Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Office of Chief Clerk **DATE:** April 20, 2023

From: Kathy Humphreys
Staff Attorney
Environmental Law Division

Subject: Backup Documents Filed for Consideration of Hearing Requests

Applicant:	Steel Dynamics Southwest, LLC
Proposed Permit No.	WQ0005283000
Program:	Water
Docket No.:	TCEQ Docket No. 2023-0442-IWD

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application:

- Fact sheet and ED's preliminary decision
- Draft permit
- Compliance history report

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005283000, U.S. Environmental Protection Agency (EPA) ID No. TX0139629, to discharge to water in the state

Issuing Office:	Texas Commission on Environmental Quality (TCEQ) P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	Steel Dynamics Southwest, LLC 8534 Highway 89 Sinton, Texas 78387
Prepared By:	Thomas E. Starr, P.E. Wastewater Permitting Section Water Quality Division (512) 239-4570
Date:	April 6, 2022
Permit Action:	Major amendment without renewal to remove the domestic sewage treatment facility (domestic sewage is routed to the City of Sinton main WWTF), to reduce daily average flow from 1.56 MGD to 1.2 MGD at Outfall 001, to incorporate a constructed wetland into the final effluent discharge pathway, to move Outfall 001 and add new Outfall 101, and to add a second paint and galvanizing line to the plant.

I. EXECUTIVE DIRECTOR RECOMMENDATION

The executive director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit retains the current expiration date of May 26, 2026.

II. APPLICANT ACTIVITY

The applicant currently operates the Sinton Mill, a steel manufacturer.

III. DISCHARGE LOCATION

As described in the application, the facility is located at 8534 Highway 89, northeast of the City of Sinton, in San Patricio County, Texas 78387. Discharge is via pipe to a constructed wetland (not a water in the state) to Outfall 001 to Ditch 3, thence Ditch 4; or when the constructed wetland is undergoing maintenance the discharge route is via pipe directly to Outfall 001 to Ditch 3, thence to Ditch 4; Outfall 002 to Ditch 1, thence to Ditch 4; and Outfalls 003 and 004 to Ditch 3, thence to Ditch 4, thence all outfalls to Chiltipin Creek; thence to Chiltipin Creek Tidal, thence to Aransas River Tidal in Segment No. 2003 of the San Antonio-Nueces Coastal Basin.

IV. RECEIVING STREAM USES

The unclassified receiving water uses are minimal aquatic life use for the Ditches (1, 3, and 4), limited aquatic life use for Chiltipin Creek, and high aquatic use for Chiltipin Creek Tidal. The designated uses for Segment No. 2003 are primary contact recreation and high aquatic life use.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period December 2021 through February 2022. 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	0.1537	0.68
101	Continuous	No discharge	No discharge
201	Intermittent	0.0061	0.045
002	Intermittent	1.657	2.26
003	Intermittent	2.78	3.06
004	Intermittent	3.42	3.42

B. Temperature

Outfall	Average of Daily Average, °F	Maximum of Daily Maximum, °F
001	74.07	85.4

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Carbonaceous Biochemical Oxygen Demand, 5-day ($CBOD_5$)	-	12.77	-	27.4
	Ammonia Nitrogen	-	0.1	-	0.4
	Dissolved Oxygen (DO), minimum	-	7.6[1]	-	10.4
	Total Suspended Solids (TSS)	57.3	-	254.1	-
	Oil and Grease	0.563	-	10.1	-
	Total Chromium	0.0149	-	0.31	-
	Total Lead	0.0007	-	0.006	-
	Naphthalene	N/A	-	0	-
	Total Nickel	0.016	-	0.09	-
	Tetrachloroethylene	N/A	-	0	-
	Total Zinc	0.1097	-	0.547	-

[1] Reported as daily average on DMR but existing permit requires a minimum of 3.0 mg/L.

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
101	$CBOD_5$	No discharge	No discharge
	TSS	No discharge	No discharge
	E.coli	No discharge	No discharge
	pH	No discharge	No discharge

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
201	TSS	21.67	-	75.84	-
	Oil and Grease	12.17	-	25.52	-
	Total Chromium	0.0717	-	0.157	-
	Total Copper	0.0064	-	0.0218	-
	Total Cyanide	0.00021	-	0.000814	-
	Total Iron	0.268	-	0.67	-
	Total Zinc	0.164	-	0.421	-
	pH	4.1 SU, minimum		12.5 SU	

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
002	TSS	N/A	6600
	Total Organic Carbon (TOC)	N/A	8.11
	Oil and Grease	N/A	0
	pH	7.1 SU, minimum	9 SU

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
003	TSS	N/A	484
	Total Organic Carbon (TOC)	N/A	16.6
	Oil and Grease	N/A	0
	pH	7.8 SU, minimum	8.7 SU

Outfall	Pollutant	Average of Daily Average,	Maximum of Daily Maximum,
		mg/L	mg/L
004	TSS	N/A	8660
	Total Organic Carbon (TOC)	N/A	8.36
	Oil and Grease	N/A	7.6
	pH	8 SU, minimum	8 SU

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

D. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	pH (SU)	12/2021		-	9.0	12.3
		1/2022		-		11.4
201	TSS (mg/L)	2/2022	7.92	57.04	9.92	75.84
	Oil and Grease (lbs/day)	12/2021	6.61	10.4	6.64	14
		1/2022		-		9.3
		2/2022		21.9		25.52
	pH, SU	12/2021	7.5	-	10.0	12.5
		1/2022		-		11.8
		2/2022		-		12.4
002	TSS (mg/L)	12/2021	N/A	N/A	100	6600
		1/2022				4380
		2/2022				2880
003	TSS (mg/L)	12/2021	N/A	N/A	100	484
004	TSS (mg/L)	12/2021	N/A	N/A	100	8660

The draft permit was not changed to address these effluent limit violations because this is the first three months of discharge for this new facility and assessment of violations will continue to be assessed throughout the term of the permit.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit and are shown in Appendix C.

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001 Initial	28.056982 N	97.452946 W
001 Final	28.052125 N	97.443123 W
002	28.052707 N	97.453851 W
003	28.052415 N	97.445490 W
004	28.054341 N	97.441343 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the application.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following amendments that the executive director recommends granting:

A. Remove the domestic sewage treatment facility formerly identified as internal Outfall 101 (domestic sewage is routed to the City of Sinton main WWTF). Other Requirement

Nos. 10, 12, and 13 from the existing permit were not carried forward in the draft permit.

B. Reduce daily average flow at Outfall 001 from 1.56 MGD to 1.2 MGD.

C. Incorporate a constructed wetland into the final effluent discharge pathway. The constructed wetlands is an environmental enhancement demonstration project and TCEQ has approved the design and site-specific soil liner submitted in the application for purposes of Other Requirement No. 7 (Pond Requirements).

D. Move Outfall 001 to the end of the constructed wetlands and add new internal Outfall 101.

E. Add a second paint and galvanizing line to the plant.

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

A. Standard permit provisions, Pages 3-13 were updated (May 2021 version).

B. The daily average limit for TSS and oil and grease for Outfall 001 from the existing permit were reduced from the existing permit, see Appendix A and Appendix C.

C. The Other Requirement Nos. 5 and 16 from the existing permit were not carried forward as the conditions had already been met.

D. Other Requirement No. 7 from the existing permit was carried forward to the draft permit to address cooling water intake structure requirements under CWA §316(b) and renumbered No. 6. 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.

E. The existing permit Other Requirements Nos. 1-4, 6-9, 11 and 14-15 were carried forward and renumbered Other Requirements Nos. 1-11.

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment without renewal to TPDES Permit No. WQ0005283000 to authorize (1) remove the domestic sewage treatment facility formerly permitted as internal Outfall 101 (domestic sewage is routed to the City of Sinton main WWTF), (2) reduce daily average flow at Outfall 001 from 1.56 MGD to 1.2 MGD, (3) incorporate a constructed wetland into the final effluent discharge pathway, (4) move Outfall 001 and add new internal Outfall 101, and (5) add a second paint and galvanizing line to the plant. The existing permit authorizes the discharge of treated process wastewater, utility wastewater, and previously monitored effluent (PME; treated domestic wastewater via Outfall 101 and coil coating process wastewater via Outfall 201) at a daily average flow not to exceed 1,560,000 gallons per day via Outfall 001, and industrial storm water on an intermittent and flow variable basis via Outfalls 002, 003, and 004.

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

B. WATER QUALITY SUMMARY

Discharge Routes

The discharge route is via pipe to a constructed wetland (not a water in the state) to Outfall 001 to Ditch 3, thence Ditch 4; or when the constructed wetland is undergoing maintenance the discharge route is via pipe directly to Outfall 001 to Ditch 3, thence to Ditch 4; Outfall 002 to Ditch 1, thence to Ditch 4; and Outfalls 003 and 004 to Ditch 3, thence to Ditch 4; thence all outfalls to Chiltipin Creek; thence to Chiltipin Creek Tidal, thence to Aransas River Tidal in Segment No. 2003 of the San Antonio-Nueces Coastal Basin. The unclassified receiving water uses are minimal aquatic life use for the Ditches (1, 3, and 4), limited aquatic life use for Chiltipin Creek, and high aquatic use for Chiltipin Creek Tidal. The designated uses for Segment No. 2003 are primary contact recreation and high aquatic life use. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

Antidegradation Review

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

Endangered Species Review

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the TPDES program (September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and the 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. 2003 is not currently listed on the state's inventory of impaired and threatened waters, the 2016 CWA §303(d) list.

Completed Total Maximum Daily Loads (TMDLs)
On May 25, 2016, the Texas Commission on Environmental Quality (TCEQ) adopted *Two Total Maximum Daily Loads for Indicator Bacteria in the Tidal Segments of the Mission and Aransas Rivers* (TMDL Project No. 76A) The U.S. EPA approved the TMDL on August 9, 2016. The TMDL report addresses elevated levels of bacteria in two classified segments with one assessment unit each (Mission River Tidal – 2001_01; Aransas River Tidal – 2003_01) in this watershed. This project takes a watershed approach, so several upstream classified and unclassified segments are also subject to this TMDL report (Mission River Above Tidal – 2002_01; Aransas River Above Tidal – 2004_01 and 2004_02; Aransas Creek – 2004A_01; and Poesta Creek – 2004B_01 and 2004B_02).

The bacteria waste load allocation (WLA) for wastewater treatment facilities (WWTFs) was established as the final permitted flow for each facility multiplied by the geometric mean criterion for bacteria multiplied by a conversion factor (to get to units per day) multiplied by 95% (to take into account the margin of safety). The allocated loads were calculated for *Escherichia coli (E. coli)* and Enterococci. The two indicators allow flexibility in establishing permit limits so the WWTFs are subject to the concentration limits for the chosen indicator bacteria in their permits. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the concentration limits provided.

There will no longer be any discharge of treated domestic wastewater via Outfall 101, thus no controls are being established in the draft permit to control bacteria loading.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Regulations in Title 40 of the Code of Federal Regulations (40 CFR) require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

The draft permit authorizes the discharge of previously monitored effluent (treated process wastewater and utility wastewater via Outfall 101 and coil coating process wastewater via internal Outfall 201) at a daily average flow not to exceed 1,200,000 gallons per day via Outfall 001 Initial and then Outfall 101 FInal; and industrial stormwater on an intermittent and flow-variable basis via Outfalls 002, 003, and 004.

The discharge of process wastewater via Outfall 001 Initial and then Outfall 101 Final from this facility is subject to federal effluent limitation guidelines at 40 CFR Parts 420 (Subparts F, G, I, J, and L) and 465 (Subparts A and B). A new source determination was performed, and the discharge of process wastewater is a new source as defined at 40 CFR §122.2. Therefore, new source performance standards (NSPS) are required for this discharge.

The discharge of industrial stormwater via Outfalls 002, 003, and 004 is not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on BPJ.

Direct cooling, indirect cooling, and rinsing will be the primary uses of water throughout the steel plant. Service water will be obtained primarily from the Mary Rhodes pipeline, with some water supplemented by onsite deep wells and routed to a 50-million-gallon (MG) Service Water Storage Pond. Non-contact cooling water (does not make direct contact with the steel being processed) systems will consist of Melt Shop Non-Contact, Compact Strip Production Non-Contact, Cold Mill Non-Contact, and General Plant Non-Contact. Non-contact cooling water system blowdown may be used as make-up water for the contact cooling systems. Contact water (comes in direct contact with the steel being processed) systems will consist of Compact Strip Production (Caster) Contact, Compact Strip Production (Rolling Mill) Contact, Laminar, and Cold Mill Contact (reverse osmosis). Make-up water for contact water systems will come from the Service Water Storage Pond and blowdown from other non-contact and contact systems. Reverse osmosis (RO) reject water, system blowdown, and sand filter backwash will be routed to the wastewater treatment system.

The blowdown from the contact and non-contact systems will go to the Equalization (EQ) Tank. The sand filter blowdown and various sumps around the mill will be sent to the Backwash Filter Tank. The oily wastewater from the cold mill will be sent to a holding tank then processed by the Dissolved Air Floatation (DAF) unit. RO reject water will go to the Slag Quench System. For the Slag Quench System, water will be sprayed over the top of hot slag then gravity fed to a Slag Quench Pond (0.33-acre surface area), which will recycle water to and from the Slag Quench Processing Area. This process will be continually repeated and result in no discharge. The Slag Quench Retention Pond will intermittently receive RO reject water, service water, and cooling tower blowdown.

For the EQ Tank, water treatment additives will be added to the EQ Tank, then the water will be routed to neutralization tanks where a caustic will be added to precipitate metals such as zinc, then a flocculant will be added as the neutralized water is routed to a clarifier. The treated (clean) effluent from the clarifier will be directed to final polishing sand filters prior to discharging via Outfall 001 Initial and then Outfall 101 Final. The backwash from the polishing sand filter may be routed back to the EQ Tank. The sludge collected from the clarifier will be sent to the filter presses to de-water the sludge, with the solids formed into dry cakes and transported off-site. The liquid from the filter press may be routed back to the EQ Tank. The skimmings from the thickener will be sent to the DAF unit. The floating oils will be skimmed off the DAF unit and sent to the Used Oil tank for transport off-site.

Domestic wastewater generated at the site will be routed to the Sinton Main Wastewater Treatment Facility, WQ0010055001. Stormwater from drainage area 1, which will include 319 acres of the facility site southeast of the Administrative Building, the western half of the Cold Mill, the southern half of the Hot Mill, roads, rail spurs, offices, the process gas distribution yard, and an undeveloped area, will be routed to Detention Pond 1 (13.4-acre surface area and 323 MG capacity). Stormwater from drainage area 2, which will include 207 acres of the facility site southwest of the Metal Scrap Storage Area, the eastern half of the Cold Mill, the northern half of the Hot Mill, the process gas distribution yard, the electrical substation, roads, rail spurs, offices, and undeveloped area, will be routed to Detention Pond 2 (12-acre surface area and 225 MG capacity).

Stormwater from drainage area 3, which will include 319 acres of the facility site south of the Slag Processing Area and east of the Metal Scrap Storage Area, the north half of the Railroad Marshalling Yard, the Metal Scrap Storage Area, the Slag Processing Area, roads, rail spurs, and an undeveloped area, will be routed to Detention Pond 3 (15-acre surface area and 460 MG capacity). The stormwater detention ponds will be designed using a 25-year storm event, to infrequently discharge.

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 at Outfalls 001, 002, 003, and 004 are continued from the existing permit. Technology-based limits for Outfall 201 were recalculated with the addition of a second unit.

See Appendix C for the technology-based effluent limitations proposed in the draft permit.

3. 316(B) COOLING WATER INTAKE STRUCTURES

a. SCREENING

The facility obtains water from the City of Corpus Christi, a public water system (PWS No. TX1780003), 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.

b. PERMIT ACTION

The Other Requirement No. 7 requires the permittee to notify the TCEQ of any changes in the method by which cooling water is obtained. Upon receipt of such notification, the TCEQ may reopen the permit to include additional terms and conditions as necessary.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (IPs) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic

bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls. A comparison of technology-based effluent limits and calculated water quality-based effluent limits can be found in Appendix C of this fact sheet.

2. AQUATIC LIFE CRITERIA

a. SCREENING

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

There is no mixing zone for this discharge from Outfall 001 directly to Chiltipin Creek, an intermittent stream with perennial pools; acute and chronic freshwater criteria apply at the end of pipe. The following critical effluent percentages are being used:

Acute Effluent % 100% Chronic Effluent % 100 %

General Screening Procedures
Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include segment-specific values from Segment No. 2004 for TSS, pH, hardness, and chloride according to the *IPs* even though the discharge is to Segment No. 2003. The segment values are 8.1 mg/L for TSS, 7.4 SU for pH, 240 mg/L for hardness (as calcium carbonate, $CaCO_3$), and 279 mg/L for chloride.

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

No analytical data was submitted at the time of application for screening against water quality-based effluent limitations because the facility was not in operation when the application was submitted. Data was submitted to the DMR since the application was submitted and it was evaluated

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The calculated total lead and maximum daily limit for total nickell limits are more stringent than the existing permit and have been changed. The three months of discharge data in the DMR reports reflect these new limits are being met.

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic freshwater biomonitoring requirements at Outfall 001 (Initial and Final).

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

At the time of initial review there was no WET testing history, and therefore zero failures, a determination of no RP was made. The first set of WET testing for December 2021 have now posted and there are still zero failures. WET limits are not required and both test species may be eligible for the testing frequency reduction after one year of quarterly testing. WET limits are not required and both test species may be eligible for the testing frequency reduction after one year of quarterly testing.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001(Initial and Final).

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:

CHRONIC FRESHWATER

i) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing shall be once per quarter

ii) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of testing shall be once per quarter

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) and *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition (EPA-821-R-02-013) or the latest revision. The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the state water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

This permit may be reopened to require effluent limits, additional testing, or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

If none of the first four consecutive quarterly tests demonstrates significant lethal or sublethal effects, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species. If one or more of the first four consecutive quarterly tests demonstrates significant sublethal effects, the permittee is required by the permit to continue quarterly testing for that species until four consecutive quarterly tests demonstrate no significant sublethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction for that species. If one or more of the first four

consecutive quarterly tests demonstrates significant lethal effects, the permittee is required by the permit to continue quarterly testing for that species until the permit is reissued.

c. DILUTION SERIES

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical dilution) is defined as 100% effluent.

The dilution series outlined above was calculated using a 0.75 factor applied to the critical dilution. The critical dilution is the estimated effluent dilution at the edge of the aquatic life mixing zone, which is discussed in Section X.D.2.a. of this fact sheet.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

a. SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring requirements for Outfall 001. This facility had not yet discharged when the application was submitted and the initial WET testing review. Therefore, there is not WET testing history to review but now the December 2021 WET testing has posted and there are zero failures. Minimum 24-hour acute freshwater 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 001 (Initial and Final) at a frequency of once per six months for the life of the permit.

The biomonitoring procedures stipulated as a condition of this permit are as follows:

i) Acute 24-hour static toxicity test using the water flea (*Ceriodaphnia dubia* or *Daphnia pulex*). 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 fathead minnow (*Pimephales promelas*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

Toxicity tests shall be performed in accordance with protocols described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition (EPA-821-R-02-012) or the latest revision.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

a. SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

The discharge point from Outfall 001 (Initial and Final) is to Chiltipin Creek, an intermittent stream with perennial pools. Human health screening using incidental fish only criteria (= 10 × fish only criteria) is applicable due to the perennial pools that support incidental fisheries. TCEQ uses the mass balance equation to estimate dilution in the intermittent stream with perennial pools during average flow conditions. The estimated dilution for human health protection is calculated using the permitted daily average flow of 1.2 MGD and the harmonic mean flow of 0.83 cfs for Chiltipin Creek. The following effluent percentage is being used:

Human Health Effluent %: 69.9%

b. PERMIT ACTION

No analytical data was submitted at the time of application for screening against water quality-based effluent limitations because the facility was not in operation when the application was submitted. Data was submitted to the DMR since the application was submitted and it was evaluated

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The existing limits are still protective.

6. DRINKING WATER SUPPLY PROTECTION

a. SCREENING

Segment No. 2003, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

b. PERMIT ACTION

None.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTION

a. SCREENING

Segment No. 2003, which receives the discharges from this facility, does not have criteria established for TDS, chloride, or sulfate in 30 TAC Chapter 307; therefore, no screening was performed for TDS, chloride, or sulfate in the effluent.

b. PERMIT ACTION

None.

8. PROTECTION OF pH STANDARDS

a. SCREENING

The existing permit includes pH limits of 6.0 – 9.0 standard units at Outfalls 001 - 004, which discharges into an unclassified water body (Ditches 1, 3, and 4 and Chiltipin Creek). 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.

b. PERMIT ACTION

The existing pH limits of 6.0 – 9.0 standard units are carried forward in the draft permit at Outfalls 001 - 004.

9. DISSOLVED OXYGEN PROTECTION

a. SCREENING

Only Outfall 001 is expected to represent a potentially significant source of oxygen-demanding constituents. An analysis of the discharge via Outfall 001 was conducted using a calibrated QUAL-TX model that was originally developed for the analysis of an upstream discharger. It is unclear whether the sampling/compliance point for the CBOD5, NH3-N, and minimum effluent DO effluent limits for Outfall 001 in the permit's proposed final phase will be at a location prior to entry into the constructed wetland or at the outlet from the constructed wetland, so to be conservative, the modeling analysis was performed using the outlet from the constructed wetland as the presumed point at which these effluent limits would apply. Because the outlet from the constructed wetland will be the same outfall structure used during the permit's interim (pre-construction of the wetland) phase (exiting into Ditch 3), the same modeling setup is applicable for both proposed permit phases. Either location for sampling/compliance for the final phase is acceptable from a dissolved oxygen modeling perspective, and this analysis takes no position on which site is more appropriate for sampling and compliance purposes.

b. PERMIT ACTION

Based on model results, the existing effluent set for Outfall 001 of 45 mg/L CBOD5, 3 mg/L NH3-N, and 3.0 mg/L DO is predicted to be adequate for both phases of the permit at a permitted flow of 1.20 MGD to ensure that dissolved oxygen levels will be maintained above the criteria established by the Standards Implementation Team for Ditch 3 (2.0 mg/L), Ditch 4 (2.0 mg/L), Chiltipin Creek (3.0 mg/L), Chiltipin Creek tidal (4.0 mg/L), and the Aransas River Tidal (4.0 mg/L).

10. THERMAL STANDARDS PROTECTION

a. SCREENING

Daily average temperature is defined as the flow-weighted average temperature (FWAT) and shall be computed and recorded on a daily basis. FWAT shall be computed at equal time intervals not greater than two hours.

b. PERMIT ACTION

Monitoring of temperature is required for Outfall 001 (Initial and Final). Other Requirement No. 6 from the exiting permit is carried forward to the draft permit as Other Requirement No. 5.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the chief clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the chief clerk instructs the applicant to place a copy of the application in a public place for reviewing and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The chief clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

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

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

After the public comment deadline, the executive director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The chief clerk then mails the executive director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the executive 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 Thomas E. Starr at (512) 239-4570.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0005283000 issued on May 26, 2021.

B. APPLICATION

TPDES wastewater permit application received on October 14, 2021.

C. 40 CFR CITATION(S)

40 CFR Parts 420 F, G, I, J, and L and 465 A and B (NSPS).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

Letter dated April 29, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for thermal evaluation procedures).

Letter dated May 12, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water,

TCEQ (Approval of TCEQ proposed development strategy for thermal evaluation procedures).

Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).

Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).

Letter dated December 28, 2015, from L'Oreal Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).

Letter dated December 28, 2015, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).

TCEQ Notification of Completion/Phase of Wastewater Treatment Facility dated May 26, 2021.

TCEQ Interoffice Memorandum dated January 12, 2022, from Jenna R. Lueg of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated January 13, 2022, from Josi Robertson 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 April 5, 2022, from James E. Michalk of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated February 22, 2022, from Michael B. Pfiel 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.

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 Freshwater Organisms, Fourth Edition (EPA-821-R-02-013).

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.

Appendix A
Calculated Technology-Based Effluent Limits

Steel Dynamics Southwest, LLC operates the Sinton Mill, an iron and steel manufacturing and coil coating facility. This facility is subject to 40 CFR Part 420 – Iron and Steel Manufacturing Point Source Category: Subpart F – Continuous Casting Subcategory, Subpart G – Hot Forming Subcategory, Subpart I – Acid Pickling Subcategory, Subpart J – Cold Forming Subcategory, and Subpart L – Hot Coating Subcategory. This facility is also subject to 40 CFR Part 465 – Coil Coating Point Source Category: Subpart A – Steel Basis Material Subcategory and Subpart B – Galvanized Basis Material Subcategory. This facility is subject to New Source Performance Standards (NSPS). The draft permit authorizes the discharge of treated process wastewater, utility wastewater, and previously monitored effluent (via Outfall 201) at a daily average flow not to exceed 1,200,000 gallons per day via Outfall 001 (Initial and Final); and industrial stormwater on an intermittent and flow variable basis via Outfalls 002, 003, and 004.

I. 40 CFR Part 420 – IRON AND STEEL CATEGORICAL ALLOCATIONS/LIMITATIONS

Operation	40 CFR Part 420 Citations	Process Description and Wastewater Routing	Production
Hot steel - converted to steel strips	Subpart F, Continuous Casting §420.64 - NSPS	Compact Strip Production (CSP) Contact Water (comes in direct contact with the steel being processed) System primarily provides water to sprays that cool rolls and steel as it emerges from the caster mold. The Compact Strip Production (Caster) Contact Water System is an open-loop system consisting of a cold well, sand filter, flume, scale sump, and cooling tower. After contact, the water is transported by a flume to a scale sump, then through a sand filter, cooling tower, and to a cold well. Water from the cold well is blown down to the Compact Strip Production (Rolling Mill) Contact Water System, and the Sand Filter Backwash Filter System (SFBFS) or the Wastewater Treatment System (WWTS) receives the backwash from the sand filters prior to discharge via Outfall 001.	9,500 tons/day
Rolling Mill - rolling steel strips into the desired thickness	Subpart G, Hot Forming §420.74(c) (1) - NSPS	Once the steel strips leave the caster and pass through the tunnel furnace, the Compact Strip Production (Rolling Mill) Contact Water System provides a high-pressure water spray to remove scale from the strip. Then the steel goes through the hot rolling process and water is used to cool and lubricate. The Compact Strip Production (Rolling Mill) Contact Water System is an open-loop system consisting of a flume, cold well, sand filters, scale sump, and cooling tower. Descaling water is routed through a sand filter and into a descale storage tank and, when overfilled, the filtered water is routed back to the cold well. The filtered water is transported by a flume to a scale sump, then through a cooling tower and back into the cold well. Blowdown from the cold well is routed to the Wastewater Treatment System. The backwash from the sand filters is routed to the Sand Filter Backwash Filter System or the Wastewater Treatment System prior to discharge via Outfall 001.	9,500 tons/day

Operation	40 CFR Part 420 Citations	Process Description and Wastewater Routing	Production
		The Laminar Contact Water System is used to cool the finished strip to specified temperatures exiting the hot rolling process before the strip is coiled. The Laminar Contact Water System is an open-loop system consisting of a cold well, side stream sand filters, flume, scale sump, and cooling tower. From the cold well, water is routed to the laminar cooling process, then routed by a flume to a scale sump, then to a cooling tower, and back into the cold well. Water is blown down to the Compact Strip Production (Rolling Mill) Contact Water System, and backwash from the side stream sand filters directed to the Sand Filter Backwash Filter System or Wastewater Treatment System prior to discharge via Outfall 001.	
Cold Mill – Pickle Line and Tandem Cold Mill (PLTCM)	Subpart I, Acid Pickling §420.94(b) (2) - NSPS	The Cold Mill Contact Water System is an open-loop system along with a reverse osmosis Unit and storage tank. The reverse osmosis (RO) Unit processes water from the Service Water Pond, routes to a storage tank and is distributed to the Cold Mill users. reverse osmosis reject and used water from the Cold Mill is routed to the Wastewater Treatment System. The Cold Mill Contact Water System provides water to the Pickle Line and Tandem Cold Mill, which receives hot rolled steel requiring further processing. The Pickle Line and Tandem Cold Mill uses hydrochloric (HCL) acid to remove scale oxides from the steel in the pickling tanks, which are covered by lids and equipped with an exhaust duct to remove fumes by use of a fume scrubber. The steel leaves the pickling tank to a rinse tank where the water removes residual HCL acid from the steel strips. Water from the flume scrubber is blown down as needed and sent to the acid tanks to reduce the concentration of acid. Waste acid from the pickling tanks is collected and transported off-site. Rinse water is blown down and routed to the Wastewater Treatment System. The Cold Mill Contact Water System provides makeup water for the rinse section and fume scrubber systems.	3,786 tons/day
Cold Rolling Mill	Subpart J, Cold Forming §420.104(a)(5) - NSPS	After the pickling process, the steel strip may be re-coiled and sent to other steel processes or continue on the Pickle Line and Tandem Cold Mill to be cold rolled. Cold rolling is performed by passing the strip between work rolls to reduce thickness. A water-based lubrication solution (emulsion) is sprayed on the rolls as the strip passes through each of the five roll stands. The emulsion water system blown down is routed to the Wastewater Treatment System.	2,682 tons/day
Continuous Galvanizing Line (CGL)	Subpart L, Hot Coating §420.124(a) - NSPS	Before being galvanized, the steel is passed through a warm alkaline solution to remove contaminant films and oils. The steel is scrubbed and rinsed in the water scrubber tank, which is blown down as needed and routed to the Wastewater Treatment System. The CGL includes an Inline Skin Pass Mill (iSPM), which functions similar to the Cold Rolling Mill but with one stand. The Continuous Galvanizing Line also includes an Off-Line Skin Pass Mill, which functions similar to the Inline Skin Pass Mill, except it is a stand-alone unit to fix defects in previously processed coils. The emulsion water system blown down is also routed to the Wastewater Treatment System.	2,557 tons/day

Subpart F - Continuous Casting Subcategory

The permittee reports a production output of 9,500 short tons/day. Mass loading limitations are calculated as follows:

Production (lbs/day) = 9,500 short tons/day × 2,000 lbs/short ton = 19,000,000 lbs/day

Allowable Loading = Effluent Limitation × (lbs/day of product ÷ 1,000 lbs)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 420.64			
	Maximum for any 1 day	Avg. of daily values for 30 consecutive days	Daily Max Limit	Daily Avg. Limit
	lbs per 1,000 lb of product		in lbs/day	
TSS	0.00730	0.00261	138.70	49.590
Oil & Grease	0.00313	0.00104	59.47	19.760
Lead	0.0000939	0.0000313	1.7841	0.5947
Zinc	0.000141	0.0000469	2.679	0.8911
pH, in SU	6.0 SU-9.0 SU			

Subpart G - Hot Forming Subcategory

The permittee reports a production output of 9,500 short tons/day. Mass loading limitations are calculated as follows:

Production (lbs/day) = 9,500 short tons/day × 2,000 lbs/short ton = 19,000,000 lbs/day

Allowable Loading = Effluent Limitation × (lbs/day of product ÷ 1,000 lbs)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 420.74(c)(1)			
	Maximum for any 1 day	Avg. of daily values for 30 consecutive days	Daily Max Limit	Daily Avg. Limit
	lbs per 1,000 lb of product		in lbs/day	
TSS	0.04350	0.01630	826.50	309.70
Oil & Grease	0.0109	------	207.10	------
pH, in SU	6.0 SU-9.0 SU			

Subpart I - Acid Pickling Subcategory

The permittee reports a production output of 3,786 short tons/day. Mass loading limitations are calculated as follows:

Production (lbs/day) = 3,786 short tons/day × 2,000 lbs/short ton = 7,572,000 lbs/day

Allowable Loading = Effluent Limitation × (lbs/day of product ÷ 1,000 lbs)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 420.94(b)(2)			
	Maximum for any 1 day	Avg. of daily values for 30 consecutive days	Daily Max Limit	Daily Avg. Limit
	lbs per 1,000 lb of product		in lbs/day	
TSS	0.01170	0.00501	88.5924	37.93572
Oil & Grease [1]	0.00501	0.00167	37.93572	12.64524
Lead	0.0000751	0.0000250	0.56866	0.18930
Zinc	0.000100	0.0000334	0.75720	0.25290
pH, in SU	6.0 SU-9.0 SU			

[1] The limitations for oil and grease shall be applicable when acid pickling wastewaters are treated with cold rolling wastewaters. This occurs in the Wastewater Treatment System, therefore the limitations for oil and grease apply.

Subpart J - Cold Forming Subcategory

The permittee reports a production output of 2,682 short tons/day. Mass loading limitations are calculated as follows:

Production (lbs/day) = 2,682 short tons/day × 2,000 lbs/short ton = 5,364,000 lbs/day

Allowable Loading = Effluent Limitation × (lbs/day of product ÷ 1,000 lbs)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 420.104(a)(5)			
	Maximum for any 1 day	Avg. of daily values for 30 consecutive days	Daily Max Limit	Daily Avg. Limit
	lbs per 1,000 lb of product		in lbs/day	
TSS	0.07260	0.03630	389.4264	194.7132
Oil & Grease	0.03020	0.01210	161.9928	64.9044
Chromium [1]	0.00121	0.000484	6.49044	2.5962
Lead	0.000545	0.000182	N/A [1]	N/A [1]
Nickel [1]	0.001090	0.000363	5.8468	1.94713
Zinc	0.000363	0.000121	N/A [1]	N/A [1]
Naphthalene	0.000121	------	0.64904	------
Tetrachloro-ethylene	0.000182	------	0.97625	------
pH, in SU	6.0 SU-9.0 SU			

[1] The limitations for chromium and nickel shall be applicable in lieu of those for lead and zinc when cold rolling wastewaters are treated with descaling or combination acid pickling wastewaters. Acid pickling wastewaters are commingled with cold forming wastewaters. Therefore, the limitations for chromium and nickel apply in lieu of those for lead and zinc.

Subpart L - Hot Coating Subcategory

The permittee reports a production output of 2,557 short tons/day. Mass loading limitations are calculated as follows:

Production (lbs/day) = 2,557 short tons/day × 2,000 lbs/short ton = 5,114,000 lbs/day

Allowable Loading = Effluent Limitation × (lbs/day of product ÷ 1,000 lbs)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 420.124(a)			
	Maximum for any 1 day	Avg. of daily values for 30 consecutive days	Daily Max Limit	Daily Avg. Limit
	lbs per 1,000 lb of product		in lbs/day	
TSS	0.04380	0.01880	223.993	96.143
Oil & Grease	0.01880	0.00626	96.143	32.013
Lead	0.000282	0.0000939	1.4421	0.48020
Zinc	0.000376	0.000125	1.9229	0.63925
Chromium (hexavalent) [1]	0.0000376	0.0000125	N/A [1]	N/A [1]
pH, in SU	6.0 SU-9.0 SU			

[1] The limitations for hexavalent chromium shall be applicable only to galvanizing operations which discharge wastewaters from the chromate rinse step. There is not a chromate rinse step included in the application. Therefore, the limitations for hexavalent chromium do not apply.

Total 40 CFR Part 420 Allocations/Limitations in lbs/day at Outfall 001

Subpart F + Subpart G + Subpart I + Subpart J + Subpart L = 40 CFR Part 465 technology-based effluent limit/allocation

Operations by Subpart	TSS		Oil and Grease		Total Lead		Total Zinc	
	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)
Subpart F	138.70	49.590	59.47	19.760	1.7841	0.5947	2.679	0.8911
Subpart G	826.50	309.70	207.10	-	-	-	-	-
Subpart I	88.5924	37.93572	37.93572	12.64524	0.56866	0.18930	0.75720	0.25290
Subpart J	389.4264	194.7132	161.9928	64.9044	-	-	-	-
Subpart L	223.993	96.143	96.143	32.013	1.4421	0.48020	1.9229	0.63925
Total	**1,667.21**	**688.08**	**562.64**	**129.32**	**3.7949**	**1.2642**	**5.3591**	**1.7833**

Operations by Subpart	Total Nickel		Naphthalene		Tetrachloroethylene	
	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)
Subpart F	-	-	-	-	-	-
Subpart G	-	-	-	-	-	-
Subpart I	-	-	-	-	-	-
Subpart J	5.8468	1.94713	0.64904	-	0.97625	-
Subpart L	-	-	-	-	-	-
Total	**5.8468**	**1.94713**	**0.64904**	-	**0.97625**	-

Operations by Subpart	Total Chromium		Hexavalent Chromium	
	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)
Subpart F	-	-	-	-
Subpart G	-	-	-	-
Subpart I	-	-	-	-
Subpart J	6.49044	2.5962	-	-
Subpart L	-	-	-	-
Total	**6.49044**	**2.5962**	-	-

II. BPJ ALLOCATIONS/LIMITATIONS

In addition to the allocations provided for the process wastewater pollutants regulated by the applicable categorical guidelines, allocations are calculated for those pollutants not regulated by an applicable guideline for utility wastewater via Outfall 001.

Based on the application, the following wastestreams and associated flows are noted. Utility wastewaters include Melt Shop Non-Contact water, Compact Strip Production Non-Contact water, Cold Mill Non-Contact water, Plant Air Compressors condensate, and Reverse Osmosis

Reject.

Outfall	Wastestream	Flow via 001, MGD	% of Total 001 Flow
001	Non-Contact water (Melt Shop, Compact Strip Production, Cold Mill)	0.0993 MGD	9.24%
	Plant Air Compressors condensate	0.0121 MGD	9.28%
	Reverse Osmosis Reject	0.1238 MGD	10.32%
	Utility Wastewaters Totals =	0.2352 MGD	28.84%

Concentration criteria for the utility wastewaters are based on BPJ and other applicable regulatory sources.

Parameter	Regulatory Source	DLY AVG mg/L	DLY MAX mg/L
Oil & Grease	40 CFR 423 (low volume waste sources)	15	20
TSS	40 CFR 423 (low volume waste sources)	30	100

Total BPJ Allocations/Limitations in lbs/day at Outfall 001

Utility Wastewater Mass Limit (lbs/day) = Criteria (mg/L) x Flow (MGD) x 8.345

Parameter	Daily Avg. (mg/L)	Daily Max. (mg/L)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)
Oil & Grease	15	20	29.44	39.25
TSS	30	100	58.88	196.3

III. Total 40 CFR Part 465 Allocations/Limitations in lbs/day (applied at internal Outfall 201)

Subpart A + Subpart B = 40 CFR Part 465 technology-based effluent limit/allocation

Pollutant or pollutant property	Subpart A		Subpart B		Total	
	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)
Chromium [1]	0.248832	0.10368	0.303264	0.123552	0.552096	0.227232
Copper [1]	-	-	1.01088	0.482976	N/A	N/A
Cyanide [1]	0.134784	0.05184	0.16848	0.067392	N/A	N/A
Zinc [1]	0.684288	0.279936	0.89856	0.33696	1.582848	0.616896
Iron [1]	0.891648	0.425088	1.01088	0.50544	N/A	N/A
Oil & Grease	6.7392	6.7392	7.97472	7.884864	14.71392	14.624064
TSS	10.05696	8.08704	11.90592	9.43488	21.96288	17.52192
pH, in SU	7.5 SU-10.0 SU		7.5 SU-10.0 SU		7.5 SU-10.0 SU [2]	

[1] Unless otherwise stated, the federal guidelines for metals refer to total.

[2] The more stringent pH range of 6.0 SU-9.0 SU is applied at external Outfall 001.

IV. OUTFALL 001 Initial - ALLOCATIONS/LIMITATIONS SUMMATIONS

40 CFR Part 420 + 40 CFR Part 465 + BPJ = Outfall 001 Initial technology-based effluent limits

Parameter	40 CFR Part 420		BPJ		40 CFR Part 465		Total	
	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)
TSS	1,667.21	688.08	196.3	58.88	21.963	17.522	1885	764
Oil & Grease	562.64	129.32	39.25	29.44	14.714	14.624	617	173
Lead [1]	3.7949	1.2642	-	-	-	-	3.80	1.26
Zinc [1]	5.3591	1.7833	-	-	1.5828	0.61690	6.94	2.40
Nickel [1]	5.8468	1.94713	-	-	-	-	5.85	1.95
Naphthalene	0.64904	-	-	-	-	-	0.649	-
Tetrachloro-ethylene	0.97625	-	-	-	-	-	0.976	-
Chromium [1]	6.49044	2.5962	-	-	0.55201	0.22723	7.042	2.823
Hexavalent Chromium	-	-	-	-	-	-	N/A	N/A
pH, in SU	7.5 SU-10.0 SU		7.5 SU-10.0 SU		7.5 SU-10.0 SU		7.5 SU-10.0 SU	

[1] Unless otherwise stated, the federal guidelines for metals refer to total.

V. OUTFALL 201 - 40 CFR Part 465 – COIL COATING CATEGORICAL ALLOCATIONS / LIMITATIONS

Operation	40 CFR Part 465 Citations	Process Description and Wastewater Routing	Production
Continuous Color Coating Line (CCL)	Subpart A, Steel Basis Material §465.13 - NSPS	Before coating, the strip is passed through a pre-clean system and a surface treatment system. Each system consists of a series of tanks with lift-off covers that the strip passes through in succession.	10.368 million ft² /day of area processed
	Subpart B, Galvanized Basis Material §465.23 - NSPS	The pre-clean system consists of the following: 1. Hot alkaline cleaning (180-200°F, a warm alkaline solution to remove contaminant films and oils). 2. Brush system and ambient water spray (the steel is scrubbed and rinsed in the water scrubber tank). 3. Hot water rinse (140°F, used to rinse of any residual alkaline solution). The surface treatment system consists of the following: 4. Hot alkaline cleaner (160-180°F, a warm alkaline solution to remove contaminant films and oils). 5. Brush system and ambient water spray (scrubbed and rinsed in a water scrubber tank). 6. Hot alkaline cleaner (160-180°F, a warm alkaline solution to remove contaminant films and oils). 7. Hot rinse (140°F, used to rinse of any residual alkaline solution).	11.232 million ft² / day of area processed

Operation	40 CFR Part 465 Citations	Process Description and Wastewater Routing	Production
		8. Hot rinse (140°F, used to rinse of any residual alkaline solution). 9. Rinse (120°F, used to rinse of any residual alkaline solution). 10. Conversion coating (170°F, uses a phosphate solution to provide a clean, grease-free surface to prepare the strip for coating). 11. Hot rinse (140°F, used to rinse of any residual alkaline solution). 12. Hot rinse (140°F, used to rinse of any residual alkaline solution). Each step is blown down as needed and routed to the Wastewater Treatment System. The Cold Mill Contact Water System provides makeup water.	

Production-based effluent allocations/limitations are calculated by multiplying the production value by the applicable guideline criteria for the respective product lines. The calculated allocations /limitations for the product lines are summed together to derive the allocations/limitations for the contributing sources subject to 40 CFR Part 465 categorical guidelines. "Area processed" means the area actually exposed to process solutions. Usually this includes both sides of the metal strip. The daily average loading limit in a permit is the arithmetic average of all daily discharge loading calculations during a period of one calendar month.

Subpart A - Steel Basis Material Subcategory

The permittee reports the area processed to be 10.368 million ft²/day. Mass loading limitations are calculated as follows:

Allowable Loading (lbs/day) = Effluent Limitation (lbs/million ft²) × Area Processed (million ft²/day)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 465.13			
	Maximum for any 1 day	Maximum for Monthly Average	Daily Max Limit	Daily Avg. Limit
	lbs per million ft² of area processed		in lbs/day	
Chromium	0.0240	0.010	0.2488	0.1037
Cyanide	0.0130	0.0050	0.1348	0.05184
Zinc	0.0660	0.0270	0.6843	0.2799
Iron	0.0860	0.0410	0.8916	0.4251
Oil & Grease	0.650	0.650	6.739	6.739
TSS	0.970	0.780	10.06	8.087
pH, in SU	7.5 SU-10.0 SU			

Subpart B - Galvanized Basis Material Subcategory

The permittee reports the area processed to be 11.232 million ft²/day. Mass loading limitations are calculated as follows:

Allowable Loading (lbs/day) = Effluent Limitation (lbs/million ft²) × Area Processed (million ft²/day)

Pollutant or pollutant property	NSPS Effluent Allocations/Limitations § 465.23			
	Maximum for any 1 day	Maximum for Monthly Average	Daily Max Limit	Daily Avg. Limit
	lbs per million ft² of area processed		in lbs/day	
Chromium	0.0270	0.0110	0.3033	0.1236
Copper	0.0900	0.0430	1.011	0.4830
Cyanide	0.0150	0.0060	0.1685	0.06739
Zinc	0.0800	0.0300	0.8986	0.3370
Iron	0.0900	0.0450	1.011	0.5054
Oil & Grease	0.7100	0.7020	7.975	7.885
TSS	1.060	0.8400	11.91	9.435
pH, in SU	7.5 SU-10.0 SU			

Total 40 CFR Part 465 Allocations/Limitations in lbs/day (applied at internal Outfall 201)

Subpart A + Subpart B = 40 CFR Part 465 technology-based effluent limit/allocation

Pollutant or pollutant property	Subpart A		Subpart B		Total	
	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)	Daily Max. (lbs/day)	Daily Avg. (lbs/day)
Chromium [1]	0.2488	0.1037	0.3033	0.1236	0.5521	0.2273
Copper [1]	-	-	1.011	0.4830	1.011	0.4830
Cyanide [1]	0.1348	0.05184	0.1685	0.06739	0.3033	0.1192
Zinc [1]	0.6843	0.2799	0.8986	0.3370	1.583	0.6169
Iron [1]	0.8916	0.4251	1.011	0.5054	1.903	0.9305
Oil & Grease	6.739	6.739	7.975	7.885	14.71	14.62
TSS	10.06	8.087	11.91	9.435	21.97	17.52
pH, in SU	7.5 SU-10.0 SU		7.5 SU-10.0 SU		7.5 SU-10.0 SU [2]	

[1] Unless otherwise stated, the federal guidelines for metals refer to total.

[2] The more stringent pH range of 6.0 SU-9.0 SU is applied at external Outfall 001.

VI. OUTFALLs 002, 003, and 004 WASTEWATER ALLOCATIONS/LIMITATIONS

The draft permit authorizes the discharge of industrial stormwater on an intermittent and flow variable basis via Outfalls 002 (Detention Pond 1), 003 (Detention Pond 2), and 004 (Detention Pond 3). The technology-based effluent limitations are based on BPJ and the Multi Sector General Permit (MSGP), TPDES General Permit No. TXR050000, Part V, Sector F and are continued from the existing permit.

Outfall	Parameter	Daily Average, mg/L	Daily Maximum, mg/L
002, 003, & 004	Flow (based on BPJ)	Report, MGD	Report, MGD
	TSS	N/A	100
	Oil & Grease	N/A	15
	pH, SU	6.0 minimum	9.0 maximum

In addition, allowable non-stormwaters, which are *de minimis* in nature, are included with utility wastewaters via Outfall 001 and with industrial stormwater via Outfalls 002, 003, and 004. The allowable non-stormwaters are based on the MSGP and include the following:

(a) discharges from emergency fire-fighting activities (includes fire prevention actions taken to control other dangerous high heat conditions such as smoldering and emergency cooling of equipment) and uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);

(b) potable water sources (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);

(c) lawn watering and similar irrigation drainage, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;

(d) water from the routine external washing of buildings, conducted without the use of detergents or other chemicals;

(e) water from the routine washing of pavement conducted without the use of detergents or other chemicals and where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed);

(f) uncontaminated air conditioner condensate, compressor condensate, and steam condensate, and condensate from the outside storage of refrigerated gases or liquids;

(g) water from foundation or footing drains where flows are not contaminated with pollutants (e.g., process materials, solvents, or other pollutants);

(h) uncontaminated water used for dust suppression;

(i) springs and other uncontaminated groundwater; and

(j) incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility but excluding intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

VII. CALCULATION OF SINGLE GRAB CONCENTRATIONS AT ALL OUTFALLS

Single grab concentration values have historically been included in wastewater discharge permits issued in the State of Texas for use during an inspection so that a grab sample can be collected in real time with an assumption that resulting concentration values that are at or below the permitted single grab concentration would be compliant with the permitted daily average and daily maximum effluent limitations.

The following calculation is used for composite effluent samples:

$$Single\ Grab\left(\frac{mg}{L}\right) = (2)\ X\ Daily\ Maximum\ \left(\frac{lbs}{day}\right) / [Flow\ (MGD)\ X\ 8.345\ (Converson\ factor)]$$

Example: TSS at Outfall 001 Initial

$$Single\ Grab \frac{mg}{L} = 2 \frac{\left(1{,}667 \frac{lbs}{day}\right)}{(1.56\ MGD\ X\ 8.345)} = 256 \frac{mg}{L}$$

The following calculation is used for single grab (non-composite) effluent samples:

$$Single\ Grab \left(\frac{mg}{L}\right) = Daily\ Maximum \left(\frac{lbs}{day}\right) / [Flow\ (MGD)\ X\ 8.345\ (Converson\ factor)]$$

Example: Oil and Grease at Outfall 001 Initial

$$Single\ Grab \frac{mg}{L} = \frac{\left(567 \frac{lbs}{day}\right)}{(1.56\ MGD\ X\ 8.345)} = 43.5 \frac{mg}{L}$$

Appendix B
Calculated Water Quality-Based Effluent Limits

TEXTOX MENU #7 - INTERMITTENT STREAM WITH PERENNIAL POOLS

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

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
Table 2, 2018 Texas Surface Water Quality Standards for Human Health, Incidental Fishery
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Steel Dynamics Southwest, LLC
TPDES Permit No.:	WQ0005283000
Outfall No.:	001 (initial and final)
Prepared by:	Thomas Starr
Date:	January 24, 2022

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Chiltipin Creek (uses Segment 2004 values)
Segment No.:	2004
TSS (mg/L):	8.1
pH (Standard Units):	7.4
Hardness (mg/L as $CaCO_3$):	240
Chloride (mg/L):	279
Effluent Flow for Aquatic Life (MGD):	1.2
Critical Low Flow [7Q2] (cfs):	0
% Effluent for Chronic Aquatic Life:	100
% Effluent for Acute Aquatic Life:	100
Effluent Flow for Human Health (MGD):	1.2
Harmonic Mean Flow (cfs):	0.8
% Effluent for Human Health:	69.887

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

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	103945.56	0.543		1.00	Assumed
Cadmium	6.60	-1.13	374465.60	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	473269.95	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	473269.95	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	222700.45	0.357		1.00	Assumed
Lead	6.45	-0.80	528703.26	0.189		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	148649.53	0.454		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	278138.07	0.307		1.00	Assumed
Zinc	6.10	-0.70	291112.25	0.298		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	FW Acute Criterion (µg/L)	FW Chronic Criterion (µg/L)	WLAa (µg/L)	WLAc (µg/L)	LTAa (µg/L)	LTAc (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Aldrin	3.0	N/A	3.0	N/A	1.72	N/A	2.53	5.35
Aluminum	991	N/A	991	N/A	568	N/A	835	1766
Arsenic	340	150	626	276	359	213	313	662
Cadmium	20.1	0.452	81.0	1.82	46.4	1.40	2.06	4.36
Carbaryl	2.0	N/A	2.0	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.4	0.004	1.38	0.0031	0.0045	0.0096
Chlorpyrifos	0.083	0.041	0.083	0.041	0.048	0.032	0.046	0.098
Chromium (+3)	1167	152	5641	734	3232	565	831	1757
Chromium (+6)	15.7	10.6	15.7	10.6	9.00	8.16	12.0	25.4
Copper	32.4	20.0	90.9	56.1	52.1	43.2	63.5	134.3
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.1	0.001	0.630	0.00077	0.0011	0.0024
Demeton	N/A	0.1	N/A	0.1	N/A	0.077	0.113	0.239
Diazinon	0.17	0.17	0.17	0.17	0.097	0.131	0.143	0.303
Dicofol	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.24	0.002	0.138	0.0015	0.0023	0.0048
Diuron	210	70	210	70	120	53.9	79.2	168
Endosulfan I (alpha)	0.22	0.056	0.22	0.056	0.126	0.043	0.063	0.134
Endosulfan II (beta)	0.22	0.056	0.22	0.056	0.126	0.043	0.063	0.134
Endosulfan sulfate	0.22	0.056	0.22	0.056	0.126	0.043	0.063	0.134
Endrin	0.086	0.002	0.086	0.002	0.049	0.0015	0.0023	0.0048
Guthion	N/A	0.01	N/A	0.01	N/A	0.0077	0.011	0.024
Heptachlor	0.52	0.004	0.52	0.004	0.298	0.0031	0.0045	0.0096
Hexachlorocyclohexane (Lindane)	1.126	0.08	1.126	0.08	0.645	0.062	0.091	0.192
Lead	165	6.43	872	34.0	500	26.2	38.5	81.4
Malathion	N/A	0.01	N/A	0.01	N/A	0.0077	0.011	0.024
Mercury	2.4	1.3	2.4	1.3	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.03	N/A	0.023	0.034	0.072
Mirex	N/A	0.001	N/A	0.001	N/A	0.00077	0.0011	0.0024
Nickel	982	109.1	2164	240	1240	185	272	576
Nonylphenol	28	6.6	28	6.6	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.065	0.013	0.037	0.010	0.015	0.031
Pentachlorophenol	13.0	10.0	13.0	10.0	7.5	7.7	11.0	23.2
Phenanthrene	30	30	30	30	17.2	23.1	25.3	53.5
Polychlorinated Biphenyls (PCBs)	2.0	0.014	2.0	0.014	1.15	0.011	0.016	0.034
Selenium	20	5	20	5	11.5	3.85	5.66	12.0
Silver	0.8	N/A	28.98	N/A	16.60	N/A	24.41	51.6
Toxaphene	0.78	0.0002	0.78	0.0002	0.447	0.00015	0.00023	0.00048
Tributyltin (TBT)	0.13	0.024	0.13	0.024	0.074	0.018	0.027	0.057
2,4,5 Trichlorophenol	136	64	136	64	77.9	49.3	72.4	153
Zinc	246	248	826	833	473	641	696	1472

HUMAN HEALTH (APPLIES FOR INCIDENTAL FRESHWATER FISH TISSUE)

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	Fish Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Acrylonitrile	1150	1646	1530	2250	4759
Aldrin	1.147E-04	1.64E-04	1.53E-04	2.24E-04	4.75E-04
Anthracene	13170	18845	17526	25763	54504
Antimony	10710	15325	14252	20950	44324
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	5810	8313	7731	11365	24045
Benzidine	1.07	1.53	1.42	2.09	4.4
Benzo(a)anthracene	0.25	0.358	0.333	0.49	1.03
Benzo(a)pyrene	0.025	0.036	0.033	0.049	0.103

Parameter	Fish Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Bis(chloromethyl)ether	2.745	3.93	3.65	5.4	11.4
Bis(2-chloroethyl)ether	428.3	613	570	838	1773
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phtha	75.5	108	100	148	312
Bromodichloromethane [Dichlorobromomethane]	2750	3935	3659	5379	11381
Bromoform [Tribromomethane]	10600	15167	14106	20735	43868
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	460	658	612	900	1904
Chlordane	0.025	0.036	0.033	0.049	0.103
Chlorobenzene	27370	39163	36422	53540	113272
Chlorodibromomethane [Dibromochloromethane]	1830	2619	2435	3580	7574
Chloroform [Trichloromethane]	76970	110135	102425	150565	318543
Chromium (hexavalent)	5020	7183	6680	9820	20775
Chrysene	25.2	36.1	33.5	49	104
Cresols [Methylphenols]	93010	133086	123770	181942	384925
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.02	0.029	0.027	0.039	0.083
4,4'-DDE	0.0013	0.0019	0.0017	0.0025	0.0054
4,4'-DDT	0.004	0.006	0.005	0.008	0.017
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	4730	6768	6294	9253	19575
1,2-Dibromoethane [Ethylene Dibromide]	42.4	61	56	83	175
m -Dichlorobenzene [1,3-Dichlorobenzene]	5950	8514	7918	11639	24624
o -Dichlorobenzene [1,2-Dichlorobenzene]	32990	47205	43900	64534	136530
p -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	22.4	32.1	29.8	44	93
1,2-Dichloroethane	3640	5208	4844	7120	15064
1,1-Dichloroethylene [1,1-Dichloroethene]	551140	788615	733412	1078116	2280912
Dichloromethane [Methylene Chloride]	133330	190779	177425	260814	551791
1,2-Dichloropropane	2590	3706	3447	5066	10719
1,3-Dichloropropene [1,3-Dichloropropylene]	1190	1703	1584	2328	4925
Dicofol [Kelthane]	3	4.3	3.99	5.9	12.4
Dieldrin	2.0E-04	2.86E-04	2.66E-04	3.91E-04	8.28E-04
2,4-Dimethylphenol	84360	120709	112259	165021	349127
Di-*n* -Butyl Phthalate	924	1322	1230	1807	3824
Dioxins/Furans [TCDD Equivalents]	7.97E-07	1.14E-06	1.06E-06	1.56E-06	3.30E-06
Endrin	0.2	0.286	0.266	0.391	0.83
Epichlorohydrin	20130	28804	26787	39377	83309
Ethylbenzene	18670	26715	24845	36521	77266
Ethylene Glycol	1.68E+08	2.40E+08	2.24E+08	3.29E+08	6.95E+08
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.001	0.0014	0.0013	0.0020	0.0041
Heptachlor Epoxide	0.0029	0.0041	0.0039	0.006	0.012
Hexachlorobenzene	0.0068	0.010	0.009	0.013	0.028
Hexachlorobutadiene	2.2	3.15	2.93	4.3	9.1
Hexachlorocyclohexane (*alpha*)	0.084	0.120	0.112	0.164	0.348
Hexachlorocyclohexane (*beta*)	2.6	3.72	3.46	5.1	10.8
Hexachlorocyclohexane (*gamma*) [Lindane]	3.41	4.9	4.5	6.7	14.1
Hexachlorocyclopentadiene	116	166	154	227	480
Hexachloroethane	23.3	33.3	31.0	46	96
Hexachlorophene	29	41.5	38.6	57	120
4,4'-Isopropylidenediphenol [Bisphenol A]	159820	228683	212675	312633	661421
Lead	38.3	289	269	396	837
Mercury	0.122	0.175	0.162	0.239	0.50

Parameter	Fish Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Methoxychlor	30	43	40	59	124
Methyl Ethyl Ketone	9.92E+06	1.42E+07	1.32E+07	1.94E+07	4.11E+07
Methyl *tert*-butyl ether (MTBE)	104820	149985	139486	205044	433801
Nickel	11400	35953	33436	49151	103986
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	18730	26800	24924	36639	77515
N-Nitrosodiethylamine	21	30.0	27.9	41.1	87
N-Nitroso-di-*n*-Butylamine	42	60	56	82	174
Pentachlorobenzene	3.55	5.1	4.7	6.9	14.7
Pentachlorophenol	2.9	4.15	3.86	5.7	12.0
Polychlorinated Biphenyls (PCBs)	6.40E-03	0.009	0.009	0.013	0.026
Pyridine	9470	13550	12602	18525	39192
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.4	3.43	3.19	4.7	9.9
1,1,2,2-Tetrachloroethane	263.5	377	351	515	1091
Tetrachloroethylene (Tetrachloroethylene)	2800	4006	3726	5477	11588
Thallium	2.3	3.29	3.06	4.5	9.5
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.11	0.157	0.146	0.215	0.46
2,4,5-TP (Silvex)	3690	5280	4910	7218	15271
1,1,1-Trichloroethane	7843540	11223165	10437543	15343188	32460759
1,1,2-Trichloroethane	1660	2375	2209	3247	6870
Trichloroethylene (Trichloroethene)	719	1029	957	1406	2976
2,4,5-Trichlorophenol	18670	26715	24845	36521	77266
TTHM (Sum of Total Trihalomethanes)	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	165	236	220	323	683

Aquatic Life Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Aldrin	1.77	2.15
Aluminum	584	710
Arsenic	219	266
Cadmium	1.44	1.75
Carbaryl	1.18	1.43
Chlordane	0.0032	0.0038
Chlorpyrifos	0.032	0.039
Chromium (+3)	581	706
Chromium (+6)	8.40	10.2
Copper	44.4	54.0
Cyanide (free)	8.48	10.3
4,4'-DDT	0.00079	0.00096
Demeton	0.079	0.096
Diazinon	0.100	0.122
Dicofol	15.7	19.0
Dieldrin	0.0016	0.0019
Diuron	55.5	67.3
Endosulfan (alpha)	0.044	0.054
Endosulfan (beta)	0.044	0.054
Endosulfan sulfate	0.044	0.054
Endrin	0.0016	0.0019
Guthion	0.0079	0.0096
Heptachlor	0.0032	0.0038
Hexachlorocyclohexane (Lindane)	0.063	0.077
Lead	26.9	32.7
Malathion	0.0079	0.0096
Mercury	1.03	1.25
Methoxychlor	0.024	0.029
Mirex	0.00079	0.00096
Nickel	190	231
Nonylphenol	5.23	6.35
Parathion (ethyl)	0.010	0.013
Pentachlorophenol	7.7	9.3
Phenanthrene	17.7	21.5
Polychlorinated Biphenyls (PCBs)	0.011	0.013
Selenium	3.96	4.81
Silver	17.09	20.75
Toxaphene	0.00016	0.00019
Tributyltin (TBT)	0.019	0.023
2,4,5 Trichlorophenol	50.7	61.6
Zinc	487	592

Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrylonitrile	1575	1912
Aldrin	1.57E-04	1.91E-04
Anthracene	18034	21898
Antimony	14665	17808
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	7956	9660
Benzidine	1.47	1.78
Benzo(a)anthracene	0.342	0.416
Benzo(a)pyrene	0.034	0.042

Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Bis(chloromethyl)ether	3.76	4.6
Bis(2-chloroethyl)ether	586	712
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phtha	103	126
Bromodichloromethane [Dichlorobromomethane]	3766	4573
Bromoform [Tribromomethane]	14515	17625
Cadmium	N/A	N/A
Carbon Tetrachloride	630	765
Chlordane	0.034	0.042
Chlorobenzene	37478	45509
Chlorodibromomethane [Dibromochloromethane]	2506	3043
Chloroform [Trichloromethane]	105396	127981
Chromium (hexavalent)	6874	8347
Chrysene	34.5	42
Cresols [Methylphenols]	127359	154651
Cyanide (free)	N/A	N/A
4,4'-DDD	0.027	0.033
4,4'-DDE	0.0018	0.0022
4,4'-DDT	0.005	0.007
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	6477	7865
1,2-Dibromoethane [Ethylene Dibromide]	58	70
m-Dichlorobenzene [1,3-Dichlorobenzene]	8147	9893
o-Dichlorobenzene [1,2-Dichlorobenzene]	45174	54854
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	30.7	37.2
1,2-Dichloroethane	4984	6052
1,1-Dichloroethylene [1,1-Dichloroethene]	754681	916398
Dichloromethane [Methylene Chloride]	182570	221692
1,2-Dichloropropane	3547	4306
1,3-Dichloropropene [1,3-Dichloropropylene]	1629	1979
Dicofol [Kelthane]	4.11	5.0
Dieldrin	2.74E-04	3.33E-04
2,4-Dimethylphenol	115515	140268
Di-*n*-Butyl Phthalate	1265	1536
Dioxins/Furans [TCDD Equivalents]	1.09E-06	1.33E-06
Endrin	0.274	0.333
Epichlorohydrin	27564	33471
Ethylbenzene	25565	31043
Ethylene Glycol	2.30E+08	2.79E+08
Fluoride	N/A	N/A
Heptachlor	0.0014	0.0017
Heptachlor Epoxide	0.0040	0.0048
Hexachlorobenzene	0.009	0.011
Hexachlorobutadiene	3.01	3.66
Hexachlorocyclohexane (*alpha*)	0.115	0.140
Hexachlorocyclohexane (*beta*)	3.56	4.3
Hexachlorocyclohexane (*gamma*) [Lindane]	4.7	5.7
Hexachlorocyclopentadiene	159	193
Hexachloroethane	31.9	38.7
Hexachlorophene	39.7	48
4,4'-Isopropylidenediphenol [Bisphenol A]	218843	265738
Lead	277	336
Mercury	0.167	0.203

Human Health *Parameter*	*70% of Daily Avg. (µg/L)*	*85% of Daily Avg. (µg/L)*
Methoxychlor	41.1	50
Methyl Ethyl Ketone	1.36E+07	1.65E+07
Methyl *tert* -butyl ether (MTBE)	143531	174288
Nickel	34406	41778
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	25647	31143
N-Nitrosodiethylamine	28.8	34.9
N-Nitroso-di-*n* -Butylamine	58	70
Pentachlorobenzene	4.9	5.9
Pentachlorophenol	3.97	4.8
Polychlorinated Biphenyls (PCBs)	0.009	0.011
Pyridine	12967	15746
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	3.29	3.99
1,1,2,2-Tetrachloroethane	361	438
Tetrachloroethylene (Tetrachloroethylene)	3834	4656
Thallium	3.15	3.82
Toluene	N/A	N/A
Toxaphene	0.151	0.183
2,4,5-TP (Silvex)	5053	6135
1,1,1-Trichloroethane	1.07E+07	1.30E+07
1,1,2-Trichloroethane	2273	2760
Trichloroethylene (Trichloroethene)	985	1196
2,4,5-Trichlorophenol	25565	31043
TTHM (Sum of Total Trihalomethanes)	N/A	N/A
Vinyl Chloride	226	274

Water quality-based mass equivalent limitations at Outfall 001 are calculated by using the following formula:

Mass limits = [(concentration limits ug/L)/1000] * [Flow MGD] * [8.345] = limits lbs/day

Aquatic Life [1] TEXTOX Flow is the proposed permitted flow = 1.2 MGD
Human Health [2] TEXTOX Flow is the proposed permitted flow = 1.2 MGD

The data from TEXTOX Menu #7 – Intermittent Stream with Perennial Pools is used below.

PARAMETER	Daily Average, µg/L	Daily Maximum, µg/L	Daily Average, lbs/day	Daily Maximum, lbs/day
Lead, total	38.5	81.4	0.386	0.815
Nickel, total	272	576	2.72	5.77
Tetrachloroethylene	N/A	11588	N/A	116
Zinc, total	696	1472	6.97	14.7

Appendix C
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). Effluent limitations appearing in bold are the most stringent of the three and are included in the draft permit.

Outfall	*Pollutant*	*Technology-Based*				*Water Quality-Based*				*Existing Permit*			
		Daily Avg		*Daily Max*		*Daily Avg*		*Daily Max*		*Daily Avg*		*Daily Max*	
		lbs/day	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*
001 initial	Flow, MGD	**1.20 MGD**		-		-		-		1.56 MGD		**3.0 MGD**	
	$CBOD_5$	-	-	-	-	-	45	-	-	-	**45**	-	**Report**
	NH_3-N	-	-	-	-	-	3	-	-	-	**3**	-	**Report**
	TSS	**764**	-	1,885	-	-	-	-	-	905	-	**1,677**	-
	Oil and Grease	173	-	617	-	-	-	-	-	**173**	-	**574**	-
	Temperature	-		-		-		-		**Report °F**		**Report °F**	
	Chromium, total	2.823	-	7.042	-	-	-	-	-	**2.69**	-	**6.73**	-
	Lead, total	1.26	-	3.8	-	**0.386**	-	**0.815**	-	0.501	-	1.05	-
	Naphthalene	-	-	0.649	-	-	-	-	-	-	-	**0.649**	-
	Nickel, total	1.94	-	5.84	-	2.72	-	**5.77**	-	**1.94**	-	5.84	-
	Tetrachloroethylene	-	-	0.976	-	-	-	116	-	-	-	**0.976**	-
	Zinc, total	2.40	-	6.942	-	6.97	-	14.7	-	**1.85**	-	**5.45**	-
	DO, minimum	-		-		3.0 mg/L		-		**3.0 mg/L**		-	
	pH, SU	6.0 SU, minimum		9.0 SU		6.5 SU, minimum		9.0 SU		**6.0 SU, minimum**		**9.0 SU**	

Outfall	*Pollutant*	*Technology-Based*				*Water Quality-Based*				*Existing Permit*			
		Daily Avg		*Daily Max*		*Daily Avg*		*Daily Max*		*Daily Avg*		*Daily Max*	
		lbs/day	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*
001 Final	Flow, MGD	**Report**		**Report**		-		-		1.56 MGD		3.0 MGD	
	$CBOD_5$	-	-	-	-	-	45	-	-	-	**45**	-	**Report**
	NH_3-N	-	-	-	-	-	3.0	-	-	-	**3.0**	-	**Report**
	Temperature	-		-		-		-		**Report °F**		**Report °F**	
	DO, minimum	-		-		3.0 mg/L		-		**3.0 mg/L**		-	
	pH, SU	-		-		-		-		6.0 SU, minimum		9.0 SU	

Outfall	*Pollutant*	*Technology-Based*		*Water Quality-Based*		*Existing Permit*	
		Daily Avg	*Daily Max*	*Daily Avg*	*Daily Max*	*Daily Avg*	*Daily Max*
		mg/L	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
101 initial	Flow, MGD	-	-	-	-	**0.0016 MGD**	**0.002 MGD**
	BOD_5	-	-	-	-	**20**	**45**
	TSS	-	-	-	-	**20**	**45**
	Chlorine residual	-	-	-	-	**1.0, minimum**	-
	pH, SU	6.0 SU, minimum	9.0 SU	-	-	**6.0 SU, minimum**	**9.0 SU**

Outfall	Pollutant	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L
101 final	Flow, MGD	**1.20 MGD**		**3.0 MGD**		-		-		-		-	
	TSS	**764**	-	**1,885**	-	-	-	-	-	-	-	-	-
	Oil and Grease	**173**	-	**617**	-	-	-	-	-	-	-	-	-
	Chromium, total	**2.823**	-	**7.042**	-	-	-	-	-	2.69	-	6.73	-
	Lead, total	1.26	-	3.8	-	**0.386**	-	**0.815**	-	0.501	-	1.05	-
	Naphthalene	-	-	0.649	-	-	-	-	-	-	-	**0.649**	-
	Nickel, total	1.94	-	5.84	-	2.72	-	**5.77**	-	**1.94**	-	5.84	-
	Tetrachloroethylene	-	-	0.976	-	-	-	116	-	-	-	**0.976**	-
	Zinc, total	**2.40**	-	**7.042**	-	6.97	-	14.7	-	1.85	-	5.45	-
	Temperature	**Report °F**		**Report °F**		-		-		-		-	
	pH, SU	**6.0 SU, minimum**		**9.0 SU**		6.5 SU, minimum		9.0 SU		-		-	

Outfall	Pollutant	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L
201	Flow, MGD	-		-		-		-		**Report, MGD**		**Report, MGD**	
	TSS	**17.52**	-	**21.97**	-	-	-	-	-	7.92	-	9.92	-
	Oil and Grease	**14.62**	-	**14.71**	-	-	-	-	-	6.61	-	6.64	-
	Chromium, total	**0.228**	-	**0.552**	-	-	-	-	-	0.102	-	0.249	-
	Copper, total	**0.483**	-	**1.011**	-	0.636	-	1.35	-	0.204	-	0.427	-
	Cyanide, total	**0.119**	-	1.011	-	0.121	-	**0.256**	-	0.0537	-	0.136	-
	Iron, total	**0.9305**	-	**1.903**	-	-	-	-	-	0.420	-	0.860	-
	Zinc, total	**0.6169**	-	**1.583**	-	6.97	-	14.74	-	0.278	-	0.712	-
	DO, minimum	-		-		3.0 mg/L		-		**3.0 mg/L**		-	
	pH, SU	7.5, minimum		10.0		-		-		**7.5, minimum**		**10.0**	

Outfall	*Pollutant*	*Technology-Based*		*Water Quality-Based*		*Existing Permit*	
		Daily Avg	*Daily Max*	*Daily Avg*	*Daily Max*	*Daily Avg*	*Daily Max*
		mg/L	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
002, 003, & 004	Flow, MGD	-	-	-	-	**Report, MGD**	**Report, MGD**
	TOC	-	75	-	-	**N/A**	**75**
	TSS	-	100	-	-	**N/A**	**100**
	Oil and Grease	-	15	-	-	**N/A**	**15**
	pH, SU	6.0 SU, minimum	9.0 SU	6.5 SU, minimum	9.0 SU	**6.0 SU, minimum**	**9.0 SU**

TPDES PERMIT NO.
WQ0005283000
[For TCEQ office use only -
EPA I.D. No. TX0139629]

This major amendment replaces TPDES Permit No. WQ0005283000, issued on May 26, 2021.

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 Parts 420 F, G, I, J, and L and 465 A and B

Steel Dynamics Southwest, LLC

whose mailing address is

8534 Highway 89
Sinton, Texas 78387

is authorized to treat and discharge wastes from Sinton Mill, Steel manufacturer (SIC 3312)

located 8534 Highway 89, northeast of the City of Sinton, in San Patricio County, Texas 78387

via pipe to a constructed wetland (not a water in the state) to Outfall 001 to Ditch 3, thence Ditch 4; or when the constructed wetland is undergoing maintenance the discharge route is via pipe directly to Outfall 001 to Ditch 3, thence to Ditch 4; Outfall 002 to Ditch 1, thence to Ditch 4; and Outfalls 003 and 004 to Ditch 3, thence to Ditch 4; thence all outfalls to Chiltipin Creek; thence to Chiltipin Creek Tidal, thence to Aransas River Tidalin Segment No. 2003 of the San Antonio-Nueces Coastal 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, retain the expiration date of the existing permit.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS — Outfall Number 001 Initial

1. During the period beginning upon the date of permit issuance and lasting through the date before completion of the constructed wetland, the permittee is authorized to discharge treated process wastewater [1], utility wastewater [1], and previously monitored effluent (PME; coil coating process wastewater via Outfall 201) subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 1.2 million gallons per day (MGD). The daily maximum flow shall not exceed 3.0 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	1.2 MGD		3.0 MGD		N/A	Continuous	Record
Carbonaceous Biochemical Oxygen Demand, 5-day ($CBOD_5$)	-	45	-	Report	180	2/week	Composite
Ammonia Nitrogen (NH_3-N)	-	3.0	-	Report	12.0	2/week	Composite
Dissolved Oxygen (DO), minimum	-	3.0	-	Report	3.0	2/week	Grab
Total Suspended Solids (TSS)	759	-	1,677	-	335	2/week	Composite
Oil and Grease	169	-	574	-	44.1	2/week	Grab
Chromium, total	2.69	-	6.73	-	1.34	1/week	Composite
Lead, total	0.386	-	0.815	-	0.163	1/week	Composite
Naphthalene	N/A	-	0.649	-	0.130	1/week	Composite
Nickel, total	1.94	-	5.77	-	1.15	1/week	Composite
Tetrachloroethylene	N/A	-	0.976	-	0.195	1/week	Composite
Zinc, total	1.85	-	5.45	-	1.09	1/week	Composite
Temperature (degrees Fahrenheit, °F)[2]	Report	-	Report	-	N/A	1/week	In-situ

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored continuously and recorded (see Other Requirement No. 9).

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following location: At Outfall 001 Initial, located near the wastewater treatment plant on the north side of the Automated Coil Storage Building and prior to discharging through the pipe to Ditch 4 and mixing with any other waters.

[1] See Other Requirement No. 4.
[2] See Other Requirement No. 6.

1. During the period beginning upon the initial discharge from the constructed wetland and lasting through the expiration date, the permittee is authorized to discharge treated process wastewater [1], utility wastewater [1], and previously monitored effluent (PME; coil coating process wastewater via Outfall 201) subject to the following effluent limitations:

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
Carbonaceous Biochemical Oxygen Demand, 5-day ($CBOD_5$)	-	45	-	Report	180	2/week	Composite
Ammonia Nitrogen (NH_3-N)	-	3.0	-	Report	12.0	2/week	Composite
Dissolved Oxygen (DO), minimum	-	3.0	-	Report	3.0	2/week	Grab
Temperature (degrees Fahrenheit, °F)[2]	N/A	-	Report	-	N/A	1/week	In-situ

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 001 Final, located at the weir box exit of the constructed wetlands.

[1] See Other Requirement No. 4.
[2] See Other Requirement No. 6.

1. During the period beginning upon the date of initial discharge from the constructed wetland and lasting through the expiration date, the permittee is authorized to discharge treated process wastewater [1] and utility wastewater [1] subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 1.2 million gallons per day (MGD). The daily maximum flow shall not exceed 3.0 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	1.2 MGD		3.0 MGD		N/A	Continuous	Record
Total Suspended Solids (TSS)	764	-	1,885	-	376	2/week	Composite
Oil and Grease	173	-	617	-	47.4	2/week	Grab
Chromium, total	2.823	-	7.042	-	1.41	1/week	Composite
Lead, total	0.386	-	0.815	-	0.163	1/week	Composite
Naphthalene	N/A	-	0.649	-	0.130	1/week	Composite
Nickel, total	1.94	-	5.77	-	1.15	1/week	Composite
Tetrachloroethylene	N/A	-	0.976	-	0.195	1/week	Composite
Zinc, total	2.40	-	7.04	-	1.41	1/week	Composite
Temperature (degrees Fahrenheit, °F)[2]	Report	-	Report	-	N/A	1/week	In-situ

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored continuously and recorded (see Other Requirement No. 9).

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following location: At Outfall 101, located near the wastewater treatment plant on the north side of the Automated Coil Storage Building and prior to discharging through the pipe to unnamed ditch 4 and mixing with any other waters.

[1] See Other Requirement No. 4.
[2] See Other Requirement No. 6.

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 coil coating process wastewater[1] subject to the following effluent limitations:

   Volume: Intermittent and flow variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day[2]	Record
Total Suspended Solids (TSS)	17.52	21.97	4.39	1/week[2]	Composite
Oil and Grease	14.62	14.71	4.72	1/week[2]	Grab
Chromium, total	0.228	0.552	0.11	1/week[2]	Composite
Copper, total	0.483	1.011	0.20	1/week[2]	Composite
Cyanide, total	0.119	0.256	0.026	1/week[2]	Grab
Iron, total	0.931	1.903	0.38	1/week[2]	Composite
Zinc, total	0.617	1.583	0.32	1/week[2]	Composite

2. The pH shall not be less than 6.0 standard units nor greater than 10.0 standard units and shall be monitored 1/day[2] by grab sample.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples shall be taken at the following location: At Outfall 201, located near the wastewater treatment plant on the north side of the Automated Coil Storage Building and prior to discharging through the pipe and mixing with any other Outfall 001 wastewaters.

[1] See Other Requirement No. 4.
[2] When a discharge occurs.

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 industrial stormwater[1] subject to the following effluent limitations:

   Volume: Intermittent and flow variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/month[2]	Estimate
Total Suspended Solids (TSS)	N/A	100	100	1/month[2]	Grab
Total Organic Carbon (TOC)	N/A	75	75	1/month[2]	Grab
Oil and Grease	N/A	15	15	1/month[2]	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/month[2] by grab sample.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples shall be taken at the following locations:

   At Outfall 002, located at the outlet of Stormwater Detention Pond 201 with latitude 28.052707 N and longitude 97.453851 W.

   At Outfall 003, located at the outlet of Stormwater Detention Pond 202 with latitude 28.052415 N and longitude 97.445490 W.

   At Outfall 004, located at the outlet of Stormwater Detention Pond 203 with latitude 28.054341 N and longitude 97.441343 W.

[1] See Other Requirement No. 4.
[2] When a discharge occurs.

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 nth 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 (Flow, MGD × Concentration, mg/L × 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 14 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 14 and Compliance Monitoring Team (MC 224):

Pollutant	MAL[1] (mg/L)
Oil and Grease	5.0
Chromium (Total)	0.003
Copper (Total)	0.002
Cyanide (Available)	0.010
Cyanide (Total)	0.010
Iron (Total)	0.007
Lead (Total)	0.0005
Nickel (Total)	0.002
Naphthalene	0.010
Tetrachloroethylene	0.0005
Zinc (Total)	0.005

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

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

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

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

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

[1] Minimum analytical level.

3. There is no mixing zone established for this discharge from Outfall 001 to an intermittent stream with perennial pools. Acute toxic criteria apply at the point of discharge.

4. Definitions:

   A. The term process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. The discharge of process wastewater is authorized in this permit via Outfall 001.

   B. The term utility wastewater means wastewater from noncontact cooling water, cooling tower blowdown, reverse osmosis reject water, allowable non-stormwaters, other incidental non-process wastewater associated with steel products manufacturing, and steam and air conditioning condensate. Air conditioning condensate is water condensed from the water vapor in the air, which is in contact with air conditioning equipment.

   C. The term industrial stormwater means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial facility. Allowable non-stormwaters are also included. For the purpose of this permit, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling areas; refuse/waste disposal areas; sites used for the application or disposal of process wastewaters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms), intermediate products, and final products; similar areas where stormwater can contact pollutants related to industrial activity; areas where stormwater may have come into contact with deicing chemicals composed of calcium chloride salt; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this definition, materials handling areas include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product, or waste product (i.e., process area stormwater). The term excludes areas located at industrial sites that are separate from the facility's industrial activities, such as office buildings and accompanying parking lots, as long as the drainage from the excluded areas is not mixed with stormwater drained from areas of a facility that are covered by this permit.

   D. Allowable non-stormwaters, which are de minimis in nature, are included in utility wastewaters discharged via Outfall 001 and industrial stormwater discharged via Outfalls 002, 003, and 004. The allowable non-stormwaters are based on the Multi-Sector General Permit for Industrial Stormwater (MSGP; TXR050000, Part II, Section A, Item 6) and include the following:

      (1) discharges from emergency firefighting activities (includes fire prevention actions taken to control other dangerous high heat conditions such as smoldering and emergency cooling of equipment) and uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and the discharges are not expected to adversely affect aquatic life);

(2) potable water sources (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and the discharges are not expected to adversely affect aquatic life);

(3) lawn watering and similar irrigation drainage, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;

(4) water from the routine external washing of buildings, conducted without the use of detergents or other chemicals;

(5) water from the routine washing of pavement conducted without the use of detergents or other chemicals and where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed);

(6) uncontaminated air conditioner condensate, compressor condensate, and steam condensate, and condensate from the outside storage of refrigerated gases or liquids;

(7) water from foundation or footing drains where flows are not contaminated with pollutants (e.g., process materials, solvents, or other pollutants);

8) uncontaminated water used for dust suppression;

(9) springs and other uncontaminated groundwater; and

(10) incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility but excluding intentional discharges from the cooling tower (e.g., piped cooling tower blowdown or drains).

5. Daily average temperature is defined as the flow-weighted average temperature (FWAT) and shall be computed and recorded on a daily basis. FWAT shall be computed at equal time intervals not greater than two hours.

The method of calculating FWAT is as follows:

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

Daily average temperature means the arithmetic average of all FWATs calculated during the calendar month.

Daily maximum temperature means the highest FWAT calculated during the calendar month.

6. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 14 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.

7. POND REQUIREMENTS

A wastewater pond must comply with the following requirements. A wastewater pond (or lagoon) is an earthen structure used to evaporate, hold, store, or treat water that contains a waste or pollutant or that would cause pollution upon discharge as those terms are defined in Texas Water Code § 26.001, but does not include a pond that contains only stormwater (i.e., these requirements are not applicable to the stormwater ponds associated with the industrial stormwater discharges authorized via Outfalls 002, 003, and 004).

A. A wastewater pond subject to 40 CFR Part 257, Subpart D (related to coal combustion residuals) must comply with those requirements in lieu of the requirements in B through G of POND REQUIREMENTS.

B. An existing wastewater pond must be maintained to meet or exceed the original approved design and liner requirements; or, in the absence of original approved requirements, must be maintained to prevent unauthorized discharges of wastewater into or adjacent to water in the state. The permittee shall maintain copies of all liner construction and testing documents at the facility or in a reasonably accessible location and make the information available to the executive director upon request.

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

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

   (1) Soil Liner: The soil liner must contain clay-rich soil material (at least 30% of the liner material passing through a #200 mesh sieve, liquid limit greater than or equal to 30, and plasticity index greater than or equal to 15) that completely covers the sides and bottom of the pond. The liner must be at least 3.0 feet thick. The liner material must be compacted in lifts of no more than 8 inches to 95% standard proctor density at the optimum moisture content in accordance with ASTM D698 to achieve a permeability less than or equal to $1 \times 10\text{-}7$ (≤ 0.0000001) cm/sec. For in-situ soil material that meets the permeability requirement, the material must be scarified at least 8 inches deep and then re-compacted to finished grade.

   (2) Synthetic membrane: The liner must be a synthetic membrane liner at least 40 mils in thickness that complete¬ly covers the sides and the bottom of the pond. The liner material used must be compatible with the wastewater and be resistant to degradation (e.g., from ultraviolet light, chemical reactions, wave action, erosion, etc.). The liner material must be installed and maintained in accordance with the manufacturer's guidelines. A wastewater pond with a synthetic membrane liner must include an underdrain with a leak detection and collection system.

(3) Alternate Liner: The permittee shall submit plans that are signed and sealed by a Texas-licensed professional engineer for any other equivalently protective pond lining method to the TCEQ Industrial Permits Team (MC-148).

D. For a pond that must be lined according to subparagraph C (including ponds with in-situ soil liners), the permittee shall provide certification, signed and sealed by a Texas-licensed professional engineer, stating that the completed pond lining and any required underdrain with leak detection and collection system for the pond meet the requirements in items C(1) – C(3) before using the pond. The certification shall include the following minimum details about the pond lining system: (1) pond liner type (in-situ soil, amended in-situ soil, imported soil, synthetic membrane, or alternative), (2) materials used, (3) thickness of materials, and (4) either permeability test results or a leak detection and collection system description, as applicable.

The certification must be provided to the TCEQ Water Quality Assessment Team (MC-150), Industrial Permits Team (MC-148), Compliance Monitoring Section (MC-224), and Regional Office. A copy of the liner certification and construction details (i.e., as-built drawings, construction QA/QC documentation, and post-construction testing) must be kept on site or in a reasonably accessible location (in either hardcopy or digital format) until the pond is closed.

E. Protection and maintenance requirements for a pond subject to subparagraph B or C (including ponds with in-situ soil liners).

(1) The permittee shall maintain a liner to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.

(2) A liner must be protected from damage caused by animals. Fences or other protective devices or measures may be used to satisfy this requirement.

(3) The permittee shall maintain the structural integrity of the liner and shall keep the liner and embankment free of woody vegetation, animal burrows, and excessive erosion.

(4) The permittee shall inspect each pond liner and each leak detection system at least once per month. Evidence of damage or unauthorized discharges must be evaluated by a Texas licensed professional engineer or Texas licensed professional geoscientist within 30 days. The permittee is not required to drain an operating pond or to inspect below the waterline during these routine inspections.

a. A Texas licensed professional engineer or Texas licensed professional geoscientist must evaluate damage to a pond liner, including evidence of an unauthorized discharge without visible damage.

b. Pond liner damage must be repaired at the recommendation of a Texas licensed professional engineer or Texas licensed professional geoscientist. If the damage is significant or could result in an unauthorized discharge, then the repair must be documented and certified by a Texas licensed professional engineer. Within 60 days after a repair is completed, a liner certification must be provided to the Water Quality Assessment Team (MC-150), Compliance Monitoring Section (MC-224), and TCEQ Regional Office. A copy of the liner certification must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

c. A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, including evidence that the actual permeability exceeds the design permeability, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.

F. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall have a Texas licensed professional engineer perform an evaluation of each pond that requires a liner at least once every five years. The evaluation must include: (1) a physical inspection of the pond liner to check for structural integrity, damage, and evidence of leaking; (2) a review of the liner documentation for the pond; and (3) a review of all documentation related to liner repair and maintenance performed since the last evaluation. For the purposes of this evaluation, evidence of leaking also includes evidence that the actual permeability exceeds the design permeability. The permittee is not required to drain an operating pond or to inspect below the waterline during the evaluation. A copy of the engineer's evaluation report must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

G. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall maintain at least 2.0 feet of freeboard in the pond except when:

(1) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;

(2) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity to be used for treatment for a limited period of time; or

(3) the pond was not required to have at least 2.0 feet of freeboard according to the requirements at the time of construction.

8. The permittee shall maintain the pH within the range specified on Page 2 (Outfall 001) of this permit. Excursions from the range are permitted. An excursion is an unintentional and temporary incident in which the pH value of the wastewater exceeds the range set forth on Page 2 (Outfall 001). A pH excursion is not a violation and a non-compliance report is not required for pH excursions provided:

A. the excursion does not exceed the range of 5-11 standard pH units;

B. the individual excursion does not exceed 60 minutes; and

C. the sum of all excursions does not exceed 7 hours and 26 minutes in any calendar month.

9. Stormwater Best Management Practices The permittee must develop and implement a 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 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 at a minimum frequency of once per year, maintained on site, and made readily available for inspection by authorized TCEQ personnel upon request.

C. Maintenance Program for Stormwater Control Structures - A maintenance program must be developed and implemented to maintain the effectiveness of stormwater structural controls, including, but not limited to, the stormwater sedimentation/detention basins. The SWP3 must identify specific activities, techniques, and schedules for maintenance of stormwater structural controls that ensure the continued effective operation of these controls. Maintenance activities must be recorded at a minimum frequency of once per quarter, maintained on site, and 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 monthly inspections to determine the effectiveness of the Good Housekeeping Measures, Spill Prevention and Response Measures, Best Management Practices, and Employee Training Program.

The results of inspections must be documented in an inspection summary report, include an assessment for any necessary revisions or additional measures to increase effectiveness of the SWP3, and include a time frame for implementation of any follow-up actions. The summary report must be maintained on site and be made readily available for inspection by authorized TCEQ personnel upon request.

10. This permit does not authorize any discharge from the Slag Quench Retention Pond, including the discharge of process wastewater from the pond.

11. Wastewater discharged via Outfall 001Final shall be sampled and analyzed as directed below for those parameters listed in Tables 1, 2, 3, and 4 of Attachment A of this permit. Analytical testing for Outfall Final 001 shall be completed within 90 days of initial discharge. Results of the analytical testing shall be submitted within 120 days of initial discharge to the TCEQ Industrial Permits Team (MC-148).

    Table 1: Analysis is required for all pollutants. Wastewater shall be sampled and analyzed for those parameters listed in Table 1 for a minimum of one sampling event.

Table 2: Analysis is required for all pollutants. Wastewater shall be sampled and analyzed for those parameters listed in Table 2 for a minimum of one sampling event.

Table 3: Analysis is required for those pollutants in Table 3 that are used at the facility that could in any way contribute to contamination in the Outfall Final 001 discharge. Sampling and analysis shall be conducted for a minimum of one sampling event.

Table 6: For all pollutants listed, the permittee shall indicate whether each pollutant is believed to be present or absent in the discharge. Sampling and analysis shall be conducted for each pollutant believed present for a minimum of one sampling event.

The permittee shall report the flow at Outfall Final 001 in MGD in the attachment. The permittee shall indicate on each table whether the samples are composite (C) or grab (G) by checking the appropriate box. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations, monitoring requirements, or both.

Attachment A

Table 1 – Conventionals and Non-conventionals

Outfall No.: ☐C ☐G	Effluent Concentration (mg/L)					
Pollutant	**Samp.**	**Samp.**	**Samp.**	**Samp.**	**Average**	
Flow (MGD)						
BOD (5-day)						
CBOD (5-day)						
Chemical Oxygen Demand						
Total Organic Carbon						
Dissolved Oxygen						
Ammonia Nitrogen						
Total Suspended Solids						
Nitrate Nitrogen						
Total Organic Nitrogen						
Total Phosphorus						
Oil and Grease						
Total Residual Chlorine						
Total Dissolved Solids						
Sulfate						
Chloride						
Fluoride						
Total Alkalinity (mg/L as $CaCO_3$)						
Temperature (°F)						
pH (Standard Units; min/max)						

Table 2 – Metals

Pollutant	Effluent Concentration (µg/L)[1]					MAL[2] (µg/L)
	Samp.	**Samp.**	**Samp.**	**Samp.**	**Average**	
Aluminum, Total						2.5
Antimony, Total						5
Arsenic, Total						0.5
Barium, Total						3
Beryllium, Total						0.5
Cadmium, Total						1
Chromium, Total						3
Chromium, Hexavalent						3
Chromium, Trivalent						N/A
Copper, Total						2

[1] Indicate units if different than µg/L.
[2] Minimum Analytical Level

Pollutant	Effluent Concentration (µg/L)[1]					MAL[2] (µg/L)
	Samp.	Samp.	Samp.	Samp.	Average	
Cyanide, Free						10
Lead, Total						0.5
Mercury, Total						0.005
Nickel, Total						2
Selenium, Total						5
Silver, Total						0.5
Thallium, Total						0.5
Zinc, Total						5.0

Table 3 – Toxic Pollutants with Water Quality Criteria

Outfall No.: ☐C ☐G Pollutant	Samp. 1 (µg/L)	Samp. 2 (µg/L)	Samp. 3 (µg/L)	Samp. 4 (µg/L)	Avg. (µg/L)	MAL (µg/L)
Acrolein						0.7
Acrylonitrile						50
Anthracene						10
Benzene						10
Benzidine						50
Benzo(*a*)anthracene						5
Benzo(*a*)pyrene						5
Bis(2-chloroethyl)ether						10
Bis(2-ethylhexyl) phthalate						10
Bromodichloromethane						10
Bromoform						10
Carbon Tetrachloride						2
Chlorobenzene						10
Chlorodibromomethane						10
Chloroform						10
Chrysene						5
Cresols						10
1,2-Dibromoethane						10
m-Dichlorobenzene						10
o-Dichlorobenzene						10
p-Dichlorobenzene						10
3,3'-Dichlorobenzidine						5
1,2-Dichloroethane						10
1,1-Dichloroethylene						10
Dichloromethane						20
1,2-Dichloropropane						10
1,3-Dichloropropylene						10
2,4-Dimethylphenol						10
Di-*n*-Butyl Phthalate						10

Outfall No.: ☐C ☐G Pollutant	Samp. 1 (µg/L)	Samp. 2 (µg/L)	Samp. 3 (µg/L)	Samp. 4 (µg/L)	Avg. (µg/L)	MAL (µg/L)
Epichlorohydrin						1,000
Ethylbenzene						10
Ethylene Glycol						—
Fluoride						500
Hexachlorobenzene						5
Hexachlorobutadiene						10
Hexachlorocyclopentadiene						10
Hexachloroethane						20
4,4'-Isopropylidenediphenol [bisphenol A]						—
Methyl Ethyl Ketone						50
Methyl *tert*-butyl ether [MTBE]						—
Nitrobenzene						10
N-Nitrosodiethylamine						20
N-Nitroso-di-*n*-Butylamine						20
Nonylphenol						333
Pentachlorobenzene						20
Pentachlorophenol						5
Phenanthrene						10
Polychlorinated Biphenyls (PCBs) [1]						0.2
Pyridine						20
1,2,4,5-Tetrachlorobenzene						20
1,1,2,2-Tetrachloroethane						10
Tetrachloroethylene						10
Toluene						10
1,1,1-Trichloroethane						10
1,1,2-Trichloroethane						10
Trichloroethylene						10
2,4,5-Trichlorophenol						50
TTHM (Total Trihalomethanes)						10
Vinyl Chloride						10

Table 6

Outfall No. ☐C ☐G Pollutant	Believed Present	Believed Absent	Average Concentration (mg/L)	Maximum Concentration (mg/L)	No. of Samples	MAL (mg/L)
Bromide						0.400

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

Outfall No. ☐C ☐G Pollutant	Believed Present	Believed Absent	Average Concentration (mg/L)	Maximum Concentration (mg/L)	No. of Samples	MAL (mg/L)
Color (PCU)						–
Nitrate-Nitrite (as N)						–
Sulfide (as S)						–
Sulfite (as SO_3)						–
Surfactants						–
Boron, total						0.020
Cobalt, total						0.0003
Iron, total						0.007
Magnesium, total						0.020
Manganese, total						0.0005
Molybdenum, total						0.001
Tin, total						0.005
Titanium, total						0.030

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 (Initial and Final) 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, reproduction, 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 in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:

      1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.

      2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). 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 32%, 42%, 56%, 75%, and 100% effluent. The critical dilution, defined as 100% 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 effluent limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

   e. Testing Frequency Reduction

      1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

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

for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:

1) a control mean survival of 80% or greater;

2) a control mean number of water flea neonates per surviving adult of 15 or greater;

3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;

4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;

5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow 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 47 or less for water flea reproduction; and

7) a percent minimum significant difference of 30 or less for fathead minnow growth.

b. Statistical Interpretation

1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in in Part 1.b.

2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b.

3) 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.

4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest

effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).

6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.

7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.

8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

1) Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:

a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or

b) use the closest downstream perennial water unaffected by the discharge.

2) Where the receiving water proves unsatisfactory as a result of pre-existing 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, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate 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 (Initial and Final). 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 (Initial and Final) 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 water flea, Parameter TLP3B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For the water flea, Parameter TOP3B, report the NOEC for survival.

3) For the water flea, Parameter TXP3B, report the LOEC for survival.

4) For the water flea, Parameter TWP3B, enter a "1" if the NOEC for reproduction is less than the critical dilution; otherwise, enter a "0."

5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.

6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.

7) For the fathead minnow, Parameter TLP6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.

9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.

10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."

11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.

12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this Part apply only when a test demonstrates a significant effect at the critical dilution. Significant lethality and significant effect were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction 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 "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) 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 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(s) 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 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 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 its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.

h. Based on 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 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)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

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

No. 3 FROM:_____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	32%	42%	56%	75%	100%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						
PMSD						

*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)
Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

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

Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION (100%): _____ YES _____ NO

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	32%	42%	56%	75%	100%
24h						
48h						
End of Test						

2. Fisher's Exact Test:

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

CRITICAL DILUTION (100%): _____ YES _____ NO

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

a.) NOEC survival = _____% effluent

b.) LOEC survival = _____% effluent

c.) NOEC reproduction = _____% effluent

d.) LOEC reproduction = _____% effluent

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

Dates and Times Composites Collected

Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
32%							
42%							
56%							
75%							
100%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

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

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

CRITICAL DILUTION (100%): _____ YES _____ NO

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
32%									
42%									
56%									
75%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

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

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

CRITICAL DILUTION (100%): _____ YES _____ NO

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

a.) NOEC survival = _____% effluent

b.) LOEC survival = _____% effluent

c.) NOEC growth = _____% effluent

d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 (Initial and Final) 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 water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). 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 fathead minnow (*Pimephales promelas*). 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, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution 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 item 2.b., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

   d. This permit may be amended to require a WET limit, a Best Management Practice (BMP), Chemical-Specific (CS) limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.

   e. As the dilution series specified in the Chronic Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted to comply with the minimum testing frequency defined in item b.

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 item 1.c., the control and dilution water shall normally consist of standard, synthetic, moderately hard, reconstituted water. If the permittee utilizes the results of a chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a as the control and dilution water.

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.

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 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.

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, and 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 water flea, Parameter TIE3D, 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 fathead minnow, Parameter TIE6C, 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 a "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 a "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 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 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 Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

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 specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

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

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

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

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism.

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

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

i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance

schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and 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)

WATER FLEA 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)

FATHEAD MINNOW 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

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

Compliance History Report

Compliance History Report for CN605646041, RN110750965, Rating Year 2022 which includes Compliance History (CH) components from September 1, 2017, through August 31, 2022.

Customer, Respondent, or Owner/Operator:	CN605646041, Steel Dynamics Southwest, LLC	**Classification:** SATISFACTORY	**Rating:** 1.26
Regulated Entity:	RN110750965, STEEL DYNAMICS SOUTHWEST	**Classification:** SATISFACTORY	**Rating:** 1.26
Complexity Points:	18	**Repeat Violator:** NO	
CH Group:	14 - Other		
Location:	8534 HIGHWAY 89 SINTON, TX 78387-2148, SAN PATRICIO COUNTY		
TCEQ Region:	REGION 14 - CORPUS CHRISTI		

ID Number(s):

AIR OPERATING PERMITS PERMIT 4324
AIR NEW SOURCE PERMITS EPA PERMIT PSDTX1562
AIR NEW SOURCE PERMITS EPA PERMIT GHGPSDTX194
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 91342
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 92015
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 92012
STORMWATER PERMIT TXR1511AA
WASTEWATER EPA ID TX0139629
AIR EMISSIONS INVENTORY ACCOUNT NUMBER SDA019Q
POLLUTION PREVENTION PLANNING ID NUMBER P10907
INDUSTRIAL AND HAZARDOUS WASTE SOLID WASTE REGISTRATION # (SWR) 97910
TAX RELIEF ID NUMBER 23772
AIR NEW SOURCE PERMITS EPA PERMIT PSDTX1562M1
AIR NEW SOURCE PERMITS PERMIT 156458
AIR NEW SOURCE PERMITS AFS NUM 4840900250
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 92014
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 92082
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 92013
WASTEWATER PERMIT WQ0005283000
WASTEWATER PERMIT 2E0000291
POLLUTION PREVENTION PLANNING ID NUMBER P10742
INDUSTRIAL AND HAZARDOUS WASTE EPA ID TXR000085550
TAX RELIEF ID NUMBER 23746
TAX RELIEF ID NUMBER 25849

Compliance History Period: September 01, 2017 to August 31, 2022 **Rating Year:** 2022 **Rating Date:** 09/01/2022

Date Compliance History Report Prepared: April 07, 2023

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

Component Period Selected: September 01, 2017 to August 31, 2022

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

Name: TCEQ Staff Member **Phone:** (512) 239-1000

Site and Owner/Operator History:

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

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

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

B. Criminal convictions:
N/A

C. Chronic excessive emissions events:
N/A

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

Item 1	October 20, 2021	(1772580)
Item 2	November 15, 2021	(1786145)
Item 3	December 27, 2021	(1793136)

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: 12/31/2021 (1800955)
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

2 Date: 01/31/2022 (1808781)
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

3 Date: 02/28/2022 (1815886)
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

4 Date: 03/31/2022 (1822465)
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

5 Date: 04/30/2022 (1831316)
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

6 Date: 05/31/2022 (1837605)
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

7 Date: 06/30/2022 (1844764)
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

8 Date: 07/31/2022 (1851297)
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:

N/A

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