: RN100542281

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: _____

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim 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. WQ0000391000, EPA ID No. TX0003531
CN600124705, RN100542281**

Dear Ms. Smith:

Enclosed are the draft permit and fact sheet 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) 239-4736, by e-mail at cole.gray@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,

Cole Gray

Cole Gray, DrPH
Wastewater Permitting Section
Water Quality Division

CMG

Enclosures

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Mr. Joseph A. Reza, Senior Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Re: Equistar Chemicals, LP
Draft TPDES Permit No. WQ0000391000, EPA ID No. TX0003531
(CN600124705), (RN100542281)

Dear Mr. Reza:

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, because there are changes from the existing permit.** 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 June 16, 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.

Mr. Joseph A. Reza, Senior Environmental Engineer
Page 2

If you have comments or questions, please contact me before the comment deadline at (512) 239-4736, by e-mail at cole.gray@tceq.texas.gov, or, if by correspondence, include "MC 148" following my name in the letterhead address.

Sincerely,

Cole Gray
Cole Gray, DrPH
Wastewater Permitting Section
Water Quality Division

CMG

Enclosure

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

DATE, 2023

Mr. Joseph A. Reza, Sr. Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

RE: Notice of Preliminary Decision and Draft Permit
Applicant Name: Equistar Chemicals, LP
Facility Name: Equistar Chemicals Channelview Complex
Permit No.: WQ0000391000
Customer Reference Number: CN600124705
Regulated Entity Number: RN100542281
Type of Application: Major amendment without renewal

Dear Mr. Reza:

The executive director has completed the technical review of the above referenced application, received on March 1, 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 30 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.**

Mr. Reza
Page 2
October 17, 2023
Permit No. WQ0000391000

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 fact sheet; 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
Texas Commission of Environmental Quality

LG/CMG/CIA team member initials

Enclosures

bcc: TCEQ Region 12, Water Program Manager

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

DATE, 2023

Mr. Joseph A. Reza, Senior Environmental Engineer
Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

RE: Permit Application: Major amendment without renewal
Permit No.: WQ0000391000
Equistar Chemicals, LP
Equistar Chemicals Channelview Complex
Channelview, Harris County
Customer Reference Number: CN600124705
Regulated Entity Number: RN100542281

Dear Mr. Reza:

The Texas Commission on Environmental Quality (TCEQ) has made a preliminary decision on the above-referenced permit applications. 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 the individual in the permitting area as, P.O. Box signed to your application, 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
Texas Commission of Environmental Quality

MU/CMG/CIA team member initials

Enclosures

cc: TCEQ Region 12, 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
AMENDMENT**

PERMIT NO. WQ0000391000

APPLICATION AND PRELIMINARY DECISION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 to authorize the removal of a monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; removal of a monitoring and reporting requirement for total zinc at Outfall 003; and removal of a monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004. The draft permit authorizes the discharge of treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, construction stormwater, and process area stormwater from the adjacent co-generation facility at a daily average flow not to exceed 8,900,000 gallons per day via Outfall 001; process wastewater, stormwater, sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; *de minimis* quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 (003A, 003B, 003C) and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007. The TCEQ received this application on March 1, 2023.

The facility is located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530. 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=-95.118055,29.832777&level=18>

The effluent is discharged via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The designated uses for Segment No. 1001 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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The 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 the North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

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 Equistar Chemicals, LP at the address stated above or by calling Mr. Joseph Reza, Senior Environmental Engineer, at 281-457-8032.

Issued:

AGENDA CAPTION FOR PERMIT NO. WQ0000391000

Equistar Chemicals, LP, which operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied for a major amendment of Texas Pollutant Discharge Elimination System Permit No. WQ0000391000 to authorize the removal of a monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; removal of a monitoring and reporting requirement for total zinc at Outfall 003; and removal of a monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004. The draft permit authorizes treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, construction stormwater, and process area stormwater from the adjacent co-generation facility at a daily average flow not exceed 8,900,000 gallons per day via Outfall 001; process wastewater, stormwater, sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfalls 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; de minimis quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; de minimis quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 (003A, 003B, 003C) and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007. The facility is located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530. 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.

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.

Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which owns a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 (EPA I.D. No. TX0003531) to authorize the removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum from Outfall 003; removal of the monitoring and reporting requirement and daily maximum concentration limit total zinc from Outfall 003; and removal of the monitoring and reporting requirement and daily maximum concentration limit for total zinc from Outfall 004. The facility is located at 8280 Sheldon Road, Channelview, in Harris County, Texas 77530. The discharge route is from the plant site via Outfalls 001, 002 and 004 is to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to San Jacinto River Tidal, via Outfall 003 to an unnamed drainage ditch, thence to a Harris County Flood Control District ditch, thence to San Jacinto River Tidal; and via Outfall 006 to a Harris County Flood Control ditch, thence to San Jacinto River Tidal. TCEQ received this application on March 1, 2023. The permit application will be available for viewing and copying at North Channel Harris County Library, 15741 Wallisville Road, Houston, 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=-95.118055,29.832777&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 Ms. Alyssa Loveday by calling 512-239-4524.

Issuance Date: March 25, 2021

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000, U.S. Environmental Protection Agency (EPA) ID No. TX0003531, to discharge to water in the state

Issuing Office: Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, Texas 78711-3087

Applicant: Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Prepared By: Cole Gray, DrPH
Wastewater Permitting Section
Water Quality Division
(512) 239-4736

Date: October 19, 2023

Permit Action: Major amendment without renewal to authorize the removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; TPDES Permit No. WQ0000391000

The permittee has requested a major amendment without renewal to authorize the removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by the amendment request were considered during the drafting of this permit. Otherwise, the existing Statement of Basis/Technical Summary for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

I. 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 retains the current expiration date of March 25, 2026.

II. APPLICANT ACTIVITY

The applicant currently operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility.

III. DISCHARGE LOCATION

The facility is located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530. Discharge is via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

IV. RECEIVING STREAM USES

The unclassified water uses are minimal aquatic life use for the unnamed drainage ditches and Wallisville Gully and limited aquatic life use for HCFCF ditch G103-07-05 and HCFCF ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period September 2018 through September 2023. The “average of daily average” values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The “maximum of daily maximum” values presented in the following table are the individual maximum values for the reporting period for each pollutant. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU). Bacteria levels are expressed in colony forming units (cfu) or most probable number (MPN) per 100 mL.

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	5.42	7.10
101	Intermittent	0.055	2.21
201	Intermittent	0.003	0.026
002	Intermittent	1.57	75
003	Intermittent	1.62	4.94
004	Intermittent	0.328	2.22
005	Intermittent	0.110	0.950

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	CBOD ₅	208	-	6958	-
	NH ₃ -N	18.1	-	454	-
	TSS	835	-	71,812	-
	Chemical Oxygen Demand (COD)	3,851	-	19,834	-
	Oil and grease	229	-	296	-
	Chromium, Total	0.198	-	0.270	-
	Copper, Total	0.754	-	1.01	-
	Lead, Total	0.030	-	0.120	-
	Nickel, Total	0.598	-	1.00	-
	Zinc, Total	0.851	-	1.39	-
	Acenaphthene	0.00	-	0.00	-
	Acenaphthylene	0.00	-	0.00	-
	Acrylonitrile	0.00	-	0.00	-

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Anthracene	0.00	-	0.00	-
	Benzene	0.00	-	0.00	-
	Benzo(a)anthracene	0.00	-	0.00	-
	3,4-Benzofluoranthene	0.00	-	0.00	-
	Benzo(k)fluoranthene	0.00	-	0.00	-
	Benzo(a)pyrene	0.00	-	0.00	-
	Bis(2-ethylhexyl)phthalate	0.00	-	0.00	-
	Carbon Tetrachloride	0.00	-	0.00	-
	Chlorobenzene	0.00	-	0.00	-
	Chloroethane	0.00	-	0.00	-
	Chloroform	0.326	-	0.490	-
	2-Chlorophenol	0.00	-	0.00	-
	Chrysene	0.00	-	0.00	-
	Di-n-butyl phthalate	0.00	-	0.00	-
	1,2-Dichlorobenzene	0.00	-	0.00	-
	1,3-Dichlorobenzene	0.00	-	0.00	-
	1,4-Dichlorobenzene	0.00	-	0.00	-
	1,1-Dichloroethane	0.00	-	0.00	-
	1,2-Dichloroethane	0.00	-	0.00	-
	1,1-Dichloroethylene	0.00	-	0.00	-
	1,2-trans Dichloroethylene	0.00	-	0.00	-
	2,4-Dichlorophenol	0.00	-	0.00	-
	1,2-Dichloropropane	0.00	-	0.00	-
	1,3-Dichloropropylene	0.00	-	0.00	-
	Diethyl phthalate	0.00	-	0.00	-
	2,4-Dimethylphenol	0.00	-	0.00	-
	Dimethyl phthalate	0.00	-	0.00	-
	4,6-Dinitro-o-cresol	0.00	-	0.00	-
	2,4-Dinitrophenol	0.00	-	0.00	-
	2,4-Dinitrotoluene	0.00	-	0.00	-
	2,6-Dinitrotoluene	0.00	-	0.00	-
	Ethylbenzene	0.00	-	0.00	-
	Fluoranthene	0.00	-	0.00	-
	Fluorene	0.00	-	0.00	-
	Hexachlorobenzene	0.00	-	0.00	-
	Hexachlorobutadiene	0.00	-	0.00	-
	Hexachloroethane	0.00	-	0.00	-
	Methyl Chloride	0.00	-	0.00	-
	Methylene Chloride	0.00	-	0.00	-
	Naphthalene	0.00	-	0.00	-
	Nitrobenzene	0.00	-	0.00	-
	2-Nitrophenol	0.00	-	0.00	-
	4-Nitrophenol	0.00	-	0.00	-
	Phenanthrene	0.00	-	0.00	-
	Phenol	0.00	-	0.00	-
	Pyrene	0.00	-	0.00	-

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Tetrachloroethylene	0.00	-	0.00	-
	Toluene	0.00	-	0.00	-
	1,2,4-Trichlorobenzene	0.00	-	0.00	-
	1,1,1-Trichloroethane	0.00	-	0.00	-
	1,1,2-Trichloroethane	0.00	-	0.00	-
	Trichloroethylene	0.00	-	0.00	-
	Vinyl Chloride	0.00	-	0.00	-
	pH	4.2 SU (min)		9.1 SU (max)	
	pH range excursions, > 60 minutes	0			
	pH range excursions, monthly total accumulative	5			
101	Enterococci (CFU or MPN per 100 mL)	4.13		160	
	Chlorine Residual, monthly minimum	-	1.00 (min)	-	-
201	Enterococci (CFU or MPN per 100 mL)	4.22		268	
	Chlorine Residual, minimum	-	1.40 (min)	-	-
002	Total Organic Carbon (TOC)	-	-	-	28.0
	Oil and grease	-	-	-	5.00
	pH	6.4 SU (min)		8.8 SU (max)	
	Zinc, Total	-	0.050	-	0.440
003	TOC	-	-	-	22.0
003A	Oil and grease	-	-	-	5.00
003B	Aluminum, Total	-	-	-	23.2
003C	Zinc, Total	-	-	-	0.324
	pH	6.3 SU (min)		8.6 SU (max)	
004	TOC	-	-	-	44.0
	Oil and grease	-	-	-	5.00
	Zinc, Total	-	-	-	0.731
	pH	6.6 SU (min)		8.5 SU (max)	
005	TOC	-	-	-	17.0
	Oil and grease	-	-	-	5.00
	pH	6.5 SU (min)		8.8 SU (max)	

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

D. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	CBOD (lbs/day)	10/2019	-	-	1,914	6,958
	CBOD (lbs/day)	2/2020	-	-	1,914	4,005
	CBOD (lbs/day)	6/2023	957	1,076	1,914	5,295

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

D. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	Nitrogen, ammonia total (lbs/day)	6/2023	-	-	434	454
	COD (lbs/day)	6/2023	-	-	17,825	19,834
	TSS (lbs/day)	2/2022	2,971	8,444	9,070	71,812
101	Enterococci (CFU or MPN per 100 mL)	3/2023	-	-	104	160
201	Enterococci (CFU or MPN per 100 mL)	11/2022	-	-	104	268
	Enterococci (CFU or MPN per 100 mL)	6/2023	-	-	104	136

The draft permit was not changed to address these effluent limit violations because they did not occur with enough frequency to indicate an ongoing pattern of noncompliance at the permitted facility.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as follows:

Outfall	Pollutant	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Flow	8.9 MGD		Report, MGD	
	CBOD ₅	957	-	1,914	-
	NH ₃ -N	217	-	434	-
	TSS	2,971	-	9,070	-
	COD	10,101	-	17,825	-
	Oil and grease	595	-	891	-
	Chromium, Total	1.02	-	2.54	-
	Copper, Total	1.77	-	3.75	-
	Lead, Total	7.84	-	16.6	-
	Nickel, Total	6.40	-	15.0	-
	Zinc, Total	4.73	-	11.75	-
	Acenaphthene	0.741	-	1.98	-
	Acenaphthylene	0.741	-	1.98	-
	Acrylonitrile	3.23	-	8.15	-
	Anthracene	0.741	-	1.98	-
	Benzene	1.24	-	4.58	-
	Benzo(a)anthracene	0.063	-	0.134	-
	3,4-Benzofluoranthene	0.775	-	2.05	-
	Benzo(k)fluoranthene	0.741	-	1.98	-
	Benzo(a)pyrene	0.0063	-	0.0134	-
	Bis(2-ethylhexyl)phthalate	3.47	-	9.40	-
	Carbon Tetrachloride	0.606	-	1.28	-
	Chlorobenzene	0.505	-	0.944	-
	Chloroethane	3.50	-	9.03	-
	Chloroform	0.708	-	1.55	-
	2-Chlorophenol	1.04	-	3.30	-

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Chrysene	0.741	-	1.98	-
	Di-n-butyl phthalate	0.910	-	1.92	-
	1,2-Dichlorobenzene	2.59	-	5.49	-
	1,3-Dichlorobenzene	1.04	-	1.48	-
	1,4-Dichlorobenzene	0.505	-	0.944	-
	1,1-Dichloroethane	0.741	-	1.98	-
	1,2-Dichloroethane	2.29	-	7.11	-
	1,1-Dichloroethylene	0.539	-	0.842	-
	1,2-trans Dichloroethylene	0.708	-	1.82	-
	2,4-Dichlorophenol	1.31	-	3.77	-
	1,2-Dichloropropane	5.15	-	7.75	-
	1,3-Dichloropropylene	0.977	-	1.48	-
	Diethyl phthalate	2.73	-	6.84	-
	2,4-Dimethylphenol	0.606	-	1.21	-
	Dimethyl phthalate	0.640	-	1.58	-
	4,6-Dinitro-o-cresol	2.62	-	9.33	-
	2,4-Dinitrophenol	2.39	-	4.14	-
	2,4-Dinitrotoluene	3.80	-	9.60	-
	2,6-Dinitrotoluene	8.59	-	21.6	-
	Ethylbenzene	1.07	-	3.64	-
	Fluoranthene	0.842	-	2.29	-
	Fluorene	0.741	-	1.98	-
	Hexachlorobenzene	0.002	-	0.004	-
	Hexachlorobutadiene	0.558	-	1.18	-
	Hexachloroethane	0.708	-	1.82	-
	Methyl Chloride	2.89	-	6.40	-
	Methylene Chloride	1.34	-	3.00	-
	Naphthalene	0.741	-	1.98	-
	Nitrobenzene	0.910	-	2.29	-
	2-Nitrophenol	1.38	-	2.32	-
	4-Nitrophenol	2.42	-	4.18	-
	Phenanthrene	0.741	-	1.67	-
	Phenol	0.505	-	0.876	-
	Pyrene	0.842	-	2.25	-
	Tetrachloroethylene	0.741	-	1.88	-
	Toluene	0.876	-	2.69	-
	1,2,4-Trichlorobenzene	2.29	-	4.71	-
	1,1,1-Trichloroethane	0.708	-	1.82	-
	1,1,2-Trichloroethane	0.708	-	1.82	-
	Trichloroethylene	0.708	-	1.82	-
	Vinyl Chloride	3.50	-	9.03	-
		pH	6.0 SU (min)		9.0 SU (max)
101	Flow	Report, MGD		Report, MGD	
	Enterococci (CFU or MPN per 100 mL)	35		104	
	Chlorine Residual, minimum	1.0 mg/L (min)			
201	Flow	Report, MGD		Report, MGD	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
201	Enterococci (CFU or MPN per 100 mL)	35		104	
	Chlorine Residual, minimum	1.0 mg/L (min)			
002	Flow	Report, MGD		Report, MGD	
	TOC	-	-	-	75
	Oil and grease	-	-	-	15
	pH	6.0 SU (min)		9.0 SU (max)	
003 (003A 003B 003C)	Flow	Report, MGD		Report, MGD	
	TOC	-	-	-	75
	Oil and grease	-	-	-	15
	Zinc, Total	-	-	-	Report
	pH	6.0 SU (min)		9.0 SU (max)	
004	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	75
	Oil and grease	-	N/A	-	15
	Zinc, Total ¹	-	N/A	-	Report
	Zinc, Total ²	-	N/A	-	0.439
	pH	6.0 SU (min)		9.0 SU (max)	
005	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	75
	Oil and grease	-	N/A	-	15
	pH	6.0 SU (min)		9.0 SU (max)	
006	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	75
	Oil and grease	-	N/A	-	15
	pH	6.0 SU (min)		9.0 SU (max)	
007	Flow	Report, MGD		Report, MGD	
	TOC	-	N/A	-	100
	Oil and grease	-	N/A	-	15
	pH	6.0 SU (min)		9.0 SU (max)	

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.833583 N	95.107181 W
002	29.8304 N	95.10715 W
003	29.824703 N	95.126414 W
003A	29.8215861 N	95.1244889 W
003B	29.8221583 N	95.1223778 W
003C	29.82435 N	95.120452778 W
004	29.833411 N	95.106332 W
005	29.816261 N	95.098182 W

¹ Beginning upon the date of permit issuance and lasting for two years and 364 days.² Beginning three years from the date of permit issuance and lasting until the date of permit expiration.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

006	29.838328 N	95.114848 W
007 ³	See Footnote	See Footnote

VIII. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested the following amendments that the executive director did not grant:

1. Removal of the monitoring and reporting requirement for total zinc from Outfall 003 (003A, 003B, 003C).

The permittee requested the removal of the monitoring and reporting requirement for total zinc from Outfall 003. This request was made based on recent DMR data indicating that the average concentration of total zinc in the discharge from Outfall 003 over the previous two years was below 70% of the calculated daily average water quality-based effluent limitation. DMR data, however, is not sufficient to exempt a permittee from anti-backsliding regulations under CWA 402(o)(2). Therefore, this request was not granted.

2. Removal of the monitoring requirement and daily maximum concentration limit for total zinc from Outfall 004.

The permittee requested the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total zinc from Outfall 004 based on recent DMR data. DMR data, however, is not sufficient to exempt a permittee from anti-backsliding regulations under CWA 402(o)(2). Therefore, this request was not granted.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following amendments that the Executive Director recommends granting:

1. Removal of the monitoring and reporting requirement and daily maximum concentration limit for total aluminum from Outfall 003 (003A, 003B, 003C).

The permittee requested the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum from Outfall 003. This request was made based on the findings of an aluminum source study conducted by the permittee which demonstrated that significant sources of aluminum in the discharge are naturally occurring from soil particles carried in by stormwater. This study was submitted to TCEQ on January 11, 2022, and approved on March 3, 2023.

In accordance with anti-backsliding in CWA 402(o)(2)(b)(i), a permit may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

³ Outfall 007 is authorized in the current permit to discharge stormwater from a concrete batch plant. The latitude and longitude of the concrete batch plant change based on locations of construction projects at the facility. The concrete batch plant is not active, and therefore, latitude and longitude for Outfall 007 have not been designated.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

The following additional changes have been made to the draft permit:

1. Pages 3-13 were updated (May 2021 version).
2. Other Requirement No. 15 was removed from the draft permit as the aluminum partitioning coefficient study and source evaluation study were completed and submitted to TCEQ. Other Requirements No. 16 – 18 were renumbered accordingly.
3. Aluminum (Total) was removed from Other Requirement No. 3.
4. TMDL Project No. 1 and the associated waste load allocation is no longer applicable to this facility's discharge.
5. Added Outfall 007 longitude and latitude footnote to the Outfall Locations table.
6. Mixing zone language in Other Requirement No. 4 was updated based on the Critical Conditions memo, dated July 20, 2023.
7. The routing description for Outfall 002 was changed from "to an unnamed ditch, thence to Wallisville Gully" to "directly to Wallisville Gully".

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a major amendment to Permit No. WQ0000391000 to authorize removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003; removal of the monitoring and reporting requirement for total zinc at Outfall 003; and removal of the monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004. The existing permit authorizes the discharge of treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, construction stormwater, and process area stormwater from the adjacent co-generation facility at a daily average flow not to exceed 8,900,000 gallons per day via Outfall 001; process wastewater, stormwater, sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfalls 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; *de minimis* quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 (003A, 003B, and

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

003C) and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007.

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.

B. WATER QUALITY SUMMARY

Discharge Routes

The discharge route is via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 (003A, 003B, 003C) to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The unclassified water uses are minimal aquatic life use for the unnamed drainage ditches and Wallisville Gully and limited aquatic life use for HCFCD ditch G103-07-05 and HCFCD ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review

The discharge from this permit action 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 program (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.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Impaired Water Bodies

Segment No. 1001 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 dioxin in edible tissue and polychlorinated biphenyls (PCBs) in edible tissue from Lake Houston Dam to IH 10 (AUs 1001_01 and 1001_02).

The permittee has indicated that dioxins and PCBs are not expected to be present in the discharge from Outfalls 003 and 004. The major amendment request does not include increased flow or increased loading of these pollutants of concern. Therefore, the draft permit is not anticipated to contribute to the impairment of the receiving segment.

Completed Total Maximum Daily Loads (TMDLs)

Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System (TMDL Project No. 1) has been withdrawn and is no longer applicable to this segment. As such, there are no completed TMDLs for Segment No. 1001.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS1. GENERAL COMMENTS

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.

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. It does not include changes to the authorized wastestreams, or the wastewater treatment system. Therefore, the information provided in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

2. CALCULATIONS

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The calculations for technology-based effluent limitations in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

3. 316(B) COOLING WATER INTAKE STRUCTURES

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Technical review of 316(B) cooling water intake structure requirements is not within the scope of the amendment requests, therefore no technical review with regards to 316(B) cooling water

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

intake structure requirements was performed. The review conducted in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (IPs) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The calculations for water quality-based effluent limitations in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

2. AQUATIC LIFE CRITERIAa. SCREENING

Water quality-based effluent limitations are calculated from saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfall 003 (003A, 003B, 003C)

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

by this amendment request were considered during the drafting of this permit. The screening for aquatic life criteria in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge. The following critical effluent percentages are being used:

Acute Effluent %	100%	Chronic Effluent %	100 %
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General Screening Procedures

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA for Outfall 003, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include segment-specific values for TSS, pH, hardness, and chloride according to the *IPs*. The segment values are 12 mg/L for TSS was used for the unnamed ditch, The segment value of 8 mg/L for TSS for Segment No. 1001 was used for the saltwater portion of the discharge route. A site-specific hardness (as calcium carbonate, CaCO_3) of 147 mg/L was used. The site-specific value was developed for Lyondell's Channelview Complex-South (WQ0002927000) which discharges to a drainage ditch similar to the unnamed ditches included in this Fact Sheet and are more representative of the immediate receiving water bodies than Segment No. 1016. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

b. PERMIT ACTION FOR OUTFALL 003

As discussed in Section IX of this document, the existing water quality-based monitoring requirements and effluent limits for total aluminum have been removed from the draft permit based on the results of an aluminum source study submitted by the permittee. This removal is in accordance with anti-backsliding regulations in CWA 402(o)(2)(b)(i).

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Whole effluent toxicity criteria established in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Aquatic organism toxicity criteria in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Aquatic organism bioaccumulation criteria in the existing Fact Sheet for the permit issued on March 25, 2021 are still valid and are provided in Attachment 1 of this document.

6. DRINKING WATER SUPPLY PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Screening for drinking water supply protection in the existing Fact Sheet for the permit

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Screening for TDS, chloride, or sulfate in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

8. PROTECTION OF pH STANDARDS

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The pH screening in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

9. DISSOLVED OXYGEN PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The dissolved oxygen screening in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

10. BACTERIA STANDARDS PROTECTION

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. The bacteria screening in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. 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 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, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. 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 proceeding.

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.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For additional information about this application, contact Cole Gray, DrPH at (512) 239-4736.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0000391000 issued on March 25, 2021.

B. APPLICATION

TPDES wastewater permit application received on March 1, 2023.

C. 40 CFR CITATION(S)

40 CFR Part 414 (BPT).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

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).

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).

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).

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).

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).

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).

TCEQ Interoffice Memorandum dated June 27, 2023, from Jenna Lueg of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated July 20, 2023, from Brian Christman of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Critical Conditions Memo).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

TCEQ Interoffice Memorandum dated July 21, 2023, from Josi Robertson of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated August 3, 2023, from Brad Caston of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Biomonitoring Memo).

E. MISCELLANEOUS

The State of Texas 2022 Integrated Report – Texas 303(d) List (Category 5), TCEQ, July 7, 2022.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 1, 2018, as approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not yet approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not yet approved by EPA Region 6.

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).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.

Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix A
Calculated Technology-Based Effluent Limits

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix A in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B
Calculated Water Quality-Based Effluent Limits

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix B in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

Appendix C pH Screening

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix C in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and are provided in Attachment 1 of this document.

Appendix D

Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix D in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document. Only those sections affected by the major amendment request are updated herein.

The following table is a summary of technology-based effluent limitations calculated/assessed in the draft permit (Technology-Based), calculated/assessed water quality-based effluent limitations (Water Quality-Based), and effluent limitations in the existing permit (Existing Permit). Effluent limitations appearing in bold are the most stringent of the three and are included in the draft permit.

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
003	Aluminum, Total ¹	-	-	-	1.765	-	1.765

¹ Although the removal of the daily maximum limit for total aluminum makes the proposed draft permit less stringent than the existing permit, the permittee submitted an aluminum source study to TCEQ which demonstrated that the significant sources of aluminum in their discharge are naturally occurring from soil particulates carried in the stormwater. This source study was approved by TCEQ. As such, the removal of the daily maximum limit for total aluminum is in compliance with anti-backsliding in CWA 402(o)(2)(b)(i).

Appendix E
Calculations of Single Grab Limits for Outfall 001

The permittee has requested a major amendment without renewal for the removal of the monitoring and reporting requirement and the daily maximum concentration limit for total aluminum at Outfall 003. Therefore, only items impacted by this amendment request were considered during the drafting of this permit. Appendix E in the existing Fact Sheet for the permit issued on March 25, 2021 is still valid and is provided in Attachment 1 of this document.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000, U.S. Environmental Protection Agency (EPA) ID No. TX0003531, to discharge to water in the state

Issuing Office: Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, Texas 78711-3087

Applicant: Equistar Chemicals, LP
P.O. Box 777
Channelview, Texas 77530

Prepared By: Sarah A. Johnson
Wastewater Permitting Section
Water Quality Division
(512) 239-4649

Date: September 2, 2020; Revised October 19, 2020

Permit Action: Major amendment with renewal of TPDES Permit No. WQ0000391000 to authorize a reduction in the monitoring frequency for Outfall 002 for flow, total organic carbon (TOC), oil and grease, and pH; a reduction in the monitoring frequency for Outfalls 004 and 005 for oil and grease; the addition of process wastewater and stormwater to Outfall 101; the addition of construction stormwater and utility wastewaters to Outfall 001; and the removal of provisions in Other Requirements Nos. 9, 10, 15, and 16.

I. 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 Texas Administrative Code (TAC) §305.127(1)(C)(i).

II. APPLICANT ACTIVITY

The applicant currently operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility.

III. DISCHARGE LOCATION

As described in the application, the facility is located at 8280 Sheldon Road, in Channelview, Harris County, Texas 77530. Discharge is via Outfalls 001, 002, and 004 to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05; thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

IV. RECEIVING STREAM USES

The unclassified receiving water uses are minimal aquatic life use for the unnamed ditches and Wallisville Gully and limited aquatic life use for HCFCF ditch G103-07-05 and HCFCF ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period May 2015 through April 2020. The "average of daily average" values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The "maximum of daily maximum" values presented in the following table are the individual maximum values for the reporting period for each pollutant. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU). Outfalls 006 and 007 are not yet active.

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	5.28	9.60
101	Intermittent	0.08	0.52
201	Intermittent	0.0039	0.0700
002	Intermittent	1.44	33.60
003 ¹	Intermittent	0.80	9.20
004	Intermittent	0.22	4.10
005	Intermittent	0.16	0.95

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		lbs/day	lbs/day
001	Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD ₅)	179.9	6,958
	Ammonia Nitrogen (NH ₃ -N)	14.31	364
	Total Suspended Solids (TSS)	701.8	6,269
	Chemical Oxygen Demand (COD)	3,816	12,420
	Oil and grease	219.4	272.0

¹ Outfalls 003, 003A, 003B, and 003C are in close proximity to each other and discharge to the same immediate receiving water. The existing permit requires the permittee to sample and monitor at each outfall, but report only the highest value for flow, TOC, oil and grease, and zinc and the highest and lowest pH values across all sampling points for Outfall 003 in the monthly discharge monitoring report.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		lbs/day	lbs/day
001	Sulfate ²	47,126	68,550
	Chlorine Residual, minimum	N/A	1.10 mg/L (min)
	Chromium, Total	0.38	0.70
	Copper, Total	1.32	3.77
	Lead, Total	0.03	0.06
	Nickel, Total	0.48	0.85
	Zinc, Total	1.92	5.26
	Acenaphthene	0	0
	Acenaphthylene	0	0
	Acrylonitrile	0	0
	Anthracene	0	0
	Benzene	0	0
	Benzo(a)anthracene	0	0
	3,4-Benzofluoranthene	0	0
	Benzo(k)fluoranthene	0	0
	Benzo(a)pyrene	0	0
	Bis(2-ethylhexyl)phthalate	0	0
	Carbon Tetrachloride	0	0
	Chlorobenzene	0	0
	Chloroethane	0	0
	Chloroform	0.25	0.40
	2-Chlorophenol	0	0
	Chrysene	0	0
	Di-n-butyl phthalate	0	0
	1,2-Dichlorobenzene	0	0
	1,3-Dichlorobenzene	0	0
	1,4-Dichlorobenzene	0	0
	1,1-Dichloroethane	0	0
	1,2-Dichloroethane	0	0
	1,1-Dichloroethylene	0	0
	1,2-trans Dichloroethylene	0	0
	2,4-Dichlorophenol	0	0
	1,2-Dichloropropane	0	0
	1,3-Dichloropropylene	0	0
	Diethyl phthalate	0	0
	2,4-Dimethylphenol	0	0
	Dimethyl phthalate	0	0
	4,6-Dinitro-o-cresol	0	0
	2,4-Dinitrophenol	0	0
	2,4-Dinitrotoluene	0	0
	2,6-Dinitrotoluene	0	0
	Ethylbenzene	0	0

² Sulfate monitoring data is from September 2016 through March 2020. Monitoring requirements expired April 1, 2020.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		lbs/day	lbs/day
001	Fluoranthene	0	0
	Fluorene	0	0
	Hexachlorobenzene	0	0
	Hexachlorobutadiene	0	0
	Hexachloroethane	0	0
	Methyl Chloride	0	0
	Methylene Chloride	0	0
	Naphthalene	0	0
	Nitrobenzene	0	0
	2-Nitrophenol	0	0
	4-Nitrophenol	0	0
	Phenanthrene	0	0
	Phenol	0	0
	Pyrene	0	0
	Tetrachloroethylene	0	0
	Toluene	0	0
	1,2,4-Trichlorobenzene	0	0
	1,1,1-Trichloroethane	0	0
	1,1,2-Trichloroethane	0	0
	Trichloroethylene	0	0
	Vinyl Chloride	0	0
	pH	5.7 SU (min)	13.2 SU (max)
	pH range excursions, > 60 minutes	0	
	pH range excursions, monthly total accum	0	

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
101	Enterococci (CFU or MPN per 100 mL)	6.40	160
	Chlorine Residual, minimum	N/A	1.70 mg/L (min)
201	Enterococci (CFU or MPN per 100 mL)	5.79	72
	Chlorine Residual, minimum	N/A	1.10 mg/L (min)
002	TOC	N/A	23.0
	Oil and grease	N/A	5.0
	Zinc, Total	0.06	0.58
	pH	6.0 SU (min)	8.80 SU (max)
003	TOC	N/A	22.0
	Oil and grease	N/A	5.0
	Zinc, Total	N/A	0.57
	pH	6.50 SU (min)	8.70 SU (max)
004	TOC	N/A	44.0
	Oil and grease	N/A	5.0
	Zinc, Total	N/A	1.02
	pH	6.80 SU (min)	8.60 SU (max)
005	TOC	N/A	19.0

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
	Oil and grease	N/A	5.0
	pH	7.0 SU (min)	8.70 Su (max)

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

C. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	CBOD ₅ (lbs/day)	Oct. 2019			1,914	6,958
		Feb. 2020				4,005
	Copper, total (lbs/day)	Aug. 2015			3.75	3.77
	pH (SU)	April 2016			9.0	13.2
		May 2016				13.2
		Mar. 2020	6.0 (min)	5.7		

The draft permit was not changed to address these effluent limit violations because these violations are infrequent and uncommon and do not represent a pattern of chronic non-compliance. These violations may be reviewed by the Office of Compliance and Enforcement during the next records review.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as follows:

Outfall	Pollutant	Daily Average	Daily Maximum
		lbs/day	lbs/day
001	Flow	8.9 MGD	Report
	CBOD ₅	957	1,914
	NH ₃ -N	217	434
	TSS	2,971	9,070
	COD	10,101	17,825
	Oil and grease	595	891
	Chromium, Total	1.02	2.54
	Copper, Total	1.77	3.75
	Lead, Total	7.84	16.6
	Nickel, Total	6.40	15.0
	Zinc, Total	4.73	11.75
	Acenaphthene	0.741	1.98
	Acenaphthylene	0.741	1.98
	Acrylonitrile	3.23	8.15
	Anthracene	0.741	1.98
	Benzene	1.24	4.58
	Benzo(a)anthracene	0.063	0.134
	3,4-Benzofluoranthene	0.775	2.05
	Benzo(k)fluoranthene	0.741	1.98
	Benzo(a)pyrene	0.0063	0.0134

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Daily Average	Daily Maximum
		lbs/day	lbs/day
001	Bis(2-ethylhexyl)phthalate	3.47	9.40
	Carbon Tetrachloride	0.606	1.28
	Chlorobenzene	0.505	0.944
	Chloroethane	3.50	9.03
	Chloroform	0.708	1.55
	2-Chlorophenol	1.04	3.30
	Chrysene	0.741	1.98
	Di-n-butyl phthalate	0.910	1.92
	1,2-Dichlorobenzene	2.59	5.49
	1,3-Dichlorobenzene	1.04	1.48
	1,4-Dichlorobenzene	0.505	0.944
	1,1-Dichloroethane	0.741	1.98
	1,2-Dichloroethane	2.29	7.11
	1,1-Dichloroethylene	0.539	0.842
	1,2-trans Dichloroethylene	0.708	1.82
	2,4-Dichlorophenol	1.31	3.77
	1,2-Dichloropropane	5.15	7.75
	1,3-Dichloropropylene	0.977	1.48
	Diethyl phthalate	2.73	6.84
	2,4-Dimethylphenol	0.606	1.21
	Dimethyl phthalate	0.640	1.58
	4,6-Dinitro-o-cresol	2.62	9.33
	2,4-Dinitrophenol	2.39	4.14
	2,4-Dinitrotoluene	3.80	9.60
	2,6-Dinitrotoluene	8.59	21.6
	Ethylbenzene	1.07	3.64
	Fluoranthene	0.842	2.29
	Fluorene	0.741	1.98
	Hexachlorobenzene	0.002	0.004
	Hexachlorobutadiene	0.558	1.18
	Hexachloroethane	0.708	1.82
	Methyl Chloride	2.89	6.40
	Methylene Chloride	1.34	3.00
	Naphthalene	0.741	1.98
	Nitrobenzene	0.910	2.29
	2-Nitrophenol	1.38	2.32
	4-Nitrophenol	2.42	4.18
	Phenanthrene	0.741	1.67
	Phenol	0.505	0.876
	Pyrene	0.842	2.25
	Tetrachloroethylene	0.741	1.88
	Toluene	0.876	2.69
	1,2,4-Trichlorobenzene	2.29	4.71
	1,1,1-Trichloroethane	0.708	1.82
	1,1,2-Trichloroethane	0.708	1.82
	Trichloroethylene	0.708	1.82
	Vinyl Chloride	3.50	9.03

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Daily Average	Daily Maximum
		lbs/day	lbs/day
	pH	6.0 SU (min)	9.0 SU (max)

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
101 and 201	Flow (MGD)	Report	Report
	Enterococci (CFU or MPN per 100 mL)	35	104
	Chlorine Residual, minimum	1.0 mg/L (min)	
002	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)
003, 003A, 003B, 003C	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	Aluminum, Total ³	N/A	1.765
	Zinc, Total	N/A	Report
	pH	6.0 SU (min)	9.0 SU (max)
004	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	Zinc, Total ³	N/A	0.439
	pH	6.0 SU (min)	9.0 SU (max)
005	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)
006	Flow (MGD)	Report	Report
	TOC	N/A	75
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)
007	Flow (MGD)	Report	Report
	TSS	N/A	100
	Oil and grease	N/A	15
	pH	6.0 SU (min)	9.0 SU (max)

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.833583 N	95.107181 W
002	29.8304 N	95.10715 W
003	29.824703 N	95.126414 W
003A	29.8215861 N	95.1244889 W

³ Numerical effluent limitations begin upon completion of a three-year compliance period.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Latitude	Longitude
003B	29.8221583 N	95.1223778 W
003C	29.82435 N	95.120452778 W
004	29.833411 N	95.106332 W
005	29.816261 N	95.098182 W
006	29.838328 N	95.114848 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

A. The applicant requested the following amendments that the executive director did not grant:

1. Reduction in the monitoring frequency for Outfall 002 for flow, total organic carbon (TOC), and pH to quarterly, and for oil and grease to annually; a reduction in the monitoring frequency for Outfalls 004 and 005 for oil and grease to annually.

The least frequent monitoring frequency recommended in *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits* (TCEQ Document No. 98-001.000-OWR-WQ, May 1998) for industrial facilities is once per week for flow and pH; and once per two weeks for TOC and oil and grease. The existing permit's monitoring frequency is at or below the lowest frequency recommended for industrial facilities, with the exception of TOC and oil and grease at Outfall 002. Therefore, the draft permit includes a reduced monitoring frequency from once per week to once per two weeks for TOC and oil and grease at Outfall 002 only. All other monitoring frequency reduction requests are declined.

The permittee has a satisfactory compliance history rating for both the customer and facility site. There have been no effluent violations for TOC or oil and grease at Outfall 002 during the period of review. The effluent limitations for TOC and oil and grease remain the same as the existing permit. No antibacksliding justification is required.

B. The following changes have been made from the application that make the draft permit more stringent:

1. A water quality-based effluent limitation for the protection of aquatic life has been added for total aluminum at Outfall 003. See Section X.D of this fact sheet. An interim three-year compliance period is included in the draft permit for total aluminum at Outfall 003 in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to identify sources of the aforementioned pollutant, develop mitigation strategies and treatment options, and attain the water quality-based limits.
2. Water quality-based effluent limitations have been added for total zinc at Outfall 004. An interim three-year compliance period is included in the draft permit for total zinc at Outfall 004 in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to identify sources of the pollutant, develop mitigation strategies and treatment options, and attain the water quality-based limits.
3. Water quality-based effluent limits for the protection of human health are more stringent than the existing permit limits for benzo(a)anthracene, benzo(a)pyrene, hexachlorobenzene, and hexachlorobutadiene at Outfall 001. The draft permit includes the more stringent water quality-based effluent limits for these pollutants.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

No compliance period is included because the permittee's discharge monitoring reports indicate no detectable concentrations present in the effluent.

4. Technology-based effluent calculations for TSS at Outfall 001 are more stringent than the existing permit and are included in the draft permit. This discrepancy is due to differences in the production percentages used to calculate the conventional pollutants in Appendix A of this fact sheet.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

- A. The permittee requested the following amendments that the executive director recommends granting:

1. Addition of process wastewater and stormwater from the Houston Technology Center (HTC) complex to internal Outfall 101.

Internal Outfall 101 discharges via Outfall 001, which currently authorizes process wastewater and process area stormwater. The addition of these wastestreams to the internal Outfall 101 does not alter the nature of the discharge via Outfall 001. No antibacksliding justification is required. Effluent limitations for process wastewater and stormwater contributed by Outfall 101 are incorporated at Outfall 001.

2. Addition of construction stormwater and utility wastewaters (as defined in existing Other Requirement No. 13) and cooling tower and boiler maintenance wastewaters, water treatment wastewaters, and water from landfarm to Outfall 001.

The existing permit authorizes the discharge of construction stormwater via Outfalls 002, 003, and 004, which share the same immediate receiving water body as Outfall 001. EPA guidelines for stormwater recommend effluent limitations of TOC or COD, oil and grease, and pH. The existing permit includes limits for COD, TSS, oil and grease, and pH at Outfall 001.

The Fact Sheet and Executive Director's Preliminary Decision for the existing permit includes pollutant allocations for utility wastewater at Outfall 001. Other Requirement No. 13 of the existing permit defines *utility wastewater* as including, among others, steam condensate and blowdown, hydrotest water, demineralized water, raw and well water, and groundwater seepage. The existing permit authorizes the discharge of steam condensate and blowdown, demineralization regeneration blowdown, hydrostatic test water, groundwater from monitoring and recovery wells at Outfall 001. The addition of *utility wastewater* cooling tower and boiler maintenance wastewaters, water treatment wastewaters, and water from landfarm at Outfall 001 is similar to, if not the same as, wastestreams currently authorized by the existing permit. Therefore, the authorization of these additional wastestreams at Outfall 001 does not alter the nature of the discharge.

The major amendment request does not include a request to increase the total flow authorized at Outfall 001 or to recalculate the effluent limits to include increased loadings for the additional wastestreams. No antibacksliding justification is required.

3. Removal of total zinc monitoring requirements at Outfall 002.

Monitoring requirements have been included in the permit since at least 2006.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Monitoring requirements are included in a permit to provide a more detailed data set for use in determining the need for a numerical limit. The average total zinc concentration for Outfall 002 reported for May 2015 through April 2020 is 0.06 mg/L. This is below the 70% of the calculated daily average water quality-based effluent limitation for aquatic life protection (see Appendix B of this Fact Sheet). The permittee has demonstrated that the effluent discharged via Outfall 002 does not contain total zinc in concentrations necessitating monitoring requirements. This constitutes information that was not available at the time of permit issuance in accordance with 40 CFR § 122.44(l)(2)(i)(B)(1).

San Jacinto River Tidal is currently attaining water quality standards for total zinc, which satisfies the requirements of Clean Water Act (CWA) §§402(o)(1) and 303(d)(4). In compliance with CWA §402(o)(3), the revision complies with any applicable effluent guidelines (of which there are none for this outfall) and water quality standards.

For all these reasons, the removal of total zinc monitoring requirements at Outfall 002 meets anti-backsliding requirements.

4. Removal or revision of Other Requirements Nos. 8, 9, 10, 15, and 16.

Other Requirement No. 8 pertains to stormwater from landfarm cells. The permittee has requested clarification that stormwater from inactive landfarm cells may be diverted to Outfalls 002 or 004. This clarification does not alter the effluent quality from these outfalls and does not represent a change in the permit limits for the outfalls. Other Requirement No. 9 pertains to notification of start-up for Outfalls 006, 007, 101 and 201. The permittee submitted notification for internal Outfalls 101 and 201. Other Requirement No. 9 has been updated accordingly. Other Requirement No. 10, pertaining to pollutant analysis, has been fulfilled and is no longer necessary. It has been removed and replaced with a requirement pertaining to cooling water. Other Requirement No. 15 pertains to the development of an aluminum partitioning coefficient for Outfalls 002 and 003. The final report for Outfall 002 was submitted on August 6, 2020 and is currently under review by the TCEQ. This requirement has been updated. Other Requirement No. 16 pertains to a compliance schedule for the attainment of water quality-based effluent limits at Outfall 001. While the compliance period for the existing permit limits has been completed, this requirement has been retained but revised to address the water quality-based limits in the draft permit for Outfalls 001, 003, and 004.

The removal of completed or expired requirements, or the revision of requirements for accuracy and correctness does not constitute a relaxation of the permit. No antibacksliding justification is required.

B. The following additional changes have been made to the draft permit:

1. The single grab limitations were revised for several pollutants at Outfall 001. Single grab limits were calculated as discussed in Appendix E of this fact sheet.
2. Pages 3-13 were updated (January 2016 version).
3. Other Requirement No. 3 was updated to include minimum analytical level for total aluminum.
4. Other Requirement No. 10 was added to the draft permit to address cooling water intake structure requirements under CWA §316(b). Although CWA §316(b) does not

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

currently apply to this facility, the applicant would be required to notify the TCEQ if there is a change in how the facility obtains cooling water.

5. Other Requirement No. 17 was added to the draft permit to allow the TCEQ to amend the permit regarding plastic pellets, flake, or powder following the adoption of any new requirements on plastics.
6. The Other Requirements section has been renumbered and revised as follows:

Existing Permit	Draft Permit
1	1
2	2
3	3 (revised)
4	4
5	5
6	6
7	7
8	8 (revised)
9	9 (revised)

Existing Permit	Draft Permit
10	10 (replaced)
11	11
12	12
13	13
14	14
15	15 (revised)
16	16 (revised)
17	18
	17 (new)

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a major amendment to Permit No. WQ0000391000 to authorize a reduction in the monitoring frequency for Outfall 002 for flow, TOC, and pH to quarterly, and for oil and grease to annually; a reduction in the monitoring frequency for Outfalls 004 and 005 for oil and grease to annually; the addition of process wastewater and stormwater to Outfall 101; the addition of construction stormwater and utility wastewaters to Outfall 001; and the removal of provisions in Other Requirements Nos. 9, 10, 15, and 16. The existing permit authorizes the discharge of treated organic chemical manufacturing process wastewater, HTC wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, landfarm runoff, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, and process area stormwater from the adjacent co-generation facility at a daily average flow not exceed 8,900,000 gallons per day via Outfall 001; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfalls 101 and 201; de minimis quantities from spill cleanups, utility wastewater, construction water,

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; de minimis quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007.

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.

B. WATER QUALITY SUMMARY

Discharge Routes

The discharge route is via Outfalls 001, 002, and 004 to unnamed drainage ditches, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to HCFCD ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05; thence to the San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The unclassified receiving water uses are minimal aquatic life use for the unnamed ditches and Wallisville Gully and limited aquatic life use for HCFCD ditch G103-07-05 and HCFCD ditch G103-03-02. The designated uses for Segment No. 1001 are primary contact recreation and high aquatic life use. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

Antidegradation Review

In accordance with 30 TAC § 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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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's) biological opinion on the State of Texas authorization of the 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's

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

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. 1001 is currently listed on the state's inventory of impaired and threatened waters, the 2018 Clean Water Act Section 303(d) list. The listing is for dioxin and polychlorinated biphenyls (PCBs) in edible tissue in the reach from Interstate Highway 10 upstream to the Lake Houston Dam (AUs 1001_1 and 1001_02). The permittee indicated that dioxin is not expected to be present in the effluent and reported non-detectable levels of PCBs at Outfalls 001 through 005. The discharge is not expected to contribute to the impairments for dioxin and PCBs in edible tissue.

Completed Total Maximum Daily Loads (TMDLs)

Segment No. 1001 is included in the agency's document *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System* (TMDL Project No. 1). The discharge authorized in this draft permit was considered during the development of the TMDL and included in the waste load allocation. The TMDL indicates that the water quality criteria for dissolved nickel are generally being met in the Houston Ship Channel and the existing limit of 6.40 lbs/day Nickel for Outfall 001 is consistent with the TMDL and the TMDL Implementation Plan.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS**1. GENERAL COMMENTS**

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.

The draft permit authorizes the discharge of treated organic chemical manufacturing process wastewater, HTC wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), construction stormwater, process area stormwater runoff, and process area stormwater from the adjacent co-generation facility at a daily average flow not exceed 8,900,000 gallons per day via Outfall 001; sanitary wastewater associated with a septic chlorinator, process wastewater, and stormwater on an intermittent and flow-variable basis via Outfall 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; de minimis quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; de minimis quantities from spill cleanups, utility wastewater, construction water, and

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007.

The discharge of sanitary wastewater via Outfall 001 is subject to federal effluent limitation guidelines at 40 CFR Part 133-Secondary Treatment Regulation and 30 TAC Chapter 309. The discharge of process wastewater via Outfall 001 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 414. A new source determination was performed, and the discharge of sanitary wastewater and process wastewater is not a new source as defined at 40 CFR §122.2. Therefore, new source performance standards (NSPS) are not required for these discharges.

The discharge of HTC wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm stormwater, hydrostatic test water, maintenance wastewater, and groundwater from monitoring and recovery wells (onsite and offsite) via Outfall 001 are not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on BPJ.

The discharge of *de minimis* quantities from spill cleanups, utility wastewater (which includes potable water, vehicle rinse water, firewater [which has not come into direct contact with raw material, intermediate product, finished product, by-product, or waste product, and is not the result of a fire], hydrotest water, clarified water, demineralized water, steam condensate and blowdown, non-contact once-through cooling water, *de minimis* amounts of cooling tower water, raw and well water, groundwater seepage, condensate, and analyzer instrumentation drain wastewaters), construction water (which includes stormwater associated with construction activities), non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff via Outfalls 002 and 004 are not subject to federal effluent limitation guidelines, and any technology-based effluent limitations are based on BPJ.

The discharge of HTC-area stormwater via Outfall 006 and the discharge of *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff via Outfalls 003 and 005 are also not subject to federal effluent limitation guidelines, and any technology-based effluent limitations are based on BPJ.

The discharge of stormwater associated with construction activities from a concrete batch plant via Outfall 007 is not subject to federal effluent limitation guidelines, and any technology-based effluent limitations are based on BPJ and the Construction General Stormwater Permit (TXR150000).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

The Channelview North Complex produces bulk, commodity and specialty organic chemicals and thermoplastic resins. Chemicals are produced by high temperature cracking of various petroleum-based feedstocks. Chemicals are compressed, fractionated, and then recovered in downstream units. The primary waste streams are process wastewaters subject to 40 CFR Part 414 – Organic Chemicals, Plastics, and Synthetic Fibers, Subparts D (Thermoplastic Resins), F (Commodity Organic Chemicals), G (Bulk Organic Chemicals), and I (Direct Discharge Point Sources that Use End-of-Pipe Biological Treatment). These process wastewaters are routed to the wastewater treatment system prior to discharge via Outfall 001.

The following additional waste streams are also sent to the wastewater treatment system: first flush of stormwater runoff from production units (process area), auto shop wastewater, laboratory wastewater, HTC wastewater, utility wastewater, cooling tower blowdown, sanitary wastewater (including sanitary wastewater from the adjacent Lyondell Chemical Channelview South Plant), loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, non-contact cooling water during maintenance activities, demineralization regeneration blowdown, methanol neutralization sump wastewater, boiler blowdown, hydrostatic test water, maintenance wastewater, landfarm runoff, groundwater from monitoring and recovery wells (both on-site and off-site), and process area stormwater from an adjacent co-generation facility.

The wastewater system at the Channelview Complex begins with pretreatment, which may consist of separation, neutralization, and/or steam stripping. Pretreatment is accomplished in the operation units prior to routing to the wastewater treatment facility. The wastewater treatment facility employs activated sludge bio-treatment systems operated in parallel (OPI, OPII, and the East Plant). The wastewater treatment systems consist of equalization, stabilization, filtration, activated sludge biological treatment, clarification, and settling. Sanitary wastewater is collected separately, chlorinated, and then mixed with the industrial wastewater prior to routing to the biological unit. Treated wastewater is discharged via Outfall 001.

Wastewaters discharged via Outfalls 002, 003, 004, and 005 and proposed Outfalls 006 and 007 typically will not receive treatment.

2. CALCULATIONS

See Appendix A of this fact sheet for calculations and further discussion of technology-based effluent limitations proposed in the draft permit.

Technology-based effluent limitations for acenaphthene, acenaphthylene, acrylonitrile, anthracene, benzene, 3,4-benzofluoranthene, benzo(*k*)fluoranthene, bis(2-ethylhexyl) phthalate, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, 2-chlorophenol, chrysene, di-*n*-butyl phthalate, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, 1,2- trans-dichloroethylene, 2,4-dichlorophenol, 1,2-dichloropropane, 1,3-dichloropropylene, diethyl phthalate,

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

2,4-dimethyphenol, dimethyl phthalate, 4,6-dinitro-o-cresol, 2,4-dinitrophenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, ethylbenzene, fluoranthene, fluorene, hexachloroethane, methyl chloride, methylene chloride, naphthalene, nitrobenzene, 2-nitrophenol, 4-nitrophenol, phenanthrene, phenol, pyrene, tetrachloroethylene, toluene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, vinyl chloride, total chromium, total nickel, total zinc, and pH at Outfall 001 are continued from the existing permit.

Technology-based effluent limitations for chlorine residual at Outfalls 101 and 201; TOC, oil and grease, and pH at Outfalls 002, 003, 004, 005, and 006; and TSS, oil and grease, and pH at Outfall 007 are continued from the existing permit.

The technology-based limitation for certain pollutants calculated in Appendix A is slightly less stringent than the existing permit. This discrepancy is likely due to differences in rounding or truncation. The existing limit is continued in the draft permit as indicated with an asterisk in this table. The following technology-based effluent limitations are proposed in the draft permit:

Outfall	Pollutant	Daily Average, lbs/day	Daily Maximum, lbs/day
001	TSS	2,971	9,070
	COD	10,101	17,825
	Oil and Grease	595	891
	Chromium, total	1.02	2.54
	Nickel, total	6.40	15.0
	Zinc, total	4.73	11.75
	Acenaphthene	0.741 *	1.98
	Acenaphthylene	0.741 *	1.98
	Acrylonitrile	3.23	8.15
	Anthracene	0.741 *	1.98
	Benzene	1.24	4.58
	3,4-Benzofluoranthene	0.775	2.05
	Benzo(k)fluoranthene	0.741 *	1.98
	Bis(2-Ethylhexyl) Phthalate	3.47	9.40
	Carbon Tetrachloride	0.606 *	1.28
	Chlorobenzene	0.505 *	0.944
	Chloroethane	3.50	9.03
	Chloroform	0.708	1.55
	2-Chlorophenol	1.04	3.30
	Chrysene	0.741 *	1.98
	Di-n-butyl Phthalate	0.910	1.92
	1,2-Dichlorobenzene (ortho)	2.59	5.49
	1,3-Dichlorobenzene (meta)	1.04	1.48
	1,4-Dichlorobenzene (para)	0.505 *	0.944
	1,1-Dichloroethane	0.741 *	1.98
	1,2-Dichloroethane	2.29	7.11
	1,1-Dichloroethylene	0.539	0.843
	1,2-trans-Dichloroethylene	0.708	1.82
	2,4-Dichlorophenol	1.31	3.77
	1,2-Dichloropropane	5.15	7.75

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Outfall	Pollutant	Daily Average, lbs/day	Daily Maximum, lbs/day
001	1,3-Dichloropropylene	0.977 *	1.48
	Diethyl Phthalate	2.73	6.84
	2,4-Dimethylphenol	0.606 *	1.21
	Dimethyl Phthalate	0.640 *	1.58
	4,6-Dinitro-o-cresol	2.62 *	9.33
	2,4-Dinitrophenol	2.39	4.14
	2,4-Dinitrotoluene	3.80 *	9.60
	2,6-Dinitrotoluene	8.59	21.6
	Ethylbenzene	1.07	3.64
	Fluoranthene	0.842 *	2.29
	Fluorene	0.741 *	1.98
	Hexachloroethane	0.708	1.82
	Methyl Chloride	2.89	6.40
	Methylene Chloride	1.34	3.00
	Naphthalene	0.741 *	1.98
	Nitrobenzene	0.910	2.29
	2-Nitrophenol	1.38	2.32
	4-Nitrophenol	2.42	4.18
	Phenanthrene	0.741 *	1.98
	Phenol	0.505 *	0.877
	Pyrene	0.842 *	2.25
	Tetrachloroethylene	0.741 *	1.88
	Toluene	0.876 *	2.69
	1,2,4-Trichlorobenzene	2.29	4.71 *
	1,1,1-Trichloroethane	0.708	1.82
	1,1,2-Trichloroethane	0.708	1.82
	Trichloroethylene	0.708	1.82
	Vinyl Chloride	3.50	9.03
	pH	6.0-9.0 SU	

Outfall	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
101, 201	Chlorine residual	1.0 (min)	
002, 003,	TOC	N/A	75
004, 005	Oil and Grease	N/A	15
006	pH	6.0-9.0 SU	
007	TSS	N/A	100
	Oil and Grease	N/A	15
	pH	6.0-9.0 SU	

3. 316(B) COOLING WATER INTAKE STRUCTURES

a. SCREENING

The facility obtains water from the City of Houston, a public water system (PWS No. TX1010013), 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

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

b. PERMIT ACTION

The Other Requirement No. 10 in the draft permit has been revised to require 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.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards (IPs)* is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls. A comparison of technology-based effluent limits and calculated water quality-based effluent limits can be found in Appendix D of this fact sheet.

2. AQUATIC LIFE CRITERIA

a. SCREENING

Water quality-based effluent limitations are calculated from saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfalls 001, 002, 003, 003A, 003B, 003C, and 004

There is no mixing zone or zone of initial dilution (ZID) for this discharge to an unnamed drainage ditch, an intermittent stream; acute freshwater criteria apply at the end of pipe. Acute and chronic saltwater criteria are

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

applied in the bay, estuary, or wide tidal river.

For the intermittent stream, the percent effluent for acute protection of aquatic life is 100% because the seven-day, two-year low-flow (7Q2) of the intermittent stream is 0.0 cubic feet per second (cfs). TCEQ uses the EPA horizontal jet plume model to estimate dilution for discharges into sections of bays, estuaries, and wide tidal rivers that are less than 400 feet wide. General assumptions used in the horizontal jet plume model are a non-buoyant discharge, a submersed pipe, and no cross flow. Based on this analysis the following critical effluent percentages are calculated based on the two-year maximum monthly average flow of <10 MGD:

Acute Effluent % (stream)	100 %
Acute Effluent % (bay, estuary, or wide tidal river)	34 %
Chronic Effluent % (bay, estuary, or wide tidal river)	9 %

Outfall 005

Acute saltwater criteria are applied at the edge of the ZID, and chronic saltwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as a volume within a radius of 50 feet from the point where the discharge enters San Jacinto River Tidal. The aquatic life mixing zone for this discharge is defined as a volume within a radius of 200 feet from the point where the discharge enters San Jacinto River Tidal.

TCEQ practice is to establish minimum estimated effluent percentages at the edges of the ZID and aquatic life mixing zone for discharges that are 10 MGD or less into bays, estuaries, or wide tidal rivers that are at least 400 feet wide. These critical effluent percentages are as follows:

Acute Effluent %	30%	Chronic Effluent %	8%
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Outfalls 006 and 007

Outfalls 006 and 007 discharge stormwater only. Typically, critical conditions are not developed for stormwater outfalls. Water quality-based effluent limits are developed for these outfalls.

General Screening Procedures

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA for Outfalls 001, 002, 003, 003A, 003B, 003C, and 004, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

for which the WLA will never be exceeded using a selected percentile confidence level.

From the WLA for Outfall 005, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 99th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include the segment-specific value for TSS according to the *IPs*. The discharge to the unnamed drainage ditch is a freshwater body that flows into a saltwater segment. Therefore, data from a representative freshwater segment was used for screening the freshwater portion of the discharge route. The segment value of 12 mg/L for TSS for Segment No. 1016 was used for the unnamed drainage ditch. The segment value of 8 mg/L for TSS for Segment No. 1001 was used for the saltwater portion of the discharge route. A site-specific hardness of 147 mg/L of calcium carbonate was used. The site-specific value was developed for Lyondell's Channelview Complex-South (WQ0002927000) which discharges to a drainage ditch similar to the unnamed ditches included in this Fact Sheet and are more representative of the immediate receiving water bodies than Segment No. 1016. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data for Outfalls 002 and 005 do not exceed 70 percent of the calculated daily average water quality-based effluent limitation for aquatic life protection. No additional limits or monitoring and reporting requirements have been added to the draft permit at Outfalls 002 or 005.

Reported analytical data for total aluminum for Outfalls 003, 003A, 003B, and 003C and total zinc for Outfall 004 exceed 85 percent of the

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

calculated daily average water quality-based effluent limitation for aquatic life protection.

A site-specific water-effect-ratio of 1.8 was used for total copper based on TSWQS, Appendix E.

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The existing limits are still protective of aquatic life..

An interim three-year compliance period is included in the draft permit for total aluminum at Outfall 003 and total zinc at Outfall 004 in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to identify sources of the aforementioned pollutants, develop mitigation strategies and treatment options, and attain the water quality-based limits.

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA (7-DAY CHRONIC)

a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic saltwater biomonitoring requirements at Outfall 001.

In the past three years, the permittee performed 24 chronic tests, with no demonstrations of significant toxicity (i.e., failure) by the mysid shrimp and no demonstrations of significant toxicity by the inland silverside.

A reasonable potential (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 whole effluent toxicity (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.

With no demonstrations of significant toxicity during the period of record for either test species, a determination of no reasonable potential was made.

All of the test results were used for this determination.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

Based on information contained in the permit application, the TCEQ has determined that there may be pollutants present in the effluent that may

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

have the potential to cause toxic conditions in the receiving stream.

WET testing (biomonitoring) is the most direct measure of potential toxicity, which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Mysidopsis bahia*). The frequency of the testing shall be once per quarter.
- ii) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*). The frequency of the testing shall be once per quarter.

Toxicity tests shall be performed in accordance with protocols described in *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 the latest revision. The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the state water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

This permit may be reopened to require effluent limits, additional testing, or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

If none of the first four consecutive quarterly tests demonstrates significant lethal or sublethal effects, 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. If one or more of the first four consecutive quarterly tests demonstrates significant sublethal effects, the permittee is required by the permit to continue quarterly testing for that species until four consecutive quarterly tests demonstrate no significant sublethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction for that species. If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee is required by the permit to continue quarterly testing for that species until the permit is reissued.

c. DILUTION SERIES

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 4%, 5%, 7%, 9%, and 12%. The low-flow effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

concentration (critical dilution) is defined as 9% effluent.

The dilution series outlined above was calculated using a 0.75 factor applied to the critical dilution. The critical dilution is the estimated effluent dilution at the edge of the aquatic life mixing zone, which is discussed in Section X.D.2.a. of this fact sheet.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

a. SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring requirements for Outfall 001. In the past three years, the permittee has performed twelve 24-hour acute tests, with no demonstrations of significant mortality.

b. PERMIT ACTION

Twenty-four-hour 100% acute biomonitoring tests are required at Outfall 001 at a frequency of once per six months for the life of the permit.

The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Acute 24-hour static toxicity test using the mysid shrimp (*Mysidopsis bahia*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.
- ii) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

Toxicity tests shall be performed in accordance with protocols described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition (EPA-821-R-02-012) or the latest revision.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

a. SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfalls 001, 002, 003, 003A, 003C, and 004

Fish tissue bioaccumulation criteria are applied in the bay, estuary, or wide tidal river for a discharge to an intermittent stream that enters a bay, estuary, or wide tidal river within 3 miles downstream of the discharge

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

point. TCEQ practice is to establish a minimum estimated effluent percentage for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

Outfall 005

Fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into bays, estuaries and wide tidal rivers. The human health mixing zone for this discharge is defined as a volume within a radius of 400 feet from the point where the discharge enters San Jacinto River Tidal. TCEQ practice is to establish a minimum estimated effluent percentage at the edge of the human health mixing zone for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

Outfalls 006 and 007

Outfalls 006 and 007 discharge stormwater only. Typically, critical conditions are not developed for stormwater outfalls. Water quality-based effluent limits are developed for these outfalls.

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used, with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70 percent and 85 percent of the calculated daily average water quality-based effluent limitation.

b. **PERMIT ACTION**

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of human health. Reported analytical data for all outfalls does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for human health protection. No additional limits or monitoring and reporting requirements have been added to the draft permit.

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The calculated water quality-based effluent limits for benzo(a)anthracene, benzo(a)pyrene, hexachlorobenzene, and hexachlorobutadiene are more stringent than the existing limits at Outfall

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

001.

An interim three-year compliance period is not included in the draft permit for these pollutants because the permittee's discharge monitoring reports indicate the pollutants are not present in detectable concentrations.

6. DRINKING WATER SUPPLY PROTECTIONa. SCREENING

Segment No. 1001, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

b. PERMIT ACTION

None.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTIONa. SCREENING

Segment No. 1001, which receives the discharges 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.

b. PERMIT ACTION

None.

8. PROTECTION OF pH STANDARDSa. SCREENING

The existing permit includes pH limits of 6.0 – 9.0 standard units at Outfalls 001, 002, 003, 003A, 003B, 003C, 004, 006, and 007 which discharge into unclassified water bodies. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring a discharge to an unclassified water body to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria.

The existing permit includes pH limits of 6.0 – 9.0 SU at Outfall 005, which discharges directly into San Jacinto River Tidal, Segment No. 1001. Screening was performed to ensure that these existing pH limits would not cause a violation of the 6.5-9.0 SU pH criteria for San Jacinto River

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Tidal (see Appendix C).

b. PERMIT ACTION

The existing pH limits of 6.0 – 9.0 standard units are carried forward in the draft permit at Outfalls 001, 002, 003, 003A, 003B, 003C, 004, 006, and 007. The existing effluent limits of 6.0 – 9.0 SU at Outfall 005 are adequate to ensure that the discharge will not violate the pH criteria in San Jacinto River Tidal.

9. DISSOLVED OXYGEN PROTECTION

a. SCREENING

While the ELGs at 40 CFR Part 414 include limitations for biochemical oxygen demand, five-day (BOD₅), the existing permit includes limits for CBOD₅. Limits for daily average and daily maximum loading for CBOD₅ have been included since the permit issued on September 6, 1994. While BOD₅ limits are calculated in Appendix A of this document, CBOD₅ and ammonia nitrogen limits are continued in the draft permit.

The existing effluent limits have been reviewed for consistency with the minimum treatment recommendations contained in the *Waste Load Evaluation WLE-1R for the Houston Ship Channel System* (September 2006).

A dissolved oxygen modeling analysis was previously performed for this permit on January 25, 2017 by Xiaoxia Lu, P.E. Applicable water body uses and criteria, proposed permitted flow conditions, and modeling analytical procedures pertaining to this discharge situation remain unchanged from the previous review. In addition, the amendment request did not affect the effluent limitations or the nature of the proposed discharge from the facility. Therefore, the existing effluent set of 957 lbs/day CBOD₅ and 217 lbs/day NH₃-N for Outfall 001 is applicable to this permit. Due to the intermittent nature and limited oxygen demanding constituents of the discharges via Outfalls 002-006, no significant depletion of oxygen is expected in the receiving waters due to these outfalls. No additional modeling work was performed for the current permit action.

b. PERMIT ACTION

The existing effluent set of 957 lbs/day CBOD₅ and 217 lbs/day NH₃-N for Outfall 001 is continued in the draft permit.

10. BACTERIA STANDARDS PROTECTION

a. SCREENING

Sanitary wastewater generated at the facility is authorized for discharge via Outfall 001. Current agency policy is to impose appropriate effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

limitations for Enterococci for discharges of treated domestic wastewater directly to marine receiving waters or to freshwater bodies within three miles of marine receiving waters. Protection from exposure to human pathogens is therefore required.

TCEQ rules in 30 TAC Chapter 309 include the regulatory requirements regarding effluent limitations for bacteria for domestic wastewaters.

b. PERMIT ACTION

The existing permit limits for Enterococci at Outfalls 101 and 201 of 35 CFU or MPN per 100 mL (daily average) and 104 CFU or MPN per 100 mL (daily maximum) are continued in the draft permit.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. 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 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, along with the executive director's preliminary decision, as contained in the technical summary or fact sheet, to the chief clerk. 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 proceeding.

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

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

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 Sarah A. Johnson, Ph.D., at (512) 239-4649.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0000391000 issued on September 5, 2017.

B. APPLICATION

TPDES wastewater permit application received on December 30, 2019 and additional information received on February 18, 2020, March 17, 2020, July 16, 2020, August 6, 2020, and August 18, 2020.

C. 40 CFR CITATION

40 CFR Part 414 (BPT).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

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).

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).

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).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

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).

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).

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).

TCEQ Interoffice Memoranda dated March 4, 2020 and July 7, 2020, from Jeff Paull of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated March 30, 2020, from Katie Cunningham of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Critical Conditions Memo).

TCEQ Interoffice Memorandum dated May 1, 2020 from Gunnar Dubke of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated May 29, 2020, from Brad Caston of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Biomonitoring Memo).

Electronic mail dated July 7, 2020, from Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, to Nancy Ross, Lyondell Basell, requesting pollutant analysis data.

Electronic mail dated July 16, 2020, from Manish Pawar of Lyondell Basell, to Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, providing pollutant analysis data.

Electronic mail dated August 6, 2020, from Nancy Ross of Lyondell Basell, to Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, providing aluminum partitioning coefficient final report for Outfall 002.

Electronic mail dated August 18, 2020, from Nancy Ross of Lyondell Basell, to Sarah A. Johnson of the Industrial Permits Team, Wastewater Permitting Section, providing metal-bearing process wastewater flows.

E. MISCELLANEOUS

The State of Texas 2018 Integrated Report – Texas 303(d) List (Category 5), TCEQ, December 23, 2019.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 1, 2018, as approved by EPA Region 6.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not yet approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not yet approved by EPA Region 6.

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).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.

Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Appendix A
Calculated Technology-Based Effluent Limits

Effluent limitations guidelines (ELGs) under 40 CFR Part 414 are applicable to the Equistar Chemicals Channelview Complex. Effluent limitations calculated using the applicable ELGs, which includes Subparts D, F, G, and I, are included in the draft permit. The following calculations are based on the most recent available information and are not included in the draft permit in any instance where the calculated effluent limitations are less stringent than effluent limitations included in the existing permit. See Appendix D for a comparison of existing effluent limitations and the following calculated technology-based effluent limitations.

OUTFALL 001

Conventional Pollutants

40 CFR Part 414, Subparts D, F, and G

ELG concentrations are required to be production-proportioned in accordance with 40 CFR §414.11(i). The ELG production percentages provided by the permittee are used to calculate the plant concentrations that are subsequently used to calculate daily average and daily maximum mass loadings (in lbs/day). Best practicable control technology currently available (BPT) limits are applied for Subpart D (40 CFR §414.41), Subpart F (40 CFR §414.61), and Subpart G (40 CFR §414.71).

Biochemical Oxygen Demand, 5-day (BOD₅)

Source	%	Daily Average Guideline	Daily Maximum Guideline
Subpart D	0.2	24 mg/L x 0.002 = 0.048 mg/L	64 mg/L x 0.002 = 0.128 mg/L
Subpart F	69.5	30 mg/L x 0.695 = 20.9 mg/L	80 mg/L x 0.695 = 55.6 mg/L
Subpart G	30.3	34 mg/L x 0.303 = 10.3 mg/L	92 mg/L x 0.303 = 27.9 mg/L
Calculated Guideline		31.2 mg/L	83.6 mg/L

Total Suspended Solids (TSS)

Source	%	Daily Average Guideline	Daily Maximum Guideline
Subpart D	0.2	40 mg/L x 0.002 = 0.08 mg/L	130 mg/L x 0.002 = 0.26 mg/L
Subpart F	69.5	46 mg/L x 0.695 = 32 mg/L	149 mg/L x 0.695 = 104 mg/L
Subpart G	30.3	49 mg/L x 0.303 = 14.8 mg/L	159 mg/L x 0.303 = 48.2 mg/L
Calculated Guideline		46.9 mg/L	152 mg/L

Effluent Flows

Process wastewater: 3.04 MGD
 Process area stormwater: 1.00 MGD
 Total: 4.04 MGD
 Utility Wastewater: 4.62 MGD
 Sanitary wastewater: 0.24 MGD
Total permitted flow: 8.9 MGD

The following technology-based effluent limitations are calculated by converting the above-calculated guideline concentrations to daily average and daily maximum mass loadings (in lbs/day) by multiplying the flow by a conversion factor of 8.345 and then multiplying that product by the concentrations (in mg/L).

Process wastewater and process area stormwater flows were combined for calculating loadings. Daily mass loading allocations for utility wastewater and sanitary wastewater are included. Sources for the concentrations used to calculate daily average and daily maximum allocations include 40 CFR Part 423 for utility wastewater (low-volume wastes) and 30 TAC Chapter 309 for sanitary wastewater.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

TSS

Source	Flow	Conversion Factor	Daily Average Guideline (mg/L)	Daily Maximum Guideline (mg/L)	Daily Average Limit (lbs/day)	Daily Maximum Limit (lbs/day)
Process and process area stormwater	4.04	8.345	46.9	152	1,581	5,124
Utility	4.62	8.345	35	100	1,350	3,855
Sanitary	0.24	8.345	20	45	40	90
Total					2,971	9,070

BOD₅

Source	Flow	Conversion Factor	Daily Average Guideline (mg/L)	Daily Maximum Guideline (mg/L)	Daily Average Limit (lbs/day)	Daily Maximum Limit (lbs/day)
Process and process area stormwater	4.04	8.345	31.2	83.6	1,052	2,819
Utility	4.62	8.345	10	20	386	771
Sanitary	0.24	8.345	20	45	40	90
Total					1,477	3,680

Chemical Oxygen Demand (COD) and Oil and Grease

Calculations of mass loading for COD and oil and grease were not performed. Limitations for COD and oil and grease are recommended by the EPA for stormwater discharges associated with industrial activities. The inclusion of limits, based on best professional judgement, date at least as far back as the permit issued in 1987 by the Texas Water Commission. The major amendment request does not include a request to increase the total flow authorized at Outfall 001 or to recalculate the effluent limits to include increased loadings for the additional wastestreams. The existing COD and oil and grease effluent limitations have not been recalculated and are continued in accordance with federal anti-backsliding regulations under 40 CFR §122.44(l)(2).

pH

Effluent limitations for pH (6.0 minimum and 9.0 maximum) are technology-based and continued from the existing permit in accordance with 40 CFR §§414.41, 414.61, and 414.71 and 40 CFR §122.44(l), anti-backsliding regulations.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Toxic Pollutants

Best available technology economically achievable (BAT) limits for pollutant parameters under 40 CFR Part 414, Subpart I are presented below. Process wastewater flows (below) were calculated using process wastewater flows and the conversion factor of 8.345 used for calculated mass limitations.

$$[\text{ELG concentration in } \mu\text{g/L/1,000}] = \text{mg/L}$$

$$[\text{ELG concentration in } \mu\text{g/L/1,000}] \times 8.345 \times \text{process wastewater flow} = \text{lbs/day}$$

40 CFR Part 414, Subpart I

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

Total Flow from Outfall (MGD) =	8.9
Process Wastewater Flow (MGD) =	4.04
Chromium Bearing Wastewater Flow (MGD) =	0.11
Copper Bearing Wastewater Flow (MGD) =	0.54
Nickel Bearing Wastewater Flow (MGD) =	0.47
Zinc Bearing Wastewater Flow (MGD) =	0.54

Parameter	Daily Avg ($\mu\text{g/L}$)	Daily Max ($\mu\text{g/L}$)	Daily Avg (lb/day)	Daily Max (lb/day)
Chromium	1110	2770	1.02	2.54
Copper	1450	3380	6.53	15.2
Cyanide	420	1200	0.000	0.000
Lead	320	690	0.000	0.000
Nickel	1690	3980	6.63	15.6
Zinc	1050	2610	4.73	11.7
Acenaphthene	22	59	0.742	1.98
Acenaphthylene	22	59	0.742	1.98
Acrylonitrile	96	242	3.23	8.15
Anthracene	22	59	0.742	1.98
Benzene	37	136	1.24	4.58
Benzo(a)anthracene	22	59	0.742	1.98
3,4-Benzofluoranthene	23	61	0.775	2.05
Benzo(k)fluoranthene	22	59	0.742	1.98
Benzo(a)pyrene	23	61	0.775	2.05
Bis(2-ethylhexyl) phthalate	103	279	3.47	9.40
Carbon Tetrachloride	18	38	0.607	1.28
Chlorobenzene	15	28	0.506	0.944
Chloroethane	104	268	3.50	9.03
Chloroform	21	46	0.708	1.55
2-Chlorophenol	31	98	1.04	3.30
Chrysene	22	59	0.742	1.98

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Di-n-butyl phthalate	27	57	0.910	1.92
	Daily	Daily		
	Avg	Max	Daily Avg	Daily Max
Parameter	(µg/L)	(µg/L)	(lb/day)	(lb/day)
1,2-Dichlorobenzene	77	163	2.59	5.49
1,3-Dichlorobenzene	31	44	1.04	1.48
1,4-Dichlorobenzene	15	28	0.506	0.944
1,1-Dichloroethane	22	59	0.742	1.98
1,2-Dichloroethane	68	211	2.29	7.11
1,1-Dichloroethylene	16	25	0.539	0.843
1,2-trans Dichloroethylene	21	54	0.708	1.82
2,4-Dichlorophenol	39	112	1.31	3.77
1,2-Dichloropropane	153	230	5.15	7.75
1,3-Dichloropropylene	29	44	0.978	1.48
Diethyl phthalate	81	203	2.73	6.84
2,4-Dimethylphenol	18	36	0.607	1.21
Dimethyl phthalate	19	47	0.641	1.58
4,6-Dinitro-o-cresol	78	277	2.63	9.33
2,4-Dinitrophenol	71	123	2.39	4.14
2,4-Dinitrotoluene	113	285	3.81	9.60
2,6-Dinitrotoluene	255	641	8.59	21.6
Ethylbenzene	32	108	1.07	3.64
Fluoranthene	25	68	0.843	2.29
Fluorene	22	59	0.742	1.98
Hexachlorobenzene	15	28	0.506	0.944
Hexachlorobutadiene	20	49	0.674	1.65
Hexachloroethane	21	54	0.708	1.82
Methyl Chloride	86	190	2.89	6.40
Methylene Chloride	40	89	1.34	3.00
Naphthalene	22	59	0.742	1.98
Nitrobenzene	27	68	0.910	2.29
2-Nitrophenol	41	69	1.38	2.32
4-Nitrophenol	72	124	2.42	4.18
Phenanthrene	22	59	0.742	1.98
Phenol	15	26	0.506	0.877
Pyrene	25	67	0.843	2.25
Tetrachloroethylene	22	56	0.742	1.88
Toluene	26	80	0.877	2.69
1,2,4-Trichlorobenzene	68	140	2.29	4.72
1,1,1-Trichloroethane	21	54	0.708	1.82
1,1,2-Trichloroethane	21	54	0.708	1.82
Trichloroethylene	21	54	0.708	1.82
Vinyl Chloride	104	268	3.50	9.03

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

Appendix B Calculated Water Quality-Based Effluent Limits

TEXTTOX MENU #10 - INTERMITTENT FRESHWATER STREAM WITHIN 3 MILES OF A 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 Freshwater and 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:	Equistar Chemicals, LP
TPDES Permit No:	WQ0000391000
Outfall No:	001, 002, 003 (003A, 003B, 003C), and 004
Prepared by:	S. Johnson
Date:	August 3, 2020

DISCHARGE INFORMATION

<i>Intermittent Receiving Waterbody:</i>	unnamed drainage ditch
Segment No. for Freshwater Ambient Data:	1016
TSS (mg/L) (Intermittent):	12
pH (Standard Units) (Intermittent):	7.5
Hardness (mg/L as CaCO ₃) (Intermittent):	147
Chloride (mg/L) (Intermittent):	82
Effluent Flow for Aquatic Life (MGD):	<10
% Effluent for Acute Aquatic Life (Intermittent):	100
<i>Saltwater Receiving Waterbody:</i>	San Jacinto River Tidal
Segment No.:	1001
TSS (mg/L) (Bay/Tidal River):	8
% Effluent for Chronic Aquatic Life (Bay/Tidal River):	9
% Effluent for Acute Aquatic Life (Bay/Tidal River):	34
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	<10
% Effluent for Human Health (Bay/Tidal River):	4

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

<i>Stream/River 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	5.68	-0.73	78018.52	0.516		1.00	Assumed
Cadmium	6.60	-1.13	240173.56	0.258		1.00	Assumed
<i>Stream/River 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>
Chromium (total)	6.52	-0.93	328368.46	0.202		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	328368.46	0.202		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	166496.80	0.334		1.00	Assumed
Lead	6.45	-0.80	386060.17	0.178		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	118813.75	0.412		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	185542.46	0.310		1.00	Assumed
Zinc	6.10	-0.70	221092.05	0.274		1.00	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

<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	15840.73	0.888		1.80	TSWQS
Lead	6.06	-0.85	196053.01	0.389		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	155493.92	0.446		1.00	Assumed
Zinc	5.36	-0.52	77695.02	0.617		1.00	Assumed

AQUATIC LIFE**CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:**

<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>FW WLAa (µg/L)</i>	<i>SW WLAa (µg/L)</i>	<i>SW WLAc (µg/L)</i>	<i>FW LTAA (µg/L)</i>	<i>SW L (µg/L)</i>
Aldrin	3.0	1.3	N/A	3.00	3.82	N/A	1.72	
Aluminum	991	N/A	N/A	991	N/A	N/A	568	
Arsenic	340	149	78	658	438	867	377	
Cadmium	12.5	40.0	8.75	48.4	118	97.2	27.8	
Carbaryl	2.0	613	N/A	2.00	1803	N/A	1.15	
Chlordane	2.4	0.09	0.004	2.40	0.265	0.0444	1.38	0.0
<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>FW WLAa (µg/L)</i>	<i>SW WLAa (µg/L)</i>	<i>SW WLAc (µg/L)</i>	<i>FW LTAA (µg/L)</i>	<i>SW L (µg/L)</i>
Chlorpyrifos	0.083	0.011	0.006	0.0830	0.0324	0.0667	0.0476	0.0
Chromium (trivalent)	781	N/A	N/A	3859	N/A	N/A	2211	
Chromium (hexavalent)	15.7	1090	49.6	15.7	3206	551	9.00	1
Copper	20.4	24.3	6.48	61.2	80.5	81.1	35.1	
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Cyanide (free)	45.8	5.6	5.6	45.8	16.5	62.2	26.2	
4,4'-DDT	1.1	0.13	0.001	1.10	0.382	0.0111	0.630	0
Demeton	N/A	N/A	0.1	N/A	N/A	1.11	N/A	
Diazinon	0.17	0.819	0.819	0.170	2.41	9.10	0.0974	0
Dicofol [Kelthane]	59.3	N/A	N/A	59.3	N/A	N/A	34.0	
Dieldrin	0.24	0.71	0.002	0.240	2.09	0.0222	0.138	0
Diuron	210	N/A	N/A	210	N/A	N/A	120	
Endosulfan I (alpha)	0.22	0.034	0.009	0.220	0.100	0.1000	0.126	0.0
Endosulfan II (beta)	0.22	0.034	0.009	0.220	0.100	0.1000	0.126	0.0
Endosulfan sulfate	0.22	0.034	0.009	0.220	0.100	0.1000	0.126	0.0
Endrin	0.086	0.037	0.002	0.0860	0.109	0.0222	0.0493	0.0
Guthion [Azinphos Methyl]	N/A	N/A	0.01	N/A	N/A	0.111	N/A	
Heptachlor	0.52	0.053	0.004	0.520	0.156	0.0444	0.298	0.0
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.16	N/A	1.13	0.471	N/A	0.645	0
Lead	98	133	5.3	552	1005	151	316	
Malathion	N/A	N/A	0.01	N/A	N/A	0.111	N/A	
Mercury	2.4	2.1	1.1	2.40	6.18	12.2	1.38	
Methoxychlor	N/A	N/A	0.03	N/A	N/A	0.333	N/A	
Mirex	N/A	N/A	0.001	N/A	N/A	0.0111	N/A	
Nickel	649	118	13.1	1573	347	146	902	
Nonylphenol	28	7	1.7	28.0	20.6	18.9	16.0	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

Parathion (ethyl)	0.065	N/A	N/A	0.0650	N/A	N/A	0.0372
Pentachlorophenol	14.4	15.1	9.6	14.4	44.4	107	8.26
Phenanthrene	30	7.7	4.6	30.0	22.6	51.1	17.2
Polychlorinated Biphenyls [PCBs]	2.0	10	0.03	2.00	29.4	0.333	1.15
Selenium	20	564	136	20.0	1659	1511	11.5
Silver	0.8	2	N/A	17.8	13.2	N/A	10.2
Toxaphene	0.78	0.21	0.0002	0.780	0.618	0.00222	0.447
Tributyltin [TBT]	0.13	0.24	0.0074	0.130	0.706	0.0822	0.0745
2,4,5 Trichlorophenol	136	259	12	136	762	133	77.9
Zinc	162	92.7	84.2	593	442	1517	340

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	2875	2674	3930	8315
Aldrin	1.147E-05	0.000287	0.000267	0.000392	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benzidine	0.107	2.68	2.49	3.65	7.73
Benzo(a)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo(a)pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8
Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane [Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin	2.0E-05	0.000500	0.000465	0.000683	0.00144

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

2,4-Dimethylphenol	8436	210900	196137	288321	609986
Di- <i>n</i> -Butyl Phthalate	92.4	2310	2148	3158	6681
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000020	0.0000019	0.0000027	0.0000058
Endrin	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
Ethylene Glycol	1.68E+07	420000000	390600000	574182000	1214766000
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
Fish Only					
Parameter	Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (<i>beta</i>)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	246	229	336	711
Mercury	0.025	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
Methyl Ethyl Ketone	9.92E+05	24800000	23064000	33904080	71729040
Methyl <i>tert</i> -butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di- <i>n</i> -Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2,4,5-TP [Silvex]	369	9225	8579	12611	26681
1,1,1-Trichloroethane	784354	19608850	18236231	26807258	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

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

Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Aldrin	1.25	1.52
Aluminum	584	709

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Arsenic	144	175
Cadmium	28.5	34.6
Carbaryl	1.17	1.43
Chlordane	0.0278	0.0338
Chlorpyrifos	0.0106	0.0129
Chromium (trivalent)	2275	2763
Chromium (hexavalent)	9.25	11.2
Copper	26.5	32.1
Copper (oyster waters)	N/A	N/A
Cyanide (free)	5.42	6.58
4,4'-DDT	0.00697	0.00846
Demeton	0.697	0.846
Aquatic Life	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.0139	0.0169
Diuron	123	150
Endosulfan I (<i>alpha</i>)	0.0329	0.0399
Endosulfan II (<i>beta</i>)	0.0329	0.0399
Endosulfan sulfate	0.0329	0.0399
Endrin	0.0139	0.0169
Guthion [Azinphos Methyl]	0.0697	0.0846
Heptachlor	0.0278	0.0338
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.154	0.188
Lead	94.9	115
Malathion	0.0697	0.0846
Mercury	1.41	1.71
Methoxychlor	0.209	0.254
Mirex	0.00697	0.00846
Nickel	91.3	110
Nonylphenol	6.77	8.23
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	8.50	10.3
Phenanthrene	7.45	9.05
Polychlorinated Biphenyls [PCBs]	0.209	0.254
Selenium	11.7	14.3
Silver	4.34	5.27
Toxaphene	0.00139	0.00169
Tributyltin [TBT]	0.0516	0.0626
2,4,5 Trichlorophenol	80.1	97.3
Zinc	145	176

Human Health	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Acrylonitrile	2751	3340
Aldrin	0.000274	0.000333
Anthracene	31508	38260
Antimony	25622	31113
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	13899	16878
Benidine	2.55	3.10
Benzo(<i>a</i>)anthracene	0.598	0.726
Benzo(<i>a</i>)pyrene	0.0598	0.0726

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Bis(chloromethyl)ether	6.56	7.97
Bis(2-chloroethyl)ether	1024	1244
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	180	219
Bromodichloromethane [Dichlorobromomethane]	6579	7988
Bromoform [Tribromomethane]	25359	30793
Cadmium	N/A	N/A
Carbon Tetrachloride	1100	1336
Chlordane	0.0598	0.0726
Chlorobenzene	65480	79512
Chlorodibromomethane [Dibromochloromethane]	4378	5316
Chloroform [Trichloromethane]	184144	223604
Chromium (hexavalent)	12009	14583
Chrysene	60.2	73.2
Human Health	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Cresols [Methylphenols]	222519	270202
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0478	0.0581
4,4'-DDE	0.00311	0.00377
4,4'-DDT	0.00956	0.0116
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	11316	13741
1,2-Dibromoethane [Ethylene Dibromide]	101	123
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	53.5	65.0
1,2-Dichloroethane	8708	10574
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109
Dichloromethane [Methylene Chloride]	318982	387335
1,2-Dichloropropane	6196	7524
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457
Dicofol [Kelthane]	7.17	8.71
Dieldrin	0.000478	0.000581
2,4-Dimethylphenol	201824	245073
Di- <i>n</i> -Butyl Phthalate	2210	2684
Dioxins/Furans [TCDD Equivalents]	0.0000019	0.0000023
Endrin	0.478	0.581
Epichlorohydrin	48159	58479
Ethylbenzene	44666	54237
Ethylene Glycol	401927400	488054700
Fluoride	N/A	N/A
Heptachlor	0.00239	0.00290
Heptachlor Epoxide	0.00693	0.00842
Hexachlorobenzene	0.0162	0.0197
Hexachlorobutadiene	5.26	6.39
Hexachlorocyclohexane (<i>alpha</i>)	0.200	0.244
Hexachlorocyclohexane (<i>beta</i>)	6.22	7.55
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	8.15	9.90
Hexachlorocyclopentadiene	277	336
Hexachloroethane	55.7	67.6
Hexachlorophene	69.3	84.2
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291
Lead	235	285
Mercury	0.598	0.726
Methoxychlor	71.7	87.1

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Methyl Ethyl Ketone	23732856	28818468
Methyl <i>tert</i> -butyl ether [MTBE]	250773	304511
Nickel	27273	33117
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	44810	54412
N-Nitrosodiethylamine	50.2	61.0
N-Nitroso-di- <i>n</i> -Butylamine	100	122
Pentachlorobenzene	8.49	10.3
Pentachlorophenol	6.93	8.42
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185
Pyridine	22656	27511
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	5.74	6.97
1,1,2,2-Tetrachloroethane	630	765
Human Health	70% of	85% of
	Daily Avg.	Daily Avg.
Parameter	(µg/L)	(µg/L)
Tetrachloroethylene [Tetrachloroethylene]	6698	8134
Thallium	5.50	6.68
Toluene	N/A	N/A
Toxaphene	0.263	0.319
2,4,5-TP [Silvex]	8828	10719
1,1,1-Trichloroethane	18765081	22786170
1,1,2-Trichloroethane	3971	4822
Trichloroethylene [Trichloroethene]	1720	2088
2,4,5-Trichlorophenol	44666	54237
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	394	479

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Mass loading limits in lbs/day for Outfall 001 are calculated below for pollutant parameters in the existing permit with applicable water quality criteria. The most stringent criteria is applied for pollutants with both aquatic life and human health criteria.

$$[(\text{Concentration in } \mu\text{g/L}) / 1000] \times 8.345 \times \text{Flow MGD}$$

Pollutant	Daily Average μg/L	Daily Max μg/L	Daily Average lbs/day	Daily Max lbs/day
Copper	37.8	80.1	2.81	5.95
Cyanide, free	7.74	16.3	0.575	1.211
Lead	135	286	10.03	21.2
Nickel	130	276	9.66	20.5
Zinc	207	439	15.4	32.6
Acrylonitrile	3930	8315	292	618
Anthracene	45011	95228	3343	7073
Benzene	19857	42010	1475	3120
Benzo(a)anthracene	0.854	1.8	0.063	0.134
Benzo(a)pyrene	0.0854	0.18	0.0063	0.013
Bis(2-ethylhexyl) phthalate	258	545	19.2	40.5
Carbon Tetrachloride	1572	3326	117	247
Chlorobenzene	93543	197905	6947	14699
Chloroform	263064	556550	19538	41335
Chrysene	86.1	182	6.39	13.52
Di-n-butyl phthalate	3158	6681	235	496
1,2-Dichlorobenzene	112751	238542	8374	17717
1,3-Dichlorobenzene	20335	43022	1510	3195
1,4-Dichlorobenzene	N/A	N/A	-	-
1,2-Dichloroethane	12440	26319	924	1955
1,1-Dichloroethylene	1883658	3985155	139900	295979
1,2-Dichloropropane	8851	18727	657	1391
1,3-Dichloropropylene	4067	8604	302	639
2,4-Dimethylphenol	288231	609986	21407	45304
Ethylbenzene	63809	134998	4739	10026
Hexachlorobenzene	0.0232	0.0491	0.002	0.004
Hexachlorobutadiene	7.51	15.9	0.558	1.18
Hexachloroethane	79.6	168	5.91	12.5
Methylene Chloride	455688	964075	33844	71602
Nitrobenzene	64014	135431	4754	10059
Phenanthrene	10.6	22.5	0.787	1.67
Tetrachloroethylene	9569	20246	711	1504
Toluene	N/A	N/A	-	-
1,1,1-Trichloroethane	26807258	56714676	1990988	4212227
1,1,2-Trichloroethane	5673	12003	421	891
Trichloroethylene	2457	5198	182	386
Vinyl Chloride	563	1193	41.8	88.6

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

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:	Equistar Chemicals, LLC
TPDES Permit No:	WQ000039100
Outfall No:	005
Prepared by:	S. Johnson
Date:	August 3, 2020

DISCHARGE INFORMATION

Receiving Waterbody:	San Jacinto River Tidal
Segment No:	1001
TSS (mg/L):	8
Effluent Flow for Aquatic Life (MGD)	<10
% Effluent for Chronic Aquatic Life (Mixing Zone):	8
% Effluent for Acute Aquatic Life (ZID):	30
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	<10
% Effluent for Human Health:	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	15840.73	0.888		1.8	TSWQS, Appendix E
Lead	6.06	-0.85	196053.01	0.389		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	155493.92	0.446		1.00	Assumed
Zinc	5.36	-0.52	77695.02	0.617		1.00	Assumed

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	4.33	N/A	1.39	N/A	2.03	4.31
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	497	975	159	595	233	494
Cadmium	40.0	8.75	133	109	42.7	66.7	62.7	132
Carbaryl	613	N/A	2043	N/A	654	N/A	961	2033
Chlordane	0.09	0.004	0.300	0.0500	0.0960	0.0305	0.0448	0.0948

**FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1**

<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>
Chlorpyrifos	0.011	0.006	0.0367	0.0750	0.0117	0.0458	0.0172	0.0364
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	3633	620	1163	378	555	1176
Copper	13.5	3.6	50.7	50.7	16.2	30.9	42.9	90.8
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	18.7	70.0	5.97	42.7	8.78	18.5
4,4'-DDT	0.13	0.001	0.433	0.0125	0.139	0.00763	0.0112	0.0237
Demeton	N/A	0.1	N/A	1.25	N/A	0.763	1.12	2.37
Diazinon	0.819	0.819	2.73	10.2	0.874	6.24	1.28	2.71
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	2.37	0.0250	0.757	0.0153	0.0224	0.0474
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	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endosulfan II (<i>beta</i>)	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endosulfan sulfate	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endrin	0.037	0.002	0.123	0.0250	0.0395	0.0153	0.0224	0.0474
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.125	N/A	0.0763	0.112	0.237
Heptachlor	0.053	0.004	0.177	0.0500	0.0565	0.0305	0.0448	0.0948
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.16	N/A	0.533	N/A	0.171	N/A	0.250	0.530
Lead	133	5.3	1139	170	364	104	152	322
Malathion	N/A	0.01	N/A	0.125	N/A	0.0763	0.112	0.237
Mercury	2.1	1.1	7.00	13.8	2.24	8.39	3.29	6.96
Methoxychlor	N/A	0.03	N/A	0.375	N/A	0.229	0.336	0.711
Mirex	N/A	0.001	N/A	0.0125	N/A	0.00763	0.0112	0.0237
Nickel	118	13.1	393	164	126	99.9	146	310
Nonylphenol	7	1.7	23.3	21.3	7.47	13.0	10.9	23.2
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	50.3	120	16.1	73.2	23.6	50.0
Phenanthrene	7.7	4.6	25.7	57.5	8.21	35.1	12.0	25.5
Polychlorinated Biphenyls [PCBs]	10	0.03	33.3	0.375	10.7	0.229	0.336	0.711
Selenium	564	136	1880	1700	602	1037	884	1870
Silver	2	N/A	15.0	N/A	4.79	N/A	7.03	14.8
Toxaphene	0.21	0.0002	0.700	0.00250	0.224	0.00153	0.00224	0.00474
Tributyltin [TBT]	0.24	0.0074	0.800	0.0925	0.256	0.0564	0.0829	0.175
2,4,5 Trichlorophenol	259	12	863	150	276	91.5	134	284
Zinc	92.7	84.2	501	1707	160	1041	235	498

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	2875	2674	3930	8315
Aldrin	1.147E-05	0.000287	0.000267	0.000392	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benidine	0.107	2.68	2.49	3.65	7.73
Benzo(a)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo(a)pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
<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>
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane [Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin	2.0E-05	0.000500	0.000465	0.000683	0.00144
2,4-Dimethylphenol	8436	210900	196137	288321	609986
Di- <i>n</i> -Butyl Phthalate	92.4	2310	2148	3158	6681
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000020	0.0000019	0.0000027	0.0000058
Endrin	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
	42000000				
Ethylene Glycol	1.68E+07	0	390600000	574182000	1214766000
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (<i>beta</i>)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	246	229	336	711

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION ATTACHMENT 1

Mercury	0.0250	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
Parameter	Fish Only Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Methyl Ethyl Ketone	9.92E+05	24800000	23064000	33904080	71729040
Methyl tert-butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di-n-Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2,4,5-TP [Silvex]	369	9225	8579	12611	26681
1,1,1-Trichloroethane	784354	19608850	18236231	26807258	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

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

Aquatic Life Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrolein	N/A	N/A
Aldrin	1.42	1.73
Aluminum	N/A	N/A
Arsenic	163	198
Cadmium	43.9	53.3
Carbaryl	672	817
Chlordane	0.0313	0.0381
Chlorpyrifos	0.0120	0.0146
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	389	472
Copper	30.0	36.4
Copper (oyster waters)	N/A	N/A
Cyanide (free)	6.14	7.46
4,4'-DDT	0.00784	0.00952
Demeton	0.784	0.952
Diazinon	0.898	1.09
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0156	0.0190
Diuron	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.0373	0.0453
Endosulfan II (<i>beta</i>)	0.0373	0.0453

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Endosulfan sulfate	0.0373	0.0453
Endrin	0.0156	0.0190
Guthion [Azinphos Methyl]	0.0784	0.0952
Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Heptachlor	0.0313	0.0381
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.175	0.213
Lead	106	129
Malathion	0.0784	0.0952
Mercury	2.30	2.79
Methoxychlor	0.235	0.285
Mirex	0.00784	0.00952
Nickel	102	124
Nonylphenol	7.68	9.32
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	16.5	20.1
Phenanthrene	8.45	10.2
Polychlorinated Biphenyls [PCBs]	0.235	0.285
Selenium	619	751
Silver	4.92	5.98
Toxaphene	0.00156	0.00190
Tributyltin [TBT]	0.0580	0.0705
2,4,5 Trichlorophenol	94.1	114
Zinc	164	200

Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Acrylonitrile	2751	3340
Aldrin	0.000274	0.000333
Anthracene	31508	38260
Antimony	25622	31113
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	13899	16878
Benzidine	2.55	3.10
Benzo(a)anthracene	0.598	0.726
Benzo(a)pyrene	0.0598	0.0726
Bis(chloromethyl)ether	6.56	7.97
Bis(2-chloroethyl)ether	1024	1244
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	180	219
Bromodichloromethane [Dichlorobromomethane]	6579	7988
Bromoform [Tribromomethane]	25359	30793
Cadmium	N/A	N/A
Carbon Tetrachloride	1100	1336
Chlordane	0.0598	0.0726
Chlorobenzene	65480	79512
Chlorodibromomethane [Dibromochloromethane]	4378	5316
Chloroform [Trichloromethane]	184144	223604
Chromium (hexavalent)	12009	14583
Chrysene	60.2	73.2
Cresols [Methylphenols]	222519	270202
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0478	0.0581
4,4'-DDE	0.00311	0.00377
4,4'-DDT	0.00956	0.0116
2,4'-D	N/A	N/A
Danitrol [Fenpropathrin]	11316	13741

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

1,2-Dibromoethane [Ethylene Dibromide]	101	123
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
3,3'-Dichlorobenzidine	53.5	65.0
1,2-Dichloroethane	8708	10574
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109
Dichloromethane [Methylene Chloride]	318982	387335
1,2-Dichloropropane	6196	7524
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457
Dicofol [Kelthane]	7.17	8.71
Dieldrin	0.000478	0.000581
2,4-Dimethylphenol	201824	245073
Di- <i>n</i> -Butyl Phthalate	2210	2684
Dioxins/Furans [TCDD Equivalents]	0.0000019	0.0000023
Endrin	0.478	0.581
Epichlorohydrin	48159	58479
Ethylbenzene	44666	54237
Ethylene Glycol	401927400	488054700
Fluoride	N/A	N/A
Heptachlor	0.00239	0.00290
Heptachlor Epoxide	0.00693	0.00842
Hexachlorobenzene	0.0162	0.0197
Hexachlorobutadiene	5.26	6.39
Hexachlorocyclohexane (<i>alpha</i>)	0.200	0.244
Hexachlorocyclohexane (<i>beta</i>)	6.22	7.55
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	8.15	9.90
Hexachlorocyclopentadiene	277	336
Hexachloroethane	55.7	67.6
Hexachlorophene	69.3	84.2
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291
Lead	235	285
Mercury	0.598	0.726
Methoxychlor	71.7	87.1
Methyl Ethyl Ketone	23732856	28818468
Methyl <i>tert</i> -butyl ether [MTBE]	250773	304511
Nickel	27273	33117
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	44810	54412
N-Nitrosodiethylamine	50.2	61.0
N-Nitroso-di- <i>n</i> -Butylamine	100	122
Pentachlorobenzene	8.49	10.3
Pentachlorophenol	6.93	8.42
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185
Pyridine	22656	27511
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	5.74	6.97
1,1,2,2-Tetrachloroethane	630	765
Tetrachloroethylene [Tetrachloroethylene]	6698	8134
Thallium	5.50	6.68
Toluene	N/A	N/A
Toxaphene	0.263	0.319
2,4,5-TP [Silvex]	8828	10719
1,1,1-Trichloroethane	18765081	22786170
1,1,2-Trichloroethane	3971	4822

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Trichloroethylene [Trichloroethene]	1720	2088
2,4,5-Trichlorophenol	44666	54237
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	394	479

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Appendix C
pH Screening

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			Equistar Chemicals LP WQ0000391000, 005 Seg. 1001
INPUT			Notes on Data Sources
1. MIXING ZONE BOUNDARY CHARACTERISTICS			
Dilution factor at mixing zone boundary	12.500	12.500	Calculated from chronic effluent % at edge of mixing zone given in 3/30/2020 critical conditions memo. Inverse of effluent fraction (1/0.08 = 12.5).
Depth at plume trapping level (m)	2.000	2.000	Default value. Range of depths tested.
2. BACKGROUND RECEIVING WATER CHARACTERISTICS			
Temperature (deg C):	20.00	20.00	Range of temperatures tested (5 to 35 degrees C)
pH:	7.50	7.50	Ambient pH for Segment 1001 (2010 IPs).
Salinity (psu):	10.00	15.00	Range of salinity tested (5 to 30 psu)
Total alkalinity (meq/L)	44.00	44.00	Hardness from 2010 IP's used for alkalinity
3. EFFLUENT CHARACTERISTICS			
Temperature (deg C):	26.50	26.50	Range of temperatures tested (5 to 35 degrees C)
pH:	6.00	9.00	Proposed permit limit.
Salinity (psu)	5.00	5.00	Minimum salinity assumed because discharge is freshwater. However, values up to 5 ppt tested.
Total alkalinity (meq/L):	0.40	10.00	For high pH scenario, tested a range of values. For low pH scenarios, used default of 20 mg/L CaCO ₃ = 0.40 meq/L
4. CLICK THE 'calculate' BUTTON TO UPDATE OUTPUT RESULTS >>>			
OUTPUT			
CONDITIONS AT THE MIXING ZONE BOUNDARY			
Temperature (deg C):	20.52	20.52	
Salinity (psu)	9.60	14.20	
Density (kg/m ³)	1005.38	1008.86	
Alkalinity (mmol/kg-SW):	40.30	40.92	
Total Inorganic Carbon (mmol/kg-SW):	41.16	41.31	
pH at Mixing Zone Boundary:	7.49	7.55	Segment 1001 Criteria: 6.5 to 9.0
Notes:			
To convert from units of mgCaCO ₃ /L to meq/L divide by 50.044 mg/meq			
PSU refers to the Practical Salinity Scale (PSS) and is approximately equivalent to parts per thousand (ppt)			

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix D
Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

The following table is a summary of technology-based effluent limitations calculated/assessed in the draft permit, calculated/ assessed water quality-based effluent limitations, and effluent limitations in the existing permit. Effluent limitations appearing in bold are included in the draft permit.

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
101 and 201	Flow	Report	Report	Report	Report	Report	Report
	Enterococci (CFU or MPN per 100 mL)	-	-	35	104	35	104
	Chlorine residual	1.0 (min)	-	-	-	1.0 (min)	N/A
002	Flow (MGD)	Report	Report	Report	Report	Report	Report
	Total Organic Carbon (TOC)	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	Zinc, total	-	-	Data does not exceed screening value		Report	Report
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
003	Flow	Report	Report	Report	Report	Report	Report
	TOC	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	Aluminum, total	-	-	N/A	1.765	-	-
	Zinc, total	-	-	N/A	Report	N/A	Report
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
004	Flow	Report	Report	Report	Report	Report	Report
	TOC	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	Zinc, total	-	-	-N/A	0.439	N/A	Report
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
005 and 006	Flow	Report	Report	Report	Report	Report	Report
	TOC	-	75	-	-	N/A	75
	Oil and Grease	-	15	-	-	N/A	15
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	
007	Flow	Report	Report	Report	Report	Report	Report
	TSS	-	100	-	-	N/A	100
	Oil and Grease	-	15	-	-	N/A	15
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001	Flow	Report	Report	-	-	8.9 MGD	Report
	Carbonaceous Biochemical Oxygen Demand, 5-Day (CBOD ₅)	-	-	Existing permit limits are still protective		957	1,914
	Biochemical Oxygen Demand, 5-day (BOD ₅)	1,477	3,680	-	-	-	-
	Ammonia - Nitrogen (NH ₃ -N)	-	-	Existing permit limits are still protective		217	434
	Total Suspended Solids (TSS)	2,971	9,070	-	-	3,010	9,201
	Chemical Oxygen Demand (COD)	10,101	17,825	-	-	10,101	17,825
	Oil and Grease	595	891	-	-	595	891
	Chromium, total	1.02	2.54	-	-	1.02	2.54
	Copper, total	6.53	15.2	2.81	5.95	1.77	3.75
	Lead, total	-	-	10.03	21.2	7.84	16.6
	Nickel, total	6.63	15.6	9.66	20.5	6.40	15.0
	Zinc, total	4.73	11.76	15.4	32.6	4.73	11.75
	Acenaphthene	0.742	1.98	-	-	0.741	1.98
	Acenaphthylene	0.742	1.98	-	-	0.741	1.98
	Acrylonitrile	3.23	8.15	292	618	3.23	8.15
	Anthracene	0.742	1.98	3,343	7,076	0.741	1.98
	Benzene	1.24	4.58	1,475	3,120	1.24	4.58
	Benzo(a)anthracene	0.742	1.98	0.063	0.134	0.741	1.77
	3,4-Benzofluoranthene	0.775	2.05	-	-	0.775	2.05
	Benzo(k)fluoranthene	0.742	1.98	-	-	0.741	1.98
	Benzo(a)pyrene	0.775	2.05	0.0063	0.013	0.775	1.77
	Bis(2-Ethylhexyl) Phthalate	3.47	9.40	19.2	40.5	3.47	9.40
	Carbon Tetrachloride	0.607	1.28	117	247	0.606	1.28
	Chlorobenzene	0.506	0.944	6,947	14,699	0.505	0.944
	Chloroethane	3.50	9.03	-	-	3.50	9.03
	Chloroform	0.708	1.55	19,538	41,335	0.708	1.55
	2-Chlorophenol	1.04	3.30	-	-	1.04	3.30
	Chrysene	0.742	1.98	6.39	13.5	0.741	1.98
	Di-n-butyl Phthalate	0.910	1.92	235	496	0.910	1.92
	1,2-Dichlorobenzene (ortho)	2.59	5.49	8,374	17,717	2.59	5.49
	1,3-Dichlorobenzene (meta)	1.04	1.48	1,510	3,195	1.04	1.48
	1,4-Dichlorobenzene (para)	0.506	0.944	-	-	0.505	0.944

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001	1,1-Dichloroethane	0.742	1.98	-	-	0.741	1.98
	1,2-Dichloroethane	2.29	7.11	924	1,955	2.29	7.11
	1,1-Dichloroethylene	0.539	0.843	139,900	295,979	0.539	0.842
	1,2-trans-Dichloroethylene	0.708	1.82	-	-	0.708	1.82
	2,4-Dichlorophenol	1.31	3.77	-	-	1.31	3.77
	1,2-Dichloropropane	5.15	7.75	657	1,391	5.15	7.75
	1,3-Dichloropropylene	0.978	1.48	302	639	0.977	1.48
	Diethyl Phthalate	2.73	6.84	-	-	2.73	6.84
	2,4-Dimethylphenol	0.607	1.21	21,407	45,304	0.606	1.21
	Dimethyl Phthalate	0.641	1.58	-	-	0.640	1.58
	4,6-Dinitro-o-cresol	2.63	9.33	-	-	2.62	9.33
	2,4-Dinitrophenol	2.39	4.14	-	-	2.39	4.14
	2,4-Dinitrotoluene	3.81	9.60	-	-	3.80	9.60
	2,6-Dinitrotoluene	8.59	21.6	-	-	8.59	21.6
	Ethylbenzene	1.07	3.64	4,739	10,026	1.07	3.64
	Fluoranthene	0.843	2.29	-	-	0.842	2.29
	Fluorene	0.742	1.98	-	-	0.741	1.98
	Hexachlorobenzene	0.506	0.944	0.002	0.004	0.0111	0.0245
	Hexachlorobutadiene	0.674	1.65	0.558	1.18	0.674	1.65
	Hexachloroethane	0.708	1.82	5.91	12.5	0.708	1.82
	Methyl Chloride	2.89	6.40	-	-	2.89	6.40
	Methylene Chloride	1.34	3.00	33,844	71,602	1.34	3.00
	Naphthalene	0.742	1.98	-	-	0.741	1.98
	Nitrobenzene	0.910	2.29	4,754	10,058	0.910	2.29
	2-Nitrophenol	1.38	2.32	-	-	1.38	2.32
	4-Nitrophenol	2.42	4.18	-	-	2.42	4.18
	Phenanthrene	0.742	1.98	0.787	1.67	0.741	1.67
	Phenol	0.506	0.877	-	-	0.505	0.876
	Pyrene	0.843	2.25	-	-	0.842	2.25
	Tetrachloroethylene	0.742	1.88	711	1,504	0.741	1.88
	Toluene	0.877	2.69	-	-	0.876	2.69
	1,2,4-Trichlorobenzene	2.29	4.72	-	-	2.29	4.71
	1,1,1-Trichloroethane	0.708	1.82	1,990,998	4,212,227	0.708	1.82
	1,1,2-Trichloroethane	0.708	1.82	421	891	0.708	1.82

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall	Pollutant	Technology-Based		Water Quality-Based		Existing Permit	
		Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001	Trichloroethylene	0.708	1.82	182	386	0.708	1.82
	Vinyl Chloride	3.50	9.03	41.8	88.6	3.50	9.03
	pH	6.0-9.0 SU		6.0-9.0 SU		6.0-9.0 SU	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
ATTACHMENT 1

Appendix E
Calculations of Single Grab Limits for Outfall 001

The column labeled "Single Grab Method" in the table below refers to an explanation of how the single grab limit was calculated for each pollutant. The single grab limit included in the draft permit is shown in bold type.

Pollutant (Outfall 001)	Daily Average		Daily Maximum		Calculated Single Grab	Single Grab Method	Existing Single Grab	MAL
	lbs/day	mg/L	lbs/day	mg/L	mg/L		mg/L	mg/L
CBOD ₅	957	12.9	1914	25.8	39	A	39	-
Ammonia Nitrogen	217	2.9	434	5.8	8.77	A	8.75	
TSS	2971	40.0	9070	122.1	120	A	122	-
COD	10101	136.0	17825	240.0	408	A	408	-
Oil and grease	595	8.0	891	12.0	12	D	24	
Chromium, total	1.02	-	2.54	-	0.0514	C	0.0412	0.003
Copper, total	1.77	0.0378	3.75	0.0801	0.113	A	0.0717	0.002
Lead, Total	7.84	0.1056	16.6	0.2	0.316	A	0.316	0.0005
Nickel, Total	6.40	-	15.0	-	0.315	C	0.258	0.002
Zinc, total	4.73	-	11.75	-	0.238	C	0.191	0.005
Acenaphthene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Acenaphthylene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Acrylonitrile	3.237	-	8.159	-	0.165	C	0.2190	0.05
Anthracene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Benzene	1.247	-	4.585	-	0.093	C	0.1230	0.01
Benzo(a)anthracene	0.063	0.0008540	1.9891	0.0018	0.00256	E	0.0536	0.005
3,4-Benzofluoranthene	0.775		2.057		0.042	C	0.0554	0.01
Benzo(k)fluoranthene	0.742		1.989		0.040	C	0.0536	0.005
Benzo(a)pyrene	0.0063	0.00008540	0.0134	0.0001800	0.0002562	E	0.0554	0.005
Bis(2-ethylhexyl) phthalate	3.473	-	9.406	-	0.190	C	0.2530	0.01
Carbon Tetrachloride	0.607	-	1.281	-	0.026	C	0.0345	0.002

Pollutant (Outfall 001)	Daily Average		Daily Maximum		Calculated Single Grab	Single Grab Method	Existing Single Grab	MAL
	lbs/day	mg/L	lbs/day	mg/L	mg/L		mg/L	mg/L
Chlorobenzene	0.506	-	0.944	-	0.019	C	0.0254	0.01
Chloroethane	3.506	-	9.035	-	0.182	C	0.2430	0.05
Chloroform	0.708	-	1.551	-	0.031	C	0.0418	0.01
2-Chlorophenol	1.045	-	3.304	-	0.067	C	0.0890	0.01
Chrysene	0.742	-	1.989	-	0.040	C	0.0536	0.005
Di-n-butyl phthalate	0.910	-	1.922	-	0.039	C	0.0517	0.01
1,2-Dichlorobenzene	2.596	-	5.495	-	0.111	C	0.1480	0.01
1,3-Dichlorobenzene	1.045	-	1.483	-	0.030	C	0.0399	0.01
1,4-Dichlorobenzene	0.506	-	0.944	-	0.019	C	0.0254	0.01
1,1-Dichloroethane	0.742	-	1.989	-	0.040	C	0.0536	0.01
1,2-Dichloroethane	2.293	-	7.114	-	0.144	C	0.1910	0.01
1,1-Dichloroethylene	0.539	-	0.843	-	0.017	C	0.0227	0.01
1,2-trans Dichloroethylene	0.708	-	1.821	-	0.037	C	0.0490	0.01
2,4-Dichlorophenol	1.315	-	3.776	-	0.076	C	0.1010	0.01
1,2-Dichloropropane	5.158	-	7.754	-	0.157	C	0.2080	0.01
1,3-Dichloropropylene	0.978	-	1.483	-	0.030	C	0.0399	0.01
Diethyl phthalate	2.731	-	6.844	-	0.138	C	0.1840	0.01
2,4-Dimethylphenol	0.607	-	1.214	-	0.025	C	0.0327	0.01
Dimethyl phthalate	0.641	-	1.585	-	0.032	C	0.0427	0.01
4,6-Dinitro-o-cresol	2.630	-	9.339	-	0.189	C	0.2510	0.05
2,4-Dinitrophenol	2.394	-	4.147	-	0.084	C	0.1110	0.05
2,4-Dinitrotoluene	3.810	-	9.608	-	0.194	C	0.2580	0.01
2,6-Dinitrotoluene	8.597	-	21.611	-	0.436	C	0.5810	0.01
Ethylbenzene	1.079	-	3.641	-	0.074	C	0.0980	0.01
Fluoranthene	0.843	-	2.293	-	0.046	C	0.0617	0.01
Fluorene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Hexachlorobenzene	0.0017	2.32E-05	0.0036	4.91E-05	0.0001	E	0.00077	0.005
Hexachlorobutadiene	0.558	0.00751	0.001180	0.0159	0.022	A	0.0445	0.01
Hexachloroethane	0.708	-	1.821	-	0.037	C	0.049	0.02
Methyl Chloride	2.899	-	6.406	-	0.129	C	0.172	0.05
Methylene Chloride	1.349	-	3.001	-	0.061	C	0.0808	0.02

Pollutant (Outfall 001)	Daily Average		Daily Maximum		Calculated Single Grab	Single Grab Method	Existing Single Grab	MAL
	lbs/day	mg/L	lbs/day	mg/L	mg/L		mg/L	mg/L
Naphthalene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Nitrobenzene	0.910	-	2.293	-	0.046	C	0.0617	0.01
2-Nitrophenol	1.382	-	2.326	-	0.047	C	0.0626	0.02
4-Nitrophenol	2.427	-	4.181	-	0.084	C	0.112	0.05
Phenanthrene	0.742	-	1.989	-	0.040	C	0.0536	0.01
Phenol	0.506	-	0.877	-	0.018	C	0.0236	0.01
Pyrene	0.843	-	2.259	-	0.046	C	0.0608	0.01
Tetrachloroethylene	0.742	-	1.888	-	0.038	C	0.0508	0.01
Toluene	0.877	-	2.697	-	0.054	C	0.0726	0.01
1,2,4-Trichlorobenzene	2.293	-	4.720	-	0.095	C	0.127	0.01
1,1,1-Trichloroethane	0.708	-	1.821	-	0.037	C	0.049	0.01
1,1,2-Trichloroethane	0.708	-	1.821	-	0.037	C	0.049	0.01
Trichloroethylene	0.708	-	1.821	-	0.037	C	0.049	0.01
Vinyl Chloride	3.506	-	9.035	-	0.182	C	0.243	0.01

Note	Single grab limit =	
A	$\frac{\text{Daily Avg (lbs/day)}}{8.9 \text{ MGD} \times 8.345} \times 3 = \text{Daily Avg (mg/L)} \times 3$	
B	$\frac{\text{Daily Max (lbs/day)}}{8.9 \text{ MGD} \times 8.345} \times 2 = \text{Daily Max (mg/L)} \times 2$	
C	$\frac{\text{Daily Max (lbs/day)}}{4.04 \text{ MGD} \times 8.345} \times \frac{4.04 \text{ MGD}}{8.9 \text{ MGD}} \times 1.5 = \text{Daily Max (mg/L)} \times \frac{4.04 \text{ MGD}}{8.9 \text{ MGD}} \times 1.5$	
D	$\frac{\text{Daily Max (lbs/day)}}{8.9 \text{ MGD} \times 8.345} = \text{Daily Max (mg/L) [when sample type is grab]}$	
E	MAL	



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

TPDES PERMIT NO.
WQ0000391000
*[For TCEQ office use only -
EPA I.D. No. TX0003531]*

This major amendment replaces
TPDES Permit No.
WQ0000391000, issued on March
25, 2021.

Equistar Chemicals, LP

whose mailing address is

P.O. Box 777
Channelview, Texas 77530

is authorized to treat and discharge wastes from Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility (SIC 2869, 2822, 2821, 2813)

located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530

via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-03-02, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto 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 on March 25, 2026.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

- During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, utility wastewater ¹, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, maintenance wastewater, water from landfarm, groundwater from monitoring and recovery wells (on-site and off-site), construction stormwater ², process area stormwater runoff, and process area stormwater from the adjacent co-generation facility subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 8.9 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	lbs/day	mg/L	Measurement Frequency	Sample Type
Flow	8.9 MGD	Report, MGD	N/A	Continuous	Totalizer
Carbonaceous Biochemical Oxygen Demand, 5-Day (CBOD ₅)	957	1,914	39.0	2/Week	Composite
Ammonia - Nitrogen (NH ₃ -N)	217	434	8.75	2/Week	Composite
Total Suspended Solids (TSS)	2,971	9,070	120	2/Week	Composite
Chemical Oxygen Demand (COD)	10,101	17,825	408	2/Week	Composite
Oil and Grease	595	891	12.0	1/Quarter	Grab
Chromium, total	1.02	2.54	0.0412	1/Year	Composite
Copper, total	1.77	3.75	0.0717	1/Year	Composite
Lead, total	7.84	16.6	0.316	1/Year	Composite
Nickel, total	6.40	15.0	0.258	1/Year	Composite
Zinc, total	4.73	11.75	0.191	1/Year	Composite
Acenaphthene	0.741	1.98	0.040	1/Year	Composite
Acenaphthylene	0.741	1.98	0.040	1/Year	Composite
Acrylonitrile	3.23	8.15	0.165	1/Year	Composite
Anthracene	0.741	1.98	0.040	1/Year	Composite
Benzene	1.24	4.58	0.093	1/Year	Composite
Benzo(a)anthracene	0.063	0.134	0.005	1/Year	Composite

¹ See Other Requirement No. 13.

² See Other Requirement No. 17.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	lbs/day	mg/L	Measurement Frequency	Sample Type
3,4-Benzofluoranthene	0.775	2.05	0.042	1/Year	Composite
Benzo(k)fluoranthene	0.741	1.98	0.040	1/Year	Composite
Benzo(a)pyrene	0.0063	0.013	0.005	1/Year	Composite
Bis(2-Ethylhexyl) Phthalate	3.47	9.40	0.190	1/Year	Composite
Carbon Tetrachloride	0.606	1.28	0.026	1/Year	Composite
Chlorobenzene	0.505	0.944	0.019	1/Year	Composite
Chloroethane	3.50	9.03	0.182	1/Year	Composite
Chloroform	0.708	1.55	0.031	1/Year	Composite
2-Chlorophenol	1.04	3.30	0.067	1/Year	Composite
Chrysene	0.741	1.98	0.040	1/Year	Composite
Di-n-butyl Phthalate	0.910	1.92	0.039	1/Year	Composite
1,2-Dichlorobenzene (ortho)	2.59	5.49	0.111	1/Year	Composite
1,3-Dichlorobenzene (meta)	1.04	1.48	0.030	1/Year	Composite
1,4-Dichlorobenzene (para)	0.505	0.944	0.019	1/Year	Composite
1,1-Dichloroethane	0.741	1.98	0.040	1/Year	Composite
1,2-Dichloroethane	2.29	7.11	0.144	1/Year	Composite
1,1-Dichloroethylene	0.539	0.842	0.017	1/Year	Composite
1,2-trans-Dichloroethylene	0.708	1.82	0.037	1/Year	Composite
2,4-Dichlorophenol	1.31	3.77	0.076	1/Year	Composite
1,2-Dichloropropane	5.15	7.75	0.157	1/Year	Composite
1,3-Dichloropropylene	0.977	1.48	0.030	1/Year	Composite
Diethyl Phthalate	2.73	6.84	0.138	1/Year	Composite
2,4-Dimethylphenol	0.606	1.21	0.025	1/Year	Composite
Dimethyl Phthalate	0.640	1.58	0.032	1/Year	Composite
4,6-Dinitro-o-cresol	2.62	9.33	0.189	1/Year	Composite
2,4-Dinitrophenol	2.39	4.14	0.084	1/Year	Composite
2,4-Dinitrotoluene	3.80	9.60	0.194	1/Year	Composite
2,6-Dinitrotoluene	8.59	21.6	0.436	1/Year	Composite
Ethylbenzene	1.07	3.64	0.074	1/Year	Composite
Fluoranthene	0.842	2.29	0.046	1/Year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	lbs/day	mg/L	Measurement Frequency	Sample Type
Fluorene	0.741	1.98	0.040	1/Year	Composite
Hexachlorobenzene	0.002	0.004	0.005	1/Year	Composite
Hexachlorobutadiene	0.558	1.18	0.022	1/Year	Composite
Hexachloroethane	0.708	1.82	0.037	1/Year	Composite
Methyl Chloride	2.89	6.40	0.129	1/Year	Composite
Methylene Chloride	1.34	3.00	0.061	1/Year	Composite
Naphthalene	0.741	1.98	0.040	1/Year	Composite
Nitrobenzene	0.910	2.29	0.046	1/Year	Composite
2-Nitrophenol	1.38	2.32	0.047	1/Year	Composite
4-Nitrophenol	2.42	4.18	0.084	1/Year	Composite
Phenanthrene	0.741	1.67	0.040	1/Year	Composite
Phenol	0.505	0.876	0.018	1/Year	Composite
Pyrene	0.842	2.25	0.046	1/Year	Composite
Tetrachloroethylene	0.741	1.88	0.038	1/Year	Composite
Toluene	0.876	2.69	0.054	1/Year	Composite
1,2,4-Trichlorobenzene	2.29	4.71	0.095	1/Year	Composite
1,1,1-Trichloroethane	0.708	1.82	0.037	1/Year	Composite
1,1,2-Trichloroethane	0.708	1.82	0.037	1/Year	Composite
Trichloroethylene	0.708	1.82	0.037	1/Year	Composite
Vinyl Chloride	3.50	9.03	0.182	1/Year	Composite

- All sanitary wastewater shall be given complete treatment (both primary and secondary).
- The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored continuously (see Other Requirement No. 2).
- There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples shall be taken at the following location: At Outfall 001, where commingled wastewaters are discharged prior to entering the on-site, unnamed drainage ditch.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 101

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge sanitary wastewater, HTC process wastewater ¹, and HTC stormwater ¹ from a septic chlorinator subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day	Estimate
Enterococci ²	35	104	104	1/Week	Grab
Chlorine residual ³	1.0 minimum	N/A	N/A	5/Week	Grab

- ¹ Effluent limits for process wastewater and stormwater are applied at the external Outfall 001.
- ² Most probable number or colony-forming units per 100 mL (MPN or CFU /100 mL).
- ³ All sanitary wastewater shall be chlorinated sufficiently to maintain at least a 1.0 mg/L chlorine residual after at least 20 minutes of contact time (based on peak flow).
2. Effluent monitoring samples shall be taken at the following location: At Outfall 101, at the exit of the septic chlorinators and prior to commingling with other wastewaters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 201

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge sanitary wastewater associated with a septic chlorinator, subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day	Estimate
Enterococci ¹	35	104	104	1/Week	Grab
Chlorine residual ²	1.0 minimum	N/A	N/A	5/Week	Grab

¹ Most probable number or colony-forming units per 100 mL (MPN or CFU /100 mL).

² All sanitary wastewater shall be chlorinated sufficiently to maintain at least a 1.0 mg/L chlorine residual after at least 20 minutes of contact time (based on peak flow).

2. Effluent monitoring samples shall be taken at the following location: At Outfall 102, at the exit of the septic chlorinators and prior to commingling with other wastewaters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 002

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ^{1, 2}, utility wastewater ³, construction water ⁴, non-process area stormwater runoff ¹, stormwater (from secondary containment structures) ^{1, 2}, and post-first flush process area stormwater runoff ¹ subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/ week ¹	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/ two weeks ¹	Grab
Oil and Grease	N/A	15	15	1/ two weeks ¹	Grab

¹ When a stormwater discharge occurs, samples shall be collected within the first hour after the stormwater discharge begins and 1/week thereafter for the duration of the stormwater discharge. Samples shall be taken 1/week or 1/two weeks as indicated for all other discharges.

² See Other Requirement No. 5.

³ See Other Requirement No. 13.

⁴ Including stormwater associated with construction activities. See Other Requirement No. 17.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/week ¹ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following locations: At Outfall 002, in the plant drainage ditch (on the west side of the sludge lagoons) where groundwater seepage, stormwater runoff, and other authorized wastewaters are discharged.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 003 (003A, 003B, 003C)

- During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ¹, utility wastewater ², construction water ³, and stormwater runoff subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/ Quarter ⁴	Estimate ⁵
Total Organic Carbon (TOC)	N/A	75	75	1/ Quarter ⁴	Grab ⁵
Oil and Grease	N/A	15	15	1/ Year ⁴	Grab ⁵
Zinc, total ⁶	N/A	Report	N/A	1/ Quarter ⁴	Grab ⁵

¹ See Other Requirement No. 5.

² See Other Requirement No. 13.

³ Including stormwater associated with construction activities. See Other Requirement No. 17.

⁴ When a discharge occurs, samples shall be collected within the first hour after the discharge begins.

⁵ If more than one source is associated with this particular waste category, the highest TOC, oil and grease, and total zinc shall be reported, and the highest and lowest pH shall be reported (note the monitoring sample locations stated below).

⁶ See Other Requirement No. 3.

- The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/quarter ^{4,5} by grab sample.
- There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples shall be taken at the following locations: Outfall 003, which is comprised of combined intermittent discharges to the road ditches along Sheldon Road and Wallisville Road. Specifically, Outfall 003 is located at the southwest section of the plant adjacent to Sheldon Road; Outfall 003A is located at the southwest section of the plant adjacent to Wallisville Road; Outfall 003B is located at the southwest section of the plant, east of Outfall 003A, adjacent to Wallisville Road; and Outfall 003C is located at the southwest section of the plant, east of Outfall 003B, adjacent to Wallisville Road.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 004

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ¹, utility wastewater ², construction water ³, non-process area stormwater runoff, stormwater (from secondary containment structures) ¹, and post-first flush process area stormwater runoff subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Quarter ⁴	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/Quarter ⁴	Grab
Oil and Grease	N/A	15	15	1/Quarter ⁴	Grab
Zinc, total ^{5, 6}	N/A	Report	N/A	1/Quarter ⁴	Grab
Zinc, total ^{5, 7}	N/A	0.439	0.439	1/Quarter ⁴	Grab

¹ See Other Requirement No. 5.

² See Other Requirement No. 13.

³ Including stormwater associated with construction activities. See Other Requirement No. 17.

⁴ When a discharge occurs, samples shall be collected within one hour after the commencement of discharge.

⁵ See Other Requirement No. 3.

⁶ Beginning upon the date of permit issuance and lasting for two years and 364 days. See Other Requirement No. 15.

⁷ Beginning three years from the date of permit issuance and lasting until the date of permit expiration.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/Quarter ⁴ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 004, where intermittent discharges to an unnamed drainage ditch occur near the northeast corner of the plant site, adjacent to Outfall 001.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 005

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge *de minimis* quantities from spill cleanups ¹, utility wastewater ², construction water ³, and stormwater runoff subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Quarter ⁴	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/Quarter ⁴	Grab
Oil and Grease	N/A	15	15	1/Quarter ⁴	Grab

¹ See Other Requirement No. 5.

² See Other Requirement No. 13.

³ Including stormwater associated with construction activities. See Other Requirement No. 17.

⁴ When a discharge occurs, samples shall be collected within one hour after the commencement of discharge.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/Quarter ⁴ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 005, where intermittent discharges occur from the barge dock area.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 006

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge Houston Technology Center-area stormwater subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Month ¹	Estimate
Total Organic Carbon (TOC)	N/A	75	75	1/Month ¹	Grab
Oil and Grease	N/A	15	15	1/Month ¹	Grab

¹ When a discharge occurs, samples shall be collected within one hour after the commencement of discharge.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/month¹ by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 006, at the outlet (48-inch drain) of the stormwater impoundment at the Houston Technology Center.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 007

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge stormwater associated with construction activities from a concrete batch plant ¹ subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average	Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/Quarter ²	Estimate
Total Suspended Solids (TSS)	N/A	100	100	1/Quarter ²	Grab
Oil and Grease	N/A	15	15	1/Quarter ²	Grab

¹ Including stormwater associated with construction activities. See Other Requirement No. 17.

² Samples must be obtained within one hour following the commencement of discharge.

2. The pH must not be less than 6.0 standard units (SU) nor greater than 9.0 SU and shall be monitored 1/month ² by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: At Outfall 007, at the discharge point of stormwater runoff from the concrete batch plant located in the construction area and prior to combining with other stormwater runoff or wastewaters.

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.

OTHER REQUIREMENTS

1. 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.
2. The permittee shall maintain the pH at Outfall 001 within the range specified on Page 2b of this permit. Excursions from the range are permitted. An excursion is an unintentional and temporary incident in which the pH value of the wastewater exceeds the range set forth on Page 2b. A pH excursion is not a violation, and a non-compliance report is not required for pH excursions, provided:
 - A. the excursion does not exceed the range of 5-11 standard pH units;
 - B. the individual excursion does not exceed 60 minutes; and
 - C. the sum of all excursions does not exceed 7 hours and 26 minutes in any 31-day period.
3. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 12 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 12 and Compliance Monitoring Team (MC 224):

Pollutant	MAL¹ (mg/L)
Chromium (Total)	0.003
Copper (Total)	0.002
Lead (Total)	0.0005
Nickel (Total)	0.002
Zinc (Total)	0.005

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	0.010
(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 Minimum analytical level.

Pollutant	MAL (mg/L)
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
Methylene Chloride	0.020
Methyl Chloride	0.050
Naphthalene	0.010
Nitrobenzene	0.010
2-Nitrophenol	0.020
4-Nitrophenol	0.050
Oil and grease	5.00
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 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.

4. Mixing Zones:

Outfalls 001, 002, 003, 004 - There is no mixing zone for these discharges to an intermittent stream. Acute toxic criteria apply at the point of discharge.

Outfall 005 - The chronic aquatic life mixing zone is defined as a volume within a radius of 200 feet from the point of discharge. Chronic toxic criteria apply at the edge of the chronic aquatic life mixing zone.

5. Discharges of *de minimis* quantities from spill cleanups via Outfalls 002, 003, 004, and 005 and stormwater (from secondary containment structures) via Outfalls 002 and 004 are only authorized under the following conditions:
- The discharge must not contain process wastewater or spilled materials (process wastewater includes any water that contains or has come into direct contact with a raw material, intermediate product, by-product, final product, or waste product).
 - The discharge may contain secondary washwaters from spill cleanup; however any waters containing spilled material or primary washwaters from spill cleanup must be treated and discharged via Outfall 001 or collected and hauled off-site for treatment and/or disposal at a properly authorized facility.
6. This permit does not authorize the permittee to accept wastewaters from third party sources, nor does it prohibit acceptance of such wastewaters. This permit only provides the authorization to discharge these wastes. Should authorization to accept third party waste be required, it is the obligation of the permittee to obtain such authorization from the appropriate regulatory authority.

Wastewater received from non-adjacent (off-site) affiliates may be discharged provided that:

- the permittee demonstrates that the off-site wastewaters are generated at a facility that is subject to the same provisions in 40 CFR Part 414 as the Equistar Chemicals Channelview Complex; or the permittee demonstrates that the off-site wastewaters are of similar nature and the treatment of such wastewaters is compatible with the wastewaters produced and treated at the Equistar Chemicals Channelview Complex;
 - the volume and nature of the off-site wastewaters will not have an impact on the Equistar Chemicals Channelview Complex Wastewater Treatment Plant's ability to consistently achieve the effluent limitations specified in this permit; and
 - the permittee shall provide written pre-notification of acceptance of wastewaters from non-adjacent affiliates' activities to the TCEQ Region 12 office.
7. Monitoring results must be provided at the intervals specified in the permit. For pollutants which are monitored annually, effluent reports must be submitted by January 20th for monitoring conducted during the previous 12-month period (i.e., through December). For pollutants which

are monitored twice per year, effluent reports must be submitted by July 20th and January 20th, for monitoring conducted during the previous six-month period (i.e., through June and December, respectively). For pollutants which are monitored four times per year, effluent reports must be submitted with the discharge monitoring reports by April 20th, July 20th, October 20th, and January 20th for monitoring conducted during the previous calendar quarter (i.e., through March, June, September, and December, respectively).

8. This permit does not authorize the diversion of stormwater from active landfarm cells to Outfall 002 or 004. Such diversion shall require written notification to and approval by the TCEQ's Wastewater Permitting Section (MC-148). Additional requirements may be imposed for stormwater from active landfill cells to be approved for diversion. Stormwater from inactive landfarm cells may be diverted to Outfall 002 or Outfall 004.
9. Reporting requirements at Outfall 006 and 007 according to 30 TAC §§ 319.1-319.12 and any additional effluent reporting requirements contained in the permit 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 12 Office and the Applications Review and Processing Team (MC 148) of the Water Quality Division at least forty-five days prior to plant startup or anticipated discharge, whichever occurs first, on Notification of Completion Form 20007.
10. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 12 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.

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 Industrial Permits 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. The permittee shall notify the Executive Director in writing, at least 90 days prior to discontinuing use of any surface impoundment, pit, or basin authorized by this permit. The permittee shall, at

the request of the Executive Director, submit such information as is necessary to evaluate closure of the waste management unit(s) including, but not limited to, chemical analyses of bottom sediments, soils, and groundwater samples.

13. Utility wastewater includes, but is not limited to: potable water, vehicle rinse water, firewater (which has not come into direct contact with raw material, intermediate product, finished product, by-product, or waste product and is not the result of a fire), hydrotest water, clarified water, demineralized water, steam condensate and blowdown, non-contact once-through cooling water, *de minimis* amounts of cooling tower water, raw and well water, groundwater seepage, condensate, and analyzer instrumentation drain wastewater.
14. The permittee may transport wastewater treatment sludge from Equistar Chemicals, LP Channelview Complex, [Texas Pollutant Discharge Elimination Permit (TPDES) Permit No. WQ0000391000] to Lyondell Chemical Company [TPDES Permit No. WQ0002927000] located on adjacent contiguous property, provided all other requirements necessary for the transport of sludge have been met and contingent upon the acceptance of the sludge by the LyondellBasell Industries Channelview South Plant.
15. SCHEDULE OF COMPLIANCE FOR WATER QUALITY-BASED EFFLUENT LIMITS

The permittee shall comply with the following schedule of activities for the attainment of water quality-based final effluent limitation for total zinc at Outfall 004:

- A. determine exceedance cause(s);
- B. develop control options;
- C. evaluate and select control mechanisms;
- D. implement corrective action; and
- E. attain final effluent limitations no later than three years from the date of permit issuance.

The permittee shall submit quarterly progress reports in accordance with the schedule below. The requirement to submit quarterly progress reports expires three years from the date of permit issuance.

PROGRESS REPORT DATE

January 1
April 1
July 1
October 1

The quarterly progress reports must include a discussion of the interim requirements that have been completed at the time of the report and must address the progress towards attaining the water quality-based final effluent limitations for total aluminum at Outfall 003 and total zinc at Outfall 004 no later than three years from the date of permit issuance.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. All reports must be submitted to the Region 12 Office and to the Enforcement Division (MC 224) of the TCEQ.

16. The permittee is hereby notified that this permit may be reviewed by the Texas Commission on Environmental Quality after the development of any new requirements concerning plastics in order to determine if the limitations and conditions contained herein are consistent with any new requirements. As a result of this review, the permit may be amended, pursuant to 30 TAC §305.62, to include additional requirements as necessary to protect human health and the environment.

17. STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES

Equistar Chemicals, LP (permittee) must either 1) develop a Stormwater Pollution Prevention Plan (SWP3) and follow the other conditions of this permit to authorize stormwater discharges from each construction activity performed by the permittee that results in a land disturbance of one (1) or more acres, or 2) apply under TPDES general permit TXR150000 for authorization to discharge stormwater runoff from construction activities. If the permittee opts to discharge stormwater via this permit, only discharges of stormwater runoff from construction activities that are located at the facility authorized under this TPDES permit are eligible for authorization under this permit. Discharges of stormwater from small and large (1 acre or more) construction activities and support activities, include, but are not limited to: concrete batch plants, rock crushers, asphalt batch plants, equipment staging areas, material storage yards, material borrow areas, and excavated material disposal areas, may be authorized under this permit. Also, the following non-stormwater discharges may be discharged as a result of the construction activities: water line flushing and similar potable water sources; uncontaminated pumped groundwater, including infiltrated water in trenches or other excavated areas; air conditioning condensate; and pavement, exterior building, vehicle, and equipment wash water from washing activities conducted without the use of detergents or other chemicals.

I. Construction Stormwater Discharges

The permittee shall develop and implement a stormwater pollution prevention plan (SWP3). The SWP3 must be maintained onsite and made readily available for review by the TCEQ upon request. The SWP3 must, at a minimum, include the following:

- a. a site or project description, which includes the following information:
 - 1) a description of the nature of the construction activity;
 - 2) a list of potential pollutants and their sources;
 - 3) a description of the intended schedule or sequence of activities that will disturb soils for major portions of the site;
 - 4) the total number of acres of the entire property and the total number of acres where construction activities will occur, including off-site material storage areas, overburden and stockpiles of dirt, and borrow areas;
 - 5) data describing the soil or the quality of any discharge from the site;
 - 6) a map showing the general location of the site (e.g., a portion of a city or county map);
 - 7) a detailed site map (or maps) indicating the following:
 - (a) drainage patterns and approximate slopes anticipated after major grading activities;
 - (b) areas where soil disturbance will occur;

- (c) locations of all major erosion and sediment controls and natural buffers, either planned or in place;
 - (d) locations where temporary or permanent stabilization practices are expected to be used;
 - (e) locations of construction support activities, including off-site activities, including material, waste, borrow, fill, or equipment storage areas;
 - (f) surface waters (including wetlands) either at, adjacent, or in close proximity to the site;
 - (g) locations where stormwater discharges from the site directly to a surface water body or a municipal separate storm sewer system; and
 - (h) vehicle wash areas.
- 8) the location and description of support activities such as the concrete plant, gravel washing facilities, and other activities providing support to the construction site; and
- 9) the name of receiving waters at or near the site(s) that may be disturbed or that may receive discharges from disturbed areas of the project(s).
- b. A description of the Best Management Practices (BMPs) that will be used to minimize pollution in runoff. The description must identify the general timing or sequence for implementation. At a minimum, the description must include the following components:
- 1) General Requirements
 - (a) Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.
 - (b) Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.
 - (c) Controls must be developed to minimize the offsite transport of litter, construction debris, and construction materials.
 - 2) Erosion Control and Stabilization Practices

The SWP3 must include a description of temporary and permanent erosion control and stabilization practices for the site(s), including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where it is possible.

 - (a) Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.
 - (b) The following records must be maintained and either attached to or referenced in the SWP3:
 - (i) the dates when major grading activities occur;
 - (ii) the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - (iii) the dates when stabilization measures are initiated.
 - (c) Erosion control and stabilization measures must be initiated immediately in portions of the site(s) where construction activities have temporarily ceased. Stabilization measures that provide a protective cover must be initiated immediately in portions of the site(s) where construction activities have

permanently ceased. Except as provided in (c)(i) through (c)(iii) below, these measures must be completed no more than 14 days after the construction activity in that portion of the site(s) has temporarily or permanently ceased:

- (i) Where the immediate initiation of stabilization measures after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.
- (ii) In arid areas, semi-arid areas, or drought-stricken areas where the immediate initiation of stabilization measures after construction activity has temporarily or permanently ceased or is precluded by arid conditions, erosion control and stabilization measures must be initiated as soon as practicable. Where vegetative controls are not feasible due to arid conditions, the permittee shall immediately install, and within 14 calendar days of a temporary or permanent cessation of work in any portion of the site(s) complete, non-vegetative erosion controls. If non-vegetative controls are not feasible, the permittee shall install temporary sediment controls as required in Paragraph (c)(iii) below.
- (iii) In areas where temporary stabilization measures are infeasible, the permittee may alternatively utilize temporary perimeter controls. The permittee must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site(s) to the extent practicable. The permittee must continue to inspect the BMPs for unstabilized sites.

3) Sediment Control Practices

The SWP3 must include a description of any sediment control practices used to remove eroded soils from stormwater runoff, including the general timing or sequence for implementation of controls.

(a) Sedimentation Basin(s)

- (i) A sedimentation basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin may be temporary or permanent, and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site(s) and the sediment basin. Capacity calculations shall be included in the SWP3.
- (ii) Where rainfall data is not available or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site(s).
- (iii) If a sedimentation basin is not feasible, then the permittee shall provide equivalent control measures until final stabilization of the site(s). In determining whether installing a sediment basin is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation patterns, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins.

(b) Perimeter Controls - At a minimum, silt fences, vegetative buffer strips, or

equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site(s) conditions.

(c) Controls for Sites With Drainage Areas Less than Ten Acres:

- (i) Sediment traps and sediment basins may be used to control solids in stormwater runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site(s) conditions.
- (ii) Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided. If a calculation is performed, then the calculation shall be included in the SWP3.

c. Description of Permanent Stormwater Controls

A description of any measures that will be installed during the construction process to control pollutants in stormwater discharges that may occur after construction operations have been completed must be included in the SWP3.

d. Other Required Controls and BMPs

- 1) The permittee shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and the generation of dust. The SWP3 must include a description of controls utilized to accomplish this requirement.
- 2) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.
- 3) The SWP3 must include a description of potential pollutant sources from areas other than construction (such as stormwater discharges from dedicated gravel washing facilities and dedicated concrete batch plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.
- 4) The permittee shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (such as runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.
- 5) The permittee shall design and utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site(s).

e. Maintenance Requirements

- 1) All protective measures identified in the SWP3 must be maintained in effective operating condition. If, through inspections or other means, the permittee determines that BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWP3 and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

- 2) If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the permittee shall replace or modify the control as soon as practicable after making the discovery.
- 3) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- 4) If sediment escapes the site(s), accumulations must be removed at a frequency that minimizes offsite impacts, and prior to the next rain event, if feasible.

f. Inspections of Controls

- 1) Personnel provided by the permittee must inspect disturbed areas of the construction site(s) that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Personnel conducting these inspections must be knowledgeable of this permit, familiar with the construction site(s), and knowledgeable of the SWP3 for the site(s). Sediment and erosion control measures identified in the SWP3 must be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking. Inspections must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.
- 2) Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g., site(s) is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. During periods of drought, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater.
- 3) As an alternative to the above-described inspection schedule of once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur on a specifically defined day, regardless of whether or not there has been a rainfall event since the previous inspection.
- 4) The inspections may occur on either schedule provided that the SWP3 reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented in the SWP3 (e.g., end of "dry" season and beginning of "wet" season).
- 5) In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.
- 6) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.
- 7) The permittee shall prepare, and retain as part of the SWP3 a report summarizing the scope of the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWP3 must be made and retained as part of the SWP3.

Major observations should include: The locations of discharges of sediment or other pollutants from the site(s); locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

- 8) Actions taken as a result of inspections must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).
- 9) The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.

g. Erosion and Sediment Control Requirements

The permittee shall ensure that the discharge, achieves, at a minimum, the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology currently available (BPT).

- 1) Erosion and sediment controls - Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:
 - (a) Control stormwater volume and velocity within the site(s) to minimize soil erosion;
 - (b) Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
 - (c) Minimize the amount of soil exposed during construction activity;
 - (d) Minimize the disturbance of steep slopes;
 - (e) Minimize sediment discharges from the site(s). The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site(s);
 - (f) If earth disturbance activities are located in close proximity to a surface water, provide and maintain appropriate natural buffers if feasible and as necessary, around surface waters, depending on site-specific topography, sensitivity, and proximity to water bodies. Direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration unless unfeasible; and
 - (g) Minimize soil compaction and, unless infeasible, preserve topsoil.
- (h) TCEQ does not consider stormwater control features (e.g., stormwater conveyance channels, storm drain inlets, sediment basins) to constitute "surface waters" for the purposes of triggering the buffer requirement in item (f) above. Also, areas that the permittee does not own or that are otherwise outside their operational control may be considered areas of undisturbed natural buffer for purposes of compliance with this requirement.
- 2) Soil stabilization - Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site(s), or temporarily ceased on any portion of the site(s) and will not resume for a period exceeding 14 calendar days. Temporary stabilization must be completed within 14 days after initiation of soil stabilization measures, and final stabilization must be achieved prior to termination of

permit coverage. In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative non-vegetative stabilization measures must be employed as soon as practicable.

- 3) Dewatering - Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited, unless managed by appropriate controls.
- 4) Pollution prevention measures - Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:
 - (a) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
 - (b) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site(s) to precipitation and to stormwater; and
 - (c) Minimize the discharge of pollutants from spills and leaks, and implement chemical spill and leak prevention and response procedures.
- 5) Prohibited discharges - The following discharges are prohibited:
 - (a) Wastewater from wash out of concrete trucks, unless managed by an appropriate control;
 - (b) Wastewater from wash out and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
 - (c) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
 - (d) Soaps or solvents used in vehicle and equipment washing.
- 6) Surface outlets - When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.

II. Concrete Batch Plant Stormwater Discharges

The permittee shall develop and implement a SWP3. The SWP3 must be maintained onsite and made readily available for review by the TCEQ upon request. The SWP3 may be a separate document for the Concrete Batch Plant or may be combined with the SWP3 developed for construction activities described above in item 8. The SWP3 must at a minimum include the following:

- a. Description of Potential Pollutant Sources - The SWP3 must provide a description of potential sources (activities and materials) that may reasonably be expected to affect the quality of stormwater discharges associated with the concrete batch plant. The SWP3 must describe practices that will be used to reduce the pollutants in these discharges to assure compliance with this permit, including the protection of water quality, and must ensure the implementation of these practices. The following must be developed, at a minimum, in support of developing this description:
 - 1) Drainage Area Site Map – The site map must include the following information:
 - (a) the location of all outfalls for stormwater discharges associated with the concrete batch plant authorized under this permit;

- (b) a depiction of the drainage area and the direction of flow to the outfall(s) and an identification of the types of pollutants that are likely to be present in the stormwater discharges from each area of the facility that generates stormwater discharges with a reasonable potential for containing significant amounts of pollutants, including sediments (for example, toxicity of the chemical, and the quantity of chemicals uses, produced, or discharged);
 - (c) structural controls (for example, ponds, vegetated buffers, and constructed stormwater pollution controls) used within the drainage area(s);
 - (d) the locations of the following areas associated with the concrete batch plant that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal of wastes; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and
 - (e) any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.
- 2) Inventory of Exposed Materials – A list of materials handled at the concrete batch plant that may be exposed to stormwater and that have a potential to affect the quality of stormwater discharges associated with the concrete batch plant.
- 3) Spills and Leaks - A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to stormwater and that drain to stormwater outfalls associated with the concrete batch plant must be developed, maintained, and updated as needed.
- 4) Sampling Data - A summary of existing stormwater discharge sampling data must be maintained as part of the SWP3.
- b. Pollution Prevention Measures and Controls - The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3's "Description of Potential Pollutant Sources" in item 9.a above, and a schedule for implementation of the measures and controls. This must include, at a minimum:
 - 1) Good Housekeeping Measures - Good housekeeping measures must be developed and implemented in the area(s) associated with the concrete batch plant.
 - (a) The permittee shall prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to stormwater. Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. The SWP3 must indicate the frequency of sweeping or other practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement, fly ash, and kiln dust or aggregate is being handled or otherwise processed in the area.
 - (b) The permittee shall prevent the exposure of fine granular solids, such as cement, fly ash and kiln dust to stormwater. Where practicable, these materials must be stored

in enclosed silos, hoppers or buildings, or other structure, to prevent exposure to precipitation or runoff.

- 2) Inventory Measures – A preventive maintenance program must include routine inspection and maintenance of stormwater management controls (including oil/water separators, catch basins, drip pans, berms, dikes, and other similar controls), as well as inspecting and testing facility equipment and systems to discover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and measures to ensure appropriate maintenance and performance of facility equipment and systems.
- 3) Spill Prevention and Response Procedures - Areas where potential spills that can contribute pollutants to stormwater runoff, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment. Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.
- 4) Inspections - The permittee shall identify qualified facility personnel (for example, a person or persons with knowledge of this permit, the concrete batch plant, and the SWP3 related to the concrete batch plant for the site) to inspect designated equipment and areas of the facility specified in the SWP3. The inspection frequency must be specified in the SWP3 based upon a consideration of the level of concrete production at the facility, but must be a minimum of once per month while the facility is in operation. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to stormwater at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection or containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections must be maintained and be made readily available for inspection upon request.
- 5) Employee Training - An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for stormwater pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one training prior to the initiation of operation of the concrete batch plant.
- 6) Record Keeping and Internal Reporting Procedures - A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of stormwater discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.
- 7) Sediment and Erosion Control - The SWP3 must identify areas that have a high potential for soil erosion and identify structural or vegetative control measures or BMP to reduce or limit erosion.
- 8) Management of Runoff - The SWP3 must contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.

BIOMONITORING REQUIREMENTS**CHRONIC BIOMONITORING REQUIREMENTS: MARINE**

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

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 (*Mysidopsis 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 as possible to the point of discharge into the perennial marine waters 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 item 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 item 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 of this Section.
- 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 TLP6B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 8) For the inland silverside, Parameter TOP6B, report the NOEC for survival.
 - 9) For the inland silverside, Parameter TXP6B, report the LOEC for survival.
 - 10) For the inland silverside, Parameter TWP6B, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
 - 11) For the inland silverside, Parameter TPP6B, report the NOEC for growth.
 - 12) For the inland silverside, Parameter TYP6B, 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.

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 (*Mysidopsis 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 TIE6B, 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

PERMITTEE: Equistar Chemicals, LP
TPDES PERMIT NO.: WQ0000391000
CLASSIFIED SEGMENT:
NAME: San Jacinto River Tidal
NUMBER: 1001
COUNTY: Harris

Is the facility located within the Coastal Zone?

Yes ☒ No ☐

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

SECTION A

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

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

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

SECTION B

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

Cole Gray, DrPH
PERMIT WRITER

November 14, 2023
DATE

**30 TAC Chapter 281
APPENDIX B**

**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: Equistar Chemicals, LP

Permittee Number: WQ0000391000

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 checked="" type="checkbox"/> | <input 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) <i>with wastestreams subject to federal ELGs?</i> |
| <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: N/A |

Per the screening above, choose one:

☒ **Yes, EPA review is required.**

☐ No, EPA review is not required.

Cole Gray, DrPH

Permit Writer's Name

November 14, 2023

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.: WQ0000391000

NPDES No.: TX0003531

Facility Name: Equistar Chemicals, LP

City/County: Channelview / Harris

Receiving Water (Name/Segment No.):

San Jacinto River Tidal 1001

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: 2869

Other SIC Codes: 2821 2822 2813

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.: WQ0000391000

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

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

Permit Limits: (check one)			<u>Code</u>	<u>Points</u>
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input type="checkbox"/>	1000 to 3000 lbs/day		3	15
<input checked="" 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 checked="" 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 4 B 3 C 1
 A 20 + B 15 + C 0 = 35 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.: WQ0000391000

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 checked="" type="checkbox"/> YES	1	10
<input 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>1</u>		B	<u>1</u>		C	<u>2</u>	
A	<u>10</u>	+	B	<u>0</u>	+	C	<u>0</u>	= <u>10</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: 0.6

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) 0.60 = 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>0</u>	= <u>18</u> Total

EC 00467

TPDES PERMIT RATING WORK SHEET

TPDES No.: WQ0000391000

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	35
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	18
	TOTAL (Factors 1 through 6)	138

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

Cole Gray, DrPH
Permit Reviewer

512-239-4736
Phone Number

November 14, 2023
Date Reviewed

NEW SOURCE DETERMINATION WORKSHEET

PERMITTEE:	Equistar Chemicals, LP
TPDES PERMIT NUMBER:	WQ0000391000
NPDES PERMIT NUMBER:	TX0003531
TYPE OF INDUSTRIAL ACTIVITY:	a bulk and commodity organic chemicals and thermoplastics resins production facility
SIC CODE:	2869, 2822, 2821, 2813
CATEGORICAL GUIDELINES:	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.

Cole Gray, DrPH
REVIEWER

November 14, 2023
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	Equistar Chemicals, LP		
SIC Code	2869, 2822, 2821, 2813		
Type of operation	a bulk and commodity organic chemicals and thermoplastics resins production facility		
NPDES Permit No.	TX0003531	TPDES Permit No.	WQ0000391000
Segment No.	1001	Basin	San Jacinto River Basin
Receiving Water	San Jacinto River Tidal		

Permit Action:	New	<input 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 checked="" 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 type="checkbox"/>	<input type="checkbox"/>
2. Is there known or potential third-party interest/environmental concern regarding this permit action?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does this facility discharge to a 303(d)-listed waterbody/segment?	<input 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 type="checkbox"/>	<input type="checkbox"/>
4. Is this permit consistent with the approved WQMP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are discharges continuous?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Does the facility discharge or propose to discharge process wastewaters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are discharges DIRECTLY to a classified waterbody segment?	<input 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 type="checkbox"/>	<input type="checkbox"/>
If YES , does the permit implement the TMDL consistent with the WLAs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does the Fact Sheet document the rationale for the inclusion/omission of permit conditions for each 303(d)-listed pollutant of concern or TMDL pollutant?	<input 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 type="checkbox"/>	<input type="checkbox"/>

Answer the following:	Yes	No	N/A
11. Is there a thermal component to discharges from this facility?	<input 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 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If YES , were there any toxicity failures within the previous three years?	<input type="checkbox"/>	<input 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 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 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 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 type="checkbox"/>
18. Does this permit contain authorization for wet weather-related peak-flow discharges?	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>
20. Does this permit include provisions for effluent trading?	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>
22. Is this facility subject to a national effluent limitations guideline? Please specify: 414	<input 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 type="checkbox"/>	<input type="checkbox"/>
24. Is this a new facility or an expansion of an existing facility?	<input 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 type="checkbox"/>
25. Does this permit incorporate any exceptions to the standards or regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Is this a permit modification/amendment? Please specify: removal of monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name: Cole Gray, DrPH

Date: November 14, 2023

TOXIC RATING WORKSHEET

TPDES Permit No.:	WQ0000391000			
NPDES Permit No.:	TX0003531			
Permittee:	Equistar Chemicals, LP			
Facility:	Equistar Chemicals Channelview Complex			
SIC Codes:	1. 2869	2. 2822	3. 2821	4. 2813
40 CFR Section:	414			
Toxic Rating for Facility:	III			
Permit Writer:	Cole Gray, DrPH		Date: November 14, 2023	

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	67	4	268
002-005	23	2	46
006	Not active		
007	Not active		
Total:			314

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 and stormwater	45.4	6	272.4
Utility wastewaters	51.9	2	103.8
Domestic wastewater	2.7	3	8.1
Total		100	Total: 384.3

Toxic Rating for Outfall = Total/100 = 4 (round to nearest whole #)

OUTFALL NO. 002, 003, 004, 005

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
Stormwater	Var.	2	
Construction stormwater	Var.	2	
<i>De minimus</i> spill clean ups	Var.	-	
Utility wastewater	Var.	2	
Total <u>100</u>			Total: <u> </u>

Toxic Rating for Outfall = Total/100 = 2 (round to nearest whole #)

OUTFALL NO. 006

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
Stormwater	100	2	200
Total <u>100</u>			Total: <u>200</u>

Toxic Rating for Outfall = Total/100 = 2 (round to nearest whole #)

OUTFALL NO. 007

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
Stormwater	100	2	200
Total <u>100</u>			Total: <u>2</u>

Toxic Rating for Outfall = Total/100 = 2 (round to nearest whole #)

OUTFALL CONTAMINATION DETERMINATION

Permittee Name: Equistar Chemicals, LP

Permittee Number: WQ0000391000

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 checked="" type="checkbox"/> | <input 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 type="checkbox"/> | other: (provide explanation) |

Outfall Determination: Contaminated

Outfall No.: 002, 005, 006, 007

- | Yes | No | |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | other: (provide explanation) |

Outfall Determination: Uncontaminated

Outfall No.: 003 and 004

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | toxic rating is greater than or equal to three |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge requires limits based on water quality factors of the receiving stream |
| <input type="checkbox"/> | <input checked="" 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 type="checkbox"/> | other: (provide explanation) |

Outfall Determination: Contaminated

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Alyssa Loveday, Team Leader
Industrial Permits Team, Wastewater Permitting Section

DATE:

Thru: Peer Reviewer: _____

From: Cole Gray, DrPH, Permit Writer
Industrial Permits Team, Wastewater Permitting Section

Subject:

Applicant:	Equistar Chemicals, LP			
Facility Name:	Equistar Chemicals Channelview Complex			
<input checked="" type="checkbox"/> TPDES	<input type="checkbox"/> TCEQ	WQ0000391000	EPA ID. No.	TX0003531
Industrial:	<input type="checkbox"/> Minor	<input checked="" type="checkbox"/> Major		
Toxic Rating:	III	Stream Segment:	1001	
Received:	March 1, 2023	Administratively Complete:	June 16, 2023	
Assigned:	August 10, 2023	To Team Leader:	November 14, 2023	
Tech Complete:	November 14, 2023			

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

RATIONALE Used to Draft Permit:		
<input checked="" type="checkbox"/>	Federal Guidelines:	414
<input type="checkbox"/>	Waste Load Evaluation:	
<input checked="" type="checkbox"/>	TCEQ Rules:	30 TAC Chapters 305, 307, and 319
<input checked="" type="checkbox"/>	Existing Permit(s):	WQ0000391000, issued March 25, 2021
<input checked="" type="checkbox"/>	Other:	<i>Procedures to Implement the Texas Surface Water Quality Standards, BPJ</i>

Company's Rep: Mr. Joseph A. Reza

Phone #: 281-457-8032

Email: joseph.reza@lyondellbasell.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.

FILE LOCATION: H:\WQ\IND\ERC AND REGION PERMITS\WQ0000391000.docx

EC 00475

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

Hassan, Rebecca

From: Reza, Joseph A
Sent: Thursday, December 21, 2023 3:22 PM
To: Cole Gray
Cc: Hassan, Rebecca
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

Mr. Gray,

After reviewing the draft permit, we accept the draft permit as it is written.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
Channelview, Tx 77530
O: +1 281.457.8032
joseph.reza@lyondellbasell.com

From: Cole Gray <Cole.Gray@tceq.texas.gov>
Sent: Tuesday, December 19, 2023 2:57 PM
To: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

Some people who received this message don't often get email from cole.gray@tceq.texas.gov. [Learn why this is important](#)

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.
Hello Joseph,

Here is the revised version of permit WQ0000391000. I believe I've addressed all of the issues you pointed out, but please let me know if there is anything else that requires my attention. If you have no further comments, please send me an email indicating that you accept the draft as it is written.

Thank you,
Cole Gray, DrPH, MPH
Environmental Permit Specialist
Industrial Wastewater Permitting – MC 148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
Work #: (512) 239 – 4736

From: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Sent: Thursday, December 14, 2023 2:28 PM
To: Cole Gray <Cole.Gray@tceq.texas.gov>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>
Subject: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

Mr. Gray,

Attached is the response for the December 6, 2023 draft permit. Let me know if anything else is needed.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
Channelview, Tx 77530
O: +1 281.457.8032
joseph.reza@lyondellbasell.com

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<a href="<http://www.lyb.com/en/about-us/disclaimer>"><http://www.lyb.com/en/about-us/disclaimer>

Hassan, Rebecca

From: Reza, Joseph A
Sent: Friday, January 19, 2024 9:46 PM
To: Cole Gray
Cc: Hassan, Rebecca
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit
Attachments: Equistar CHN TPDES NAPD WQ391000 Draft Spanish translation.docx

Mr. Cole,

Sorry for the delay. Attached is the requested document. Let me know if anything else is needed.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
Channelview, Tx 77530
O: +1 281.457.8032
joseph.reza@lyondellbasell.com

From: Cole Gray <Cole.Gray@tceq.texas.gov>
Sent: Thursday, January 11, 2024 1:59 PM
To: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.
Hello Joseph,

Did you ever send over the alternative language NAPD for permit WQ0000391000? I'm looking around my files and I can't seem to find it. If not, please send it to me as soon as possible.

Thank you,
Cole Gray, DrPH, MPH
Environmental Permit Specialist
Industrial Wastewater Permitting – MC 148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
Work #: (512) 239 – 4736

From: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Sent: Thursday, December 21, 2023 3:22 PM
To: Cole Gray <Cole.Gray@tceq.texas.gov>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

Mr. Gray,

After reviewing the draft permit, we accept the draft permit as it is written.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
Channelview, Tx 77530
O: +1 281.457.8032
joseph.reza@lyondellbasell.com

From: Cole Gray <Cole.Gray@tceq.texas.gov>
Sent: Tuesday, December 19, 2023 2:57 PM
To: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>
Subject: RE: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

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Hello Joseph,

Here is the revised version of permit WQ0000391000. I believe I've addressed all of the issues you pointed out, but please let me know if there is anything else that requires my attention. If you have no further comments, please send me an email indicating that you accept the draft as it is written.

Thank you,
Cole Gray, DrPH, MPH
Environmental Permit Specialist
Industrial Wastewater Permitting – MC 148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
Work #: (512) 239 – 4736

From: Reza, Joseph A <Joseph.Reza@lyondellbasell.com>
Sent: Thursday, December 14, 2023 2:28 PM
To: Cole Gray <Cole.Gray@tceq.texas.gov>

Cc: Hassan, Rebecca <Rebecca.Hassan@lyondellbasell.com>

Subject: Response to WQ0000391000 Equistar Chemicals 12-06-23 draft permit

Mr. Gray,

Attached is the response for the December 6, 2023 draft permit. Let me know if anything else is needed.



Joseph A. Reza
Senior Environmental Engineer
P.O. Box 777
8280 Sheldon RD. PMDI BLDG RM115
Channelview, Tx 77530
O: +1 281.457.8032
joseph.reza@lyondellbasell.com

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**AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL PERMISO DEL SISTEMA DE
ELIMINACION DE DESCARGAS DE CONTAMINANTES DE TEXAS (TPDES) PARA AGUAS
RESIDUALES INDUSTRIALES**

MODIFICACION

PERMISO NO. WQ0000391000

SOLICITUD. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, que opera el Complejo de Equistar Chemicals Channelview, una planta para la producción de productos químicos orgánicos a granel y básicos y resinas termoplásticas, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar de Permiso No. WQ0000391000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la eliminación de un el requisito de seguimiento y presentación de informes y el límite máximo diario de concentración de aluminio total de Desagüe 003; la eliminación de un el requisito de seguimiento y presentación de informes de zinc total de Desagües 003; la eliminación de un el requisito de seguimiento y presentación de informes y el límite máximo diario de concentración de zinc total de Desagües 004. El permiso preliminar autoriza la descarga de aguas residuales tratadas del proceso de fabricación de productos químicos orgánicos, aguas residuales de la Houston Technology Center (HTC) aguas residuales de la Instalación de mantenimiento de automóviles, aguas residuales de laboratorio, purga de torres de enfriamiento y calderas, aguas residuales sanitarias, lavado de áreas de carga y áreas de proceso, aguas residuales del Patio de tanques, residuos de losas de voladura de intercambiadores de calor, aguas residuales de utilidad, aguas residuales de torres de refrigeración, aguas residuales de tratamiento de agua, agua de granjas terrestres, condensado y purga de vapor, purga de regeneración de desmineralización, aguas residuales del sumidero de neutralización de metanol, agua de prueba hidrostática, aguas residuales de mantenimiento, aguas subterráneas de pozos de monitoreo y recuperación (en el sitio y fuera del sitio), esorrentía de aguas pluviales del área de proceso,

aguas pluviales de construcción y aguas pluviales del área de proceso de la instalación de cogeneración adyacente a un flujo promedio diario que no exceda 8,900,000 galones por día vía Desagüe 001, aguas residuales de proceso, aguas pluviales, aguas residuales sanitarias asociadas a un clorinador séptico de forma intermitente y variable de flujo a través vía Desagüe 001; aguas residuales sanitarias asociadas a un clorinador séptico de forma intermitente y variable de flujo a través vía Desagüe 201; cantidades *de minimis* procedentes de la limpieza de derrames, aguas residuales de utilidad, agua de construcción, escorrentía de aguas pluviales del área fuera del proceso, aguas pluviales (de estructuras de contención secundarias) y escorrentía de aguas pluviales del área de proceso posterior al primer lavado de forma intermitente y de flujo variable vía Desagües 002 y 004; cantidades *de minimis* de limpieza de derrames, aguas residuales de utilidad, agua de construcción, escorrentía de aguas pluviales de forma intermitente y variable de flujo vía Desagües 003 (003A, 003B, 003C) y 005; aguas pluviales de área HTC de forma intermitente y de flujo variable via Desagüe 006; aguas pluviales asociadas a las actividades de construcción de una planta mezcladora de concreto de forma intermitente y variable de flujo vía Desagüe 007. La TCEQ recibió esta solicitud el 01 de marzo de 2023.

La instalación está ubicada en 8280 Sheldon Road, Channelview, Condado de Harris, Texas 77530. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.118055,29.832777&level=18>

El efluente se descarga vía Desagüe 001 y 004 a una zanja de drenaje sin nombre, y entonces a la Marea del río San Jacinto, vía Desagüe 002 a Wallisville Gully, y entonces a la Marea del río San Jacinto; vía Desagüe 005 directamente a la Marea del río San Jacinto; vía Desagüe 003 a una zanja de drenaje sin nombre, y entonces a la Zanja G103-02-03 de Harris County Flood Control District (HCFCD), y vía Desagüe 006 a a la Zanja G103-07-05 de la HCFCD, y entonces a la Marea del río San Jacinto en el en el Segmento No. 1001 de la Cuenca del río San Jacinto. Los usos

designados para el Segmento No. 1001 son recreación de contacto primario y elevados usos elevados de vida acuática.

De acuerdo con la 30 TAC §307.5 y los procedimientos de implementación de la TCEQ (Enero 2010) para las Normas de Calidad de Aguas Superficiales en Texas, fue realizada una revisión de la antidegradación de las aguas recibidas. Una revisión de antidegradación del Nivel 1 ha determinado preliminarmente que los usos de la calidad del agua existente no serán perjudicados por la acción de este permiso. Se mantendrá un criterio narrativo y numérico para proteger los usos existentes. Una revisión del Nivel 2 ha determinado preliminarmente que no se espera ninguna degradación significativa en la Marea del río San Jacinto, el cual se ha identificado que tiene altos usos en la vida acuática. Los usos existentes serán mantenidos y protegidos. La determinación preliminar puede ser reexaminada y puede ser modificada, si se recibe alguna información nueva.

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en la Biblioteca pública del Condado de Harris en North Channel, 15741 Wallisville Road, Houston, Texas.

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notice>.

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **La respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la

declaración “[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado”. Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y por qué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir una aprobación final de la solicitud a menos que exista un pedido antes del plazo de vencimiento de una audiencia administrativa de lo contencioso o se ha presentado un pedido de reconsideración. Si un pedido ha llegado antes del plazo de vencimiento de la audiencia o el pedido de reconsideración ha sido presentado, el Director Ejecutivo no emitirá una aprobación final sobre el permiso y enviará la solicitud y el pedido a los Comisionados de la TECQ para consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envíe por correo su pedido a la Oficina del Secretario Principal de la TCEQ en la dirección de abajo.

Todos los comentarios escritos del público y los pedidos una reunión deben ser presentados durante los 30 días después de la publicación del aviso a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or por el internet a www.tceq.texas.gov/about/comments.html.

DISPONIBILIDAD ELECTRÓNICA DE INFORMACIÓN. Para obtener información sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Busque en la base de datos con el número de permiso para esta aplicación, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <https://www.tceq.texas.gov/goto/comment/> o por escrito a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040 o visite su sitio web en

[https://www.tceq.texas.gov/agency/decisions/participation/permitting- participation](https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation). Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional de Equistar Chemicals, LP a la dirección indicada arriba o llamando a Sr. Joseph A. Reza, Ingeniero Ambiental Senior, al 281-457-8032.

Fecha de emisión:



Equistar Chemicals , LP
8280 Sheldon Road
Channelview, TX 77530
P.O. Box 777 (77530-0777)
USA

March 5, 2024

Sent via email

Texas Commission on Environmental Quality
Office of the Chief Clerk, MC 105
Attn: Notice Team
P.O. Box 13087
Austin, Texas 78711-3087

Re: Equistar Chemical, LP (CN600124705)
Equistar Chemicals Channelview Complex (RN100542281)
TPDES Permit No. WQ0000391000 (EPA ID No. TX0003531)
Major Amendment

Dear Notice Team:

Equistar Chemical, LP is submitting the proof of publication documents and the completed Public Notice Verification Forms for both the English and Spanish newspaper publications.

If you have any questions, please feel free to contact me at 281-457-8032 or Joseph.Reza@lyondellbasell.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tom Warnement', written over a blue line.

Tom Warnement
Environmental Manager

File: CVON 300-160-047

TCEQ-OFFICE OF THE CHIEF CLERK
MC-105 Attn: Notice Team
PO BOX 13087
AUSTIN TX 78711-3087

APPLICANT NAME: EQUISTAR
CHEMICALS LP
PERMIT NO.: WQ0000391000
CCO#: 132813
NOTICE OF APPLICATION AND
PRELIMINARY DECISION

ALTERNATIVE LANGUAGE PUBLISHER'S AFFIDAVIT

STATE OF TEXAS §

COUNTY OF Harris §

Before me, the undersigned authority, on this day personally appeared

Victoria Bond, who being by me duly
(name of person representing newspaper)

sworn, deposes and says that (s)he is the AIR Clerk
(title of person representing newspaper)

of the Houston Chronicle dba LaVoz; that this newspaper is
(name of newspaper)

generally circulated in Harris County, Texas,
(same county as proposed facility)

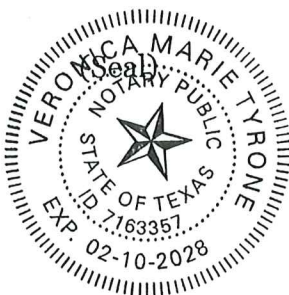
and is published primarily in Spanish language;
(alternative language)

the enclosed notice was published in said newspaper on the following date(s):

February 28, 2024, Ad # 34320061
(date or dates, of publication in the newspaper)

Victoria Bond
Newspaper Representative's Signature

Subscribed and sworn to before me this the 29 day of February,
20 24, to certify which witness my hand and seal of office.



Veronica Tyrone
Notary Public in and for the State of Texas

Veronica Tyrone
Print or Type Name of Notary Public

My Commission Expires 02-10-2028

AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL PERMISO DEL SISTEMA DE ELIMINACIÓN DE DESCARGAS DE CONTAMINANTES DE TEXAS (TPDES) PARA AGUAS RESIDUALES INDUSTRIALES MODIFICACION

PERMISO NO. WQ0000391000

SOLICITUD. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, que opera el Complejo de Equistar Chemicals Channelview, una planta para la producción de productos químicos orgánicos a granel y básicos y resinas termoplásticas, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0000391000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la eliminación de un el requisito de seguimiento y presentación de informes y el límite máximo diario de concentración de aluminio total de Desagüe 003; la eliminación de un el requisito de seguimiento y presentación de informes de zinc total de Desagües 003; la eliminación de un el requisito de seguimiento y presentación de informes y el límite máximo diario de concentración de zinc total de Desagües 004. El permiso preliminar autoriza la descarga de aguas residuales tratadas del proceso de fabricación de productos químicos orgánicos, aguas residuales de la Houston Technology Center (HTC) aguas residuales de la instalación de mantenimiento de automóviles, aguas residuales de laboratorio, purga de torres de enfriamiento y calderas, aguas residuales sanitarias, lavado de áreas de carga y áreas de proceso, aguas residuales del Patio de tanques, residuos de losas de voladura de intercambiadores de calor, aguas residuales de utilidad, aguas residuales de torres de refrigeración, aguas residuales de tratamiento de agua, agua de granjas terrestres, condensado y purga de vapor, purga de regeneración de desmineralización, aguas residuales del sumidero de neutralización de metanol, agua de prueba hidrostática, aguas residuales de mantenimiento, aguas subterráneas de pozos de monitoreo y recuperación (en el sitio y fuera del sitio), escorrentía de aguas pluviales del área de proceso, aguas pluviales de construcción y aguas pluviales del área de proceso de la instalación de cogeneración adyacente a un flujo promedio diario que no exceda 8,900,000 galones por día vía Desagüe 001, aguas residuales de proceso, aguas pluviales, aguas residuales sanitarias asociadas a un clorinador séptico de forma intermitente y variable de flujo a través vía Desagüe 001; aguas residuales sanitarias asociadas a un clorinador séptico de forma intermitente y variable de flujo a través vía Desagüe 201; cantidades *de minimis* procedentes de la limpieza de derrames, aguas residuales de utilidad, agua de construcción, escorrentía de aguas pluviales del área fuera del proceso, aguas pluviales (de estructuras de contención secundarias) y escorrentía de aguas pluviales del área de proceso posterior al primer lavado de forma intermitente y de flujo variable vía Desagües 002 y 004; cantidades *de minimis* de limpieza de derrames, aguas residuales de utilidad, agua de construcción, escorrentía de aguas pluviales de forma intermitente y variable de flujo vía Desagües 003 (003A, 003B, 003C) y 005; aguas pluviales de área HTC de forma intermitente y de flujo variable vía Desagüe 006; aguas pluviales asociadas a las actividades de construcción de una planta mezcladora de concreto de forma intermitente y variable de flujo vía Desagüe 007. La TCEQ recibió esta solicitud el 01 de marzo de 2023.

La instalación está ubicada en 8280 Sheldon Road, Channelview, Condado de Harris, Texas 77530. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.118055,29.832777&level=18>

El efluente se descarga vía Desagüe 001 y 004 a una zanja de drenaje sin nombre, y entonces a la Marea del río San Jacinto, vía Desagüe 002 a Wallisville Gully, y entonces a la Marea del río San Jacinto; vía Desagüe 005 directamente a la Marea del río San Jacinto; vía Desagüe 003 a una zanja de drenaje sin nombre, y entonces a la Zanja G103-02-03 de Harris County Flood Control District (HCFCD), y vía Desagüe 006 a la Zanja G103-07-05 de la HCFCD, y entonces a la Marea del río San Jacinto en el en el Segmento No. 1001 de la Cuenca del río San Jacinto. Los usos designados para el Segmento No. 1001 son recreación de contacto primario y elevados usos elevados de vida acuática.

De acuerdo con la 30 TAC §307.5 y los procedimientos de implementación de la TCEQ (Enero 2010) para las Normas de Calidad de Aguas Superficiales en Texas, fue realizada una revisión de la antidegradación de las aguas recibidas. Una revisión de antidegradación del Nivel 1 ha determinado preliminarmente que los usos de la calidad del agua existente no serán perjudicados por la acción de este permiso. Se mantendrá un criterio narrativo y numérico para proteger los usos existentes. Una revisión del Nivel 2 ha determinado preliminarmente que no se espera ninguna degradación significativa en la Marea del río San Jacinto, el cual se ha identificado que tiene altos usos en la vida acuática. Los usos existentes serán mantenidos y protegidos. La determinación preliminar puede ser reexaminada y puede ser modificada, si se recibe alguna información nueva.

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en la Biblioteca pública del Condado de Harris en North Channel, 15741 Wallisville Road, Houston, Texas.

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

COMENTARIO PÚBLICO / REUNION PÚBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. La respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso. Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una

descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que represente al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir una aprobación final de la solicitud a menos que exista un pedido antes del plazo de vencimiento de una audiencia administrativa de lo contencioso o se ha presentado un pedido de reconsideración. Si un pedido ha llegado antes del plazo de vencimiento de la audiencia o el pedido de reconsideración ha sido presentado, el Director Ejecutivo no emitirá una aprobación final sobre el permiso y enviará la solicitud y el pedido a los Comisionados de la TCEQ para consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ en la dirección de abajo.

Todos los comentarios escritos del público y los pedidos una reunión deben ser presentados durante los 30 días después de la publicación del aviso a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o por el internet a www.tceq.texas.gov/about/comments.html.

DISPONIBILIDAD ELECTRÓNICA DE INFORMACIÓN. Para obtener información sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Busque en la base de datos con el número de permiso para esta aplicación, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <https://www.tceq.texas.gov/goto/comment/> o por escrito a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040 o visite su sitio web en <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional de Equistar Chemicals, LP a la dirección indicada arriba o llamando a Sr. Joseph A. Reza, Ingeniero Ambiental Senior, al 281-457-8032.

Fecha de emisión: 30 de enero de 2024

TCEQ-OFFICE OF THE CHIEF CLERK
MC-105 Attn: Notice Team
PO BOX 13087
AUSTIN TX 78711-3087

APPLICANT NAME: EQUISTAR
CHEMICALS LP
PERMIT NO.: WQ0000391000
CCO#: 132813
NOTICE OF APPLICATION AND
PRELIMINARY DECISION

**PUBLISHER'S AFFIDAVIT
FOR ALL APPLICATIONS FOR WATER QUALITY PERMITS
OTHER THAN RENEWALS**

STATE OF TEXAS §

COUNTY OF Harris §

Before me, the undersigned authority, on this day personally appeared

Victoria Bond, who being by me duly
(name of person representing newspaper)

sworn, deposes and says that (s)he is the AIR Clerk
(title of person representing newspaper)

of the Houston Chronicle & Pasadena Citizen; that this newspaper is
(name of newspaper)

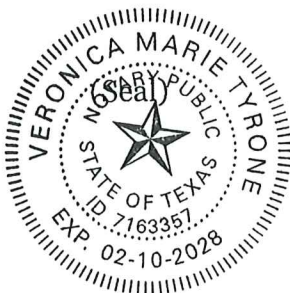
regularly published or circulated in Harris County/Counties, Texas,
(same county as proposed facility)

and that the enclosed notice was published in said newspaper on the following date(s):

February 28, 2024, Ad # 34320256
(date or dates, of publication in the newspaper)

Victoria Bond
Newspaper Representative's Signature

Subscribed and sworn to before me this the 29 day of February,
2024, to certify which witness my hand and seal of office.



Veronica Tyrone
Notary Public in and for the State of Texas
Veronica Tyrone
Print or Type Name of Notary Public
My Commission Expires 02-10-2028

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR
TPDES PERMIT FOR INDUSTRIAL WASTEWATER
AMENDMENT

PERMIT NO. WQ0000391000

APPLICATION AND PRELIMINARY DECISION. Equistar Chemicals, LP, P.O. Box 777, Channelview, Texas 77530, which operates Equistar Chemicals Channelview Complex, a bulk and commodity organic chemicals and thermoplastics resins production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000391000 to authorize the removal of a monitoring and reporting requirement and daily maximum concentration limit for total aluminum at Outfall 003; removal of a monitoring and reporting requirement for total zinc at Outfall 003; and removal of a monitoring and reporting requirement and daily maximum concentration limit for total zinc at Outfall 004. The draft permit authorizes the discharge of treated organic chemical manufacturing process wastewater, Houston Technology Center (HTC) wastewater, auto shop wastewater, laboratory wastewater, cooling tower and boiler blowdown, sanitary wastewater, loading area and process area washdown, tank farm wastewater, heat exchanger blasting slab waste, utility wastewater, cooling tower and boiler maintenance wastewaters, water treatment wastewaters, water from landfarm, steam condensate and blowdown, demineralization regeneration blowdown, methanol neutralization sump wastewater, hydrostatic test water, maintenance wastewater, groundwater from monitoring and recovery wells (on-site and off-site), process area stormwater runoff, construction stormwater, and process area stormwater from the adjacent co-generation facility at a daily average flow not to exceed 8,900,000 gallons per day via Outfall 001; process wastewater, stormwater, sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 101; sanitary wastewater associated with a septic chlorinator on an intermittent and flow-variable basis via Outfall 201; *de minimis* quantities from spill cleanups, utility wastewater, construction water, non-process area stormwater runoff, stormwater (from secondary containment structures), and post-first flush process area stormwater runoff on an intermittent and flow-variable basis via Outfalls 002 and 004; *de minimis* quantities from spill cleanups, utility wastewater, construction water, and stormwater runoff on an intermittent and flow-variable basis via Outfalls 003 (003A, 003B, 003C) and 005; HTC-area stormwater on an intermittent and flow-variable basis via Outfall 006; and stormwater associated with construction activities from a concrete batch plant on an intermittent and flow-variable basis via Outfall 007. The TCEQ received this application on March 1, 2023.

The facility is located at 8280 Sheldon Road, in the City of Channelview, Harris County, Texas 77530. 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=-95.118055,29.832777&level=18>

The effluent is discharged via Outfalls 001 and 004 to an unnamed drainage ditch, thence to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 002 to Wallisville Gully, thence to San Jacinto River Tidal; via Outfall 005 directly to the San Jacinto River Tidal; via Outfall 003 to an unnamed drainage ditch, thence to Harris County Flood Control District (HCFCD) ditch G103-02-03, thence to the San Jacinto River Tidal; and via Outfall 006 to HCFCD ditch G103-07-05, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin. The designated uses for Segment No. 1001 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 San Jacinto River Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The 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 the North Channel Harris County Library, 15741 Wallisville Road, Houston, Texas.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

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 Equistar Chemicals, LP at the address stated above or by calling Mr. Joseph Reza, Senior Environmental Engineer, at 281-457-8032.

Issued: January 30, 2024