

Jon Niermann, *Chairman*  
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Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

July 1, 2022

VIA ELECTRONIC FILING

Ms. Laurie Gharis  
Office of the Chief Clerk  
Texas Commission on Environmental Quality  
Post Office Box 13087, MC-105  
Austin, Texas 78711-3087

Re: Executive Director's Backup Documents Filed for Consideration of Hearing Requests at Agenda for Application by Oxy Vinyls, LP for TPDES Permit No. WQ0001539000; TCEQ Docket No. 2022-0738-IWD

Dear Ms. Gharis:

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application. If you have any questions or comments, please call me at 512-239-1439 or email me at [Harrison.malley@tceq.texas.gov](mailto:Harrison.malley@tceq.texas.gov).

- Fact Sheet and ED's Preliminary Decision
- Change Memos
- Draft Permit
- Compliance History Report

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script, reading "Harrison Cole Malley".

Harrison Cole Malley, *Staff Attorney*  
Environmental Law Division

cc: Mailing List

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0001539000, U.S. Environmental Protection Agency (EPA) ID No. TX0008150, to discharge to water in the state

Issuing Office: Texas Commission on Environmental Quality (TCEQ)  
P.O. Box 13087  
Austin, Texas 78711-3087

Applicant: Oxy Vinyls, LP  
P.O. Box 500  
Deer Park, Texas 77536

Prepared By: Michael A. Redda  
Wastewater Permitting Section  
Water Quality Division  
(512) 239-4631

Date: October 7, 2021

Permit Action: Major amendment with renewal to increase the discharge of treated wastewater at a volume not to exceed a daily average flow of 2,400,000 gallons per day via Outfall 001; and increase the effluent limitations for total copper, total lead, total nickel, total zinc and total suspended solids at Outfall 001; TPDES Permit No. WQ0001539000

I. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. Based on the recommendation received from the Standards Implementation Team, Water Quality Division of the TCEQ, the draft permit includes an expiration date of three years from the date of issuance.

II. APPLICANT ACTIVITY

The applicant currently operates the Battleground chlor-alkali manufacturing facility producing caustic (sodium hydroxide), chlorine and hydrogen using the diaphragm cell process.

III. DISCHARGE LOCATION

As described in the application, the facility is located on the east side of State Park Road 1836 (Vista Road) approximately 1,000 feet northeast of its intersection with State Highway 134 (Independence Parkway) in the City of La Porte, Harris County, Texas 77571. Discharges are via Outfalls 001 and 002 to Phillips Ditch, thence to Santa Ana Bayou, thence to Houston Ship Channel/San Jacinto River Tidal in Segment No. 1005 of the San Jacinto River Basin.

IV. RECEIVING STREAM USES

The unclassified receiving water uses are minimal aquatic life use for the Phillips Ditch and high aquatic life use for the Santa Ana Bayou. The designated uses for Segment No. 1005 are non-contact recreation and high aquatic life use.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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 January 2018 through December 2019. 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	1.95	2.60
201	1/day	0.002	0.006
002	1/day	0.772	14.9

**B. Temperature**

Outfall	Average of Daily Average, °F	Maximum of Daily Maximum, °F
001	N/A	103

**C. Effluent Characteristics**

Outfall	Parameter	Daily Average		Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Total Suspended Solids	163	N/A	741	N/A
	Copper, Total	0	0	0	0
	Lead, Total	0	0	0	0
	Nickel, Total	0.19	0.01	0.88	0.05
	Zinc, Total	0.338	0.022	1.05	0.064
	Total Residual Chlorine	1.53	N/A	9.35	N/A
	Total Dissolved Solids	N/A	N/A	N/A	35,100
	Total Organic Carbon	N/A	N/A	N/A	11.3
	pH, SU	6.60 min		8.70	
201	Biochemical Oxygen Demand (5-day)	N/A	N/A	N/A	26.0
	Total Residual Chlorine	N/A	N/A	N/A	1.50 (min)
	Enterococci	N/A	3.16	N/A	1,100
002	Oil and Grease	N/A	N/A	N/A	5.10
	Total Organic Carbon	N/A	N/A	N/A	8.60
	Zinc, Total	N/A	0.081	N/A	0.410
	Total Residual Chlorine	0.018	N/A	1.30	0.06
	pH, SU	6.11 min		9.64	

## 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
002	pH, SU	5/2019	-	-	9.5	9.64
201	Enterococci	2/2019	-	-	104	124

The limited number of exceedances summarized above do not represent a recurring pattern of non-compliance. Review of the compliance history for the period between January 2018 and December 2019 also indicate that the permittee has a satisfactory performance [customer rating=3.65 (satisfactory) and site rating=3.67 (satisfactory)]. Therefore, no change was made to the draft permit, in response.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as noted in Appendix D.

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.735729 N	95.08071 W
002	29.734706 N	95.080002 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

1. The daily average total zinc effluent limitations at Outfall 001 have been revised from the application that make the draft permit more stringent.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following amendments that the Executive Director recommends granting:

1. *Increase in the discharge of treated wastewater at a volume not to exceed a daily average flow of 2,400,000 gallons per day via Outfall 001.*

Oxy requested an increase in the Outfall 001 daily average flow limit from 2.15 million gallons per day (MGD) to 2.40 MGD. This change would provide the Battleground Facility increased opportunity to treat wastewater from the Stormwater Reservoir (SWR) prior to discharging wastewater via Outfall 001. The SWR receives highly variable amounts of stormwater and intermittently receives small amounts of process wastewater. Water in the SWR is recycled back to treatment in the pH Reliability Tank and effluent from the tank is discharged via Outfall 001. An increase in the daily average flow limit at Outfall 001 will provide the Battleground Facility improved control over water levels in the SWR as well as increased opportunity to treat SWR wastewater and reduce process wastewater discharges via stormwater Outfall 002.

2. *Increase in total copper, total lead, total nickel, and total zinc effluent limitations at Outfall 001*

In conjunction with increased flow for Outfall 001, Oxy also requested increases in mass and concentration based effluent limitations for copper, lead, nickel, and zinc. The limits in the

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

current TPDES permit are water quality-based effluent limits (WQBELs), which are derived from the WQBEL daily average and maximum concentrations, times the discharge daily average flow. Oxy understands that WQBELs may actually decrease depending on the flows the TCEQ uses in WQBEL screening for the receiving water; however, Oxy requests any allowable increases in mass and concentrations.

The mass and concentration based effluent limitations for copper, lead, nickel, and zinc were increased based on the increases in wastewater flows from contributing sources resulting from plant expansion production increases. These changes meet the anti-backsliding exemption in 40 CFR Part 122.44(l)(2)(i)(A) which allows backsliding in cases where *Material and substantial alterations or additions to the permitted facility occurred after permit issuance, which justify the application of a less stringent effluent limitation*

3. *Increase in the daily average total suspended solids effluent limitations at Outfall 001*

Oxy requested an increase in the daily average limit for total suspended solids (TSS) for Outfall 001 from 448 pounds per day (lbs/day) to 600 lbs/day based on increased flow and production. The applicant has stated that production levels have increased from 1,585 tons per day (tpd) in the 2003 TPDES permit application to 1,662 tpd in the current application. While production and flow have increased, the TSS daily average limit has not changed in the permit since at least 1995.

The Battleground Facility is subject to effluent limitations and guidelines (ELGs) at 40 CFR 415 Subpart F Chlor-alkali. These ELGs allow for a TSS mass discharge of 0.51 lbs TSS per day per thousand lbs/day of production. Based on the current production level of 1,662 tpd (3,324 thousand lbs/day), the allocation is 1,695 lbs/day TSS as a daily average. However, Oxy requested 600 lbs/day, which is only 35% of the allocation.

The technology-based effluent limits (TBELs) in past permit fact sheets have included the EGL-based calculation for TSS for process wastewater only. Oxy requested that allocation calculations for TSS contributions from utility wastewater, stormwater, and domestic wastewater be added to the fact sheet.

The increase in the effluent limitations resulting from increased production is allowed under the anti-backsliding exemption in 40 CFR 122.44(l)(2)(i)(A), which states, *Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation*” as an acceptable justification for backsliding.

The following additional changes have been made to the draft permit:

1. Based on the request received from the permittee, the effluent five -day biochemical oxygen demand (BOD<sub>5</sub>) monitoring location at internal Outfall 201 (treated domestic wastewater), has been changed from *prior to chlorination of the domestic wastewater* to *after chlorination of the domestic wastewater*. This change would make the monitoring location for BOD the same as all other monitoring parameters for the outfall (total residual chlorine, enterococci, pH) and would be more representative of the actual discharge because it is after the final treatment step (i.e., chlorination). TCEQ typically sets the monitoring location after the final treatment step and this change is consistent with the standard practice.
2. New Standard Industrial Classification (SIC) code has been added based on the information submitted with the application.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

3. The interim enterococci report requirement was deleted since it is no longer applicable.
4. Pages 3-13 were updated (May 2021 version).
5. The minimum analytical levels (MALs) for total copper, total lead, and total nickel have been continued from the permit issued on January 10, 2018 since they are sensitive enough to demonstrate compliance with their respective lowest effluent limitations in the permit. The information submitted with the application also indicate that these site-specific MALs were originally approved by the agency (then the Texas Natural Resource Conservation Commission, TNRCC) in 1996.
6. Other Requirement No. 4, related to mixing zone, was updated based on the recommendation received from the Water Quality Assessment Section.
7. Other Requirement No. 8 has been updated based on the information received with the application stating permittee has developed and implemented a Stormwater Pollution Prevention Plan (SWP3) as required by TPDES Permit No. WQ0001539000, issued on January 10, 2018.
8. Other Requirement No. 10 was deleted since it is no longer applicable.
9. New 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 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.
10. Other Requirement No. 12 has been revised because the permittee has satisfied the requirement to submit the thermal plume characterization plan.

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 for a major amendment to authorize an increase in the discharge of treated wastewater at a volume not to exceed a daily average flow of 2,400,000 gallons per day via Outfall 001, and an increase in total copper, total lead, total nickel, total zinc and total suspended solids limits via Outfall 001. The existing permit authorizes the discharge of treated process wastewater, utility wastewaters, stormwater, and previously monitored effluent (treated domestic wastewater via Outfall 201) at a daily average flow not to exceed 2,150,000 gallons per day via Outfall 001, and stormwater commingled with *de minimis* quantities of process wastewater and utility wastewaters on an intermittent and flow-variable basis via Outfall 002.

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.

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B. WATER QUALITY SUMMARY**Discharge Route**

The discharge route is via Outfalls 001 and 002 to Phillips Ditch, thence to Santa Ana Bayou, thence to Houston Ship Channel/San Jacinto River Tidal in Segment No. 1005 of the San Jacinto River Basin. The unclassified receiving water uses are minimal aquatic life use for the Phillips Ditch and high aquatic life use for the Santa Ana Bayou. The designated uses for Segment No. 1005 are non-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 Santa Ana Bayou and Segment No. 1005, which have 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 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. 1005 is currently listed on the State's inventory of impaired and threatened waters (the 2020 Clean Water Act Section 303(d) list). The listing is for dioxin in edible tissue and polychlorinated biphenyl (PCBs) in edible tissue in Houston Ship Channel Tidal / San Jacinto River Tidal -From Downstream I-10 to Morgans Point (AUs 1005\_01, 1005\_02, 1005\_03, and 1005\_04). Information submitted with the application indicates that trace amounts of chlorinated congeners of dioxins and furans are produced when hot, wet chlorine contacts organic materials of construction (e.g., fiberglass), which may then be present in wastewater condensed out of the chlorine cell gas stream via Outfall 001. However, the analytical data reported in the application for dioxin and PCBs at Outfall 001 does not exceed 70 percent of the calculated daily average water quality-based effluent limitation. The application states that, dioxin and PCBs are not believed to be present in the discharge via Outfall 002. Therefore, the proposed effluent discharge is not expected to add to the impairment for dioxin in edible tissue or PCBs in edible tissue.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

**Completed Total Maximum Daily Loads (TMDLs)**

The TMDL project 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.

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 draft permit authorizes the discharge of treated process wastewater, utility wastewaters, stormwater, and previously monitored effluent (treated domestic wastewater via Outfall 201) at a daily average flow not to exceed 2,400,000 gallons per day via Outfall 001, and stormwater commingled with *de minimis* quantities of process wastewater and utility wastewaters on an intermittent and flow-variable basis via Outfall 002.

The discharge process wastewater via Outfall 001 and the intermittent discharge of process wastewater via Outfall 002 during large storm events are subject to federal effluent limitation guidelines provided in 40 CFR Part 415, Subpart F. These technology-based effluent limitations only apply to Outfall 002 when process wastewater commingled with stormwater and utility wastewaters are discharged through that outfall during large storm events to prevent the facility from flooding. It is not practical to reliably monitor *de minimis* process wastewater discharges through Outfall 002 for TSS, copper, lead, nickel, or pH because these constituents are expected to be present in stormwater, and potentially at much higher concentrations in the stormwater than in the process wastewater. Therefore, the draft permit requires best management practices to minimize the discharge of process wastewater through Outfall 002, as provided by 40 CFR §122.44(k), in Other Requirement Nos. 8 and 11.

A new source determination was performed and the discharge of process wastewater is not a new source as defined at 40 CFR §122.2. Therefore, new source performance standards (NSPS) are not required for this discharge.

The discharges of stormwater and utility wastewaters via Outfall 001, treated domestic wastewater via Outfall 201, utility wastewaters and stormwater via Outfall 002 are not subject to federal effluent limitation guidelines; any technology-based effluent limitations are based on best professional judgment.

The Oxy Vinyls, LP Battleground Facility is a chlor-alkali manufacturing facility producing caustic (sodium hydroxide), chlorine, and hydrogen using the diaphragm cell process. Major process areas are:

- Brine process, where brine is treated before supplying the cell room;
- Cell room, where brine is electrolyzed in cells to produce chlorine gas, hydrogen gas, and caustic solution;
- Cell renewal, where cell units are reconditioned;

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

- Evaporation, where caustic solution is concentrated;
- Purification, where excess salt is removed (currently idled);
- Liquefaction, where chlorine gas is liquefied and purified;
- Chlorine storage and shipping; and
- Utilities, where cogeneration units supply steam and electricity, a potable water system operates using on-site well water, raw water supplied by the Coastal Water Authority (CWA) is treated to provide industrial-grade process water, and two cooling towers are operated.

*Wastewater System and Outfalls*

There are three outfalls authorized by the TPDES perm it. Outfall 001 is the process wastewater outfall and Outfall 1 002 is for stormwater discharge; an internal Outfall 201 discharges treated domestic wastewater to the Outfall 001 treatment system.

**OUTFALL 001**

Outfall 001 discharges treated process wastewater, utility wastewaters, treated domestic wastewater, and stormwater. Outfall 001 discharges to Phillips Ditch, which flows to Santa Anna Bayou, which then flows to the Houston Ship Channel/San Jacinto River Tidal.

*Wastewater Collection*

Sumps are located in various diked and other areas to collect washdowns, equipment flushes, and other wastewaters. Process area sumps include, Brine Area sum, Evaporation Area sump, Purification Area sump, Cell Renewal Asbestos sumps and area sumps, Cell Room trench sump, Emergency Vent Scrubber (EVS) sump, Liquefaction Area Acid Storage sump, and other miscellaneous sumps. Wastewaters are routed either to treatment units or to the Stormwater Reservoir via ditch collection systems.

The ditch collection system has two primary ditches, the east-west ditch and the main north- south ditch. The east-west ditch carries stormwater and wastewater that is routed to the Stormwater Reservoir instead of discharging via Outfall 001. The main north-south ditch carries stormwater, effluent from oil/water separators (requiring no additional treatment), and other utility waste waters that require no treatment. The east-west ditch merges with the main north-south ditch and the combined flow discharges into the Stormwater Reservoir.

*Wastewater Treatment*

The main treatment process at the Battleground Facility is for pH control and neutralization of variable pH wastewaters from the chlor-alkali process.

*Biological Treatment*

Domestic wastewater is treated in a packaged biological treatment plant. The treated effluent from the biological plant is chlorinated, monitored, and discharged through TPDES internal Outfall 201, then pumped to the pH Reliability Tank. Some domestic wastewaters may be collected in on-site portable toilets during construction/maintenance work and transported off-site for treatment.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

*Cogeneration Oil-Water Separators*

In each of the three turbine areas, washdown water, water from the deluge /fire water system, and stormwater are routed through an oil-water separator (3 units total). Water from the separators gravity-flows through the main north-south ditch to the Stormwater Reservoir. Other wastewaters generated from equipment cleaning are sent off-site for treatment/disposal.

*Asbestos Sumps and Filter Press*

In Cell Renewal, non-friable asbestos fibers from discarded cell diaphragms and area washdowns are collected in the asbestos sumps. The asbestos slurry is pumped through a filter press, exiting through a polishing filter before being pumped to the pH Reliability Tank. Dewatered sludge cake containing asbestos is sent off-site for landfill disposal.

*Purification Oil-Water Separator (currently idled)*

The Purification Area is currently idled. When it was in operation, a skimmer was used at the Purification Area sump to remove oil discharged from pump packings. The water was recycled back to the Purification process.

*Cell Maintenance Facility Oil Degreaser (currently idled)*

The Cell Maintenance Facility (CMF) oil degreaser is currently idled. When it was in operation, cathodes were degreased using steam. Condensed water was routed to the Stormwater Reservoir.

*pH Adjustment Tank*

The alkaline sulfate purge stream from Evaporation is pumped to the 1,200-gallon pH Adjustment Tank. Spent sulfuric acid is added at the tank to lower the pH. Wastewater from the pH Adjustment Tank is pumped to the pH Reliability Tank.

*pH Reliability Tank*

The 30,000-gallon pH Reliability Tank provides pH neutralization and reduction of free chlorine (dechlorination), total dissolved solids (TDS) concentration, and temperature. Some of the wastestreams routed to the pH Reliability Tank require treatment while others are used to support the treatment processes. Wastewaters requiring treatment are the treated sulfate purge effluent from the pH Adjustment Tank (requiring further pH neutralization) and wastewater from Liquefaction (dechlorination). Spent sulfuric acid is added to control pH, and sodium thiosulfate is added for dechlorination. Temperature, pH, chlorine, TDS, and total suspended solids (TSS) are all monitored (for process control) in the pH Reliability Tank to ensure effluent concentrations in discharges will be within effluent limits.

If wastewaters do not meet treatment targets designed to ensure regulatory compliance, the effluent from the pH Reliability Tank will be routed to the Stormwater Reservoir via the east-west ditch. From the Stormwater Reservoir, water will be recirculated back to the pH Reliability Tank to help control TDS and temperature.

From the pH Reliability Tank, water is normally pumped through a pipe that discharges at Outfall 001, located to the east of the Stormwater Reservoir. (The pipe goes around the reservoir and does not discharge into the reservoir.)

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*Stormwater Reservoir*

The Stormwater Reservoir is used to collect stormwater and wastewaters. Wastewater from the pH Reliability Tank is routed to the Stormwater Reservoir when it does not meet treatment targets suitable for discharge via Outfall 001. All wastewater and stormwater collected in the Stormwater Reservoir enters the reservoir through the main north-south ditch. An overflow weir is located on the east side of the main north-south ditch just prior to the discharge into the reservoir, which is referred to as the main ditch flood control weir. The purpose of the main ditch flood control weir is to divert stormwater runoff to prevent flooding of the facility.

A second overflow point upstream of the main ditch flood control weir on the east side of the main north-south ditch is referred to as the flood control stop log. The flood control stop log is 1.64 feet higher than the main ditch flood control weir, and its purpose is to divert additional runoff to prevent flooding. Water from the main ditch flood control weir and the flood control stop log flow eastward and commingle with runoff from other areas to discharge via Outfall 002.

Because wastewater from the pH Reliability Tank is routed to the Stormwater Reservoir via the ditch system, during large storm events the main ditch flood control weir may overflow such that some wastewater may be present in the Outfall 002 discharge.

**OUTFALL 002**

Outfall 002 discharges stormwater and during large storm events, the stormwater may be commingled with process wastewater and utility wastewaters. Outfall 002 discharges to Phillips Ditch, which flows to Santa Anna Bayou, which then flows to the Houston Ship Channel / San Jacinto River Tidal.

Two discharge scenarios exist for Outfall 002. The first is when only stormwater is discharged from the east side of the facility (outside of the ditch system) and the second is when there is additional flow due to the main north-south ditch overflow.

The first discharge scenario occurs during lighter rainfall events. In this case, all of the flow in the main north-south ditch enters the Stormwater Reservoir and there is no overflow from the ditch to Outfall 002. The only flow through Outfall 002 then is from runoff from the eastern part of the facility from areas outside of the ditch drainage system.

The second scenario occurs during heavier rainfalls, when there is overflow from the main north-south ditch at the main ditch flood control weir, and during even heavier rainfalls, also at the flood control stop log. In this case, Outfall 002 contains overflow from the main north-south ditch, plus stormwater from the east side of the facility. Because the ditch system collects wastewaters as well as Stormwater, Outfall 002 discharges during ditch overflows may contain some wastewater. However, only in some cases, will the wastewater contain effluent from the pH Reliability Tank.

Most wastewaters carried in the ditch system do not require treatment prior to discharge. The only wastewater carried in the ditch system that would require treatment is effluent from the pH Reliability Tank, but only when it does not meet

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treatment targets and is routed to the Stormwater Reservoir. This effluent is routed to the reservoir via the east-west ditch, which merges with the main north-south ditch prior to entry into the reservoir.

The Battleground Facility has procedures in place to minimize wastewater from the pH Reliability Tank in the Outfall 002 discharge. A high-level alarm alerts operators if the level in the ditch system rises to a level that could result in a wastewater discharge via Outfall 002. If wastewater from the pH Reliability Tank is being routed to the east-west ditch towards the Stormwater Reservoir, operators will notify process areas to control wastewaters to the pH Reliability Tank in order to stop tank discharge to the ditch. Whatever wastewater residual remains in the east-west ditch at this time, will continue to flow to the Stormwater Reservoir via the main north-south ditch. Depending on the rainfall intensity and pattern, either all of the wastewater residual in the east-west ditch will reach the Stormwater Reservoir and be held there, or if overflow from the main north-south ditch occurs before all residual reaches the reservoir, some portion will be mixed with runoff in the Outfall 002 discharge.

Wastewaters can be held in the plant for up to 24 hours to prevent discharge of the pH Reliability Tank effluent to the ditch system. The level in the ditch system at the Stormwater Reservoir is continually monitored until it either begins to recede or discharge via Outfall 002 stops. Water in the reservoir can be recirculated back to the pH Reliability Tank for treatment at a maximum rate of 750,000 gallons per day (gpd), lowering the water level in the reservoir about 0.5 inch each hour (reservoir surface area is approximately 2.2 acres). It is possible that during intense rains water levels may increase in the reservoir such that some water will flow from the reservoir through the main ditch flood control weir.

*Materials Potentially Exposed to Stormwater*

Materials that are potentially exposed to stormwater include sodium chloride (brine ponds) and unloading areas for hydrochloric acid, sulfuric acid, and ammonia. Best management practices used to control exposure include dead end sumps for minor leaks and spills in the chemical unloading areas, routine inspection of the brine ponds for liner leaks and routine inspections of other areas, and a general housekeeping program.

*Water Supply and Treatment*

Raw water supplied by the Coastal Water Authority (CWA) is clarified and filtered to provide industrial-grade process water. Wastewaters that are generated from water treatment include clarifier water and backwashes of zeolite and other water treatment filters. Occasionally, there are mobile demineralizer units at the facility; however, no wastewaters are generated from these units. The reverse osmosis (RO) unit at the facility has been removed, so no RO wastewaters are currently generated. Demineralizer and RO wastewaters are included in the TPDES permit because they are common wastewaters that could be discharged in the future.

Water is supplied by the CWA via contract with the City of Houston. The source of water from the CWA is the Trinity River. Water is withdrawn from the Trinity River into the CWA Main Canal. From the Main Canal, water is transported to the Lynchburg Reservoir and thence to the La Porte site.

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The CWA operates the Trinity River Conveyance System for the City of Houston. The City of Houston is a water supplier for residential, commercial, and industrial customers. The Trinity River intake is listed in the TCEQ’s Public Water System (PWS) database under the City’s PWS number TX1010013 as Intake I (ID S1010013A) with latitude (29.961572° N) and longitude (-94.809997 °W).

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 process wastewater at Outfall 001 are calculated using the production rate of 1,662 tons per day, based on the information provided in the permit application.

Technology-based effluent limitations do not apply to discharges via Outfall 002 under normal conditions. However, they apply when process wastewater is discharged via Outfall 002 during large storm events that result in overflowing of the main north-south ditch. The volume of process wastewater in these stormwater-dominant discharges via Outfall 002 is *de minimis* and highly variable.

The following technology-based effluent limitations are calculated based on the information provided in the permit application:

Outfall	Pollutant	Daily Average, lbs/day	Daily Maximum, lbs/day
001	TSS	2,329.63	5,288.68
	Total Copper	24.5	72.7
	Total Lead	16.2	52.4
	Total Nickel	28.7	81.5
	Total Zinc	16.4	98.3
	Total Residual Chlorine	26.3	44.9
	pH, Standard Unit (SU)	6.0 SU, min	9.0 SU
002	Total Residual Chlorine	N/A	0.1 mg/L
	pH	6.0 SU, min	9.5 SU

3. 316(B) COOLING WATER INTAKE STRUCTURES

a. SCREENING

The facility obtains water from 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 facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

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b. PERMIT ACTION

The Other Requirement No. 10 has been added requiring 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/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. 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 CRITERIAa. SCREENING

Water quality-based effluent limitations are calculated from freshwater/saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Outfall 001

There is no mixing zone or zone of initial dilution (ZID) for this discharge directly to an intermittent stream; acute freshwater criteria apply at the end of pipe. Acute and chronic saltwater criteria are applied in the narrow 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 cfs. TCEQ uses the mass balance equation to estimate dilution in the narrow tidal river during critical conditions. The

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estimated dilution for the chronic protection of aquatic life is calculated using the permitted daily average flow of 2.4 MGD and the 7Q2 of 7.3 cfs for Santa Anna Bayou. If the estimated effluent percentage is less than 8%, then 8% is used. The estimated dilution for the acute protection of aquatic life is calculated using the permitted daily average flow of 2.4 MGD and 25% of the 7Q2. If the estimated effluent percentage is less than 30%, then 30% is used. The following critical effluent percentages are being used:

Outfall 001

Acute Effluent % (stream)	100 %
Acute Effluent % (narrow tidal river)	67 %
Chronic Effluent % (narrow tidal river)	34 %

Outfall 002

Based on relative drainage areas, the stormwater dependent discharge from Outfall 002 is 10% of the flow in Phillips Ditch, when discharge occurs. Only acute criteria for aquatic-life protection apply to the discharge. The following critical effluent percentages are being used:

Acute Effluent % (narrow tidal river)	10 %
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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, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90<sup>th</sup> 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 99<sup>th</sup> 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*. For Phillips Ditch, values for Segment No. 1102 are used as proxy, because these values are determined to be representative of the freshwater conditions in this intermittent receiving water body. The segment values are 15 mg/L for TSS, 7.4 standard units for pH, 126 mg/L for hardness (as calcium carbonate, CaCO<sub>3</sub>), and 125 mg/L for chloride. For Santa Anna Bayou, assumptions used in deriving the effluent limitations include the segment-specific value for TSS according to the *IPs*. The segment value is

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11 mg/L for TSS. 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

Outfall 001

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does 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. However, based on the applicant's request, the concentration and mass-based effluent limitations for total copper, total lead, total nickel, and total zinc at Outfall 001 were recalculated to account for the pending facility changes that would result in increased flow and loadings. Results are summarized in the table below. All the mass-based effluent limitations for the requested parameters were increased. The concentration based effluent limitations for total copper and total nickel were increased, while the total lead remains the same and the total zinc were reduced to a more stringent level. The numerous facility modifications resulting in increased loadings meets the anti-backsliding exemption *material and substantial alterations or additions to the permitted facility occurred after permit issuance*, which justify the application of a less stringent effluent limitation in 40 CFR 122.44(l)(2)(i)(A).

Parameter	Daily Average		Daily Maximum	
	mg/L	lbs/day	mg/L	lbs/day
<b>Total copper</b>				
Existing Permit	0.024	0.38	0.051	0.80
Draft Permit	0.025	0.423	0.052	0.897
<b>Total lead</b>				
Existing Permit	0.047	0.737	0.099	1.553
Draft Permit	0.047	0.805	0.099	1.70
<b>Total nickel</b>				
Existing Permit	0.048	0.753	0.103	1.616
Draft Permit	0.049	0.850	0.104	1.80
<b>Total zinc</b>				
Existing Permit	0.205	3.216	0.434	6.809
Draft Permit	0.200	3.45	0.425	7.34

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Outfall 002

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life (acute criteria only). Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for aquatic life protection. However, the monitoring requirement for total zinc has been continued from the existing permit, in accordance with anti-backsliding rules located in 40 CFR Part 122.44(l).

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA (7-DAY CHRONIC)a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic marine biomonitoring requirements at Outfall 001.

In the past three years, the permittee has performed twenty-four chronic tests, with one demonstration of significant toxicity (i.e., one failure) by the mysid shrimp.

A reasonable potential 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 reasonable potential (RP) determination is based on representative data from the previous three years of chronic WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015 and approved by the EPA in a letter dated December 28, 2015.

With zero failures by the inland silverside, a determination of no RP was made. WET limits are not required, and this test species may be eligible for the testing frequency reduction after one year of quarterly testing.

Because of the failure by the mysid shrimp, a three-year permit will be issued in accordance with the methodology referenced above.

Upon another failure (i.e., another demonstration of significant toxicity), the testing frequency for the mysid shrimp will increase to monthly until three consecutive tests pass (i.e., do not demonstrate significant toxicity), at which time the permittee may return to the quarterly testing frequency. If three or more failures are demonstrated during the three-year permit term, RP will have been demonstrated and a WET limit will be included in the subsequently reissued permit.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

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Based on information contained in the permit application, the TCEQ has determined that there may be pollutants present in the effluent(s) that may have the potential to cause toxic conditions in the receiving stream.

Whole effluent toxicity 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

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

concentrations shall be 14%, 19%, 26%, 34%, and 45%. The low-flow effluent concentration (critical dilution) is defined as 34% 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 marine biomonitoring requirements for Outfall(s) 001. In the past three years, the permittee has performed fourteen 24-hour acute tests, with one demonstration of significant lethality (i.e., one failure) by the mysid shrimp. Minimum 24-hour acute marine biomonitoring requirements are proposed in the draft permit as outlined below.

b. PERMIT ACTION

Twenty-four-hour 100% acute biomonitoring tests are required at Outfall(s) 001 at a frequency of once per six months for the life of the permit. This toxicity testing requirement is derived from the information submitted with the application.

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 CRITERIAa. 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).

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Outfall 001

Fish tissue bioaccumulation criteria are applied in the narrow tidal river for a discharge to an intermittent stream that enters the narrow tidal river within 3 miles downstream of the discharge point. TCEQ uses the mass balance equation to estimate dilution in the narrow tidal river during average flow conditions. The estimated dilution is calculated using the permitted daily average flow of 2.4 MGD and the harmonic mean flow of 11.3 cfs for Santa Anna Bayou. If the estimated effluent percentage is less than 4%, then 4% is used. The following critical effluent percentage is being used:

Human Health Effluent %: 25%

Outfall 002

Based on relative drainage areas, the stormwater dependent discharge from Outfall 002 is 10% of the flow in Phillips Ditch, when discharge occurs. Only acute criteria for aquatic-life protection apply to the discharge; there is no human-health protection applied to the discharge.

Human Health Effluent %: N/A

Outfall 001 and 002

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 99<sup>th</sup> 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 ACTIONOutfall 001

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does not exceed 70 percent of the calculated daily average water quality based effluent limitation for human life protection. No additional limits or monitoring and reporting requirements have been added to the draft permit. The limits in the existing/proposed are more protective than the calculated water quality based effluent limitation for human life protection.

Outfall 002

No action was necessary with regards to the screening made. However, the monitoring requirement for total zinc has been continued from the existing permit, in accordance with anti-backsliding rules located in 40 CFR Part 122.44(l).

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6. DRINKING WATER SUPPLY PROTECTIONa. SCREENING

Segment No. 1005, 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. 1005, which receives the discharges from this facility, does not have criteria established for total dissolved solids (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

The TDS limits at Outfall 001 was continued in the draft permit based on anti-backsliding regulations found in 40 CFR §122.44 (l).

8. PROTECTION OF pH STANDARDSa. SCREENINGOutfall 001

The existing permit includes pH limits of 6.0 – 9.0 standard units at Outfall 001, which discharges into an unclassified water body. 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.

Outfall 002

The existing permit includes limits on pH of 6.0 – 9.5 standard units (S.U.) at Outfall 002, which discharges into an unclassified water body. Process wastewater discharges through Outfall 002 occurs only during major storm events when stormwater is diverted to prevent flooding of the facility. This stormwater may contain *de minimis* amounts of process wastewater, but it is not practical to reliably monitor process wastewater discharges through Outfall 002 for pH because these are also natural constituents of the much larger stormwater portion of the discharge and may be at substantially higher concentrations in the stormwater than in the process wastewater. Therefore, the draft permit requires best

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management practices to minimize the discharge of process wastewater through Outfall 002, as provided by 40 CFR §122.44(k). These limits are still believed to be protective; therefore, continued in the draft permit based on anti-backsliding regulations found in 40 CFR §122.44 (l).

b. PERMIT ACTION

Outfall 001

The existing pH limits of 6.0 – 9.0 standard units are carried forward in the draft permit at Outfall 001.

Outfall 002

The existing pH limits of 6.0 – 9.5 standard units are carried forward in the draft permit at Outfall 001.

9. DISSOLVED OXYGEN PROTECTION

a. SCREENING

A dissolved oxygen analysis of the referenced discharge was conducted using a default QUAL-TX model in combination with an updated version of the calibrated QUAL-TX model documented in the Waste Load Evaluation WLE-1R for the Houston Ship Channel System (September 2006) for the discharge from Outfall 001. Based on the modeling result using the reported effluent concentrations, no significant dissolved oxygen depletion is anticipated in the receiving waters as a result of this discharge via Outfall 001. Due to the intermittent nature and limited oxygen demanding constituents from Outfall 002, no significant dissolved oxygen depletion is anticipated in the receiving waters as a result of this discharge.

b. PERMIT ACTION

None.

10. BACTERIA STANDARDS PROTECTION

a. SCREENING

Treated domestic wastewater is authorized to be discharged via internal Outfall 201, thence via Outfall 001. Protection from exposure to human pathogens is required. Current agency policy is to impose appropriate bacteria effluent limitation at the outfall discharging treated domestic wastewater

b. PERMIT ACTION

Existing effluent limitations for enterococci at internal Outfall 201 were originally established based on rules and requirements located in 30 TAC §309.4 and in 30 TAC §307.7. These limitations are still protective; therefore, continued in the draft permit based on the anti-backsliding requirements in section 402(o) of the Clean Water Act.

Outfall	Parameter	Daily Average	Daily Maximum
201	Enterococci <sup>1</sup>	35	104

<sup>1</sup> Units are colony forming units (cfu) or most probable number (MPN) per 100 milliliters.

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11. THERMAL STANDARDSa. SCREENING

Analytical data reported in the application was screened against the numerical criteria established in Appendix A of the Texas Surface Water Quality Standards for Segment No. 1005. The reported analytical data did not exceed the segment numerical criteria.

b. PERMIT ACTION

Technology-based effluent limitations for temperature at Outfall 001 were originally established based on BPJ and are continued from the existing permit based on EPA anti-backsliding regulations [40 CFR 122.44(l)]. The permittee has satisfied the requirement to submit the thermal plume characterization plan. Therefore, Other Requirement No. 12, related to thermal plume study has been revised and continued in the draft permit placing the permittee on notice that the Executive Director of the TCEQ will be initiating changes to evaluation procedures and/or rulemaking that may affect thermal requirements for this facility. Temperature limits may be revised at a future date.

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.

**FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION**

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.

For additional information about this application, contact Michael A. Redda at (512) 239-4631.

**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**

TPDES Permit No. WQ0001539000 issued on January 10, 2018.

**B. APPLICATION**

TPDES wastewater permit application received on December 30, 2020 and additional information received on February 3, 2021, August 2, 2021, August 23, 2021, September 14, 2021, and October 7, 2021.

**C. 40 CFR CITATION**

40 CFR Part 415 (BPT and BAT).

**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).

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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 February 11, 2020, from M. A. Wallace, PhD of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated February 19, 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 June 30, 2021, from Xing Lu, P.E. of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated June 30, 2021, from Michael B. Pfeil 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 2014 Integrated Report* – Texas 303(d) List (Category 5), TCEQ, November 19, 2015.

*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.

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*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**

Discharges of process wastewater via Outfalls 001 and 002 are subject to technology-based effluent limitations at 40 CFR Part 415, Subpart F (BPT and BAT) - Chlor-Alkali Subcategory (Chlorine and Sodium or Potassium Hydroxide Production).

Process wastewater discharges through Outfall 002 only occur during major storm events when stormwater is diverted to prevent flooding of the facility. This stormwater may contain *de minimis* amounts of process wastewater, but it is not practical to reliably monitor process wastewater discharges through Outfall 002 for total suspended solids (TSS), copper, lead, nickel, or pH because these are also natural constituents of the much larger stormwater portion of the discharge and may be at substantially higher concentrations in the stormwater than in the process wastewater. Therefore, the draft permit requires best management practices to minimize the discharge of process wastewater through Outfall 002, as provided by 40 CFR §122.44(k), in Other Requirement No. 8.

A new source determination was performed and the facility is not a new source because operations began in November 1974, while the effluent limitation guidelines were not promulgated until June 29, 1982.

Technology based effluent limitations apply for the production of chlorine by diaphragm cell process.

The permit application indicates that the facility's design average daily production of chlorine is 1,800 tons. Current production levels are at 1,662 tons/day, which is equivalent to 3,324,000 lbs (1,662 tons x 2,000 lbs/ton).

The more stringent of the BPT and BAT limitations found at 40 CFR Part 415, Subpart F are used to derive the following technology-based effluent limitations.

**OUTFALL 001**

Wastestreams authorized for discharge via Outfall 001 treated process wastewater, utility wastewaters, stormwater, and treated domestic wastewater. Building block approach was used to calculate the mass effluent limitations that apply to these discharges.

**PROCESS WASTEWATER**

Effluent limitations guidelines under 40 CFR §415.62 (TSS) 40 CFR §415.63(b) for total copper, total lead, total nickel, total residual chlorine (TRC), and pH applies.

Pollutant	BPT limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days
	Kg/kkg (or pounds per/1,000 lb) of product	
TSS	1.1	0.51
Copper (Total)	0.012	0.0049
Lead (Total)	0.0059	0.0024
Nickel (Total)	0.0097	0.0037
TRC	0.013	0.0079
pH	9.0 SU	6.0 SU, min

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Example calculation:

$$\text{Daily Average TSS Limit} = 0.51 \text{ (lbs/1,000 lbs produced)} \times 3,324 \text{ (1,000 lbs of production)} \\ = \mathbf{1,695.24 \sim 1,695 \text{ lbs/day}}$$

Pollutant	pounds per/1,000 lb of product		1,000 lbs of production	=	Limit (lbs/day)
<b>TSS</b>					
Daily Average	0.51	x	3,324	=	1,695.24
Daily Max.	1.1	x	3,324	=	3,656.40
<b>Copper, Total</b>					
Daily Average	0.0049	x	3,324	=	16.29
Daily Max.	0.012	x	3,324	=	39.89
<b>Lead, Total</b>					
Daily Average	0.0024	x	3,324	=	7.98
Daily Max.	0.0059	x	3,324	=	19.61
<b>Nickel, Total</b>					
Daily Average	0.0037	x	3,324	=	12.30
Daily Max.	0.0097	x	3,324	=	32.24
<b>Total Residual Chlorine</b>					
Daily Average	0.0079	x	3,324	=	26.26
Daily Max.	0.013	x	3,324	=	43.21

NON-PROCESS WASTEWATER

The following flow information was obtained from the application:

Wastestream	Flow (MGD)
Utility Wastewater	1.089
Domestic Wastewater	0.015
Stormwater	0.864
<b>TOTAL</b>	<b>1.968</b>

The following effluent limitations were considered in the TSS calculation:

Wastestream	Daily Average mg/L	Daily Max. mg/L	Source
Utility Wastewater	30	100	BPJ based on CFR Part 423
Domestic Wastewater	20	45	BPJ based on 30 TAC § 309.4
Stormwater	50	100	BPJ based TCEQ's practices

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Calculation:

Wastestream	Flow (MGD)		Conc. (mg/L)		Conversion Factor		Limit (lbs/day)
Utility Wastewater							
Daily Average	1.089	x	30	x	8.345	=	272.63
Daily Max.	1.089	x	100	x	8.345	=	908.77
Domestic Wastewater							
Daily Average	0.015	x	20	x	8.345	=	2.50
Daily Max.	0.015	x	45	x	8.345	=	5.63
Stormwater							
Daily Average	0.864	x	50	x	8.345	=	360.50
Daily Max.	0.864	x	100	x	8.345	=	721.01

Total of non-process wastewater:

$$\text{Daily Average} = 272.63 + 1.25 + 360.50 = \mathbf{634.39} \text{ lbs/day}$$

$$\text{Daily maximum} = 908.77 + 2.50 + 721.01 = \mathbf{1,632.28} \text{ lbs/day}$$

The following effluent limitations were considered in the metals and total residual chlorine (TRC) calculation:

Pollutant	Daily Average mg/L	Daily Max. mg/L	Source
Copper	0.5	2.0	30 TAC §319.22. Quality Levels - Inland Waters
Lead	0.5	2.0	30 TAC §319.22. Quality Levels - Inland Waters
Nickel	1.0	3.0	30 TAC §319.22. Quality Levels - Inland Waters
TRC	N/A	0.1	BPJ – Dechlorination standard of municipal permits

Calculation:

Wastestream	Flow (MGD)		Conc. (mg/L)		Conversion Factor		Limit (lbs/day)
Copper							
Daily Average	1.968	x	0.5	x	8.345	=	8.21
Daily Max.	1.968	x	2.0	x	8.345	=	32.8
Lead							
Daily Average	1.968	x	0.5	x	8.345	=	8.21
Daily Max.	1.968	x	2.0	x	8.345	=	32.8
Nickel							
Daily Average	1.968	x	1.0	x	8.345	=	16.4
Daily Max.	1.968	x	3.0	x	8.345	=	49.3
Total Residual Chlorine							
Daily Average	1.968	x	0.05	x	8.345	=	0.82
Daily Max.	1.968	x	0.1	x	8.345	=	1.64

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## SUMMATION OF PROCESS AND NON-PROCESS WASTEWATER:

Pollutant	Process Wastewater (lbs/day)		Non-Process Wastewater (lbs/day)		Total (lbs/day)
<b>TSS</b>					
Daily Average	1,695.24	+	634.39	=	2,329.63 *
Daily Max.	3,656.40	+	1,632.28	=	5,288.68 *
<b>Copper, Total</b>					
Daily Average	16.29	+	8.21	=	24.5
Daily Max.	39.89	+	32.8	=	72.7
<b>Lead, Total</b>					
Daily Average	7.98	+	8.21	=	16.2
Daily Max.	19.61	+	32.8	=	52.4
<b>Nickel, Total</b>					
Daily Average	12.30	+	16.4	=	28.7
Daily Max.	32.24	+	49.3	=	81.5
<b>Total Residual Chlorine</b>					
Daily Average	26.26	+	0.82	=	27.1
Daily Max.	43.21	+	1.64	=	44.9

\* The permittee requested only an increase in the daily average limit for total suspended solids to 600 lbs/day. No change in the daily maximum TSS limitation was requested. Therefore, the TSS mass limitations calculated above were not used in the development of effluent limitations.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

**OUTFALL 002**

The following effluent limitations are established at Outfall 002 when process wastewater is discharged via this outfall.

1. TSS, total copper, total lead, total zinc, and pH are limited by best management practices in Other Requirement No. 8, as provided by 40 CFR §122.44(k), because it is impractical to reliably distinguish contributions of these pollutants in process the process wastewater from those in the stormwater.
2. A monitoring requirement for total zinc has been continued from the existing permit, in accordance with anti-backsliding rules located in 40 CFR Part 122.44(l). This requirement was originally established for reasons stated below:

The total zinc analytical data submitted with the application received on August 18, 2009 (permit issued January 10, 2018) exceeded 85% of the calculated daily average water quality based effluent limitation for aquatic life protection. However, effluent limitations for total zinc were not warranted because:

- A. the sample was collected from a stormwater-only discharge, and
  - B. TEXTOX calculations are not applicable to discharges that contain only stormwater.
3. A daily maximum effluent limitation of 0.1 mg/L for total residual chlorine at Outfall 002 has been continued from the existing permit, in accordance with anti-backsliding rules located in 40 CFR Part 122.44(l).. This limitation was originally established for reasons stated below:
    - A. the permit authorizes the discharge of process wastewater via Outfall 002 during large storm events and categorical effluent limitations are warranted when process wastewater is discharged, and
    - B. the permittee has agreed to limit the daily maximum concentration of total residual chlorine at Outfall 002 to 0.1 mg/L.

This effluent limitation is expected to be protective of the receiving waters because, as a common practice, the TCEQ's domestic wastewater discharge permits require dechlorination attain a total residual chlorine concentration of at least 0.1 mg/L.

4. Effluent limitations for pH are continued from the existing permit.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

### Appendix B Calculated Water Quality-Based Effluent Limits

**TEXTTOX MENU #9 - INTERMITTENT FRESHWATER STREAM WITHIN 3 MILES OF A NARROW 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:	Oxy Vinyls, LP
TPDES Permit No:	WQ0001539000
Outfall No:	001
Prepared by:	Michael Redda
Date:	July 13, 2021

**DISCHARGE INFORMATION**

<i>Intermittent Receiving Waterbody:</i>	Phillips Ditch
Segment No. for Freshwater Ambient Data:	1102
TSS (mg/L) (Intermittent):	15
pH (Standard Units) (Intermittent):	7.4
Hardness (mg/L as CaCO <sub>3</sub> ) (Intermittent):	126
Chloride (mg/L) (Intermittent):	125
Effluent Flow for Aquatic Life (MGD):	2.4
% Effluent for Acute Aquatic Life (Intermittent):	100
<i>Saltwater Receiving Waterbody:</i>	Santa Anna Bayou
Segment No.:	1005
TSS (mg/L) (Narrow Tidal River):	11
Critical Low Flow [7Q2] (cfs):	7.3
% Effluent for Chronic Aquatic Life (Narrow Tidal River):	34
% Effluent for Acute Aquatic Life (Narrow Tidal River):	67
Effluent Flow for Human Health (MGD):	2.4
Harmonic Mean Flow (cfs):	11.3
% Effluent for Human Health (Narrow Tidal River):	25

**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 (K<sub>p</sub>)</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	66290.82	0.501		1.00	Assumed
Cadmium	6.60	-1.13	186645.22	0.263		1.00	Assumed
Chromium (total)	6.52	-0.93	266830.29	0.200		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	266830.29	0.200		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	141153.77	0.321		1.00	Assumed
Lead	6.45	-0.80	322943.83	0.171		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	104623.20	0.389		1.13	Site-specific
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	147443.63	0.311		1.00	Assumed
Zinc	6.10	-0.70	189119.42	0.261		1.00	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

<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	12594.97	0.878		1.80	Site-specific
Lead	6.06	-0.85	149560.26	0.378		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	1.13	Site-specific
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	122848.37	0.425		1.00	Assumed
Zinc	5.36	-0.52	65837.87	0.580		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 LTAc (µg/L)</i>	<i>SW LTAc (µg/L)</i>	<i>SW LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Aldrin	3.0	1.3	N/A	3.00	1.94	N/A	1.72	1.11	N/A	1.63	3.45
Aluminum	991	N/A	N/A	991	N/A	N/A	568	N/A	N/A	834	1765
Arsenic	340	149	78	678	222	229	389	127	177	187	396
Cadmium	10.7	40.0	8.75	40.8	59.7	25.7	23.4	34.2	19.8	29.1	61.6
Carbaryl	2.0	613	N/A	2.00	915	N/A	1.15	524	N/A	1.68	3.56
Chlordane	2.4	0.09	0.004	2.40	0.134	0.0118	1.38	0.0770	0.00906	0.0133	0.0281
Chlorpyrifos	0.083	0.011	0.006	0.0830	0.0164	0.0176	0.0476	0.00941	0.0136	0.0138	0.0292
Chromium (trivalent)	688	N/A	N/A	3444	N/A	N/A	1973	N/A	N/A	2901	6137
Chromium (hexavalent)	15.7	1090	49.6	15.7	1627	146	9.00	932	112	13.2	27.9
Copper	17.7	24.3	6.48	55.0	41.3	21.7	31.5	23.7	16.7	24.5	51.9
Cyanide (free)	45.8	5.6	5.6	45.8	8.36	16.5	26.2	4.79	12.7	7.04	14.8
4,4'-DDT	1.1	0.13	0.001	1.10	0.194	0.00294	0.630	0.111	0.00226	0.00332	0.00704
Demeton	N/A	N/A	0.1	N/A	N/A	0.294	N/A	N/A	0.226	0.332	0.704
Diazinon	0.17	0.819	0.819	0.170	1.22	2.41	0.0974	0.700	1.85	0.143	0.302
Dicofol [Kelthane]	59.3	N/A	N/A	59.3	N/A	N/A	34.0	N/A	N/A	49.9	105
Dieldrin	0.24	0.71	0.002	0.240	1.06	0.00588	0.138	0.607	0.00453	0.00665	0.0140
Diuron	210	N/A	N/A	210	N/A	N/A	120	N/A	N/A	176	374
Endosulfan I (alpha)	0.22	0.034	0.009	0.220	0.0507	0.0265	0.126	0.0291	0.0204	0.0299	0.0633
Endosulfan II (beta)	0.22	0.034	0.009	0.220	0.0507	0.0265	0.126	0.0291	0.0204	0.0299	0.0633
Endosulfan sulfate	0.22	0.034	0.009	0.220	0.0507	0.0265	0.126	0.0291	0.0204	0.0299	0.0633
Endrin	0.086	0.037	0.002	0.0860	0.0552	0.00588	0.0493	0.0316	0.00453	0.00665	0.0140
Guthion [Azinphos Methyl]	N/A	N/A	0.01	N/A	N/A	0.0294	N/A	N/A	0.0226	0.0332	0.0704
Heptachlor	0.52	0.053	0.004	0.520	0.0791	0.0118	0.298	0.0453	0.00906	0.0133	0.0281
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.16	N/A	1.13	0.239	N/A	0.645	0.137	N/A	0.201	0.425
Lead	83	133	5.3	485	525	41.2	278	301	31.7	46.6	98.7
Malathion	N/A	N/A	0.01	N/A	N/A	0.0294	N/A	N/A	0.0226	0.0332	0.0704
Mercury	2.4	2.1	1.1	2.40	3.13	3.24	1.38	1.80	2.49	2.02	4.27
Methoxychlor	N/A	N/A	0.03	N/A	N/A	0.0882	N/A	N/A	0.0679	0.0998	0.211
Mirex	N/A	N/A	0.001	N/A	N/A	0.00294	N/A	N/A	0.00226	0.00332	0.00704
Nickel	643	133.34	14.803	1653	199	43.5	947	114	33.5	49.2	104
Nonylphenol	28	7	1.7	28.0	10.4	5.00	16.0	5.99	3.85	5.65	11.9
Parathion (ethyl)	0.065	N/A	N/A	0.0650	N/A	N/A	0.0372	N/A	N/A	0.0547	0.115
Pentachlorophenol	13.0	15.1	9.6	13.0	22.5	28.2	7.47	12.9	21.7	10.9	23.2

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Parameter	FW Acute Criterion (µg/L)	SW Acute Criterion (µg/L)	SW Chronic Criterion (µg/L)	FW WLAa (µg/L)	SW WLAa (µg/L)	SW WLAc (µg/L)	FW LTAA (µg/L)	SW LTAA (µg/L)	SW LTAc (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Phenanthrene	30	7.7	4.6	30.0	11.5	13.5	17.2	6.59	10.4	9.68	20.4
Polychlorinated Biphenyls [PCBs]	2.0	10	0.03	2.00	14.9	0.0882	1.15	8.55	0.0679	0.0998	0.211
Selenium	20	564	136	20.0	842	400	11.5	482	308	16.8	35.6
Silver	0.8	2	N/A	26.0	7.02	N/A	14.9	4.02	N/A	5.91	12.5
Toxaphene	0.78	0.21	0.0002	0.780	0.313	0.000588	0.447	0.180	0.000453	0.000665	0.00140
Tributyltin [TBT]	0.13	0.24	0.0074	0.130	0.358	0.0218	0.0745	0.205	0.0168	0.0246	0.0521
2,4,5 Trichlorophenol	136	259	12	136	387	35.3	77.9	222	27.2	39.9	84.5
Zinc	143	92.7	84.2	547	239	427	313	137	329	200	425

## HUMAN HEALTH

## CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	Fish Only Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Acrylonitrile	115	460	428	628	1330
Aldrin	1.147E-05	0.0000459	0.0000427	0.0000627	0.000132
Anthracene	1317	5268	4899	7201	15236
Antimony	1071	4284	3984	5856	12390
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	2324	2161	3177	6721
Benzidine	0.107	0.428	0.398	0.585	1.23
Benzo(a)anthracene	0.025	0.100	0.0930	0.136	0.289
Benzo(a)pyrene	0.0025	0.0100	0.00930	0.0136	0.0289
Bis(chloromethyl)ether	0.2745	1.10	1.02	1.50	3.17
Bis(2-chloroethyl)ether	42.83	171	159	234	495
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	30.2	28.1	41.2	87.3
Bromodichloromethane [Dichlorobromomethane]	275	1100	1023	1503	3181
Bromoform [Tribromomethane]	1060	4240	3943	5796	12263
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	184	171	251	532
Chlordane	0.0025	0.0100	0.00930	0.0136	0.0289
Chlorobenzene	2737	10948	10182	14967	31664
Chlorodibromomethane [Dibromochloromethane]	183	732	681	1000	2117
Chloroform [Trichloromethane]	7697	30788	28633	42090	89048
Chromium (hexavalent)	502	2008	1867	2745	5807
Chrysene	2.52	10.1	9.37	13.7	29.1
Cresols [Methylphenols]	9301	37204	34600	50861	107605
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.00800	0.00744	0.0109	0.0231
4,4'-DDE	0.00013	0.000520	0.000484	0.000710	0.00150
4,4'-DDT	0.0004	0.00160	0.00149	0.00218	0.00462
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	1892	1760	2586	5472
1,2-Dibromoethane [Ethylene Dibromide]	4.24	17.0	15.8	23.1	49.0
m-Dichlorobenzene [1,3-Dichlorobenzene]	595	2380	2213	3253	6883
o-Dichlorobenzene [1,2-Dichlorobenzene]	3299	13196	12272	18040	38166
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	8.96	8.33	12.2	25.9
1,2-Dichloroethane	364	1456	1354	1990	4211
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	220456	205024	301385	637624

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

<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>
Dichloromethane [Methylene Chloride]	13333	53332	49599	72910	154252
1,2-Dichloropropane	259	1036	963	1416	2996
1,3-Dichloropropene [1,3-Dichloropropylene]	119	476	443	650	1376
Dicofol [Kelthane]	0.30	1.20	1.12	1.64	3.47
Dieldrin	2.0E-05	0.0000800	0.0000744	0.000109	0.000231
2,4-Dimethylphenol	8436	33744	31382	46131	97597
Di- <i>n</i> -Butyl Phthalate	92.4	370	344	505	1068
Dioxins/Furans [TCDD Equivalents]	7.97E-08	3.19E-07	2.96E-07	4.35E-07	9.22E-07
Endrin	0.02	0.0800	0.0744	0.109	0.231
Epichlorohydrin	2013	8052	7488	11007	23288
Ethylbenzene	1867	7468	6945	10209	21599
Ethylene Glycol	1.68E+07	67200000	62496000	91869120	194362560
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.000400	0.000372	0.000546	0.00115
Heptachlor Epoxide	0.00029	0.00116	0.00108	0.00158	0.00335
Hexachlorobenzene	0.00068	0.00272	0.00253	0.00371	0.00786
Hexachlorobutadiene	0.22	0.880	0.818	1.20	2.54
Hexachlorocyclohexane ( <i>alpha</i> )	0.0084	0.0336	0.0312	0.0459	0.0971
Hexachlorocyclohexane ( <i>beta</i> )	0.26	1.04	0.967	1.42	3.00
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.341	1.36	1.27	1.86	3.94
Hexachlorocyclopentadiene	11.6	46.4	43.2	63.4	134
Hexachloroethane	2.33	9.32	8.67	12.7	26.9
Hexachlorophene	2.90	11.6	10.8	15.8	33.5
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	63928	59453	87395	184898
Lead	3.83	40.5	37.7	55.4	117
Mercury	0.0250	0.100	0.0930	0.136	0.289
Methoxychlor	3.0	12.0	11.2	16.4	34.7
Methyl Ethyl Ketone	9.92E+05	3968000	3690240	5424652	11476646
Methyl <i>tert</i> -butyl ether [MTBE]	10482	41928	38993	57319	121268
Nickel	1140	4560	4241	6233	13188
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	7492	6968	10242	21669
N-Nitrosodiethylamine	2.1	8.40	7.81	11.4	24.2
N-Nitroso-di- <i>n</i> -Butylamine	4.2	16.8	15.6	22.9	48.5
Pentachlorobenzene	0.355	1.42	1.32	1.94	4.10
Pentachlorophenol	0.29	1.16	1.08	1.58	3.35
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.00256	0.00238	0.00349	0.00740
Pyridine	947	3788	3523	5178	10956
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	0.960	0.893	1.31	2.77
1,1,2,2-Tetrachloroethane	26.35	105	98.0	144	304
Tetrachloroethylene [Tetrachloroethylene]	280	1120	1042	1531	3239
Thallium	0.23	0.920	0.856	1.25	2.66
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.0440	0.0409	0.0601	0.127
2,4,5-TP [Silvex]	369	1476	1373	2017	4269
1,1,1-Trichloroethane	784354	3137416	2917797	4289161	9074348
1,1,2-Trichloroethane	166	664	618	907	1920
Trichloroethylene [Trichloroethene]	71.9	288	267	393	831
2,4,5-Trichlorophenol	1867	7468	6945	10209	21599
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	66.0	61.4	90.2	190

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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

## Aquatic Life

<i>Parameter</i>	<i>70% of Daily Avg. (µg/L)</i>	<i>85% of Daily Avg. (µg/L)</i>
Aldrin	1.14	1.38
Aluminum	584	709
Arsenic	131	159
Cadmium	20.3	24.7
Carbaryl	1.17	1.43
Chlordane	0.00932	0.0113
Chlorpyrifos	0.00968	0.0117
Chromium (trivalent)	2030	2465
Chromium (hexavalent)	9.25	11.2
Copper	17.1	20.8
Cyanide (free)	4.92	5.98
4,4'-DDT	0.00233	0.00282
Demeton	0.233	0.282
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.00466	0.00565
Diuron	123	150
Endosulfan I ( <i>alpha</i> )	0.0209	0.0254
Endosulfan II ( <i>beta</i> )	0.0209	0.0254
Endosulfan sulfate	0.0209	0.0254
Endrin	0.00466	0.00565
Guthion [Azinphos Methyl]	0.0233	0.0282
Heptachlor	0.00932	0.0113
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.140	0.170
Lead	32.6	39.6
Malathion	0.0233	0.0282
Mercury	1.41	1.71
Methoxychlor	0.0699	0.0848
Mirex	0.00233	0.00282
Nickel	34.4	41.8
Nonylphenol	3.96	4.81
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	7.68	9.33
Phenanthrene	6.77	8.22
Polychlorinated Biphenyls [PCBs]	0.0699	0.0848
Selenium	11.7	14.3
Silver	4.13	5.02
Toxaphene	0.000466	0.000565
Tributyltin [TBT]	0.0172	0.0209
2,4,5 Trichlorophenol	27.9	33.9
Zinc	140	170

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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

## Human Health

<i>Parameter</i>	<i>70% of Daily Avg. (µg/L)</i>	<i>85% of Daily Avg. (µg/L)</i>
Acrylonitrile	440	534
Aldrin	0.0000439	0.0000533
Anthracene	5041	6121
Antimony	4099	4978
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	2223	2700
Benzidine	0.409	0.497
Benzo(a)anthracene	0.0956	0.116
Benzo(a)pyrene	0.00956	0.0116
Bis(chloromethyl)ether	1.05	1.27
Bis(2-chloroethyl)ether	163	199
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	28.9	35.0
Bromodichloromethane [Dichlorobromomethane]	1052	1278
Bromoform [Tribromomethane]	4057	4927
Cadmium	N/A	N/A
Carbon Tetrachloride	176	213
Chlordane	0.00956	0.0116
Chlorobenzene	10476	12721
Chlorodibromomethane [Dibromochloromethane]	700	850
Chloroform [Trichloromethane]	29463	35776
Chromium (hexavalent)	1921	2333
Chrysene	9.64	11.7
Cresols [Methylphenols]	35603	43232
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00765	0.00929
4,4'-DDE	0.000497	0.000604
4,4'-DDT	0.00153	0.00185
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	1810	2198
1,2-Dibromoethane [Ethylene Dibromide]	16.2	19.7
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	2277	2765
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	12628	15334
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	8.57	10.4
1,2-Dichloroethane	1393	1691
1,1-Dichloroethylene [1,1-Dichloroethene]	210969	256177
Dichloromethane [Methylene Chloride]	51037	61973
1,2-Dichloropropane	991	1203
1,3-Dichloropropene [1,3-Dichloropropylene]	455	553
Dicofol [Kelthane]	1.14	1.39
Dieldrin	0.0000765	0.0000929
2,4-Dimethylphenol	32291	39211
Di- <i>n</i> -Butyl Phthalate	353	429
Dioxins/Furans [TCDD Equivalents]	3.05E-07	3.70E-07
Endrin	0.0765	0.0929
Epichlorohydrin	7705	9356
Ethylbenzene	7146	8678
Ethylene Glycol	64308384	78088752
Fluoride	N/A	N/A
Heptachlor	0.000382	0.000464

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

<i>Parameter</i>	<i>70% of Daily Avg. (µg/L)</i>	<i>85% of Daily Avg. (µg/L)</i>
Heptachlor Epoxide	0.00111	0.00134
Hexachlorobenzene	0.00260	0.00316
Hexachlorobutadiene	0.842	1.02
Hexachlorocyclohexane ( <i>alpha</i> )	0.0321	0.0390
Hexachlorocyclohexane ( <i>beta</i> )	0.995	1.20
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	1.30	1.58
Hexachlorocyclopentadiene	44.4	53.9
Hexachloroethane	8.91	10.8
Hexachlorophene	11.1	13.4
4,4'-Isopropylidenediphenol [Bisphenol A]	61177	74286
Lead	38.7	47.0
Mercury	0.0956	0.116
Methoxychlor	11.4	13.9
Methyl Ethyl Ketone	3797256	4610954
Methyl <i>tert</i> -butyl ether [MTBE]	40123	48721
Nickel	4363	5298
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	7169	8705
N-Nitrosodiethylamine	8.03	9.76
N-Nitroso-di- <i>n</i> -Butylamine	16.0	19.5
Pentachlorobenzene	1.35	1.65
Pentachlorophenol	1.11	1.34
Polychlorinated Biphenyls [PCBs]	0.00244	0.00297
Pyridine	3625	4401
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.918	1.11
1,1,2,2-Tetrachloroethane	100	122
Tetrachloroethylene [Tetrachloroethylene]	1071	1301
Thallium	0.880	1.06
Toluene	N/A	N/A
Toxaphene	0.0421	0.0511
2,4,5-TP [Silvex]	1412	1715
1,1,1-Trichloroethane	3002412	3645787
1,1,2-Trichloroethane	635	771
Trichloroethylene [Trichloroethene]	275	334
2,4,5-Trichlorophenol	7146	8678
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	63.1	76.6

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

TEXTOX MENU #9 - INTERMITTENT FRESHWATER STREAM WITHIN 3 MILES OF A NARROW 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:	Oxy Vinyls, LP
TPDES Permit No:	WQ0001539000
Outfall No:	002
Prepared by:	Michael Redda
Date:	July 13, 2021

**DISCHARGE INFORMATION**

<i>Intermittent Receiving Waterbody:</i>	Phillips Ditch
Segment No. for Freshwater Ambient Data:	1102
TSS (mg/L) (Intermittent):	15
pH (Standard Units) (Intermittent):	7.4
Hardness (mg/L as CaCO <sub>3</sub> ) (Intermittent):	126
Chloride (mg/L) (Intermittent):	125
Effluent Flow for Aquatic Life (MGD):	3.29
% Effluent for Acute Aquatic Life (Intermittent):	10
<i>Saltwater Receiving Waterbody:</i>	Santa Anna Bayou
Segment No.:	1005
TSS (mg/L) (Narrow Tidal River):	11
Critical Low Flow [7Q2] (cfs):	N/A
% Effluent for Chronic Aquatic Life (Narrow Tidal River):	N/A
% Effluent for Acute Aquatic Life (Narrow Tidal River):	10.000
Effluent Flow for Human Health (MGD):	N/A
Harmonic Mean Flow (cfs):	N/A
% Effluent for Human Health (Narrow Tidal River):	N/A

**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	66290.82	0.501		1.00	Assumed
Cadmium	6.60	-1.13	186645.22	0.263		1.00	Assumed
Chromium (total)	6.52	-0.93	266830.29	0.200		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	266830.29	0.200		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	141153.77	0.321		1.00	Assumed
Lead	6.45	-0.80	322943.83	0.171		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	104623.20	0.389		1.13	Site-specific
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	147443.63	0.311		1.00	Assumed
Zinc	6.10	-0.70	189119.42	0.261		1.00	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

<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	12594.97	0.878		1.80	Site-specific
Lead	6.06	-0.85	149560.26	0.378		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	1.13	Site-specific
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	122848.37	0.425		1.00	Assumed
Zinc	5.36	-0.52	65837.87	0.580		1.00	Assumed

**AQUATIC LIFE**

**CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:**

<i>Parameter</i>	<i>SW</i>											
	<i>FW Acute Criterion (µg/L)</i>	<i>SW Acute Criterion (µg/L)</i>	<i>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 LTAa (µg/L)</i>	<i>SW LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>	
Aldrin		3.0	1.3	N/A	30.0	13.00	N/A	17.19	7.45	N/A	10.95	23.17
Aluminum	991	N/A	N/A	9910	N/A	N/A	5678	N/A	N/A	N/A	8347	17660
Arsenic	340	149	78	6781	1490	N/A	3885	854	N/A	1255	2655	
Cadmium	10.7	40.0	8.75	408.2	400	N/A	233.9	229.2	N/A	337	713	
Carbaryl	2.0	613	N/A	20.0	6130.00	N/A	11.46	3512.49	N/A	16.85	35.64	
Chlordane	2.4	0.09	0.004	24.0	0.900	N/A	13.75	0.516	N/A	0.758	1.60	
Chlorpyrifos	0.083	0.011	0.006	0.830	0.110	N/A	0.476	0.063	N/A	0.093	0.196	
Chromium (trivalent)	688	N/A	N/A	34441	N/A	N/A	19735	N/A	N/A	29010	61376	
Chromium (hexavalent)	15.7	1090	49.6	157.0	10900	N/A	89.96	6246	N/A	132	280	
Copper	17.7	24.3	6.48	550.4	276.7	N/A	315.4	158.5	N/A	233	493	
Cyanide (free)	45.8	5.6	5.6	458.0	56.0	N/A	262.4	32.1	N/A	47	100	
4,4'-DDT	1.1	0.13	0.001	11.0	1.300	N/A	6.303	0.745	N/A	1.10	2.32	
Demeton	N/A	N/A	0.1	N/A	N/A	N/A						
Diazinon	0.17	0.819	0.819	1.70	8.19	N/A	0.974	4.69	N/A	1.43	3.03	
Dicofol [Kelthane]	59.3	N/A	N/A	593.0	N/A	N/A	339.8	N/A	N/A	499.5	1057	
Dieldrin	0.24	0.71	0.002	2.40	7.10	N/A	1.375	4.07	N/A	2.02	4.28	
Diuron	210	N/A	N/A	2100	N/A	N/A	1203	N/A	N/A	1769	3742	
Endosulfan I (alpha)	0.22	0.034	0.009	2.20	0.340	N/A	1.261	0.195	N/A	0.286	0.606	
Endosulfan II (beta)	0.22	0.034	0.009	2.20	0.340	N/A	1.261	0.195	N/A	0.286	0.606	
Endosulfan sulfate	0.22	0.034	0.009	2.20	0.340	N/A	1.261	0.195	N/A	0.286	0.606	
Endrin	0.086	0.037	0.002	0.860	0.370	N/A	0.493	0.212	N/A	0.312	0.659	
Guthion [Azinphos Methyl]	N/A	N/A	0.01	N/A	N/A	N/A						
Heptachlor	0.52	0.053	0.004	5.20	0.530	N/A	2.980	0.304	N/A	0.446	0.944	
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.16	N/A	11.260	1.600	N/A	6.452	0.917	N/A	1.35	2.85	
Lead	83	133	5.3	4850	3518	N/A	2779	2016	N/A	2963	6269	
Malathion	N/A	N/A	0.01	N/A	N/A	N/A						
Mercury	2.4	2.1	1.1	24.0	21.00	N/A	13.75	12.03	N/A	17.69	37.42	
Methoxychlor	N/A	N/A	0.03	N/A	N/A	N/A						
Mirex	N/A	N/A	0.001	N/A	N/A	N/A						
Nickel	643	133.34	14.803	16530	1333	N/A	9472	764	N/A	1123	2376	
Nonylphenol	28	7	1.7	280	70.0	N/A	160.4	40.1	N/A	58.96	124.7	
Parathion (ethyl)	0.065	N/A	N/A	0.650	N/A	N/A	0.372	N/A	N/A	0.548	1.158	
Pentachlorophenol	13.0	15.1	9.6	130.4	151.0	N/A	74.7	86.5	N/A	109.8	232.4	

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Parameter	FW Acute Criterion (µg/L)	SW Acute Criterion (µg/L)	SW			SW WLAc (µg/L)	FW LTAc (µg/L)	SW LTAc (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)	
			Chronic Criterion (µg/L)	FW WLAa (µg/L)	SW WLAa (µg/L)						
Phenanthrene	30	7.7	4.6	300	77.0	N/A	171.9	44.1	N/A	64.86	137.2
Polychlorinated Biphenyls [PCBs]	2.0	10	0.03	20.0	100.0	N/A	11.460	57.3	N/A	16.85	35.64
Selenium	20	564	136	200	5640	N/A	114.6	3232	N/A	168.5	356.4
Silver	0.8	2	N/A	259.77	47.0	N/A	148.85	26.95	N/A	39.61	83.8
Toxaphene	0.78	0.21	0.0002	7.80	2.100	N/A	4.469	1.203	N/A	1.77	3.74
Tributyltin [TBT]	0.13	0.24	0.0074	1.30	2.400	N/A	0.745	1.375	N/A	1.10	2.32
2,4,5 Trichlorophenol	136	259	12	1360	2590	N/A	779.3	1484	N/A	1146	2424
Zinc	143	92.7	84.2	5468	1598	N/A	3133	916	N/A	1346	2848

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

## Aquatic Life

Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Aldrin	7.67	9.31
Aluminum	5843	7095
Arsenic	879	1067
Cadmium	235.8	286.4
Carbaryl	11.79	14.32
Chlordane	0.531	0.644
Chlorpyrifos	0.065	0.079
Chromium (trivalent)	20307	24659
Chromium (hexavalent)	92.57	112.4
Copper	163.1	198.1
Cyanide (free)	33.0	40.1
4,4'-DDT	0.7665	0.9308
Demeton	N/A	N/A
Diazinon	1.002	1.217
Dicofol [Kelthane]	349.6	424.6
Dieldrin	1.415	1.718
Diuron	1238	1504
Endosulfan I ( <i>alpha</i> )	0.200	0.243
Endosulfan II ( <i>beta</i> )	0.200	0.243
Endosulfan sulfate	0.200	0.243
Endrin	0.218	0.265
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.312	0.379
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.943	1.146
Lead	2074	2519
Malathion	N/A	N/A
Mercury	12.38	15.04
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	786	955
Nonylphenol	41.3	50.1
Parathion (ethyl)	0.383	0.465
Pentachlorophenol	76.9	93.4
Phenanthrene	45.4	55.1
Polychlorinated Biphenyls [PCBs]	11.792	14.319
Selenium	117.9	143.2
Silver	27.73	33.67
Toxaphene	1.2382	1.5035
Tributyltin [TBT]	0.767	0.931
2,4,5 Trichlorophenol	801.9	973.7
Zinc	942	1144

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

**Calculated Water Quality-Based Effluent Limitations  
Outfall 001**

**Example 1**

Calculation for mass-based daily average total copper effluent limitations.

Daily Avg. = 24.5 µg/L (from Outfall 001 aquatic life table above)

The permitted daily average flow at Outfall 001= 2.4 MGD (2,400,000 gallons per day)

$$\text{Loading } \left(\frac{\text{lbs}}{\text{day}}\right) = \text{Daily Avg. Flow } \left(\frac{\text{gal}}{\text{day}}\right) \times \text{Conc. } \left(\frac{\mu\text{g}}{\text{L}}\right) \times \frac{1 \text{ gram}}{1000 \mu\text{g}} \times \frac{8.345 \text{ lbs}}{1 \text{ gal}} \times \frac{1 \text{ gram}}{1000 \text{ mg}} \times \frac{1 \text{ ml}}{1 \text{ gram}} \times \frac{1 \text{ L}}{1000 \text{ ml}}$$

$$\text{Loading } \left(\frac{\text{lbs}}{\text{day}}\right) = 2,400,000 \left(\frac{\text{gal}}{\text{day}}\right) \times 24.5 \left(\frac{\mu\text{g}}{\text{L}}\right) \times \frac{1 \text{ gram}}{1000 \mu\text{g}} \times \frac{8.345 \text{ lbs}}{1 \text{ gal}} \times \frac{1 \text{ gram}}{1000 \text{ mg}} \times \frac{1 \text{ ml}}{1 \text{ gram}} \times \frac{1 \text{ L}}{1000 \text{ ml}}$$

$$\text{Loading } \left(\frac{\text{lbs}}{\text{day}}\right) = \frac{490,686,000 \text{ lbs}}{1,000,000,000 \text{ day}}$$

$$\text{Loading } \left(\frac{\text{lbs}}{\text{day}}\right) = \mathbf{0.491} \left(\frac{\text{lbs}}{\text{day}}\right)$$

**Example 2**

Single grab sample limitations are calculated using the following formula:

$$\text{Single Grab (mg/L)} = \text{Daily Average (mg/L)} \times 3$$

Example calculation single grab total copper at Outfall 001:

Calculated aquatic life daily average effluent limitations from table above:

Daily Average = 24.5 µg/L

1000 µg/L = 1 mg/L; therefore, Daily Max. = 0.025 mg/L

$$\begin{aligned} \text{Single Grab} &= \text{Daily Average (mg/L)} \times 3 \\ &= 0.025 \times 3 \\ &= \mathbf{0.0735 \text{ mg/L} \sim 0.07 \text{ mg/L}} \end{aligned}$$

Parameter	Daily Avg. (mg/L)	Daily Max. (mg/L)	Daily Avg. (lbs/day)	Daily Max (lbs/day)	Single Grab (mg/L)
Total Copper	0.025	0.052	0.491	1.04	0.07
Total Lead	0.047	0.099	0.933	1.98	0.14
Total Nickel	0.049	0.104	0.985	2.08	0.15
Total Zinc	0.200	0.425	4.00	8.51	0.60

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 (Technology-Based), calculated/assessed water quality-based effluent limitations (Water Quality-Based), and effluent limitations in the existing permit (Existing Permit).

Outfall	Parameter	Technology-Based				Existing Permit				Water Quality-Based			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
001	TSS	N/A	2,330 <sup>1</sup>	N/A	5,289 <sup>1</sup>	N/A	448	N/A	<b>1,500</b>	N/A	N/A	N/A	N/A
	Total Copper	N/A	24.5	N/A	72.7	<b>0.024</b>	<b>0.38</b>	<b>0.051</b>	<b>0.80</b>	0.025 <sup>2</sup>	0.491 <sup>2</sup>	0.052 <sup>2</sup>	1.04 <sup>2</sup>
	Total Lead	N/A	16.2	N/A	52.4	<b>0.047</b>	<b>0.737</b>	<b>0.099</b>	<b>1.553</b>	0.047 <sup>2</sup>	0.933 <sup>2</sup>	0.099 <sup>2</sup>	1.98 <sup>2</sup>
	Total Nickel	N/A	28.7	N/A	81.5	<b>0.048</b>	<b>0.753</b>	<b>0.103</b>	<b>1.616</b>	0.049 <sup>2</sup>	0.985 <sup>2</sup>	0.104 <sup>2</sup>	2.08 <sup>2</sup>
	Total Zinc	N/A	N/A	N/A	N/A	0.205	<b>3.216</b>	<b>0.434</b>	<b>6.809</b>	<b>0.200</b>	4.00 <sup>2</sup>	0.425 <sup>2</sup>	8.51 <sup>2</sup>
	Total Residual Chlorine	N/A	27.1	N/A	44.9	N/A	<b>10.2</b>	N/A	<b>16.8</b>	N/A	N/A	N/A	N/A
	Temperature	N/A	N/A	N/A	N/A	N/A	N/A	<b>105 °F</b>	N/A	N/A	N/A	N/A	N/A
	TDS	N/A	N/A	N/A	N/A	N/A	N/A	<b>55,000</b>	N/A	N/A	N/A	N/A	N/A
	TOC	N/A	N/A	N/A	N/A	N/A	N/A	<b>50</b>	N/A	N/A	N/A	N/A	N/A
	pH	6.0 SU, min.		9.0 SU, max.		<b>6.0 SU, min.</b>		<b>9.0 SU, max.</b>		N/A	N/A	N/A	N/A
201	BOD <sub>5</sub>	N/A	N/A	N/A	N/A	N/A	N/A	<b>65</b>	N/A	N/A	N/A	N/A	N/A
	Total Residual Chlorine	N/A	N/A	N/A	N/A	N/A	N/A	<b>1.0 mg/L, min.</b>	N/A	N/A	N/A	N/A	N/A
	Enterococci	<b>35 cfu or MPN/100 mL</b>		<b>104 cfu or MPN/100 mL</b>		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
002	Oil and Grease	N/A	N/A	N/A	N/A	N/A	N/A	<b>15</b>	N/A	N/A	N/A	N/A	N/A
	TOC	N/A	N/A	N/A	N/A	N/A	N/A	<b>75</b>	N/A	N/A	N/A	N/A	N/A
	TSS	N/A	<b>N/A <sup>3</sup></b>	N/A	<b>N/A <sup>3</sup></b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Copper	N/A	<b>N/A <sup>3</sup></b>	N/A	<b>N/A <sup>3</sup></b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Lead	N/A	<b>N/A <sup>3</sup></b>	N/A	<b>N/A <sup>3</sup></b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Nickel	N/A	<b>N/A <sup>3</sup></b>	N/A	<b>N/A <sup>3</sup></b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Zinc	N/A	N/A	N/A	N/A	<b>Report</b>	N/A	<b>Report</b>	N/A	<b>1.0</b>	N/A	<b>6.0</b>	N/A
	Total Residual Chlorine	N/A	N/A	<b>0.1</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	pH	Report min. SU <sup>3</sup>		Report max. SU <sup>3</sup>		<b>6.0 SU, minimum</b>		<b>9.5 SU, maximum</b>		6.0, minimum		9.5 SU, maximum	

<sup>1</sup> The permittee requested a daily average of 600 lb/day TSS only, which is more stringent than the calculated TSS limit.

<sup>2</sup> Less stringent effluent limitations were included in the draft permit based on the amendment request.

<sup>3</sup> Best management practices apply to *de minimis* process wastewater discharges through Outfall 002, as provided by 40 CFR §122.44(k), to reasonably assure compliance with the effluent limitations' guidelines in 40 CFR Part 415, Subpart F. See Other Requirement No. 8 in the draft permit.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

**Appendix D**  
**Effluent Limitations and Monitoring Requirements - Outfall 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 process wastewater, utility wastewaters <sup>1</sup>, stormwater, and previously monitored effluent (treated domestic wastewater via Outfall 201) subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 2.40 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	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD		Report, MGD		N/A	Continuous	Record
Total Suspended Solids	600	N/A	1,500	N/A	90	1/week	Composite
Copper, Total	0.491	0.025	1.04	0.052	0.07	1/week	Composite
Lead, Total	0.933	0.047	1.98	0.099	0.14	1/week	Composite
Nickel, Total	0.985	0.049	2.08	0.104	0.15	1/week	Composite
Zinc, Total	4.0	0.200	8.51	0.425	0.60	1/week	Composite
Total Residual Chlorine	10.2	N/A	16.8	N/A	0.94	1/2-weeks	Grab
Temperature (°F)	N/A	N/A	N/A	(105) <sup>2</sup>	N/A	Continuous	Record
Total Dissolved Solids	N/A	N/A	N/A	55,000	55,000	1/2-weeks	Grab
Total Organic Carbon	N/A	N/A	N/A	50	50	1/2-weeks	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/day 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 Parshall flume following the final treatment unit.

<sup>1</sup> See Other Requirement No. 9

<sup>2</sup> See Other Requirements Nos. 3, 7, and 12.

FACT SHEET AND EXECUTIVE DIRECTOR’S PRELIMINARY DECISION

**Effluent Limitations and Monitoring Requirements - Outfall 201**

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 domestic wastewater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.015 MGD. The daily maximum flow shall not exceed 0.030 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Daily Maximum Sample Type
Flow	0.015 MGD	0.030 MGD	N/A	1/day	Estimate
Biochemical Oxygen Demand (5-day)	N/A	65	65	1/week	Grab
Total Residual Chlorine	N/A	1.0, minimum	1.0, minimum	1/day	Grab
Enterococci, cfu/MPN per 100 mL	35	104	N/A	1/week	Grab

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 after chlorination of the domestic wastewater and prior to mixing with any other waste streams.

## Effluent Limitations and Monitoring Requirements - Outfall 002

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 stormwater commingled with *de minimis* quantities of process wastewater <sup>1</sup> and utility wastewaters <sup>2</sup> 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
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency Sample Type
Flow (MGD)	(Report)		(Report)		N/A	1/day <sup>3</sup> Estimate
Oil and Grease	N/A	N/A	N/A	15	15	1/week <sup>3</sup> Grab
Total Organic Carbon	N/A	N/A	N/A	75	75	1/week <sup>3</sup> Grab
Zinc, Total	N/A	Report	N/A	Report	6.0	1/week <sup>3</sup> Grab
Total Residual Chlorine	Report	N/A	Report	0.1	0.1	1/2-weeks <sup>4</sup> Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.5 standard units and shall be monitored 1/week, when discharging 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 vehicle bridge north of the rail yard before the Outfall 002 discharge combines with the discharges via Outfall 001.

<sup>1</sup> Best management practices for controlling total suspended solids, total copper, total lead, total nickel, and pH apply to process wastewater. See Other Requirement Nos. 8 and 11.

<sup>2</sup> See Other Requirement No. 9.

<sup>3</sup> When discharging.

<sup>4</sup> When discharging process wastewater.

# Texas Commission on Environmental Quality

## INTEROFFICE MEMORANDUM

February 18, 2022

**COPY**

TO: Laurie Gharis, Chief Clerk

THRU: Michael Lindner, Team Leader Signed 02/19/22  
Industrial Permits Team, Wastewater Permitting Section (MC-148)

FROM: Michael Redda, Permit Writer Signed 02/18/22  
Industrial Permits Team, Wastewater Permitting Section (MC-148)

SUBJECT: **Oxy Vinyls, LP**  
**Draft TPDES Permit No. WQ0001539000, EPA ID No. TX0008150**  
**(CN600129126), (RN100217363)**

We request that Page 6 of the Fact Sheet and Executive Director's Preliminary Decision (Fact Sheet) which was filed with the Office of the Chief Clerk on October 12, 2021 be replaced with the attached revised Page 6 of the Fact Sheet.

Permittee has published the second notice and the public comment period ended on December 13, 2021. The change made does not affect the notice .

For questions or additional information, I can be reached by phone at (512) 239-4631, or e-mail at michael.redda@tceq.texas.gov

cc: Erwin Madrid, Applications Review & Processing Team

CHIEF CLERKS OFFICE

2022 FEB 12 AM 8:26

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

B. WATER QUALITY SUMMARY**Discharge Route**

The discharge route is via Outfalls 001 and 002 to Phillips Ditch, thence to Santa Ana Bayou, thence to Houston Ship Channel/San Jacinto River Tidal in Segment No. 1005 of the San Jacinto River Basin. The unclassified receiving water uses are minimal aquatic life use for the Phillips Ditch and high aquatic life use for the Santa Ana Bayou. The designated uses for Segment No. 1005 are non-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 Santa Ana Bayou and Segment No. 1005, which have 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 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. 1005 is currently listed on the State's inventory of impaired and threatened waters (the 2020 Clean Water Act Section 303(d) list). The listing is for dioxin in edible tissue and polychlorinated biphenyl (PCBs) in edible tissue in Houston Ship Channel Tidal / San Jacinto River Tidal -From Downstream I-10 to Morgans Point (AUs 1005\_01, 1005\_02, 1005\_03, and 1005\_04). Information submitted with the application indicates that trace amounts of chlorinated congeners of dioxins and furans are produced when hot, wet chlorine contacts organic materials of construction (e.g., fiberglass), which may then be present in wastewater condensed out of the chlorine cell gas stream via Outfall 001. However, the analytical data reported in the application for dioxin and PCBs at Outfall 001 does not exceed 70 percent of the calculated daily average water quality-based effluent limitation. The application states that, dioxin and PCBs are not believed to be present in the discharge via Outfall 002. Therefore, the proposed effluent discharge is not expected to add to the impairment for dioxin in edible tissue or PCBs in edible tissue.

# Texas Commission on Environmental Quality

## INTEROFFICE MEMORANDUM

June 21, 2022

TO: Laurie Gharis, Chief Clerk

THRU: Michael Lindner, Team Leader Signed 6/21/22  
Industrial Permits Team, Wastewater Permitting Section (MC-148)

FROM: Michael Redda, Permit Writer Signed 6/21/22  
Industrial Permits Team, Wastewater Permitting Section (MC-148)

SUBJECT: **Oxy Vinyls, LP**  
**Draft TPDES Permit No. WQ0001539000, EPA ID No. TX0008150**  
**(CN600129126), (RN100217363)**

We request that Page 45 of the Fact Sheet and Executive Director's Preliminary Decision (Fact Sheet) and Page 2b of the Draft Permit which was filed with the Office of the Chief Clerk on October 12, 2021 be replaced with the attached revised Page 45 of the Fact Sheet and Page 2b of the Draft Permit.

The change was made to remove an inadvertently included footnote, which was part of the existing permit and that is no longer applicable in the draft permit.

Permittee has published the second notice and the public comment period ended on December 13, 2021. The change made does not affect the notice.

For questions or additional information, I can be reached by phone at (512) 239-4631, or e-mail at michael.redda@tceq.texas.gov

cc: Erwin Madrid, Applications Review & Processing Team

CHIEF CLERKS OFFICE  
2022 JUN 22 AM 8:32  
TEXAS COMMISSION  
ON ENVIRONMENTAL  
QUALITY

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 002

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 stormwater commingled with *de minimis* quantities of process wastewater <sup>1</sup> and utility wastewaters <sup>2</sup> 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	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow (MGD)	(Report)		(Report)		N/A	1/day <sup>3</sup>	Estimate
Oil and Grease	N/A	N/A	N/A	15	15	1/week <sup>3</sup>	Grab
Total Organic Carbon	N/A	N/A	N/A	75	75	1/week <sup>3</sup>	Grab
Zinc, Total	N/A	Report	N/A	Report	6.0	1/week <sup>3</sup>	Grab
Total Residual Chlorine	Report	N/A	Report	0.1	0.1	1/2-weeks <sup>4</sup>	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.5 standard units and shall be monitored 1/week, when discharging 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 vehicle bridge north of the rail yard before the Outfall 002 discharge combines with the discharges via Outfall 001.

<sup>1</sup> Best management practices for controlling total suspended solids, total copper, total lead, total nickel, and pH apply to process wastewater. See Other Requirement Nos. 8 and 11.  
<sup>2</sup> See Other Requirement No. 9.  
<sup>3</sup> When discharging.  
<sup>4</sup> When discharging process wastewater.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

**Effluent Limitations and Monitoring Requirements - Outfall 002**

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 stormwater commingled with *de minimis* quantities of process wastewater <sup>1</sup> and utility wastewaters <sup>2</sup> 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	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow (MGD)	(Report)		(Report)		N/A	1/day <sup>3</sup>	Estimate
Oil and Grease	N/A	N/A	N/A	15	15	1/week <sup>3</sup>	Grab
Total Organic Carbon	N/A	N/A	N/A	75	75	1/week <sup>3</sup>	Grab
Zinc, Total	N/A	Report	N/A	Report	6.0	1/week <sup>3</sup>	Grab
Total Residual Chlorine	Report	N/A	Report	0.1	0.1	1/2-weeks <sup>4</sup>	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.5 standard units and shall be monitored 1/week, when discharging 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 vehicle bridge north of the rail yard before the Outfall 002 discharge combines with the discharges via Outfall 001.

<sup>1</sup> Best management practices for controlling total suspended solids, total copper, total lead, total nickel, and pH apply to process wastewater. See Other Requirement Nos. 8 and 11.  
<sup>2</sup> See Other Requirement No. 9.  
<sup>3</sup> When discharging.  
<sup>4</sup> When discharging process wastewater.



TPDES PERMIT NO. WQ0001539000  
[For TCEQ office use only -  
EPA I.D. No. TX0008150]

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 415

This major amendment supersedes and  
replaces TPDES Permit No.  
WQ0001539000, issued on January 10,  
2018.

Oxy Vinyls, LP

whose mailing address is

P.O. Box 500  
Deer Park, Texas 77536

is authorized to treat and discharge wastes from Oxy Vinyls Battleground Facility, a caustic (sodium hydroxide), chlorine, and hydrogen manufacturing plant (SIC 2812 and 2869)

located on the east side of State Park Road 1836 (Vista Road) approximately 1,000 feet northeast of its intersection with State Highway 134 (Independence Parkway) in the City of La Porte, Harris County, Texas 77571

via Outfalls 001 and 002 to Phillips Ditch, thence to Santa Ana Bayou, thence to Houston Ship Channel/San Jacinto River Tidal in Segment No. 1005 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 at midnight, three years from the date of permit issuance.

ISSUED DATE:

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For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall 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 process wastewater, utility wastewaters <sup>1</sup>, stormwater, and previously monitored effluent (treated domestic wastewater via Outfall 201) subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 2.40 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	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency Sample Type
Flow	Report, MGD		Report, MGD		N/A	Continuous Record
Total Suspended Solids	600	N/A	1,500	N/A	90	1/week Composite
Copper, Total	0.491	0.025	1.04	0.052	0.07	1/week Composite
Lead, Total	0.933	0.047	1.98	0.099	0.14	1/week Composite
Nickel, Total	0.985	0.049	2.08	0.104	0.15	1/week Composite
Zinc, Total	4.0	0.200	8.51	0.425	0.60	1/week Composite
Total Residual Chlorine	10.2	N/A	16.8	N/A	0.94	1/2-weeks Grab
Temperature (°F)	N/A	N/A	N/A	(105) <sup>2</sup>	N/A	Continuous Record
Total Dissolved Solids	N/A	N/A	N/A	55,000	55,000	1/2-weeks Grab
Total Organic Carbon	N/A	N/A	N/A	50	50	1/2-weeks Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/day 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 Parshall flume following the final treatment unit.

<sup>1</sup> See Other Requirement No. 9

<sup>2</sup> See Other Requirements Nos. 3, 7, and 12.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 201

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 domestic wastewater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.015 MGD. The daily maximum flow shall not exceed 0.030 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	0.015 MGD	0.030 MGD	N/A	1/day	Estimate
Biochemical Oxygen Demand (5-day)	N/A	65	65	1/week	Grab
Total Residual Chlorine	N/A	1.0, minimum	1.0, minimum	1/day	Grab
Enterococci, cfu/MPN per 100 mL	35	104	N/A	1/week	Grab

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 after chlorination of the domestic wastewater and prior to mixing with any other waste streams.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 002

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 stormwater commingled with *de minimis* quantities of process wastewater <sup>1</sup> and utility wastewaters <sup>2</sup> 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	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow (MGD)	(Report)		(Report)		N/A	1/day <sup>3</sup>	Estimate
Oil and Grease	N/A	N/A	N/A	15	15	1/week <sup>3</sup>	Grab
Total Organic Carbon	N/A	N/A	N/A	75	75	1/week <sup>3</sup>	Grab
Zinc, Total	N/A	Report	N/A	Report	6.0	1/week <sup>3</sup>	Grab
Total Residual Chlorine	Report	N/A	Report	0.1	0.1	1/2-weeks <sup>4</sup>	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.5 standard units and shall be monitored 1/week, when discharging 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 vehicle bridge north of the rail yard before the Outfall 002 discharge combines with the discharges via Outfall 001.

<sup>1</sup> Best management practices for controlling total suspended solids, total copper, total lead, total nickel, and pH apply to process wastewater. See Other Requirement Nos. 8 and 11.

<sup>2</sup> See Other Requirement No. 9.

<sup>3</sup> When discharging.

<sup>4</sup> When discharging process wastewater.

**DEFINITIONS AND STANDARD PERMIT CONDITIONS**

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

**1. Flow Measurements**

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

**2. Concentration Measurements**

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

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

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

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

### 3. Sample Type

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

## MONITORING AND REPORTING REQUIREMENTS

### 1. Self-Reporting

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

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

## 2. Test Procedures

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

## 3. Records of Results

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

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

## 4. Additional Monitoring by Permittee

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

## 5. Calibration of Instruments

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

## 6. Compliance Schedule Reports

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

## 7. Noncompliance Notification

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

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

## 9. Changes in Discharges of Toxic Substances

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

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

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

#### 10. Signatories to Reports

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

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

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

### PERMIT CONDITIONS

#### 1. General

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

#### 2. Compliance

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

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

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

### 3. Inspections and Entry

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

#### 4. Permit Amendment or Renewal

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

#### 5. Permit Transfer

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

## 6. Relationship to Hazardous Waste Activities

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

## 7. Relationship to Water Rights

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

## 8. Property Rights

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

## 9. Permit Enforceability

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

## 10. Relationship to Permit Application

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

## 11. Notice of Bankruptcy.

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

## **OPERATIONAL REQUIREMENTS**

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

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

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

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

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

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

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

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

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

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**OTHER REQUIREMENTS**

1. The Executive Director reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and determined that the action is consistent with the applicable CMP goals and policies.
2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 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**

- Copper (Total)
- Lead (Total)
- Nickel (Total)
- Zinc (Total)

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 below.

<b>Pollutant</b>	<b>MAL<sup>1</sup> (mg/L)</b>
Copper (Total)	0.019 <sup>2</sup>
Lead (Total)	0.018 <sup>2</sup>
Nickel (Total)	0.014 <sup>2</sup>
Zinc (Total)	0.005
Total Residual Chlorine	0.1

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

<sup>1</sup> Minimum analytical level.

<sup>2</sup> The MAL has been continued from the permit issued on January 10, 2018 since it is sensitive enough to demonstrate compliance with the lowest effluent limitations in the permit. The information submitted with the application also indicate that this MAL was originally approved by the agency (then the Texas Natural Resource Conservation Commission, TNRCC) in 1996.

specified in the permit for that pollutant, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero may not be used.

3. For continuous temperature measurements taken in accordance with page 2 of this permit, the reporting requirements in MONITORING AND REPORTING REQUIREMENT, Item 7 may be omitted if the continuously recorded temperature does not exceed the Daily Maximum temperature for more than 30 minutes for any single exceedance and not more than a total of 7 hours and 26 minutes in any calendar month.
4. For discharges via Outfall 001, there is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge. Only acute criteria apply to the discharge via Outfall 002.
5. 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.
6. This requirement is applicable to the treatment and disposal of domestic wastewater at Outfall 201 only.

This permit does not authorize on-site disposal of sewage sludge. The permittee shall ensure that all sewage sludge which is not a hazardous waste (as defined in 30 TAC Chapter 335) is handled, transported, and disposed of in compliance with the applicable provisions of 30 TAC Chapter 312. The permittee shall ensure that all sewage sludge which is a hazardous waste (as defined in 30 TAC Chapter 335) is handled, transported, and disposed of in compliance with the applicable provisions of 30 TAC Chapter 335. The permittee shall keep records of all sludges removed from the wastewater treatment plant site. Such records will include the following information:

- A. Volume (dry weight basis) of sludge disposed;
- B. Date of disposal;
- C. Identity and registration number of hauler;
- D. Location and registration or permit number of disposal site; and
- E. Method of final disposal.

The above records must be maintained on a monthly basis and be available at the plant site for inspection by authorized representatives of the TCEQ for at least five years.

7. The flow weighted average temperature (FWAT) must be computed and recorded on a daily basis. FWAT must be computed at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$FWAT = \frac{\sum (\text{INSTANTANEOUS FLOW} \times \text{INSTANTANEOUS TEMPERATURE})}{\sum (\text{INSTANTANEOUS FLOW})}$$

The *daily maximum temperature* must be established as the highest FWAT calculated during the calendar month.

8. The permittee shall continue implementing the developed stormwater pollution prevention plan (SWP3) that includes a set of best management practices (BMPs) to eliminate or lessen the

exposure of stormwater to industrial activities and pollutants. The plan shall include practices for eliminating or minimizing the discharge of process wastewater via Outfall 002.

The SWP3 must be maintained on site and be made readily available for review by authorized TCEQ personnel. The SWP3 must contain elements, or sections, to require implementation of the following activities:

- A. **Good Housekeeping Measures** Activities must be defined and implemented to ensure areas of the facility that either contribute or potentially contribute pollutants to stormwater discharges are maintained and operated in a clean and orderly manner. The frequency for conducting each of the good housekeeping measures must be defined in the SWP3.
- B. **Spill Prevention and Response Measures** Areas must be identified where spills would likely contribute pollutants to stormwater discharges. Procedures must be identified and implemented to minimize or prevent contamination of stormwater from spills. Spill cleanup techniques must be identified and the necessary materials and equipment for cleanup made available to facility personnel.

Facility personnel that work in the identified areas must be trained in spill prevention and response measures at a minimum frequency of once per year. A record of employee training shall be maintained on site, and be made readily available for inspection by authorized TCEQ personnel upon request.

The SWP3 may be modified at any time in order to implement either additional or more effective pollution control measures. A summary of revisions, including the dates of the revisions, shall be maintained on a quarterly basis, maintained as a part of the SWP3 document, and made readily available for inspection by authorized TCEQ personnel upon request.

Qualified personnel, who are familiar with the industrial activities performed at the facility, must conduct periodic inspections at least once a quarter to determine the effectiveness of the Good Housekeeping Measures, Spill Prevention and Response Measures, Best Management Practices, and the Employee Training Program. The inspections must be documented through the use of a checklist that is developed to include each of the controls and measures that are evaluated. When revisions or additions to the SWP3 are recommended as a result of inspections, a summary description of these proposed changes must be attached to the inspection checklist. The summary must identify time frames for implementation of any follow-up actions. The periodic inspection checklists must be made readily available for inspection and review by authorized TCEQ personnel upon request.

9. Utility wastewaters as authorized by the permit include, but are not limited to, cooling tower blowdown and cooling tower basin cleaning wastewater, boiler blowdown and boiler maintenance wastewaters, water softening wastewaters (e.g., wastewaters from demineralizers, reverse osmosis, and ion exchange), raw water treatment wastewaters (e.g., filter backwashes and clarifier underflow), deluge and fire water, hydrostatic test water, condensates (steam, cogeneration, and air conditioning), chilled water flushes, potable water, safety shower and eye wash flushes, sample cooler water, and laboratory test solutions from water and wastewater analyses. Sanitary wastewaters are not included.

#### 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. The permittee may discharge process wastewater and utility wastewaters via Outfall 002 resulting from large storm events only. This discharge may occur only when excess stormwater causes an overflow from the main north-south ditch at the main ditch flood control weir or when there is an overflow at the flood control stop log. The permittee shall maintain the high-level alarm for Outfall 002 in good working condition. The permittee shall cease discharges from the process area when the high-level alarm for Outfall 002 is triggered. The permittee shall prevent discharge from the process area for as long as practicable by retaining process wastewater within the process area. The permittee shall maintain a record of communications (notifications to cease or resume discharges) with the process areas to implement this provision.
12. With a letter dated December 31, 2018, the permittee submitted a plan to characterize the thermal plume in the receiving water that was subsequently approved by the TCEQ with a letter dated February 5, 2019.

The permittee is hereby placed on notice that the Executive Director of the TCEQ will be initiating changes to evaluation procedures and/or rulemaking that may affect thermal requirements for this facility.

**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 (*Americamysis bahia*) (Method 1007.0). A minimum of eight replicates with five organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.
  - 2) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*) (Method 1006.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

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

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 14%, 19%, 26%, 34%, and 45% effluent. The critical dilution, defined as 34% 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 inland silverside consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per year.
  - 2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing 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 until this permit is reissued.

- f. Should a mysid shrimp test fail (i.e., demonstrate significant toxicity), the testing frequency for that test species increases to monthly until three consecutive tests pass (i.e., do not demonstrate significant toxicity), at which time the testing frequency of once per quarter resumes. If three or more failures are demonstrated during the permit term for the mysid shrimp, a WET limit will be included in the subsequently reissued permit. Any two lethal failures in a three-month period will require the permittee to initiate a TRE (see Part 5. Toxicity Reduction Evaluation).

## 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 survival and growth tests, the statistical analyses used to determine the IC<sub>25</sub> in survival or growth shall be as described in the methods 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) Most point estimates are derived from a mathematical model that assumes a continuous dose-response relationship. For any test result that demonstrates a non-continuous (threshold) response, or a non-monotonic dose-response

relationship, the IC25 should be determined based on the method guidance manual referenced in Item 2.

- 4) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic dose-response relationship may be submitted, prior to the due date, for technical review of test validity and acceptability. The method guidance manual referenced in Item 2 will be used as the basis, along with best professional judgment, for making a determination of test validity and acceptability.

c. Dilution Water

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

d. Samples and Composites

- 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.
- 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

- 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

### 3. Reporting

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

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
  - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
  - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
  - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th, for biomonitoring conducted during the previous calendar quarter.
  - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
  - 1) For the mysid shrimp, Parameter T4P3E, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
  - 2) For the mysid shrimp, Parameter T6P3E, report the IC25 for survival.
  - 3) For the mysid shrimp, Parameter T5P3E, enter a "1" if the IC25 for growth is less than the critical dilution; otherwise, enter a "0."
  - 4) For the mysid shrimp, Parameter T7P3E, report the IC25 for growth.
  - 5) For the inland silverside, Parameter T4P6B, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
  - 6) For the inland silverside, Parameter T6P6B, report the IC25 for survival.
  - 7) For the inland silverside, Parameter T5P6B, enter a "1" if the IC25 for growth is less than the critical dilution; otherwise, enter a "0."
  - 8) For the inland silverside, Parameter T7P6B, report the IC25 for growth.

- d. Enter the following codes for inland silverside retests only:
- 1) For retest number 1, Parameter 22415, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
  - 2) For retest number 2, Parameter 22416, enter a "1" if the IC25 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. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

- 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 Collected      No. 1 FROM: \_\_\_\_\_ Date Time \_\_\_\_\_ TO: \_\_\_\_\_ Date Time \_\_\_\_\_  
 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%												
14%												
19%												
26%												
34%												
45%												

\* 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%	14%	19%	26%	34%	45%
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%	14%	19%	26%	34%	45%
F						
G						
H						
Mean Dry Weight (mg)						
CV%*						
PMSD						

1. Is the IC25 for growth less than the critical dilution (34%)? \_\_\_\_\_ YES \_\_\_\_\_ NO
2. Is the IC25 for survival less than the critical dilution (34%)? \_\_\_\_\_ YES \_\_\_\_\_ NO
3. Enter percent effluent corresponding to each IC25 below:  
 IC25 survival = \_\_\_\_\_ %  
 IC25 growth = \_\_\_\_\_ %

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%									
14%									
19%									
26%									
34%									
45%									

\* 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%							
14%							
19%							
26%							
34%							
45%							
PMSD							

1. Is the IC<sub>25</sub> for growth less than the critical dilution (34%)? \_\_\_\_\_ YES \_\_\_\_\_ NO
2. Is the IC<sub>25</sub> for survival less than the critical dilution (34%)? \_\_\_\_\_ YES \_\_\_\_\_ NO
3. Enter percent effluent corresponding to each IC<sub>25</sub> below:  
 IC<sub>25</sub> survival = \_\_\_\_\_ %  
 IC<sub>25</sub> growth = \_\_\_\_\_ %

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 (*Americamysis bahia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
  - 2) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

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

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

2. Required Toxicity Testing Conditions

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

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

### 3. Reporting

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

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

- 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



# Compliance History Report

Compliance History Report for CN600129126, RN100217363, Rating Year 2020 which includes Compliance History (CH) components from September 1, 2015, through August 31, 2020.

<b>Customer, Respondent, or Owner/Operator:</b>	CN600129126, Oxy Vinyls, LP	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 3.65
<b>Regulated Entity:</b>	RN100217363, BATTLEGROUND CHLOR-ALKALI PLANT	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 3.67
<b>Complexity Points:</b>	27	<b>Repeat Violator:</b> NO	
<b>CH Group:</b>	05 - Chemical Manufacturing		
<b>Location:</b>	BATTLEGROUND RD AND PARK RD 1836 LA PORTE TX HARRIS, TX, HARRIS COUNTY		
<b>TCEQ Region:</b>	REGION 12 - HOUSTON		

**ID Number(s):**

**AIR OPERATING PERMITS** ACCOUNT NUMBER HG0194W  
**PUBLIC WATER SYSTEM/SUPPLY** REGISTRATION 1011154  
**AIR NEW SOURCE PERMITS** PERMIT 9B  
**AIR NEW SOURCE PERMITS** PERMIT 4517B  
**AIR NEW SOURCE PERMITS** REGISTRATION 13284B  
**AIR NEW SOURCE PERMITS** ACCOUNT NUMBER HG0194W  
**AIR NEW SOURCE PERMITS** AFS NUM 4820100273  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX276M1  
**AIR NEW SOURCE PERMITS** REGISTRATION 79211  
**AIR NEW SOURCE PERMITS** REGISTRATION 91180  
**AIR NEW SOURCE PERMITS** REGISTRATION 108279  
**AIR NEW SOURCE PERMITS** REGISTRATION 154862  
**AIR NEW SOURCE PERMITS** REGISTRATION 153475  
**PETROLEUM STORAGE TANK REGISTRATION** REGISTRATION 53230  
**WASTEWATER** PERMIT WQ0001539000  
**AIR EMISSIONS INVENTORY** ACCOUNT NUMBER HG0194W  
**INDUSTRIAL AND HAZARDOUS WASTE** EPA ID TXD000327429  
**TAX RELIEF** ID NUMBER 20779  
**TAX RELIEF** ID NUMBER 16655  
**TAX RELIEF** ID NUMBER 20785

**AIR OPERATING PERMITS** PERMIT 1368  
**AIR NEW SOURCE PERMITS** REGISTRATION 10633A  
**AIR NEW SOURCE PERMITS** PERMIT 3283B  
**AIR NEW SOURCE PERMITS** REGISTRATION 14511B  
**AIR NEW SOURCE PERMITS** PERMIT 7647B  
**AIR NEW SOURCE PERMITS** REGISTRATION 76346  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX276  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX276M2  
**AIR NEW SOURCE PERMITS** REGISTRATION 84936  
**AIR NEW SOURCE PERMITS** REGISTRATION 98979  
**AIR NEW SOURCE PERMITS** REGISTRATION 140592  
**AIR NEW SOURCE PERMITS** REGISTRATION 165985  
**AIR NEW SOURCE PERMITS** REGISTRATION 161422  
**STORMWATER** PERMIT TXR05L890  
**WASTEWATER** EPA ID TX0008150  
**POLLUTION PREVENTION PLANNING** ID NUMBER P00484  
**INDUSTRIAL AND HAZARDOUS WASTE** SOLID WASTE REGISTRATION # (SWR) 30414  
**TAX RELIEF** ID NUMBER 20799  
**TAX RELIEF** ID NUMBER 20789  
**TAX RELIEF** ID NUMBER 20771

**Compliance History Period:** September 01, 2015 to August 31, 2020    **Rating Year:** 2020    **Rating Date:** 09/01/2020

**Date Compliance History Report Prepared:** August 07, 2021

**Agency Decision Requiring Compliance History:** Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

**Component Period Selected:** January 01, 2015 to December 31, 2019

**TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.**

**Name:** Michael Redda

**Phone:** (512) 239-4631

**Site and Owner/Operator History:**

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

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

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

- 1 Effective Date: 10/26/2017 ADMINORDER 2016-2142-IWD-E (1660 Order-Agreed Order With Denial)  
 Classification: Moderate  
 Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)(1)  
 30 TAC Chapter 305, SubChapter F 305.125(1)  
 Rqmt Prov: Effluent Limits PERMIT  
 Description: Failed to comply with permitted effluent limitations, as shown in the effluent violation table below.
- 2 Effective Date: 03/01/2019 ADMINORDER 2017-0313-AIR-E (1660 Order-Agreed Order With Denial)  
 Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(3)  
 30 TAC Chapter 116, SubChapter B 116.115(b)(2)(F)  
 30 TAC Chapter 116, SubChapter B 116.115(c)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 5C THSC Chapter 382 382.085(b)  
 Rqmt Prov: Special Condition 1 PERMIT  
 Special Terms and Conditions 14 OP  
 Description: Failure to comply with NOx hourly limit. (Category B14 violation)  
 Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(3)  
 30 TAC Chapter 117, SubChapter B 117.320(e)(1)  
 30 TAC Chapter 117, SubChapter B 117.340(c)(3)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 5C THSC Chapter 382 382.085(b)  
 Rqmt Prov: 21.A OP  
 Special Terms and Conditions 1A OP  
 Description: Failure to substitute emission compliance data when the NOx monitor is offline. (Category B3 violation)

**B. Criminal convictions:**

N/A

**C. Chronic excessive emissions events:**

N/A

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

Item 1	January 22, 2015	(1230886)
Item 2	February 18, 2015	(1242337)
Item 3	March 19, 2015	(1248666)
Item 4	May 27, 2015	(1262276)
Item 5	June 23, 2015	(1269445)
Item 6	August 20, 2015	(1283168)
Item 7	October 22, 2015	(1296510)
Item 8	November 30, 2015	(1301963)
Item 9	December 09, 2015	(1289080)
Item 10	December 28, 2015	(1308891)
Item 11	January 05, 2016	(1228570)
Item 12	January 22, 2016	(1300770)
Item 13	February 23, 2016	(1325067)
Item 14	March 23, 2016	(1331796)
Item 15	April 20, 2016	(1338959)
Item 16	May 24, 2016	(1345759)
Item 17	May 27, 2016	(1330989)
Item 18	July 22, 2016	(1359175)
Item 19	October 20, 2016	(1378476)
Item 20	November 18, 2016	(1384436)
Item 21	December 20, 2016	(1390573)
Item 22	January 18, 2017	(1397189)
Item 23	February 20, 2017	(1404072)
Item 24	April 05, 2017	(1390325)
Item 25	April 20, 2017	(1417676)



5C THSC Chapter 382 382.085(b)  
Special Terms & Conditions 3A & 3A(i) OP  
Description: Failure to prevent visible emissions. (Category C4)

**F. Environmental audits:**

Notice of Intent Date: 04/06/2016 (1328223)  
No DOV Associated

**G. Type of environmental management systems (EMSs):**

N/A

**H. Voluntary on-site compliance assessment dates:**

N/A

**I. Participation in a voluntary pollution reduction program:**

N/A

**J. Early compliance:**

N/A

**Sites Outside of Texas:**

N/A



# Compliance History Report

Compliance History Report for CN600129126, RN100217363, Rating Year 2021 which includes Compliance History (CH) components from September 1, 2016, through August 31, 2021.

<b>Customer, Respondent, or Owner/Operator:</b>	CN600129126, Oxy Vinyls, LP	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 3.33
<b>Regulated Entity:</b>	RN100217363, BATTLEGROUND CHLOR-ALKALI PLANT	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 2.74
<b>Complexity Points:</b>	27	<b>Repeat Violator:</b> NO	
<b>CH Group:</b>	05 - Chemical Manufacturing		
<b>Location:</b>	BATTLEGROUND RD AND PARK RD 1836 LA PORTE TX HARRIS, TX, HARRIS COUNTY		
<b>TCEQ Region:</b>	REGION 12 - HOUSTON		

**ID Number(s):**

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**AIR NEW SOURCE PERMITS** ACCOUNT NUMBER HG0194W  
**AIR NEW SOURCE PERMITS** AFS NUM 4820100273  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX276M1  
**AIR NEW SOURCE PERMITS** REGISTRATION 79211  
**AIR NEW SOURCE PERMITS** REGISTRATION 98979  
**AIR NEW SOURCE PERMITS** REGISTRATION 140592  
**PETROLEUM STORAGE TANK REGISTRATION** REGISTRATION 53230  
**WASTEWATER** PERMIT WQ0001539000  
**AIR EMISSIONS INVENTORY** ACCOUNT NUMBER HG0194W  
**INDUSTRIAL AND HAZARDOUS WASTE** EPA ID TXD000327429  
**TAX RELIEF** ID NUMBER 20779  
**TAX RELIEF** ID NUMBER 16655  
**TAX RELIEF** ID NUMBER 20785

**AIR OPERATING PERMITS** PERMIT 1368  
**AIR NEW SOURCE PERMITS** REGISTRATION 10633A  
**AIR NEW SOURCE PERMITS** PERMIT 3283B  
**AIR NEW SOURCE PERMITS** REGISTRATION 14511B  
**AIR NEW SOURCE PERMITS** PERMIT 7647B  
**AIR NEW SOURCE PERMITS** REGISTRATION 76346  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX276  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX276M2  
**AIR NEW SOURCE PERMITS** REGISTRATION 84936  
**AIR NEW SOURCE PERMITS** REGISTRATION 108279  
**AIR NEW SOURCE PERMITS** REGISTRATION 161422  
**STORMWATER** PERMIT TXR05FE60  
**WASTEWATER** EPA ID TX0008150  
**POLLUTION PREVENTION PLANNING** ID NUMBER P00484  
**INDUSTRIAL AND HAZARDOUS WASTE** SOLID WASTE REGISTRATION # (SWR) 30414  
**TAX RELIEF** ID NUMBER 20799  
**TAX RELIEF** ID NUMBER 20789  
**TAX RELIEF** ID NUMBER 20771

**Compliance History Period:** September 01, 2016 to August 31, 2021    **Rating Year:** 2021    **Rating Date:** 09/01/2021

**Date Compliance History Report Prepared:** June 21, 2022

**Agency Decision Requiring Compliance History:** Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

**Component Period Selected:** July 21, 2017 to June 21, 2022

**TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.**

**Name:** Madeline Woods

**Phone:** (512) 239-5267

**Site and Owner/Operator History:**

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

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

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

- 1    Effective Date: 10/26/2017    ADMINORDER 2016-2142-IWD-E (1660 Order-Agreed Order With Denial)  
      Classification: Moderate

Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)(1)  
30 TAC Chapter 305, SubChapter F 305.125(1)

Rqmt Prov: Effluent Limits PERMIT

Description: Failed to comply with permitted effluent limitations, as shown in the effluent violation table below.

2 Effective Date: 03/01/2019 ADMINORDER 2017-0313-AIR-E (1660 Order-Agreed Order With Denial)

Classification: Moderate

Citation: 30 TAC Chapter 101, SubChapter A 101.20(3)  
30 TAC Chapter 116, SubChapter B 116.115(b)(2)(F)  
30 TAC Chapter 116, SubChapter B 116.115(c)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)

Rqmt Prov: Special Condition 1 PERMIT  
Special Terms and Conditions 14 OP

Description: Failure to comply with NOx hourly limit. (Category B14 violation)

Classification: Moderate

Citation: 30 TAC Chapter 101, SubChapter A 101.20(3)  
30 TAC Chapter 117, SubChapter B 117.320(e)(1)  
30 TAC Chapter 117, SubChapter B 117.340(c)(3)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)

Rqmt Prov: 21.A OP  
Special Terms and Conditions 1A OP

Description: Failure to substitute emission compliance data when the NOx monitor is offline. (Category B3 violation)

#### **B. Criminal convictions:**

N/A

#### **C. Chronic excessive emissions events:**

N/A

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

Item 1	August 20, 2017	(1443567)
Item 2	September 14, 2017	(1450192)
Item 3	November 20, 2017	(1461492)
Item 4	November 21, 2017	(1456012)
Item 5	December 05, 2017	(1455375)
Item 6	December 20, 2017	(1467872)
Item 7	February 20, 2018	(1486803)
Item 8	March 14, 2018	(1490480)
Item 9	April 17, 2018	(1493717)
Item 10	May 18, 2018	(1500635)
Item 11	June 18, 2018	(1507752)
Item 12	July 05, 2018	(1514070)
Item 13	August 15, 2018	(1520132)
Item 14	September 11, 2018	(1505644)
Item 15	September 18, 2018	(1527296)
Item 16	October 16, 2018	(1533654)
Item 17	November 15, 2018	(1496794)
Item 18	December 14, 2018	(1545273)
Item 19	January 15, 2019	(1559794)
Item 20	February 13, 2019	(1559792)
Item 21	April 09, 2019	(1571870)
Item 22	April 15, 2019	(1555606)
Item 23	May 16, 2019	(1583348)
Item 24	July 11, 2019	(1593185)
Item 25	August 15, 2019	(1599529)
Item 26	September 11, 2019	(1606434)
Item 27	October 16, 2019	(1613280)

Item 28	November 12, 2019	(1619094)
Item 29	November 21, 2019	(1611105)
Item 30	December 06, 2019	(1605382)
Item 31	December 18, 2019	(1626446)
Item 32	February 13, 2020	(1640706)
Item 33	March 12, 2020	(1647226)
Item 34	April 16, 2020	(1653562)
Item 35	May 14, 2020	(1660149)
Item 36	June 11, 2020	(1666653)
Item 37	July 13, 2020	(1673610)
Item 38	August 17, 2020	(1680386)
Item 39	September 15, 2020	(1686954)
Item 40	October 13, 2020	(1672365)
Item 41	October 15, 2020	(1693301)
Item 42	November 17, 2020	(1712593)
Item 43	January 19, 2021	(1712595)
Item 44	February 18, 2021	(1725648)
Item 45	March 17, 2021	(1725649)
Item 46	April 16, 2021	(1725650)
Item 47	May 17, 2021	(1740127)
Item 48	June 14, 2021	(1740128)
Item 49	July 14, 2021	(1751750)
Item 50	August 18, 2021	(1757214)
Item 51	August 27, 2021	(1707284)
Item 52	September 15, 2021	(1766294)
Item 53	November 16, 2021	(1783667)
Item 54	December 16, 2021	(1790693)
Item 55	January 19, 2022	(1798487)
Item 56	February 15, 2022	(1806361)
Item 57	March 17, 2022	(1813428)
Item 58	April 20, 2022	(1819999)

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

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

1 Date: 09/30/2021 (1776817)  
 Self Report? YES Classification: Moderate  
 Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)  
 30 TAC Chapter 305, SubChapter F 305.125(1)  
 Description: Failure to meet the limit for one or more permit parameter

**F. Environmental audits:**

Notice of Intent Date: 08/25/2020 (1677567)  
 No DOV Associated

**G. Type of environmental management systems (EMSs):**

N/A

**H. Voluntary on-site compliance assessment dates:**

N/A

**I. Participation in a voluntary pollution reduction program:**

N/A

**J. Early compliance:**

N/A

**Sites Outside of Texas:**

N/A